

Exam Questions N10-009

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)

During an incident, an analyst sends reports regularly to the investigation and leadership teams. Which of the following best describes how PII should be safeguarded during an incident?

- A. Implement data encryption and store the data so only the company has access.
- B. Ensure permissions are limited to the investigation team and encrypt the data.
- C. Implement data encryption and create a standardized procedure for deleting data that is no longer needed.
- D. Ensure the permissions are open only to the company.

Answer: C

Explanation:

PII stands for Personally Identifiable Information, which is any data that can be used to identify, contact, or locate a specific individual, such as name, address, phone number, email, social security number, and so on. PII should be safeguarded during an incident to protect the privacy and security of the individuals involved, and to comply with the legal and ethical obligations of the organization. One way to safeguard PII during an incident is to implement data encryption, which is a process of transforming data into an unreadable format that can only be accessed by authorized parties who have the decryption key. Data encryption can prevent unauthorized access, modification, or disclosure of PII by malicious actors or third parties. Another way to safeguard PII during an incident is to create a standardized procedure for deleting data that is no longer needed, such as after the incident is resolved or the investigation is completed. Deleting data that is no longer needed can reduce the risk of data breaches, data leaks, or data theft, and can also save storage space and resources. A standardized procedure for deleting data can ensure that the data is erased securely and completely, and that the deletion process is documented and audited.

References

? 1: CompTIA Network+ N10-008 Certification Study Guide, page 304-305

? 2: CompTIA Network+ N10-008 Exam Subnetting Quiz, question 13

? 3: CompTIA Network+ N10-008 Certification Practice Test, question 5

? 4: Data Encryption – N10-008 CompTIA Network+ : 3.1

NEW QUESTION 3

- (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 4

- (Topic 3)

Which of the following is required for hosts to receive DHCP addresses from a server that is located on a different subnet?

- A. DHCP scope
- B. DHCP snooping
- C. DHCP reservations
- D. DHCP relay

Answer: D

Explanation:

A DHCP relay is a network device that forwards DHCP requests from clients on one subnet to a DHCP server on another subnet. This allows the DHCP server to assign IP addresses and other network configuration parameters to clients across different subnets. A DHCP scope is a range of IP addresses that a DHCP server can assign to clients. A DHCP snooping is a security feature that filters and validates DHCP messages on a switch. A DHCP reservation is a way to assign a specific IP address to a specific client

based on its MAC address. References: Part 2 of the current page talks about DHCP relay and its functions. You can also find more information about DHCP relay on [this page].

NEW QUESTION 5

- (Topic 3)

A company is moving to a new building designed with a guest waiting area that has existing network ports. Which of the following practices would BEST secure the network?

- A. Ensure all guests sign an NDA.
- B. Disable unneeded switchports in the area.
- C. Lower the radio strength to reduce Wi-Fi coverage in the waiting area.
- D. Enable MAC filtering to block unknown hardware addresses.

Answer: B

Explanation:

One of the best practices to secure the network would be to disable unneeded switchports in the guest waiting area. This will prevent unauthorized users from connecting to the network through these ports. It's important to identify which switchports are not in use and disable them, as this will prevent unauthorized access to the network. Other practices such as ensuring all guests sign an NDA, lowering the radio strength to reduce Wi-Fi coverage in the waiting area and enabling MAC filtering to block unknown hardware addresses are not as effective in securing the network as disabling unneeded switchports. Enforcing an NDA with guests may not stop a malicious user from attempting to access the network, reducing the radio strength only limits the Wi-Fi coverage, and MAC filtering can be easily bypassed by hackers.

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 user notifies a network administrator about losing access to a remote file server. The network administrator is able to ping the server and verifies the current firewall rules do not block access to the network fileshare. Which of the following tools would help identify which ports are open on the remote file server?

- A. dig
- B. nmap
- C. tracer
- D. nslookup

Answer: B

Explanation:

nmap is the tool that would help identify which ports are open on the remote file server. nmap stands for Network Mapper, which is a free and open-source tool that can perform various network scanning and discovery tasks. nmap can help identify which ports are open on a remote device by sending probes or packets to different ports and analyzing the responses. nmap can also provide information about the operating system, services, versions, firewalls, or vulnerabilities of the remote device. nmap can be useful for network administrators, security professionals, or hackers to monitor, audit, or attack network devices. References: [CompTIA Network+ Certification Exam Objectives], Nmap - Free Security Scanner For Network Exploration & Security Audits

NEW QUESTION 8

- (Topic 3)

A technician is monitoring a network interface and notices the device is dropping packets. The cable and interfaces, however, are in working order. Which of the following is MOST likely the cause?

- A. OID duplication
- B. MIB mismatch
- C. CPU usage
- D. Encapsulation errors

Answer: C

NEW QUESTION 9

- (Topic 3)

A technician removes an old PC from the network and replaces it with a new PC that is unable to connect to the LAN. Which of the following is MOST likely the cause of the issue?

- A. Port security
- B. Port tagging
- C. Port aggregation
- D. Port mirroring

Answer: A

Explanation:

It is most likely that the issue is caused by port security, as this is a feature that can prevent new devices from connecting to the LAN. Port tagging, port aggregation, and port mirroring are all features that are used to manage traffic on the network, but they are not related to the connectivity of new devices. If the technician has configured port security on the network and the new PC does not meet the security requirements, it will not be able to connect to the LAN.

NEW QUESTION 10

- (Topic 3)

The following DHCP scope was configured for a new VLAN dedicated to a large deployment of 325 IoT sensors:

```
DHCP network scope: 10.10.0.0/24
Exclusion range: 10.10.10.1-10.10.10.10
Gateway: 10.10.0.1
DNS: 10.10.0.2
DHCP option 66 (TFTP): 10.10.10.4
DHCP option 4 (NTP): 10.10.10.5
```

The first 244 IoT sensors were able to connect to the TFTP server, download the configuration file, and register to an IoT management system. The other sensors are being shown as offline. Which of the following should be performed to determine the MOST likely cause of the partial deployment of the sensors?

- A. Check the gateway connectivity to the TFTP server.
- B. Check the DHCP network scope.
- C. Check whether the NTP server is online.
- D. Check the IoT devices for a hardware failure.

Answer: B

NEW QUESTION 10

- (Topic 3)

Which of the following is the best action to take before sending a network router to be recycled as electronic waste?

- A. Turn on port security.
- B. Shred the switch hard drive.
- C. Back up and erase the configuration.
- D. Remove the company asset ID tag.

Answer: C

Explanation:

Before disposing of a network router, it is important to back up and erase the configuration to prevent unauthorized access to sensitive data and network settings. A network router may contain information such as passwords, IP addresses, firewall rules, VPN settings, and other network parameters that could be exploited by hackers or malicious users. By backing up the configuration, you can preserve the network settings for future reference or reuse. By erasing the configuration, you can wipe out the data and restore the router to its factory default state.

NEW QUESTION 12

- (Topic 3)

Which of the following technologies would MOST likely be used to prevent the loss of connection between a virtual server and network storage devices?

- A. Multipathing
- B. VRRP
- C. Port aggregation
- D. NIC teaming

Answer: D

Explanation:

NIC teaming is a technology that allows multiple network interface cards (NICs) to work together as a single logical interface, providing redundancy and load balancing. This can prevent the loss of connection between a virtual server and network storage devices if one of the NICs fails or becomes disconnected. References: [CompTIA Network+ Certification Exam Objectives], Domain 2.0 Networking Concepts, Objective 2.5: Explain the purposes and use cases for advanced networking devices, Subobjective: NIC bonding/teaming

NEW QUESTION 15

- (Topic 3)

While troubleshooting a network, a VoIP systems engineer discovers a significant inconsistency in the amount of time required for data to reach its destination and return. Which of the following terms best describes this issue?

- A. Bandwidth
- B. Latency
- C. Jitter
- D. Throughput

Answer: C

Explanation:

Jitter is the variation in the delay of data packets over a network. It is caused by factors such as network congestion, routing changes, packet loss, or improper queuing. Jitter affects the quality of VoIP calls because it can cause gaps, distortion, or out-of-order delivery of voice data. Jitter can be measured by the difference between the expected and actual arrival times of packets². To reduce jitter, VoIP systems use buffers to store and reorder packets before playing them back. However, too much buffering can also increase latency, which is the total time it takes for data to travel from one point to another³.

References² - VoIP Troubleshooting: 5 Fixes for Common Connection Issues - Nextiva³ - Troubleshooting VoIP — Is it You or the Network? - PingPlotter

NEW QUESTION 17

- (Topic 3)

Which of the following is most likely to be implemented to actively mitigate intrusions on a host device?

- A. HIDS
- B. MDS
- C. HIPS
- D. NIPS

Answer: A

Explanation:

HIDS (host-based intrusion detection system) is a type of security software that monitors and analyzes the activity on a host device, such as a computer or a server. HIDS can detect and alert on intrusions, such as malware infections, unauthorized access, configuration changes, or policy violations. HIDS can also actively mitigate intrusions by blocking or quarantining malicious processes, files, or network connections¹.

HIPS (host-based intrusion prevention system) is similar to HIDS, but it can also prevent intrusions from happening in the first place by enforcing security policies and rules on the host device². MDS (multilayer switch) is a network device that combines the functions of a switch and a router, and it does not directly protect a host device from intrusions³. NIPS (network-based intrusion prevention system) is a network device that monitors and blocks malicious traffic on the network level, and it does not operate on the host device level⁴.

NEW QUESTION 22

- (Topic 3)

An engineer recently decided to upgrade the firmware on a router. During the upgrade, the help desk received calls about a network outage, and a critical ticket was opened. The network manager would like to create a policy to prevent this from happening in the future. Which of the following documents should the manager create?

- A. Change management
- B. incident response
- C. Standard operating procedure
- D. System life cycle

Answer: A

NEW QUESTION 24

- (Topic 3)

Which of the following devices is used to configure and centrally manage access points installed at different locations?

- A. Wireless controller
- B. Load balancer
- C. Proxy server
- D. VPN concentrator

Answer: A

Explanation:

Access points (APs) can be configured and centrally managed using a wireless LAN controller (WLC). A WLC is a device that connects to multiple APs and provides centralized management and control of those APs. The WLC can be used to configure settings such as wireless network parameters, security settings, and quality of service (QoS) policies. Additionally, the WLC can be used to monitor the status of connected APs, track client connections, and gather statistics on network usage. Some vendors such as Cisco, Aruba, Ruckus, etc. provide wireless LAN controllers as part of their wireless networking solutions.

NEW QUESTION 28

- (Topic 3)

Which of the following DNS records maps an alias to a true name?

- A. AAAA
- B. NS
- C. TXT
- D. CNAME

Answer: D

Explanation:

A CNAME (Canonical Name) record is a type of DNS (Domain Name System) record that maps an alias name to a canonical or true domain name. For example, a CNAME record can map blog.example.com to example.com, which means that blog.example.com is an alias of example.com. A CNAME record is useful when you want to point multiple subdomains to the same IP address, or when you want to change the IP address of a domain without affecting the subdomains¹.

NEW QUESTION 31

- (Topic 3)

Which of the following fiber connector types is the most likely to be used on a network interface card?

- A. LC

- B. SC
- C. ST
- D. MPO

Answer: A

Explanation:

LC (local connector) is the most likely fiber connector type to be used on a network interface card, because it is a small form factor connector that can fit more interfaces on a single card. LC connectors use square connectors that have a locking mechanism on the top, similar to an RJ45 copper connector. LC connectors are also compatible with SFP (small form-factor pluggable) modules that are often used to link a gigabit Ethernet port with a fiber network¹².

References:

- ? Optical Fiber Connectors – CompTIA Network+ N10-007 – 2.11
- ? CompTIA Network+ Certification Exam Objectives²

NEW QUESTION 36

- (Topic 3)

A network administrator is reviewing the network device logs on a syslog server. The messages are normal but the stamps on the messages are incorrect. Which of the following actions should the administrator take to ensure the log message time stamps are correct?

- A. Change the NTP settings on the network device
- B. Change the time on the syslog server
- C. Update the network device firmware
- D. Adjust the timeout settings on the syslog server
- E. Adjust the SSH settings on the network device.

Answer: A

NEW QUESTION 41

- (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 45

- (Topic 3)

Which of the following protocols can be used to change device configurations via encrypted and authenticated sessions? (Select TWO).

- A. SNMPv3
- B. SSh
- C. Telnet
- D. IPSec
- E. ESP
- F. Syslog

Answer: BD

NEW QUESTION 47

- (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 50

- (Topic 3)

A customer connects a firewall to an ISP router that translates traffic destined for the internet. The customer can connect to the internet but not to the remote site. Which of the following will verify the status of NAT?

- A. tcpdump
- B. nmap
- C. ipconfig
- D. tracer

Answer: A

Explanation:

tcpdump is a command-line tool that can capture and analyze network traffic on a given interface. tcpdump can verify the status of NAT by showing the source and destination IP addresses of the packets before and after they pass through the ISP router that translates traffic destined for the internet. tcpdump can also show the NAT protocol and port numbers used by the router. nmap, ipconfig, and tracer are not suitable tools for verifying the status of NAT, as they do not show the IP address translation process.

References

- ? 1: Network Address Translation – N10-008 CompTIA Network+ : 1.4
- ? 2: CompTIA Network+ N10-008 Certification Study Guide, page 95-96
- ? 3: CompTIA Network+ N10-008 Exam Subnetting Quiz, question 16
- ? 4: CompTIA Network+ N10-008 Certification Practice Test, question 7

NEW QUESTION 54

- (Topic 3)

Which of the following, in addition to a password, can be asked of a user for MFA?

- A. PIN
- B. Favorite color
- C. Hard token
- D. Mother's maiden name

Answer: A

Explanation:

MFA stands for Multi-Factor Authentication, which is a method of verifying the identity of a user by requiring two or more pieces of evidence that belong to different categories: something the user knows, something the user has, or something the user is. A password is something the user knows, and it is usually combined with another factor such as a PIN (Personal Identification Number) or a hard token (a physical device that generates a one-time code) that the user has. A favorite color or a mother's maiden name are not suitable for MFA, as they are also something the user knows and can be easily guessed or compromised.

References

- ? 1: Multi-Factor Authentication – N10-008 CompTIA Network+ : 3.1
- ? 2: CompTIA Network+ Certification Exam Objectives, page 13
- ? 3: CompTIA Network+ N10-008 Certification Study Guide, page 250
- ? 4: CompTIA Network+ N10-008 Exam Subnetting Quiz, question 14

NEW QUESTION 59

- (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 62

- (Topic 3)

An ISP is providing Internet to a retail store and has terminated its point of connection using a standard Cat 6 pin-out. Which of the following terminations should the technician use when running a cable from the ISP's port to the front desk?

- A. F-type connector
- B. TIA/E1A-56S-B
- C. LC
- D. SC

Answer: B

Explanation:

The termination that the technician should use when running a cable from the ISP's port to the front desk is B. TIA/EIA-568-B. This is a standard pin-out for Cat 6 cables that is used for Ethernet and other network physical layers¹. It specifies how to arrange the eight wires in an RJ45 connector, which is a common type of connector for network cables.

NEW QUESTION 67

- (Topic 3)

Network traffic is being compromised by DNS poisoning every time a company's router is connected to the internet. The network team detects a non-authorized DNS server being assigned to the network clients and remediates the incident by setting a trusted DNS server, but the issue occurs again after internet exposure. Which of the following best practices should be implemented on the router?

- A. Change the device's default password.
- B. Disable router advertisement guard.
- C. Activate control plane policing.
- D. Disable unneeded network services.

Answer: A

NEW QUESTION 72

- (Topic 3)

A customer is hosting an internal database server. None of the users are able to connect to the server, even though it appears to be working properly. Which of the following is the best way to verify traffic to and from the server?

- A. Protocol analyzer
- B. nmap
- C. ipconfig
- D. Speed test

Answer: A

Explanation:

A protocol analyzer is the best way to verify traffic to and from the server. A protocol analyzer, also known as a packet sniffer or network analyzer, is a tool that captures and analyzes the network packets that are sent and received by a device. A protocol analyzer can show the source and destination IP addresses, ports, protocols, and payload of each packet, as well as any errors or anomalies in the network communication. A protocol analyzer can help troubleshoot network connectivity issues by identifying the root cause of the problem, such as misconfigured firewall rules, incorrect routing, or faulty network devices¹².

To use a protocol analyzer to verify traffic to and from the server, the customer can follow these steps:

? Install a protocol analyzer tool on a device that is connected to the same network

as the server, such as Wireshark³ or Microsoft Network Monitor⁴.

? Select the network interface that is used to communicate with the server, and start capturing the network traffic.

? Filter the captured traffic by using the IP address or hostname of the server, or by using a specific port or protocol that is used by the database service.

? Analyze the filtered traffic and look for any signs of successful or failed connection attempts, such as TCP SYN, ACK, or RST packets, or ICMP messages.

? If there are no connection attempts to or from the server, then there may be a problem with the network configuration or device settings that prevent the traffic from reaching the server.

? If there are connection attempts but they are rejected or dropped by the server, then there may be a problem with the server configuration or service settings that prevent the traffic from being accepted by the server.

The other options are not the best ways to verify traffic to and from the server. nmap is a tool that can scan a network and discover hosts and services, but it cannot capture and analyze the network packets in detail. ipconfig is a command that can display and configure the IP settings of a device, but it cannot monitor or test the network communication with another device. Speed test is a tool that can measure the bandwidth and latency of a network connection, but it cannot diagnose or troubleshoot specific network problems.

NEW QUESTION 74

- (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 79

- (Topic 3)

An IT administrator is creating an alias to the primary customer's domain. Which of the following DNS record types does this represent?

- A. CNAME
- B. MX
- C. A
- D. PTR

Answer: A

Explanation:

A CNAME record is a type of DNS record that maps an alias name to a canonical name, or the primary domain name. A CNAME record is used to create subdomains or alternative names for the same website, without having to specify the IP address for each alias. For example, a CNAME record can map www.example.com to example.com, or mail.example.com to example.com. References: CompTIA Network+ N10-008 Cert Guide, Chapter 2, Section 2.4

NEW QUESTION 80

- (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 VLAN1. 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 cable1

NEW QUESTION 84

- (Topic 3)

A network administrator is configuring a new switch and wants to connect two ports to the core switch to ensure redundancy. Which of the following configurations would meet this requirement?

- A. Full duplex
- B. 802.1Q tagging
- C. Native VLAN
- D. Link aggregation

Answer: D

Explanation:

Link aggregation is a technique that allows multiple physical ports to be combined into a single logical channel, which provides increased bandwidth, load balancing, and redundancy. Link aggregation can be configured using protocols such as Link Aggregation Control Protocol (LACP) or static methods.

References

? Link aggregation is one of the common Ethernet switching features covered in Objective 2.3 of the CompTIA Network+ N10-008 certification exam1.

? Link aggregation can be used to connect two ports to the core switch to ensure redundancy23.

? Link aggregation can be configured using LACP or static methods23.

1: CompTIA Network+ Certification Exam Objectives, page 5 2: Interface Configurations – N10-008 CompTIA Network+ : 2.3 3: CompTIA Network+ N10-008 Cert Guide, Chapter 11, page 323

NEW QUESTION 88

- (Topic 3)

A wireless technician is working to upgrade the wireless infrastructure for a company. The company currently uses the 802.11g wireless standard on all access points. The company requires backward compatibility and is requesting the least expensive solution. Which of the following should the technician recommend to the company?

- A. 802.11a
- B. 802.11ac
- C. 802Hax
- D. 802.11n

Answer: D

Explanation:

* 802.11n is a wireless standard that supports data rates up to 600 Mbps and operates in both 2.4 GHz and 5 GHz frequency bands. 802.11n is backward compatible with 802.11g, which operates only in 2.4 GHz band. 802.11n is the least expensive solution that can upgrade the wireless infrastructure for the company, as it does not require replacing all the access points or wireless devices

NEW QUESTION 91

- (Topic 3)

Which of the following best describe the functions of Layer 2 of the OSI model? (Select two).

- A. Local addressing
- B. Error preventing
- C. Logical addressing
- D. Error detecting
- E. Port addressing
- F. Error correcting

Answer: AD

Explanation:

Layer 2 of the OSI model, also known as the data link layer, is responsible for physical addressing and error detecting. Physical addressing refers to the use of MAC addresses to identify and locate devices on a network segment. Error detecting refers to the use of techniques such as checksums and CRCs to identify and correct errors in the data frames.

References:

? OSI Model | Computer Networking | CompTIA1

NEW QUESTION 92

- (Topic 3)

A network administrator is concerned about a rainbow table being used to help access network resources. Which of the following must be addressed to reduce the likelihood of a rainbow table being effective?

- A. Password policy
- B. Remote access policy
- C. Acceptable use policy
- D. Data loss prevention policy

Answer: A

Explanation:

A password policy must be addressed to reduce the likelihood of a rainbow table being effective. A rainbow table is a precomputed table of hashed passwords and their corresponding plaintext values. A rainbow table can be used to crack hashed passwords by performing a reverse lookup of the hash value in the table. A password policy is a set of rules and guidelines that define how passwords should be created, used, and managed in an organization. A password policy can help prevent rainbow table attacks by enforcing strong password requirements, such as length, complexity, expiration, and history. A strong password is one that is hard to guess or crack by using common methods such as brute force or dictionary attacks. References: [CompTIA Network+ Certification Exam Objectives], What Is Rainbow Table Attack? | Kaspersky, Password Policy Best Practices | Thycotic

NEW QUESTION 96

- (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 100

- (Topic 3)

A company's web server is hosted at a local ISP. This is an example of:

- A. allocation.
- B. an on-premises data center.
- C. a branch office.
- D. a cloud provider.

Answer: D

NEW QUESTION 104

- (Topic 3)

Users are reporting intermittent Wi-Fi connectivity in specific parts of a building. Which of the following should the network administrator check FIRST when troubleshooting this issue? (Select TWO).

- A. Site survey
- B. EIRP
- C. AP placement
- D. Captive portal
- E. SSID assignment
- F. AP association time

Answer: AC

Explanation:

This is a coverage issue. WAP placement and power need to be checked. Site survey should be done NEXT because it takes a while.

NEW QUESTION 108

- (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 113

- (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 118

- (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: A

NEW QUESTION 121

- (Topic 3)

During a risk assessment which of the following should be considered when planning to mitigate high CPU utilization of a firewall?

- A. Recovery time objective
- B. Uninterruptible power supply
- C. NIC teaming
- D. Load balancing

Answer: D

Explanation:

The recovery time objective (RTO) is the maximum tolerable length of time that a computer, system, network or application can be down after a failure or disaster occurs. This does nothing to help with CPU utilization. Load balancing does this.

NEW QUESTION 124

- (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 128

- (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 132

- (Topic 3)

A user took a laptop on a trip and made changes to the network parameters while at the airport. The user can access all internet websites but not corporate intranet websites. Which of the following is the most likely cause of the issue?

- A. Duplicate IP address
- B. Duplicate SSID
- C. Incorrect DNS
- D. Incorrect subnet mask

Answer: C

Explanation:

DNS (Domain Name System) is a service that translates domain names into IP addresses. Corporate intranet websites are usually hosted on private IP addresses that are not accessible from the public internet. Therefore, the user's laptop needs to use the correct DNS server that can resolve the intranet domain names to the private IP addresses. If the user changed the network parameters at the airport and did not revert them back, the laptop might be using a public DNS server that does not have the records for the intranet websites. This would cause the user to access all internet websites but not corporate intranet websites.

References:

? An Overview of DNS - N10-008 CompTIA Network+ : 1.61

? DNS Configuration – CompTIA A+ 220-11012

? CompTIA Network+ Certification Exam Objectives, page 53

NEW QUESTION 136

- (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 139

- (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 140

- (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 142

- (Topic 3)

A network client is trying to connect to the wrong TCP port. Which of the following responses would the client MOST likely receive?

- A. RST
- B. FIN
- C. ICMP Time Exceeded
- D. Redirect

Answer: A

NEW QUESTION 144

- (Topic 3)

A network administrator is decommissioning a server. Which of the following will the network administrator MOST likely consult?

- A. Onboarding and off boarding policies
- B. Business continuity plan
- C. Password requirements
- D. Change management documentation

Answer: D

NEW QUESTION 145

- (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 146

- (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 150

- (Topic 3)

Which of the following would be the BEST choice to connect branch sites to a main office securely?

- A. VPN headend
- B. Proxy server
- C. Bridge
- D. Load balancer

Answer: A

Explanation:

Host-to-Site, or Client-to-Site, VPN allows for remote servers, clients, and other hosts to establish tunnels through a VPN gateway (or VPN headend) via a private network. The tunnel between the headend and the client host encapsulates and encrypts data.

NEW QUESTION 154

- (Topic 3)

An administrator is setting up a multicast server on a network, but the firewall seems to be dropping the traffic. After logging in to the device, the administrator sees the following entries:

Rule	Action	Source	Destination	Port
1	Deny	Any	172.30.10.50	Any
2	Deny	Any	232.1.4.9	Any
3	Deny	Any	242.9.15.4	Any
4	Deny	Any	175.50.10.10	Any

Which of the following firewall rules is MOST likely causing the issue?

- A. Rule 1
- B. Rule 2
- C. Rule 3
- D. Rule 4

Answer: A

NEW QUESTION 157

- (Topic 3)

Which of the following cloud components can filter inbound and outbound traffic between cloud resources?

- A. NAT gateways
- B. Service endpoints
- C. Network security groups
- D. Virtual private cloud

Answer: C

Explanation:

Network security groups are cloud components that can filter inbound and outbound traffic between cloud resources based on rules and priorities. Network security groups can be applied to virtual machines, subnets, or network interfaces to control the network access and security. Network security groups can allow or deny traffic based on the source, destination, port, and protocol of the packets. Network security groups are different from NAT gateways, service endpoints, and virtual private clouds, which are other cloud components that have different functions and purposes.

References

- ? 1: Network Security Groups – N10-008 CompTIA Network+ : 3.2
- ? 2: CompTIA Network+ N10-008 Certification Study Guide, page 329-330
- ? 3: CompTIA Network+ N10-008 Exam Subnetting Quiz, question 17
- ? 4: CompTIA Network+ N10-008 Certification Practice Test, question 10

NEW QUESTION 160

- (Topic 3)

Which of the following types of data center architectures will MOST likely be used in a large SDN and can be extended beyond the data center?

- A. iSCSI
- B. FCoE
- C. Three-tiered network
- D. Spine and leaf
- E. Top-of-rack switching

Answer: D

Explanation:

The type of data center architecture that will most likely be used in a large SDN and can be extended beyond the data center is spine and leaf. Spine and leaf is a network topology that consists of two layers of switches: spine switches and leaf switches. Spine switches are interconnected to each other and form the core of the network, while leaf switches are connected to each spine switch and form the access layer of the network. Spine and leaf topology provides high scalability, performance, and flexibility for data center networks, especially for SDN (Software Defined Networking) environments that require dynamic traffic flows and virtualization. References: CompTIA Network+ N10-008 Certification Study Guide, page 16; The Official CompTIA Network+ Student Guide (Exam N10-008), page 1-9.

NEW QUESTION 164

- (Topic 3)

Which of the following disaster recovery metrics describes the average length of time a piece of equipment can be expected to operate normally?

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

Answer: D

Explanation:

MTBF is the disaster recovery metric that describes the average length of time a piece of equipment can be expected to operate normally. MTBF stands for mean time between failures, which is a measure of the reliability and availability of a device or system. MTBF is calculated by dividing the total operating time by the number of failures that occurred during that time. MTBF indicates how often a device or system fails and how long it can run without interruption. A higher MTBF

means a lower failure rate and a longer operational life span. References: [CompTIA Network+ Certification Exam Objectives], What Is Mean Time Between Failures (MTBF)? | Definition & Examples | Forcepoint

NEW QUESTION 168

- (Topic 3)

A network administrator is troubleshooting a connectivity performance issue. As part of the troubleshooting process, the administrator performs a traceout from the client to the server, and also from the server to the client. While comparing the outputs, the administrator notes they show different hops between the hosts. Which of the following BEST explains these findings?

- A. Asymmetric routing
- B. A routing loop
- C. A switch loop
- D. An incorrect gateway

Answer: C

NEW QUESTION 171

- (Topic 3)

A customer calls the help desk to report that users are unable to access any network resources. The issue started earlier in the day when an employee rearranged the wiring closet. A technician goes to the site but does not observe any obvious damage. The statistics output on the switch indicates high CPU usage, and all the lights on the switch are blinking rapidly in unison. Which of the following is the most likely explanation for these symptoms?

- A. The switch was rebooted and set to run in safe mode.
- B. The line between the switch and the upstream router was removed.
- C. A cable was looped and created a broadcast storm.
- D. A Cat 6 cable from the modem to the router was replaced with Cat 5e.

Answer: C

Explanation:

A cable was looped and created a broadcast storm is the most likely explanation for the symptoms of high CPU usage and blinking lights on the switch. A cable loop is a situation where a switch port is connected to another switch port on the same switch or another switch, creating a circular path for network traffic. A cable loop can cause a broadcast storm, which is a network phenomenon where a large number of broadcast or multicast packets are flooded on the network, consuming bandwidth and CPU resources. A broadcast storm can cause network congestion, performance degradation, or failure. A cable loop can occur when an employee rearranges the wiring closet without proper documentation or verification. A cable loop can be prevented or detected by using Spanning Tree Protocol (STP) or loop detection features on the switch. References: [CompTIA Network+ Certification Exam Objectives], What Is a Broadcast Storm? | Definition & Examples | Forcepoint

NEW QUESTION 172

- (Topic 3)

To comply with an industry regulation, all communication destined to a secure server should be logged and archived on a storage device. Which of the following can be configured to fulfill this requirement?

- A. QoS traffic classification
- B. Port mirroring
- C. Flow control
- D. Link Aggregation Control Protocol

Answer: B

NEW QUESTION 173

- (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 177

- (Topic 3)

A security team would like to use a system in an isolated network to record the actions of potential attackers. Which of the following solutions is the security team implementing?

- A. Perimeter network
- B. Honeypot
- C. Zero trust infrastructure
- D. Network segmentation

Answer: B

Explanation:

The solution that the security team is implementing to record the actions of potential attackers in an isolated network is a honeypot. A honeypot is a decoy system that simulates a real network or service, but has no actual value or function. A honeypot is designed to attract and trap attackers who try to infiltrate or compromise the network, and then monitor and analyze their behavior and techniques. A honeypot can help the security team learn about the attackers' motives, methods, and tools, and improve their defense

strategies accordingly. References: CompTIA Network+ N10-008 Certification Study Guide, page 358; The Official CompTIA Network+ Student Guide (Exam N10-008), page 14-1.

NEW QUESTION 179

- (Topic 3)

Which of the following allows for an devices within a network to share a highly reliable time source?

- A. NTP
- B. SNMP
- C. SIP
- D. DNS

Answer: A

Explanation:

Network Time Protocol (NTP) is a protocol used to maintain a highly accurate and reliable clock time on all devices within a network. NTP works by synchronizing the time of all the devices within a network to a single, highly accurate time source. This allows for the time of all the devices to be kept in sync with each other, ensuring a consistent and reliable time source for all devices within the network.

NEW QUESTION 182

- (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 185

- (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 187

- (Topic 3)

A network administrator is setting up a web-based application for a company. The application needs to be continually accessible to all end users. Which of the following would best ensure this need is fulfilled?

- A. NIC teaming
- B. Cold site
- C. Snapshots
- D. High availability

Answer: D

Explanation:

High availability is a quality of a system or component that assures a high level of operational performance for a given period of time. High availability means that an IT system, component, or application can operate at a high level, continuously, without intervention, for a given time period. High-availability infrastructure is configured to deliver quality performance and handle different loads and failures with minimal or zero downtime. High availability is important for web-based applications, as it ensures that the application is always accessible to the end users, even in the event of a server or component failure. High availability can be achieved by eliminating single points of failure, implementing redundancy, load balancing, and failover mechanisms.

NEW QUESTION 191

- (Topic 3)

A network administrator is looking at switch features and is unsure whether to purchase a model with PoE. Which of the following devices that commonly utilize PoE should the administrator consider? (Select TWO)

- A. VoIP phones
- B. Cameras
- C. Printers
- D. Cable modems
- E. Laptops
- F. UPSs

Answer: AB

Explanation:

Power over Ethernet (PoE) is a technology that allows network-connected devices to receive power over the same Ethernet cables that are used for data transfer. PoE is commonly used to power devices such as VoIP phones and cameras, making it an ideal choice for network administrators looking for a cost-effective solution. PoE is not typically used for other devices such as printers, cable modems, laptops, and UPSs.

NEW QUESTION 193

- (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 194

- (Topic 3)

Which of the following is a valid alternative to maintain a deployed proxy technology while saving physical space in the data center by moving the network service to the virtualization infrastructure?

- A. NFV

- B. SDWAN
- C. Networking as code
- D. VIP

Answer: A

Explanation:

The valid alternative to maintain a deployed proxy technology while saving physical space in the data center by moving the network service to the virtualization infrastructure is NFV (Network Function Virtualization). NFV is a technique that allows network functions, such as proxies, firewalls, routers, or load balancers, to be implemented as software applications running on virtual machines or containers. NFV reduces the need for dedicated hardware devices and improves scalability and flexibility of network

services. References: CompTIA Network+ N10-008 Certification Study Guide, page 440; The Official CompTIA Network+ Student Guide (Exam N10-008), page 16-11.

NFV can be used to virtualize a wide variety of network functions, including proxy servers. By virtualizing proxy servers, organizations can save physical space in the data center and

improve the scalability and efficiency of their networks.

To virtualize a proxy server using NFV, an organization would need to deploy a virtualization platform, such as VMware ESXi or Microsoft Hyper-V. The organization would then need to install a virtual proxy server appliance on the virtualization platform.

Once the virtual proxy server appliance is installed, it can be configured and used just like a physical proxy server.

NFV is a relatively new technology, but it is quickly gaining popularity as organizations look for ways to improve the efficiency and scalability of their networks.

NEW QUESTION 199

- (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 202

- (Topic 3)

Following the implementation of a BYOO policy, some users in a high-density environment report slowness over the wireless connection. Some wireless controller reports indicate high latency and airtime contention. Which of the following is the most probable root cause?

- A. The AP is configured with 2.4GHz frequency, which the new personal devices do not support.
- B. The AP is configured with 2.4GHz frequency without band-steering capabilities.
- C. The AP is configured with 5Ghz frequency with band-steering capabilities.
- D. The AP is configured with 5Ghz frequency
- E. which the new personal devices do not support

Answer: B

Explanation:

Band-steering is a feature that allows an AP to steer dual-band capable clients to the less congested 5GHz frequency, leaving the 2.4GHz frequency for legacy clients. Without band-steering, the AP may have more clients competing for the same channel on the 2.4GHz frequency, resulting in high latency and airtime contention.

References:

? According to the CompTIA Network+ Certification Exam Objectives, one of the topics covered in the exam is "Given a scenario, use appropriate wireless technologies and configurations". One of the subtopics is "Band steering" 1.

? According to the Polifi: Airtime Policy Enforcement for WiFi paper, "Band steering allows the access point to disable the 2.4 GHz band from probing the client device, so it responds only to the 5 GHz band, reducing the congestion on the 2.4 GHz band while taking advantage of the faster 5GHz band to improve user's network experience." 2.

? According to the Aruba Air Slice Tech Brief, "Air Slice minimizes airtime contention and efficiently groups Wi-Fi 6 and non-Wi-Fi 6 client devices to guarantee bit rate, and provide bounded latency and jitter simultaneously." 3.

NEW QUESTION 207

- (Topic 3)

A network administrator installed a new data and VoIP network. Users are now experiencing poor call quality when making calls. Which of the following should the administrator do to increase VoIP performance?

- A. Configure a voice VLAN.
- B. Configure LACP on all VoIP phones.
- C. Configure PoE on the network.
- D. Configure jumbo frames on the network.

Answer: A

Explanation:

"Benefits of Voice VLAN

It ensures that your VoIP (Voice over Internet Phone) devices do not have to contend directly with all the broadcasts and other traffic from the data VLAN. A voice

VLAN can simplify network configuration in some circumstances."

<https://community.fs.com/blog/auto-voip-vs-voice-vlan-what-s-the-difference.html> Jumbo Frames

"When jumbo frames on a VoIP/UC network are enabled, it can cause the same kind of delay to your network transmissions."

"VoIP uses will always not benefit from jumbo frame, as VoIP like gaming, is latency and time sensitive. Jumbo Frame for Internet Purpose: You will not see any performance boost as the files that came across the internet does not support jumbo frame."

<https://www.ankmax.com/newsinfo/1358641.html#:~:text=VoIP%20uses%20will%20always%20not,does%20not%20support%20jumbo%20frame.>

"To summarize this general best practice guide, you should NOT enable jumbo frame feature as a general home user."

NEW QUESTION 212

- (Topic 3)

A user stores large graphic files. The time required to transfer the files to the server is excessive due to network congestion. The user's budget does not allow for the current switches to be replaced. Which of the following can be used to provide FASTER transfer times?

- A. Half duplex
- B. Jumbo frames
- C. LACP
- D. 802.1Q

Answer: B

Explanation:

Jumbo frames are Ethernet frames that can carry more than 1500 bytes of payload data. Jumbo frames can reduce the overhead and improve the throughput of large file transfers, as fewer frames are needed to send the same amount of data. Jumbo frames can be used to provide faster transfer times, as long as the network devices support them

NEW QUESTION 214

- (Topic 3)

Which of the following can be used to identify users after an action has occurred?

- A. Access control vestibule
- B. Cameras
- C. Asset tag
- D. Motion detectors

Answer: B

Explanation:

Cameras can be used to identify users after an action has occurred by recording their faces, clothing, or other distinctive features. Cameras are often used as a deterrent and a forensic tool for security purposes. Access control vestibules, asset tags, and motion detectors are not effective in identifying users, but rather in controlling access, tracking assets, and detecting movement.

References:

CompTIA Network+ N10-008 Certification Exam Objectives, Domain 5.0: Network Security, Subobjective 5.1: Summarize the importance of physical security controls, page 231 CompTIA Network+ Certification All-in-One Exam Guide, Eighth Edition (Exam N10-008), Chapter 18: Network Security, Section: Physical Security, page 7372

NEW QUESTION 217

- (Topic 3)

Which of the following network types is composed of computers that can all communicate with one another with equal permissions and allows users to directly share what is on or attached to their computers?

- A. Local area network
- B. Peer-to-peer network
- C. Client-server network
- D. Personal area network

Answer: B

Explanation:

A peer-to-peer network is a type of network in which each computer (or node) can communicate directly with any other node, without requiring a central server or authority. Each node can act as both a client and a server, and can share its own resources, such as files, printers, or internet connection, with other nodes. A peer-to-peer network allows users to directly access and exchange what is on or attached to their computers, with equal permissions and responsibilities

NEW QUESTION 219

- (Topic 3)

A technician is equipped with a tablet, a smartphone, and a laptop to troubleshoot a switch with the help of support over the phone. However, the technician is having issues interconnecting all these tools in troubleshooting the switch. Which Of the following should the technician use to gain connectivity?

- A. PAN
- B. WAN
- C. LAN
- D. MAN

Answer: A

Explanation:

A PAN stands for Personal Area Network and it is a type of network that connects devices within a small range, such as a few meters. A PAN can use wireless

technologies such as Bluetooth or Wi-Fi to interconnect devices such as tablets, smartphones, and laptops. A technician can use a PAN to gain connectivity among these tools and troubleshoot the switch.

References: Network+ Study Guide Objective 1.2: Explain devices, applications, protocols and services at their appropriate OSI layers.

NEW QUESTION 220

- (Topic 3)

An on-call network technician receives an automated email alert stating that a power supply on a firewall has just powered down. Which of the following protocols would best allow for this level of detailed device monitoring?

- A. TFTP
- B. TLS
- C. SSL
- D. SNMP

Answer: D

Explanation:

SNMP stands for Simple Network Management Protocol, and it is a protocol that allows network devices to communicate their status, performance, and configuration information to a central management system. SNMP can be used to monitor and manage various aspects of network devices, such as CPU usage, memory utilization, interface statistics, temperature, voltage, power supply, etc. SNMP can also generate alerts or notifications when certain events or thresholds are reached, such as a power supply failure, a link down, or a high traffic volume. SNMP is widely used for network monitoring and troubleshooting purposes, as it provides a comprehensive and detailed view of the network health and performance.

The other options are not correct because they are not protocols that allow for detailed device monitoring. They are:

? TFTP. TFTP stands for Trivial File Transfer Protocol, and it is a protocol that allows for simple and fast file transfer between network devices. TFTP is often used to transfer configuration files, firmware updates, or boot images to network devices, such as routers, switches, or firewalls. TFTP does not provide any monitoring or management capabilities for network devices, nor does it generate any alerts or notifications.

? TLS. TLS stands for Transport Layer Security, and it is a protocol that provides encryption and authentication for data transmission over a network. TLS is often used to secure web traffic, email, or other applications that use TCP as the transport protocol. TLS does not provide any monitoring or management capabilities for network devices, nor does it generate any alerts or notifications.

? SSL. SSL stands for Secure Sockets Layer, and it is a protocol that provides encryption and authentication for data transmission over a network. SSL is the predecessor of TLS, and it is still used to secure some web traffic, email, or other applications that use TCP as the transport protocol. SSL does not provide any monitoring or management capabilities for network devices, nor does it generate any alerts or notifications.

References1: What is SNMP? - Definition from WhatIs.com2: Network+ (Plus) Certification

| CompTIA IT Certifications3: What is TFTP? - Definition from WhatIs.com4: What is TLS? - Definition from WhatIs.com5: What is SSL? - Definition from WhatIs.com

NEW QUESTION 224

- (Topic 3)

Which of the following describes a network in which users and devices need to mutually authenticate before any network resource can be accessed?

- A. Least privilege
- B. Local authentication
- C. Zero trust
- D. Need to know

Answer: C

Explanation:

A zero trust network is a network in which users and devices need to mutually authenticate before any network resource can be accessed. A zero trust network assumes that no one and nothing can be trusted by default, even if they were previously verified or are within the network perimeter. A zero trust network uses various technologies and practices, such as data and log aggregation, cybersecurity analytics, continuous diagnostics and mitigation, user behavior analytics, microsegmentation, and identity and access management, to enforce granular and dynamic policies based on the context and behavior of the users and devices123.

References:

? What is Zero Trust? | Internet of Things | CompTIA3

? The Death of the Perimeter: Zero Trust is (Almost) Here to Stay | Cybersecurity | CompTIA2

? CompTIA Network+ Certification Exam N10-008 Practice Test 17 -

ExamCompass1

NEW QUESTION 227

- (Topic 3)

An attacker sends more connection requests than a server can handle, causing the server to crash- Which of the following types of attacks is this an example of?

- A. ARP poisoning
- B. Denial-of-service
- C. MAC flooding
- D. On-path

Answer: B

Explanation:

A denial-of-service (DoS) attack is an example of an attack where an attacker sends more connection requests than a server can handle, causing the server to crash. A DoS attack is a type of cyberattack that aims to disrupt the normal functioning of a network service or resource by overwhelming it with excessive or malformed traffic. A DoS attack can prevent legitimate users from accessing the service or resource, resulting in degraded performance, unavailability, or data loss. A DoS attack can target various network layers, protocols, or components, such as servers, routers, firewalls, or applications. References: [CompTIA Network+ Certification Exam Objectives], What Is a Denial-of-Service (DoS) Attack? | Cisco

NEW QUESTION 230

SIMULATION - (Topic 3)

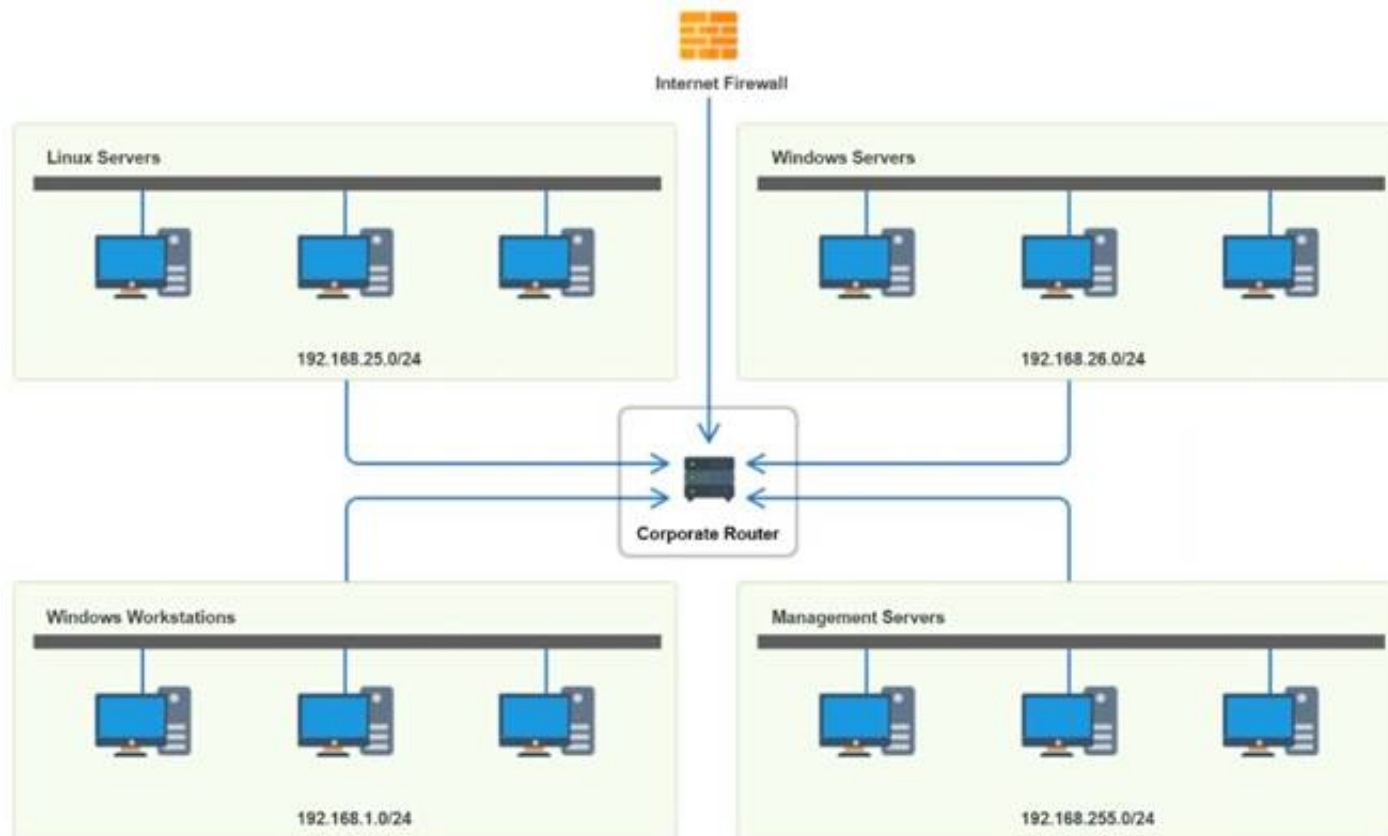
You have been tasked with implementing an ACL on the router that will:

- * 1. Permit the most commonly used secure remote access technologies from the management network to all other local network segments
- * 2. Ensure the user subnet cannot use the most commonly used remote access technologies in the Linux and Windows Server segments.
- * 3. Prohibit any traffic that has not been specifically allowed.

INSTRUCTIONS

Use the drop-downs to complete the ACL

If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



Router Access Control List					
Rule	Source	Destination	Protocol	Service	Action
1	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	TCP	SSH Telnet HTTP RDP VNC SMB Any	Allow Deny
2	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	TCP	SSH Telnet HTTP RDP VNC SMB Any	Allow Deny
3	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	TCP	SSH Telnet HTTP RDP VNC SMB Any	Allow Deny
4	192.168.255.0	192.168.26.0	TCP	SMB	Allow
5	192.168.255.0	Any	Any	Any	Deny
6	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	TCP	SSH Telnet HTTP RDP VNC SMB Any	Allow Deny
7	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	TCP	SSH Telnet HTTP RDP VNC SMB Any	Allow Deny
8	192.168.1.0	Any	Any	Any	Allow
9	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	192.168.1.0 192.168.25.0 192.168.255.0 192.168.26.0 Any	Any	SSH Telnet HTTP RDP VNC SMB Any	Allow Deny

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

Router Access Control List					
Rule	Source	Destination	Protocol	Service	Action
1	192.168.255.0	192.168.26.0	TCP	SSH	Allow
2	192.168.255.0	192.168.25.0	TCP	SSH	Allow
3	192.168.255.0	192.168.1.0	TCP	SSH	Allow
4	192.168.255.0	192.168.26.0	TCP	SMB	Allow
5	192.168.255.0	Any	Any	Any	Deny
6	192.168.1.0	Any	TCP	RDP	Deny
7	192.168.1.0	Any	TCP	VNC	Deny
8	192.168.1.0	Any	Any	Any	Allow
9	Any	Any	Any	Any	Deny

NEW QUESTION 232

- (Topic 3)

A desktop support department has observed slow wireless speeds for a new line of laptops using the organization's standard image. No other devices have experienced the same issue. Which of the following should the network administrator recommend troubleshooting FIRST to resolve this issue?

- A. Increasing wireless signal power
- B. Installing a new WAP
- C. Changing the protocol associated to the SSID
- D. Updating the device wireless drivers

Answer: D

Explanation:

Wireless drivers can affect the performance and compatibility of your wireless connection. If only a new line of laptops using the organization's standard image has experienced slow wireless speeds, it could be that their wireless drivers are outdated or incompatible with the network. Updating the device wireless drivers could resolve this issue.

Wireless drivers play an important role in the performance of a wireless connection, as they control how the device interacts with the wireless network. If the laptops in question are using an outdated version of the wireless driver, it could be causing the slow speeds. The network administrator should recommend updating the device wireless drivers first to see if this resolves the issue.

NEW QUESTION 234

- (Topic 3)

Which of the following types of connections would need to be set up to provide access from the internal network to an external network so multiple satellite offices can communicate securely using various ports and protocols?

- A. Client-to-site VPN
- B. Clientless VPN
- C. RDP
- D. Site-to-site VPN
- E. SSH

Answer: D

NEW QUESTION 238

- (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 242

- (Topic 3)

Which of the following fouling protocols is generally used by major ISPs for handling large- scale internet traffic?

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

Answer: D**NEW QUESTION 244**

- (Topic 3)

Which of the following most likely occurs when an attacker is between the target and a legitimate server?

- A. IP spoofing
- B. VLAN hopping
- C. Rogue DHCP
- D. On-path attack

Answer: D**Explanation:**

An on-path attack (also known as a man-in-the-middle attack) is a type of security attack where the attacker places themselves between two devices (often a web browser and a web server) and intercepts or modifies communications between the two¹. The attacker can then collect information as well as impersonate either of the two agents. For example, an on-path attacker could capture login credentials, redirect traffic to malicious sites, or inject malware into legitimate web pages. The other options are not correct because they describe different types of attacks:

- IP spoofing is the practice of forging the source IP address of a packet to make it appear as if it came from a trusted or authorized source².
- VLAN hopping is a technique that allows an attacker to access a VLAN that they are not authorized to access by sending packets with a modified VLAN tag³.
- Rogue DHCP is a scenario where an unauthorized DHCP server offers IP configuration parameters to clients on a network, potentially causing network disruption or redirection to malicious sites⁴.

References

2: Understanding Targeted Attacks: What is a Targeted Attack? 3: Types of attacks - Security on the web | MDN

1: What is an on-path attacker? | Cloudflare

4: [What is a Rogue DHCP Server? - Definition from Techopedia]

NEW QUESTION 248

- (Topic 3)

A PC user who is on a local network reports very slow speeds when accessing files on the network server The user's PC Is connecting, but file downloads are very slow when compared to other users' download speeds The PC's NIC should be capable of Gigabit Ethernet. Which of the following will MOST likely fix the issue?

- A. Releasing and renewing the PC's IP address
- B. Replacing the patch cable
- C. Reseating the NIC inside the PC
- D. Flushing the DNS cache

Answer: B**Explanation:**

A slow download speed can be caused by a faulty patch cable, which is the cable used to connect the user's PC to the network server. If the patch cable is damaged, the connection will be slower than expected, resulting in slow download speeds. Replacing the patch cable is the most likely solution to this issue, as it will provide a new, reliable connection that should allow for faster download speeds.

NEW QUESTION 249

- (Topic 3)

A network administrator is troubleshooting a connection to a remote site. The administrator runs a command and sees the following output:

```
Tracing route to 10.10.0.22 over a maximum of 30 hops:
 0  14ms  20ms  15ms  192.168.1.253
 1  10ms  15ms  12ms  172.16.0.21
 2   5ms   10ms  10ms  10.10.5.3
 3  10ms  15ms  12ms  10.12.2.1
 4   5ms   10ms  10ms  10.10.5.3
 5  10ms  15ms  12ms  10.12.2.1
 6   5ms   10ms  10ms  10.10.5.3
 7  10ms  15ms  12ms  10.12.2.1
```

Which of the following is the cause of the connection issue?

- A. Routing loop
- B. Asymmetrical routing
- C. Broadcast storm
- D. Switching loop

Answer: A**Explanation:**

The cause of the connection issue is a routing loop. A routing loop is a situation where a packet is forwarded in circles between routers, never reaching its destination. A routing loop can be caused by misconfigured or inconsistent routing tables, or by routing protocols that do not update their information properly. A

routing loop can be detected by using the traceroute command, which shows the path taken by a packet from the source to the destination. The traceroute output in the image shows that the packet is bouncing back and forth between two routers, 10.12.2.1 and 10.12.2.2, indicating a routing loop. References: CompTIA Network+ N10-008 Certification Study Guide, page 181; The Official CompTIA Network+ Student Guide (Exam N10-008), page 7-9.

NEW QUESTION 250

- (Topic 3)

Which of the following can be used to store various types of devices and provide contactless delivery to users?

- A. Asset tags
- B. Biometrics
- C. Access control vestibules
- D. Smart lockers

Answer: D

NEW QUESTION 253

- (Topic 3)

An AP uses a 98ft (30m) Cat 6 cable to connect to an access switch. The cable is wired through a duct close to a three-phase motor installation. Anytime the three-phase is turned on, all users connected to the switch experience high latency on the network. Which Of the following is MOST likely the cause Of the issue?

- A. Interference
- B. Attenuation
- C. Open circuit
- D. Short circuit

Answer: A

Explanation:

Interference is a phenomenon that occurs when unwanted signals or noise affect the transmission or reception of data signals on a network. Interference can cause network issues such as high latency, low throughput, packet loss, or errors. Interference can be caused by various sources, such as electromagnetic fields, radio waves, power lines, or electrical devices. In this scenario, the three-phase motor installation is a source of interference that affects the Cat 6 cable that connects the AP to the access switch. The cable is wired through a duct close to the motor installation, which exposes it to the electromagnetic fields generated by the motor. Anytime the motor is turned on, the interference causes high latency for all users connected to the switch.

NEW QUESTION 255

- (Topic 3)

A junior network engineer is trying to change the native network ID to a non-default value that can then be applied consistently throughout the network environment. Which of the following issues is the engineer attempting to prevent?

- A. DDoS
- B. ARP spoofing
- C. VLAN hopping
- D. Rogue DHCP

Answer: C

Explanation:

VLAN hopping is a type of network attack where an attacker can send or receive traffic from a VLAN that they are not supposed to access. VLAN hopping can allow an attacker to bypass security policies, access sensitive data, or launch other attacks on the network. VLAN hopping can be performed using two methods: double tagging and switch spoofing¹.

Double tagging is where the attacker sends a frame with two VLAN tags, one for the native VLAN and one for the target VLAN. The native VLAN is the VLAN that is used for untagged traffic on a trunk port. If the attacker's access port is in the same VLAN as the native VLAN, the switch will accept the frame and forward it on the trunk port. The switch will remove the first tag, which is the native VLAN, and send the frame with the second tag, which is the target VLAN. The frame will then reach the target VLAN and be processed by the devices in that VLAN.

Switch spoofing is where the attacker sends Dynamic Trunking Protocol (DTP) packets and tries to negotiate a trunk with the switch. DTP is a Cisco protocol that allows switches to automatically form trunks between them. If the switch's port is configured with the default dynamic auto or dynamic desirable mode, it will accept the DTP packets and form a trunk with the attacker. The attacker will then have access to all VLANs on the trunk.

To prevent VLAN hopping, the junior network engineer is trying to change the native network ID to a non-default value that can then be applied consistently throughout the network environment. This means that the engineer is changing the VLAN that is used for untagged traffic on the trunk ports to a different VLAN than the default VLAN 1. This will prevent double tagging attacks, as the attacker's access port will not be in the same VLAN as the native VLAN, and the switch will not accept the frames with two tags. The engineer should also disable DTP on the trunk ports and use the switchport nonegotiate command to prevent switch spoofing attacks².

ReferencesVLAN Hopping - NetworkLessons.comVLAN Hopping on Native VLAN - Cisco Community

NEW QUESTION 256

- (Topic 3)

A user wants to avoid using a password to access a third-party website. Which of the following does the user need in order to allow this type of access to the third-party website?

- A. Multifactor
- B. RADIUS
- C. SSO
- D. Local authentication

Answer: C

NEW QUESTION 258

- (Topic 3)

Clients have reported slowness between a branch and a hub location. The senior engineer suspects asymmetrical routing is causing the issue. Which of the following should the engineer run on both the source and the destination network devices to validate this theory?

- A. traceroute
- B. ping
- C. route
- D. nslookup

Answer: A

Explanation:

Asymmetric routing occurs when traffic does not traverse the same path in both directions of a conversation. This can cause problems when there are stateful devices, such as firewalls or NAT devices, in the path that expect the traffic to be symmetrical. Asymmetric routing can also result in suboptimal TCP performance, as TCP assumes that the SYN and ACK packets take the same path¹.

To validate the theory of asymmetric routing, the engineer should run the traceroute command on both the source and the destination network devices. The traceroute command shows the route that packets take to reach a destination, by displaying the IP addresses and hostnames of the routers along the path, as well as the time taken for each hop. By comparing the output of the traceroute command from both ends, the engineer can determine if the traffic is taking different paths in each direction, and identify where the asymmetry occurs².

The ping command is not sufficient to validate the theory of asymmetric routing, as it only tests the connectivity and latency between two devices, but does not show the intermediate hops or the path taken by the packets. The route command shows the routing table of a device, but does not show the actual path taken by the packets. The nslookup command resolves a hostname to an IP address, or vice versa, but does not show the route or the connectivity between two devices.

ReferencesHow to Find & Fix Asymmetric Routing Issues | AuvikIdentifying and Troubleshooting Asymmetric Routing in WAAS - Cisco Community

NEW QUESTION 261

- (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 266

- (Topic 3)

A technician reviews a network performance report and finds a high level of collisions happening on the network. At which of the following layers of the OSI model would these collisions be found?

- A. Layer 1
- B. Layer 3
- C. Layer 4
- D. Layer 7

Answer: A

Explanation:

Collisions occur when two or more devices try to transmit signals on the same physical medium at the same time. This causes interference and data loss.

Collisions can only happen at the physical layer of the OSI model, which is responsible for transmitting and receiving raw bits over a physical medium such as a cable or a wireless channel. The physical layer does not have any mechanism to prevent or resolve collisions. Therefore, higher layers of the OSI model, such as the data link layer, need to implement protocols to detect and recover from collisions, such as CSMA/CD for Ethernet networks. ReferencesCollision in computer networkingData Link Layer | Layer 2 | The OSI-Model

NEW QUESTION 267

- (Topic 3)

A medical building offers patients Wi-Fi in the waiting room. Which of the following security features would be the BEST solution to provide secure connections and keep the medical data protected?

- A. Isolating the guest network
- B. Securing SNMP
- C. MAC filtering
- D. Disabling unneeded switchports

Answer: A

NEW QUESTION 272

- (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 276

- (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 then 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 278

- (Topic 3)

Which of the following would be increased by adding encryption to data communication across the network?

- A. Availability
- B. Integrity
- C. Accountability
- D. Confidentiality

Answer: D

Explanation:

Confidentiality is the property of preventing unauthorized access or disclosure of data. Encryption is a method of transforming data into an unreadable format that

can only be decrypted by authorized parties who have the correct key. Encryption can increase the confidentiality of data communication across the network by making it harder for attackers to intercept or eavesdrop on the data. References: Network+ Study Guide
Objective 4.1: Summarize the purposes of physical security devices. Subobjective: Encryption.

NEW QUESTION 280

- (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 283

- (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 286

- (Topic 3)

A company is utilizing multifactor authentication for data center access. Which of the following is the MOST effective security mechanism against physical intrusions due to stolen credentials?

- A. Biometrics security hardware
- B. Access card readers
- C. Access control vestibule
- D. Motion detection cameras

Answer: C

NEW QUESTION 288

- (Topic 3)

A network administrator is reviewing north-south traffic to determine whether a security threat exists. Which of the following explains the type of traffic the administrator is reviewing?

- A. Data flowing between application servers
- B. Data flowing between the perimeter network and application servers
- C. Data flowing in and out of the data center
- D. Data flowing between local on-site support and backup servers

Answer: C

Explanation:

North-south traffic is any communication between components of a data center and another system, which is physically out of the boundary of the data center. It is also referred to as client-server traffic, as it usually involves requests from end users or external applications to the data center resources. For example, when a user accesses a web application hosted in a data center, the traffic between the user's browser and the web server is considered north-south traffic.

NEW QUESTION 289

- (Topic 3)

A network administrator is notified that a user cannot access resources on the network. The network administrator checks the physical connections to the workstation labeled User 3 and sees the Ethernet is properly connected. However, the network interface's indicator lights are not blinking on either the computer or the switch. Which of the following is the most likely cause?

- A. The switch failed.
- B. The default gateway is wrong.
- C. The port is shut down.

D. The VLAN assignment is incorrect.

Answer: C

Explanation:

If the port is shut down, it means that the switch has disabled the port and is not sending or receiving any traffic on it. This would explain why the network interface's indicator lights are not blinking on either the computer or the switch, and why the user cannot access resources on the network. The port could be shut down manually by the network administrator, or automatically by the switch due to security or error conditions.

References

? Port shutdown is one of the common switch configuration options covered in Objective 2.3 of the CompTIA Network+ N10-008 certification exam1.

? Port shutdown can cause the network interface's indicator lights to stop blinking2.

? Port shutdown can prevent the user from accessing resources on the network3.

1: CompTIA Network+ Certification Exam Objectives, page 5 2: CompTIA Network+ N10- 008: Switch not forwarding frames on trunked port3 3: Cable Management – N10-008 CompTIA Network+ : 1.3

NEW QUESTION 291

- (Topic 3)

Which of the following is the first step a network administrator should take in the troubleshooting methodology?

- A. Establish a plan of action.
- B. Document findings and outcomes.
- C. Test the theory to determine cause.
- D. Identify the problem.

Answer: D

Explanation:

According to the network troubleshooting methodology, the first step a network administrator should take is to identify the problem. This involves gathering information from the users, the network devices, and the symptoms of the issue. Identifying the problem helps to narrow down the scope and the possible causes of the network issue. References

? 1: Network troubleshooting methodology | CompTIA Network+ N10-008 ...

? 2: Chapter 21. A Network Troubleshooting Methodology - CompTIA Network+ ...

? 3: Network Troubleshooting Methodology – N10-008 CompTIA Network+ : 5.1

NEW QUESTION 296

- (Topic 3)

Which of the following is a document that states what the minimum performance expectations are within a network?

- A. Memorandum of understanding
- B. Service-level agreement
- C. Non-disclosure agreement
- D. Baseline metrics

Answer: B

Explanation:

A service-level agreement (SLA) is a document that states what the minimum performance expectations are within a network, such as uptime, throughput, latency, and security. An SLA is usually signed between a service provider and a customer, and it specifies the penalties or remedies if the service level is not met

NEW QUESTION 297

- (Topic 3)

Which of the following would enable a network technician to implement dynamic routing?

- A. An IPS
- B. A bridge
- C. A Layer 3 switch
- D. A hub

Answer: C

NEW QUESTION 302

- (Topic 3)

Which of the following attacks, if successful, would provide a malicious user who is connected to an isolated guest network access to the corporate network?

- A. VLAN hopping
- B. On-path attack
- C. IP spoofing
- D. Evil twin

Answer: A

Explanation:

The attack which, if successful, would provide a malicious user who is connected to an isolated guest network access to the corporate network is VLAN hopping. VLAN hopping is an attack technique which involves tricking a switch into sending traffic from one VLAN to another. This is done by sending specially crafted packets, which force the switch to send traffic from one VLAN to another, thus allowing the malicious user to gain access to the corporate network. VLAN hopping is an attack technique which involves tricking a switch into sending traffic from one VLAN to another. This is done by sending specially crafted packets, which force the switch to send traffic from one VLAN to another, thus allowing the malicious user to gain access to the corporate network. According to the CompTIA Network+ N10-008 Exam Guide VLAN hopping is a type of attack that is used to gain access to network resources that are not meant to be accessible by a user on a guest network.

NEW QUESTION 304

- (Topic 3)

A network security engineer locates an unapproved wireless bridge connected to the corporate LAN that is broadcasting a hidden SSID, providing unauthenticated access to internal resources. Which of the following types of attacks BEST describes this finding?

- A. Rogue access point Most Voted
- B. Evil twin
- C. ARP spoofing
- D. VLAN hopping

Answer: A

Explanation:

A rogue access point is an illegitimate access point plugged into a network to create a bypass from outside into the legitimate network. By contrast, an evil twin is a copy of a legitimate access point.

NEW QUESTION 309

- (Topic 3)

A network manager wants to view network traffic for devices connected to a switch. A network engineer connects an appliance to a free port on the switch and needs to configure the switch port connected to the appliance. Which of the following is the best option for the engineer to enable?

- A. Trunking
- B. Port mirroring
- C. Full duplex
- D. SNMP

Answer: B

Explanation:

Port mirroring is a feature that allows a switch to copy the traffic from one or more ports to another port, where a network analyzer or a monitoring device can capture and analyze the traffic. Port mirroring is useful for troubleshooting and security purposes, as it allows the network engineer to see the traffic that is passing through the switch without affecting the normal operation of the network.

References

? 1: Port Mirroring - CompTIA Network+ Certification (N10-008): The Total Course [Video]

? 2: CompTIA Network+ Certification Exam Objectives, page 5

? 3: CompTIA Network+ N10-005: 2.1 – Port Mirroring - Professor Messer IT Certification Training Courses

? 4: CompTIA Network+ N10-005: 1.4 – Port Mirroring

NEW QUESTION 310

- (Topic 3)

A newly installed multifunction copier needs to be set up so scanned documents can be emailed to recipients. Which of the following ports from the copier's IP address should be allowed?

- A. 22
- B. 25
- C. 53
- D. 80

Answer: B

Explanation:

Port 25 is the port number that is commonly used for Simple Mail Transfer Protocol (SMTP), which is a protocol that allows sending and receiving email messages over a network1. Port 25 from the copier's IP address should be allowed so that scanned documents can be emailed to recipients.

Port 22 is the port number that is commonly used for Secure Shell (SSH), which is a protocol that allows secure and encrypted remote access and control of a device over a network1. Port 22 from the copier's IP address is not necessary for emailing scanned documents.

Port 53 is the port number that is commonly used for Domain Name System (DNS), which is a protocol that allows resolving domain names to IP addresses and vice versa on a network1. Port 53 from the copier's IP address is not necessary for emailing scanned documents.

Port 80 is the port number that is commonly used for Hypertext Transfer Protocol (HTTP), which is a protocol that allows transferring web pages and other resources over a network1. Port 80 from the copier's IP address is not necessary for emailing scanned documents.

NEW QUESTION 313

- (Topic 3)

A support agent receives a report that a remote user's wired devices are constantly disconnecting and have slow speeds. Upon inspection, the support agent sees that the user's coaxial modem has a signal power of -97dB Which of the following should the support agent recommend to troubleshoot the issue?

- A. Removing any splitters connected to the line
- B. Switching the devices to wireless
- C. Moving the devices closer to the modem
- D. Lowering the network speed

Answer: A

Explanation:

A splitter is a device that divides a coaxial cable into two or more branches, allowing multiple devices to share the same cable connection. However, a splitter also reduces the signal strength and quality of the cable, which can affect the performance and reliability of the devices connected to it. A signal power of -97dB is very low and indicates a weak or poor cable signal, which can cause constant disconnections and slow speeds.

The support agent should recommend removing any splitters connected to the line and connecting the coaxial modem directly to the cable outlet. This can help to improve the signal power and quality of the cable, and thus enhance the performance and reliability of the wired devices. Alternatively, the support agent can also suggest using a signal amplifier or booster, which is a device that increases the signal strength and quality of the cable, to compensate for the signal loss caused

by the splitter.

The other options are not correct because they are not the best recommendations to troubleshoot the issue. They are:

? Switching the devices to wireless. Switching the devices to wireless may not solve

the issue, as the wireless connection may also depend on the cable signal and quality. Moreover, switching the devices to wireless may introduce other problems, such as interference, security, or compatibility issues, that can affect the performance and reliability of the devices.

? Moving the devices closer to the modem. Moving the devices closer to the modem

may not solve the issue, as the problem is not related to the distance between the devices and the modem, but to the signal power and quality of the cable.

Moreover, moving the devices closer to the modem may not be feasible or convenient for the user, depending on the layout and setup of the location.

? Lowering the network speed. Lowering the network speed may not solve the issue,

as the problem is not related to the bandwidth or capacity of the network, but to the signal power and quality of the cable. Moreover, lowering the network speed may degrade the user experience and satisfaction, as the user may not be able to access or use the network services or applications as expected.

References1: Network+ (Plus) Certification | CompTIA IT Certifications2: What is a Coaxial Splitter? - Definition from Techopedia3: What is a Signal Amplifier? - Definition from Techopedia

NEW QUESTION 316

- (Topic 3)

A network administrator is trying to add network redundancy for the server farm. Which of the following can the network administrator configure to BEST provide this capability?

- A. VRRP
- B. DNS
- C. UPS
- D. RPO

Answer: A

Explanation:

VRRP is an open standard protocol, which is used to provide redundancy in a network. It is a network layer protocol (protocol number-112). The number of routers (group members) in a group acts as a virtual logical router which will be the default gateway of all the local hosts. If one router goes down, one of the other group members can take place for the responsibilities for forwarding the traffic.

NEW QUESTION 320

- (Topic 3)

A network engineer is configuring new switches. Some of the trunk ports are in a blocking state. Which of the following should the network engineer reconfigure?

- A. STP
- B. Port mirroring
- C. Flow control
- D. LACP

Answer: A

Explanation:

STP (Spanning Tree Protocol) is a protocol that prevents loops in a network by placing some of the switch ports in different states, such as blocking, listening, learning, forwarding, or disabled. A port in the blocking state does not forward frames or participate in frame forwarding. A network engineer can reconfigure STP to change the port states and avoid blocking ports that are needed for trunking.

NEW QUESTION 323

- (Topic 3)

A Fortune 500 firm is deciding On the kind or data center equipment to install given its five- year budget Outlook. The Chief Information comparing equipment based on the life expectancy Of different models. Which Of the following concepts BEST represents this metric?

- A. MTBF
- B. MTRR
- C. RPO
- D. RTO

Answer: A

NEW QUESTION 324

- (Topic 3)

Which of the following can be used to validate domain ownership by verifying the presence of pre-agreed content contained in a DNS record?

- A. SOA
- B. SRV
- C. AAA
- D. TXT

Answer: D

Explanation:

"One final usage of the TXT resource record is how some cloud service providers, such as Azure, validate ownership of custom domains. You are provided with data to include in your TXT record, and once that is created, the domain is verified and able to be used. The thought is that if you control the DNS, then you own the domain name."

NEW QUESTION 326

- (Topic 3)

An engineer is designing a network topology for a company that maintains a large on-premises private cloud. A design requirement mandates internet-facing hosts to be partitioned off from the internal LAN and internal server IP ranges. Which of the following defense strategies helps meet this requirement?

- A. Implementing a screened subnet
- B. Deploying a honeypot
- C. Utilizing network access control
- D. Enforcing a Zero Trust model

Answer: A

Explanation:

A screened subnet is a network topology that uses two firewalls to isolate a segment of the network from both the internal LAN and the internet. The screened subnet, also known as a demilitarized zone (DMZ), hosts the internet-facing servers that need to be accessible from outside the network, such as web servers, mail servers, or DNS servers. The first firewall, also known as the external firewall, filters the traffic between the internet and the DMZ, allowing only the necessary ports and protocols to pass through. The second firewall, also known as the internal firewall, filters the traffic between the DMZ and the internal LAN, allowing only authorized and secure connections to access the internal resources. This way, the screened subnet provides a layer of protection for both the internet-facing hosts and the internal LAN from potential attacks¹².

The other options are not defense strategies that help meet the design requirement of partitioning off the internet-facing hosts from the internal LAN and internal server IP ranges. Deploying a honeypot is a deception technique that lures attackers to a fake system or network that mimics the real one, in order to monitor their activities and collect information about their methods and motives. However, a honeypot does not isolate or protect the internet-facing hosts from the rest of the network³. Utilizing network access control is a security method that enforces policies on who or what can access the network resources, based on factors such as identity, role, device type, location, or time. However, network access control does not create a separate segment for the internet-facing hosts from the internal LAN. Enforcing a Zero Trust model is a security paradigm that assumes no trust for any entity inside or outside the network, and requires continuous verification and validation of every request and transaction. However, a Zero Trust model does not necessarily imply a specific network topology or architecture for separating the internet-facing hosts from the internal LAN.

NEW QUESTION 330

- (Topic 3)

An IT technician is working on a support ticket regarding an unreachable web-site. The technician has utilized the ping command to the website, but the site is still unreachable. Which of the following tools should the technician use NEXT?

- A. ipconfig
- B. tracert
- C. arp
- D. netstat

Answer: B

Explanation:

tracert is a command-line tool that can trace the route of a packet from the source to the destination. It can show the number of hops, the IP address and hostname of each router, and the round-trip time for each hop. tracert can help the technician troubleshoot the unreachable website by identifying where the packet is dropped or delayed along the path. ipconfig is a command-line tool that can display and configure the IP settings of a network interface. arp is a command-line tool that can display and manipulate the Address Resolution Protocol (ARP) cache, which maps IP addresses to MAC addresses. netstat is a command-line tool that can display network connections, routing tables, and statistics. References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.4: Given a scenario, use appropriate software tools to troubleshoot connectivity issues.

NEW QUESTION 331

- (Topic 3)

A technician is investigating an issue with connectivity at customer's location. The technician confirms that users can access resources locally but not over the internet. The technician theorizes that the local router has failed and investigates further. The technician's testing results show that the route is functional; however, users still are unable to reach resources on the internet. Which of the following describes what the technician should do NEXT?

- A. Document the lessons learned
- B. Escalate the issue
- C. identify the symptoms.
- D. Question users for additional information

Answer: C

Explanation:

According to the CompTIA Network+ troubleshooting model¹²³, this is the first step in troubleshooting a network problem. The technician should gather information about the current state of the network, such as error messages, device status, network topology, and user feedback. This can help narrow down the scope of the problem and eliminate possible causes.

NEW QUESTION 334

- (Topic 3)

A user returns to the office after working remotely for an extended period. The user is reporting limited access to the office wireless network and the inability to reach company resources on the network. The user connected to the guest network, ensured all patches were applied, and checked to make sure software was up to date. Which of the following is most likely the cause of the issue?

- A. The laptop drivers need to be updated to support a new wireless infrastructure.
- B. The wireless passphrase has been cycled and needs to be updated.
- C. The NAC appliance has labeled the laptop as non-compliant.
- D. The WAP transmit power is too low and cannot complete user authentication.

Answer: C

Explanation:

A network access control (NAC) appliance is a device that checks the enrollment and compliance state of devices that try to access the network resources. It can deny, quarantine, or restrict the access of non-compliant devices based on predefined policies¹. A device can be considered non-compliant if it does not meet the

security requirements, such as having the latest patches, antivirus signatures, firewall settings, or encryption standards. In this scenario, the user's laptop may have been labeled as non-compliant by the NAC appliance because it was out of sync with the network policies after working remotely for a long time. The user connected to the guest network, which is usually less secure and isolated from the corporate network, and updated the patches and software, but that may not be enough to satisfy the NAC appliance. The user may need to enroll the device again, or contact the IT support to resolve the issue.

References1 - Network access control integration with Microsoft Intune | Microsoft Learn

NEW QUESTION 335

- (Topic 3)

Which of the following describes the ability of a corporate IT department to expand its cloud-hosted VM environment with minimal effort?

- A. Scalability
- B. Load balancing
- C. Multitenancy
- D. Geo-redundancy

Answer: A

Explanation:

Scalability is the ability of a corporate IT department to expand its cloud-hosted virtual machine (VM) environment with minimal effort. This allows IT departments to quickly and easily scale up their cloud environment to meet increased demand. Scalability also allows for the efficient use of resources, as IT departments can quickly and easily scale up or down as needed.

NEW QUESTION 338

- (Topic 3)

An engineer is gathering data to determine the effectiveness of UPSs in use at remote retail locations. Which of the following statistics can the engineer use to determine the availability of the remote network equipment?

- A. Uptime
- B. NetFlow baseline
- C. SNMP traps
- D. Interface statistics

Answer: A

Explanation:

Uptime is a statistic that can be used to determine the availability of the remote network equipment. Uptime is the amount of time that a device or system has been running without experiencing any failures or disruptions. It is commonly expressed as a percentage of total time, such as 99.99% uptime. By measuring the uptime of the network equipment at the remote retail locations, the engineer can determine how reliable and available the equipment is.

NEW QUESTION 343

- (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 345

- (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 350

- (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 352

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