

N10-009 Dumps

CompTIA Network+ Exam

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NEW QUESTION 1

- (Exam Topic 1)

A company built a new building at its headquarters location. The new building is connected to the company's LAN via fiber-optic cable. Multiple users in the new building are unable to access the company's intranet site via their web browser, but they are able to access internet sites. Which of the following describes how the network administrator can resolve this issue?

- A. Correct the DNS server entries in the DHCP scope
- B. Correct the external firewall gateway address
- C. Correct the NTP server settings on the clients
- D. Correct a TFTP Issue on the company's server

Answer: A

Explanation:

If multiple users in a new building are unable to access the company's intranet site via their web browser but are able to access internet sites, the network administrator can resolve this issue by correcting the DNS server entries in the DHCP scope. The DHCP scope is responsible for assigning IP addresses and DNS server addresses to clients. If the DNS server entries are incorrect, clients will not be able to access intranet sites.

References:

➤ CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 4: Network Implementations, Objective 4.4: Explain the purpose and properties of DHCP.

NEW QUESTION 2

- (Exam Topic 1)

An administrator is writing a script to periodically log the IPv6 and MAC addresses of all the devices on a network segment. Which of the following switch features will MOST likely be used to assist with this task?

- A. Spanning Tree Protocol
- B. Neighbor Discovery Protocol
- C. Link Aggregation Control Protocol
- D. Address Resolution Protocol

Answer: B

Explanation:

Short explanation

The switch feature that is most likely to be used to assist with logging IPv6 and MAC addresses of devices on a network segment is Neighbor Discovery Protocol (NDP). NDP is used by IPv6 to discover and maintain information about other nodes on the network, including their IPv6 and MAC addresses. By periodically querying NDP, the administrator can log this information for auditing purposes.

References:

➤ CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 2: The OSI Model and Networking Protocols, Objective 2.1: Compare and contrast TCP and UDP ports, protocols, and their purposes.

NEW QUESTION 3

- (Exam Topic 1)

Branch users are experiencing issues with videoconferencing. Which of the following will the company MOST likely configure to improve performance for these applications?

- A. Link Aggregation Control Protocol
- B. Dynamic routing
- C. Quality of service
- D. Network load balancer
- E. Static IP addresses

Answer: C

Explanation:

To improve performance for videoconferencing, the company should configure Quality of Service (QoS). This technology allows for the prioritization of network traffic, ensuring that videoconferencing traffic is given higher priority and therefore better performance. Link Aggregation Control Protocol (LACP), Dynamic routing, Network load balancer, and Static IP addresses are not directly related to improving performance for videoconferencing.

References:

➤ Network+ N10-007 Certification Exam Objectives, Objective 2.6: Given a scenario, implement and configure the appropriate wireless security and implement the appropriate QoS concepts.

NEW QUESTION 4

- (Exam Topic 1)

An engineer notices some late collisions on a half-duplex link. The engineer verifies that the devices on both ends of the connection are configured for half duplex. Which of the following is the MOST likely cause of this issue?

- A. The link is improperly terminated
- B. One of the devices is misconfigured
- C. The cable length is excessive
- D. One of the devices has a hardware issue

Answer: C

Explanation:

In a half-duplex link, devices can only send or receive data at one time, not simultaneously. Late collisions occur when devices transmit data at the same time after

waiting for a clear channel. One of the causes of late collisions is excessive cable length, which increases the propagation delay and makes it harder for devices to detect collisions. The link termination, device configuration, and device hardware are not likely to cause late collisions on a half-duplex link.

NEW QUESTION 5

- (Exam Topic 1)

Wireless users are reporting intermittent internet connectivity. Connectivity is restored when the users disconnect and reconnect, utilizing the web authentication process each time. The network administrator can see the devices connected to the APs at all times. Which of the following steps will MOST likely determine the cause of the issue?

- A. Verify the session time-out configuration on the captive portal settings
- B. Check for encryption protocol mismatch on the client's wireless settings
- C. Confirm that a valid passphrase is being used during the web authentication
- D. Investigate for a client's disassociation caused by an evil twin AP

Answer: A

Explanation:

A captive portal is a web page that requires users to authenticate before they can access the internet. If the session time-out configuration is too short, users may experience intermittent internet connectivity and have to reconnect using the web authentication process each time. The network administrator can verify the session time-out configuration on the captive portal settings and adjust it if needed. References: CompTIA Network+ Certification Exam Objectives Version 2.0 (Exam Number: N10-006), Domain 1.0 Network Architecture, Objective 1.8 Explain the purposes and use cases for advanced networking devices.

NEW QUESTION 6

- (Exam Topic 1)

Which of the following would be BEST to use to detect a MAC spoofing attack?

- A. Internet Control Message Protocol
- B. Reverse Address Resolution Protocol
- C. Dynamic Host Configuration Protocol
- D. Internet Message Access Protocol

Answer: B

Explanation:

Reverse Address Resolution Protocol (RARP) is a protocol that allows a device to obtain its MAC address from its IP address. A MAC spoofing attack is an attack where a device pretends to have a different MAC address than its actual one. RARP can be used to detect a MAC spoofing attack by comparing the MAC address obtained from RARP with the MAC address obtained from other sources, such as ARP or DHCP. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/25597/reverse-address-resolution-protocol-rarp>

NEW QUESTION 7

- (Exam Topic 1)

Which of the following DNS records works as an alias to another record?

- A. AAAA
- B. CNAME
- C. MX
- D. SOA

Answer: B

Explanation:

The DNS record that works as an alias to another record is called CNAME (Canonical Name). CNAME records are used to create an alias for a domain name that points to another domain name.

References:

➤ CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 2: The OSI Model and Networking Protocols, Objective 2.3: Given a scenario, implement and configure the appropriate addressing schema.

NEW QUESTION 8

- (Exam Topic 1)

A network administrator is installing a wireless network at a client's office. Which of the following IEEE 802.11 standards would be BEST to use for multiple simultaneous client access?

- A. CDMA
- B. CSMA/CD
- C. CSMA/CA
- D. GSM

Answer: C

Explanation:

CSMA/CA (Carrier Sense Multiple Access with Collision Avoidance) is an IEEE 802.11 standard that would be best to use for multiple simultaneous client access on a wireless network. CSMA/CA is a media access control method that allows multiple devices to share the same wireless channel without causing collisions or interference. It works by having each device sense the channel before transmitting data and waiting for an acknowledgment from the receiver after each transmission. If the channel is busy or no acknowledgment is received, the device will back off and retry later with a random delay. References:

<https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-csma-ca.html>

NEW QUESTION 9

- (Exam Topic 1)

A technician is connecting multiple switches to create a large network for a new office. The switches are unmanaged Layer 2 switches with multiple connections between each pair. The network is experiencing an extreme amount of latency. Which of the following is MOST likely occurring?

- A. Ethernet collisions
- B. A DDoS attack
- C. A broadcast storm
- D. Routing loops

Answer: C

Explanation:

A broadcast storm is most likely occurring when connecting multiple unmanaged Layer 2 switches with multiple connections between each pair. A broadcast storm is a situation where broadcast packets flood a network segment and consume all the available bandwidth. It can be caused by loops in the network topology, where broadcast packets are endlessly forwarded by switches without any loop prevention mechanism. Unmanaged switches do not support features such as Spanning Tree Protocol (STP) or Rapid Spanning Tree Protocol (RSTP) that can detect and block loops. References: <https://www.cisco.com/c/en/us/support/docs/lan-switching/spanning-tree-protocol/10556-16.html>

NEW QUESTION 10

- (Exam Topic 1)

A network administrator discovers that users in an adjacent building are connecting to the company's guest wireless network to download inappropriate material. Which of the following can the administrator do to MOST easily mitigate this issue?

- A. Reduce the wireless power levels
- B. Adjust the wireless channels
- C. Enable wireless client isolation
- D. Enable wireless port security

Answer: A

Explanation:

Reducing the wireless power levels can limit the range of the guest wireless network and prevent users in an adjacent building from connecting to it. Adjusting the wireless channels or enabling wireless client isolation will not affect the signal strength or coverage of the guest network. Enabling wireless port security will not work on a guest network that does not use authentication or MAC address filtering. References: CompTIA Network+ Certification Exam Objectives Version 2.0 (Exam Number: N10-006), Domain 2.0 Network Operations, Objective 2.5 Given a scenario, implement appropriate wireless configuration settings; Guest WiFi Security - Cisco Umbrella

NEW QUESTION 10

- (Exam Topic 1)

A technician is installing multiple UPS units in a major retail store. The technician is required to keep track of all changes to new and old equipment. Which of the following will allow the technician to record these changes?

- A. Asset tags
- B. A smart locker
- C. An access control vestibule
- D. A camera

Answer: A

Explanation:

Asset tags will allow the technician to record changes to new and old equipment when installing multiple UPS units in a major retail store. Asset tags are labels or stickers that are attached to physical assets such as computers, printers, servers, or UPS units. They usually contain information such as asset name, serial number, barcode, QR code, or RFID chip that can be scanned or read by an asset management system or software. Asset tags help track inventory, location, status, maintenance, and ownership of assets. References: <https://www.camcode.com/asset-tags/asset-tagging-guide/>

NEW QUESTION 12

- (Exam Topic 1)

A technician is installing a new fiber connection to a network device in a datacenter. The connection from the device to the switch also traverses a patch panel connection. The chain of connections is in the following order:

Device
LC/LC patch cable Patch panel
Cross-connect fiber cable Patch panel
LC/LC patch cable Switch

The connection is not working. The technician has changed both patch cables with known working patch cables. The device had been tested and was working properly before being installed. Which of the following is the MOST likely cause of the issue?

- A. TX/RX is reversed
- B. An incorrect cable was used
- C. The device failed during installation
- D. Attenuation is occurring

Answer: A

Explanation:

The most likely cause of the issue where the fiber connection from a device to a switch is not working is that the TX/RX (transmit/receive) is reversed. When connecting fiber optic cables, it is important to ensure that the TX of one device is connected to the RX of the other device and vice versa. If the TX/RX is reversed, data cannot be transmitted successfully.

References:



CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 5: Network Operations, Objective 5.1: Given a scenario, use appropriate documentation and diagrams to manage the network.

NEW QUESTION 14

- (Exam Topic 1)

Several WIFI users are reporting the inability to connect to the network. WLAN users on the guest network are able to access all network resources without any performance issues. The following table summarizes the findings after a site survey of the area in question:

| Location | AP 1 | AP 2 | AP 3 | AP 4 |
|--------------|--------|--------|-------------|-------------|
| SSID | Corp1 | Corp1 | Corp1/Guest | Corp1/Guest |
| Channel | 2 | 1 | 5 | 11 |
| RSSI | -81dBm | -82dBm | -44dBm | -41dBm |
| Antenna type | Omni | Omni | Directional | Directional |

Which of the following should a wireless technician do NEXT to troubleshoot this issue?

- A. Reconfigure the channels to reduce overlap
- B. Replace the omni antennas with directional antennas
- C. Update the SSIDs on all the APs
- D. Decrease power in AP 3 and AP 4

Answer: A

Explanation:

Based on the site survey table, we can see that AP 2, AP 3, and AP 4 are all broadcasting on the same channel, which can cause interference and affect performance. Therefore, the next step a wireless technician should take to troubleshoot this issue is to reconfigure the channels to reduce overlap. This will help to improve network performance and eliminate any interference.

References:

- > Network+ N10-007 Certification Exam Objectives, Objective 2.8: Given a scenario, troubleshoot common wireless problems and perform site surveys.

NEW QUESTION 16

- (Exam Topic 1)

Given the following information:

| Protocol | Local address | Foreign address | State |
|----------|-----------------|--------------------|-------------|
| TCP | 127.0.0.1:57779 | Desktop-Open:57780 | Established |
| TCP | 127.0.0.1:57780 | Desktop-Open:57779 | Established |

Which of the following command-line tools would generate this output?

- A. netstat
- B. arp
- C. dig
- D. tracer

Answer: D

Explanation:

Tracert is a command-line tool that traces the route of a packet from a source to a destination and displays the number of hops and the round-trip time for each hop. The output shown in the question is an example of a tracert output, which shows five hops with their IP addresses and hostnames (if available) and three latency measurements for each hop in milliseconds. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.lumen.com/help/en-us/network/traceroute/understanding-the-traceroute-output.html>

NEW QUESTION 17

- (Exam Topic 1)

A technician is configuring a network switch to be used in a publicly accessible location. Which of the following should the technician configure on the switch to prevent unintended connections?

- A. DHCP snooping
- B. Geofencing
- C. Port security
- D. Secure SNMP

Answer: C

Explanation:

Port security is a feature that restricts input to a switch port by limiting and identifying MAC addresses of the devices allowed to access the port. This prevents unintended connections from unauthorized devices or spoofed MAC addresses. Port security can also be configured to take actions such as shutting down the port or sending an alert when a violation occurs. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9500/software/release/16-10/configuration_guide/se

NEW QUESTION 22

- (Exam Topic 1)

A network administrator is configuring a load balancer for two systems. Which of the following must the administrator configure to ensure connectivity during a failover?

- A. VIP
- B. NAT
- C. APIPA
- D. IPv6 tunneling
- E. Broadcast IP

Answer: A

Explanation:

A virtual IP (VIP) address must be configured to ensure connectivity during a failover. A VIP address is a single IP address that is assigned to a group of servers or network devices. When one device fails, traffic is automatically rerouted to the remaining devices, and the VIP address is reassigned to the backup device, allowing clients to continue to access the service without interruption.

References:

> CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 6: Network Servers, p. 300

NEW QUESTION 24

- (Exam Topic 1)

A user tries to ping 192.168.1.100 from the command prompt on the 192.168.2.101 network but gets the following response: U.U.U.U. Which of the following needs to be configured for these networks to reach each other?

- A. Network address translation
- B. Default gateway
- C. Loopback
- D. Routing protocol

Answer: B

Explanation:

A default gateway is a device that routes traffic from one network to another network, such as the Internet. A default gateway is usually configured on each host device to specify the IP address of the router that connects the host's network to other networks. In this case, the user's device and the destination device are on different networks (192.168.1.0/24 and 192.168.2.0/24), so the user needs to configure a default gateway on their device to reach the destination device.

References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/25761/default-gateway>

NEW QUESTION 29

- (Exam Topic 1)

A network engineer is investigating reports of poor network performance. Upon reviewing a report, the engineer finds that jitter at the office is greater than 10ms on the only WAN connection available. Which of the following would be MOST affected by this statistic?

- A. A VoIP sales call with a customer
- B. An in-office video call with a coworker
- C. Routing table from the ISP
- D. Firewall CPU processing time

Answer: A

Explanation:

A VoIP sales call with a customer would be most affected by jitter greater than 10ms on the WAN connection. Jitter is the variation in delay of packets arriving at the destination. It can cause choppy or distorted audio quality for VoIP applications, especially over WAN links that have limited bandwidth and high latency. The recommended jitter for VoIP is less than 10ms. References: <https://www.voip-info.org/voip-jitter/>

NEW QUESTION 33

- (Exam Topic 1)

A technician is installing a cable modem in a SOHO. Which of the following cable types will the technician MOST likely use to connect a modem to the ISP?

- A. Coaxial
- B. Single-mode fiber
- C. Cat 6e
- D. Multimode fiber

Answer: A

Explanation:

Coaxial cable is a type of cable that consists of a central copper conductor surrounded by an insulating layer and a braided metal shield. Coaxial cable is commonly used to connect a cable modem to an ISP by transmitting data over cable television networks. Coaxial cable can support high bandwidth and long distances with minimal interference or attenuation. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/4027/coaxial-cable>

NEW QUESTION 37

- (Exam Topic 1)

A new cabling certification is being requested every time a network technician rebuilds one end of a Cat 6 (vendor-certified) cable to create a crossover connection that is used to connect switches. Which of the following would address this issue by allowing the use of the original cable?

- A. CSMA/CD
- B. LACP
- C. PoE+

D. MDIX

Answer: D

Explanation:

MDIX (medium-dependent interface crossover) is a feature that allows network devices to automatically detect and configure the appropriate cabling type, eliminating the need for crossover cables. By enabling MDIX on the switches, a technician can use the original Cat 6 cable to create a crossover connection. References: CompTIA Network+ Certification Study Guide, Sixth Edition by Glen E. Clarke

NEW QUESTION 42

- (Exam Topic 1)

According to troubleshooting methodology, which of the following should the technician do NEXT after determining the most likely probable cause of an issue?

- A. Establish a plan of action to resolve the issue and identify potential effects
- B. Verify full system functionality and, if applicable, implement preventive measures
- C. Implement the solution or escalate as necessary
- D. Test the theory to determine the cause

Answer: A

Explanation:

According to troubleshooting methodology, after determining the most likely probable cause of an issue, the next step is to establish a plan of action to resolve the issue and identify potential effects. This step involves defining the steps needed to implement a solution, considering the possible consequences of each step, and obtaining approval from relevant stakeholders if necessary. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.comptia.org/blog/the-comptia-guide-to-it-troubleshooting>

NEW QUESTION 43

- (Exam Topic 1)

A technician is searching for a device that is connected to the network and has the device's physical network address. Which of the following should the technician review on the switch to locate the device's network port?

- A. IP route table
- B. VLAN tag
- C. MAC table
- D. QoS tag

Answer: C

Explanation:

To locate a device's network port on a switch, a technician should review the switch's MAC address table. The MAC address table maintains a list of MAC addresses of devices connected to each port on the switch. By checking the MAC address of the device in question, the technician can identify the port to which the device is connected.

References: CompTIA Network+ Certification Study Guide, Sixth Edition by Glen E. Clarke

NEW QUESTION 44

- (Exam Topic 1)

Which of the following ports is commonly used by VoIP phones?

- A. 20
- B. 143
- C. 445
- D. 5060

Answer: D

Explanation:

TCP/UDP port 5060 is commonly used by VoIP phones. It is the default port for SIP (Session Initiation Protocol), which is a signaling protocol that establishes, modifies, and terminates multimedia sessions over IP networks. SIP is widely used for VoIP applications such as voice and video calls. References: <https://www.voip-info.org/session-initiation-protocol/>

NEW QUESTION 47

- (Exam Topic 1)

Which of the following is the LARGEST MTU for a standard Ethernet frame?

- A. 1452
- B. 1492
- C. 1500
- D. 2304

Answer: C

Explanation:

The maximum transmission unit (MTU) is the largest size of a data packet that can be transmitted over a network. A standard Ethernet frame supports an MTU of 1500 bytes, which is the default value for most Ethernet networks. Larger MTUs are possible with jumbo frames, but they are not widely supported and may cause fragmentation or compatibility issues. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)),

https://en.wikipedia.org/wiki/Maximum_transmission_unit

NEW QUESTION 51

- (Exam Topic 1)

A network technician is reviewing the interface counters on a router interface. The technician is attempting to confirm a cable issue. Given the following information:

| Metric | Value |
|---------------------|-----------------------|
| Last cleared | 7 minutes, 34 seconds |
| # of packets output | 6915 |
| # of packets input | 270 |
| CRCs | 183 |
| Giants | 0 |
| Runts | 0 |
| Multicasts | 14 |

Which of the following metrics confirms there is a cabling issue?

- A. Last cleared
- B. Number of packets output
- C. CRCs
- D. Giants
- E. Multicasts

Answer: C

Explanation:

CRC stands for Cyclic Redundancy Check, and it is a type of error-detecting code used to detect accidental changes to raw data. If the CRC count is increasing on a particular interface, it indicates that there might be an issue with the cabling, which is causing data corruption. References:

> Network+ N10-008 Objectives: 2.1 Given a scenario, troubleshoot common physical connectivity issues.

NEW QUESTION 56

- (Exam Topic 1)

A network device is configured to send critical events to a syslog server; however, the following alerts are not being received:

Severity 5 LINK-UPDOWN: Interface 1/1, changed state to down Severity 5 LINK-UPDOWN: Interface 1/3, changed state to down

Which of the following describes the reason why the events are not being received?

- A. The network device is not configured to log that level to the syslog server
- B. The network device was down and could not send the event
- C. The syslog server is not compatible with the network device
- D. The syslog server did not have the correct MIB loaded to receive the message

Answer: A

Explanation:

The reason why the alerts are not being received is that the network device is not configured to log that level to the syslog server. The severity level for the events may need to be adjusted in order for them to be sent to the syslog server. References: Network+ Certification Study Guide, Chapter 8: Network Troubleshooting

NEW QUESTION 59

- (Exam Topic 1)

A network is experiencing a number of CRC errors during normal network communication. At which of the following layers of the OSI model will the administrator MOST likely start to troubleshoot?

- A. Layer 1
- B. Layer 2
- C. Layer 3
- D. Layer 4
- E. Layer 5
- F. Layer 6
- G. Layer 7

Answer: A

Explanation:

CRC errors are cyclic redundancy check errors that occur when data is corrupted during transmission. CRC errors are usually caused by physical layer issues such as faulty cables, connectors, ports, or interference. The network administrator will most likely start to troubleshoot at layer 1 of the OSI model, which is the physical layer that deals with the transmission of bits over a medium. References: CompTIA Network+ Certification Exam Objectives Version 2.0 (Exam Number: N10-006), Domain 4.0 Network Troubleshooting and Tools, Objective 4.1 Given a scenario, implement network troubleshooting methodology.

NEW QUESTION 62

- (Exam Topic 1)

A technician is troubleshooting a network switch that seems to stop responding to requests intermittently whenever the logging level is set for debugging. Which of the following metrics should the technician check to begin troubleshooting the issue?

- A. Audit logs
- B. CPU utilization
- C. CRC errors
- D. Jitter

Answer: B

Explanation:

CPU utilization is a metric that measures the percentage of time a CPU spends executing instructions. When the logging level is set for debugging, the router may generate a large amount of logging data, which can increase CPU utilization and cause the router to stop responding to requests intermittently. References:

➤ Network+ N10-008 Objectives: 2.1 Given a scenario, troubleshoot common physical connectivity issues.

NEW QUESTION 67

- (Exam Topic 1)

An engineer is configuring redundant network links between switches. Which of the following should the engineer enable to prevent network stability issues?

- A. 802.1Q
- B. STP
- C. Flow control
- D. CSMA/CD

Answer: B

Explanation:

Spanning Tree Protocol (STP) should be enabled when configuring redundant network links between switches. STP ensures that only one active path is used at a time, preventing network loops and stability issues.

References:

➤ CompTIA Network+ Certification Study Guide

NEW QUESTION 70

- (Exam Topic 1)

A website administrator is concerned the company's static website could be defaced by hackers or used as a pivot point to attack internal systems. Which of the following should a network security administrator recommend to assist with detecting these activities?

- A. Implement file integrity monitoring.
- B. Change the default credentials.
- C. Use SSL encryption.
- D. Update the web-server software.

Answer: A

Explanation:

Implementing file integrity monitoring (FIM) would assist with detecting activities such as website defacement or internal system attacks. FIM is a process that monitors and alerts on changes to files or directories that are critical for security or functionality. FIM can help detect unauthorized modifications, malware infections, data breaches, or configuration errors. FIM can also help with compliance and auditing requirements. References:

<https://www.tripwire.com/state-of-security/security-data-protection/cyber-security/what-is-file-integrity-monitor>

NEW QUESTION 74

- (Exam Topic 1)

Which of the following routing protocols is used to exchange route information between public autonomous systems?

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

Answer: B

Explanation:

BGP (Border Gateway Protocol) is a routing protocol used to exchange route information between public autonomous systems (AS). OSPF (Open Shortest Path First), EGRIP (Enhanced Interior Gateway Routing Protocol), and RIP (Routing Information Protocol) are all used for internal routing within a single AS. Therefore, BGP is the correct option to choose for this question.

References:

➤ Network+ N10-007 Certification Exam Objectives, Objective 3.3: Given a scenario, configure and apply the appropriate routing protocol.

➤ Cisco: Border Gateway Protocol (BGP) Overview

NEW QUESTION 75

- (Exam Topic 1)

A network administrator walks into a datacenter and notices an unknown person is following closely. The administrator stops and directs the person to the security desk. Which of the following attacks did the network administrator prevent?

- A. Evil twin
- B. Tailgating
- C. Piggybacking
- D. Shoulder surfing

Answer: B

Explanation:

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Tailgating is a physical security attack where an unauthorized person follows an authorized person into a restricted area without proper identification or authorization. The network administrator prevented this attack by stopping and directing the person to the security desk. References: CompTIA Network+ Certification Exam Objectives Version 2.0 (Exam Number: N10-006), Domain 3.0 Network Security, Objective 3.1 Compare and contrast risk-related concepts.

NEW QUESTION 80

- (Exam Topic 1)

Which of the following factors should be considered when evaluating a firewall to protect a datacenter's east-west traffic?

- A. Replication traffic between an on-premises server and a remote backup facility
- B. Traffic between VMs running on different hosts
- C. Concurrent connections generated by Internet DDoS attacks
- D. VPN traffic from remote offices to the datacenter's VMs

Answer: B**Explanation:**

When evaluating a firewall to protect a datacenter's east-west traffic, it is important to consider traffic between VMs running on different hosts. This type of traffic is referred to as east-west traffic and is often protected by internal firewalls. By implementing firewalls, an organization can protect their internal network against threats such as lateral movement, which can be caused by attackers who have breached a perimeter firewall. References: Network+ Certification Study Guide, Chapter 5: Network Security

NEW QUESTION 85

- (Exam Topic 1)

A fiber link connecting two campus networks is broken. Which of the following tools should an engineer use to detect the exact break point of the fiber link?

- A. OTDR
- B. Tone generator
- C. Fusion splicer
- D. Cable tester
- E. PoE injector

Answer: A**Explanation:**

To detect the exact break point of a fiber link, an engineer should use an OTDR (Optical Time Domain Reflectometer). This device sends a series of pulses into the fiber, measuring the time it takes for the pulses to reflect back, and can pinpoint the exact location of the break.

References:

- > Network+ N10-007 Certification Exam Objectives, Objective 2.5: Given a scenario, troubleshoot copper cable issues.
- > FS: OTDR (Optical Time Domain Reflectometer) Testing Principle and Applications

NEW QUESTION 90

- (Exam Topic 1)

A technician is assisting a user who cannot connect to a network resource. The technician first checks for a link light. According to troubleshooting methodology, this is an example of:

- A. using a bottom-to-top approach.
- B. establishing a plan of action.
- C. documenting a finding.
- D. questioning the obvious.

Answer: A**Explanation:**

Using a bottom-to-top approach means starting from the physical layer and moving up the OSI model to troubleshoot a network problem. Checking for a link light is a physical layer check that verifies the connectivity of the network cable and device. References:

<https://www.professormesser.com/network-plus/n10-007/troubleshooting-methodologies-2/>

NEW QUESTION 94

- (Exam Topic 1)

A branch of a company recently switched to a new ISP. The network engineer was given a new IP range to assign. The ISP assigned 196.26.4.0/26, and the branch gateway router now has the following configurations on the interface that peers to the ISP:

```
IP address:      196.26.4.30
Subnet mask:     255.255.255.224
Gateway:        196.24.4.1
```

The network engineer observes that all users have lost Internet connectivity. Which of the following describes the issue?

- A. The incorrect subnet mask was configured
- B. The incorrect gateway was configured
- C. The incorrect IP address was configured
- D. The incorrect interface was configured

Answer: C**Explanation:**

The IP address configured on the router interface is 196.26.4.1/26, which belongs to the IP range assigned by the ISP (196.26.4.0/26). However, this IP address is not valid for this interface because it is the network address of the subnet, which cannot be assigned to any host device. The network address is the first address of a subnet that identifies the subnet itself. The valid IP addresses for this subnet are from 196.26.4.1 to 196.26.4.62, excluding the network address (196.26.4.0) and the broadcast address (196.26.4.63). The router interface should be configured with a valid IP address within this range to restore Internet connectivity for all users. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/24136/network->

address

NEW QUESTION 96

- (Exam Topic 1)

Which of the following systems would MOST likely be found in a screened subnet?

- A. RADIUS
- B. FTP
- C. SQL
- D. LDAP

Answer: B

Explanation:

FTP (File Transfer Protocol) is a system that would most likely be found in a screened subnet. A screened subnet, or triple-homed firewall, is a network architecture where a single firewall is used with three network interfaces. It provides additional protection from outside cyber attacks by adding a perimeter network to

isolate or separate the internal network from the public-facing internet. A screened subnet typically hosts systems that need to be accessed by both internal and external users, such as web servers, email servers, or FTP servers. References:

<https://www.techtarget.com/searchsecurity/definition/screened-subnet#:~:text=A%20screened%20subnet%2C%1>

NEW QUESTION 97

- (Exam Topic 1)

You are tasked with verifying the following requirements are met in order to ensure network security. Requirements:

Datacenter

Ensure network is subnetted to allow all devices to communicate properly while minimizing address space usage

Provide a dedicated server to resolve IP addresses and hostnames correctly and handle port 53 traffic Building A

Ensure network is subnetted to allow all devices to communicate properly while minimizing address space usage

Provide devices to support 5 additional different office users

Add an additional mobile user

Replace the Telnet server with a more secure solution Screened subnet

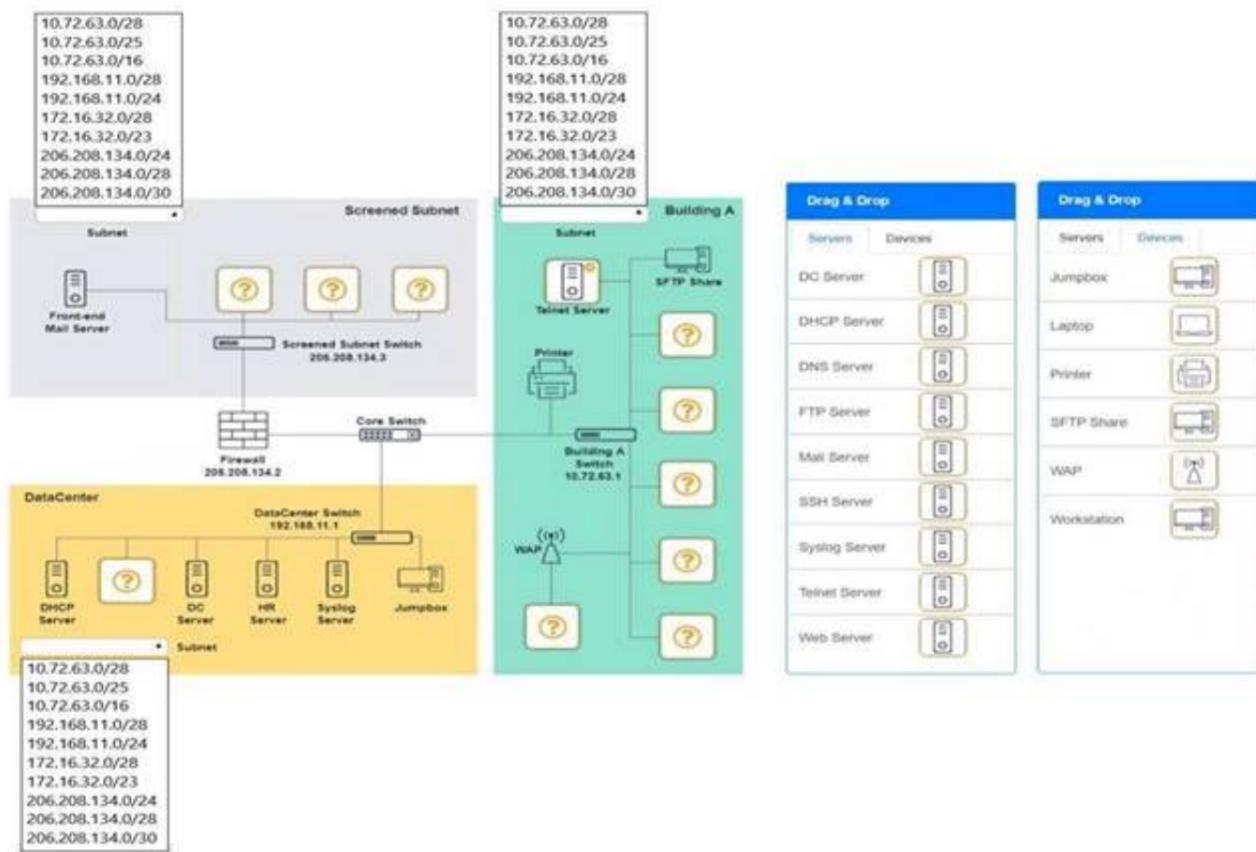
Ensure network is subnetted to allow all devices to communicate properly while minimizing address space usage

Provide a server to handle external 80/443 traffic Provide a server to handle port 20/21 traffic INSTRUCTIONS

Drag and drop objects onto the appropriate locations. Objects can be used multiple times and not all placeholders need to be filled.

Available objects are located in both the Servers and Devices tabs of the Drag & Drop menu.

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



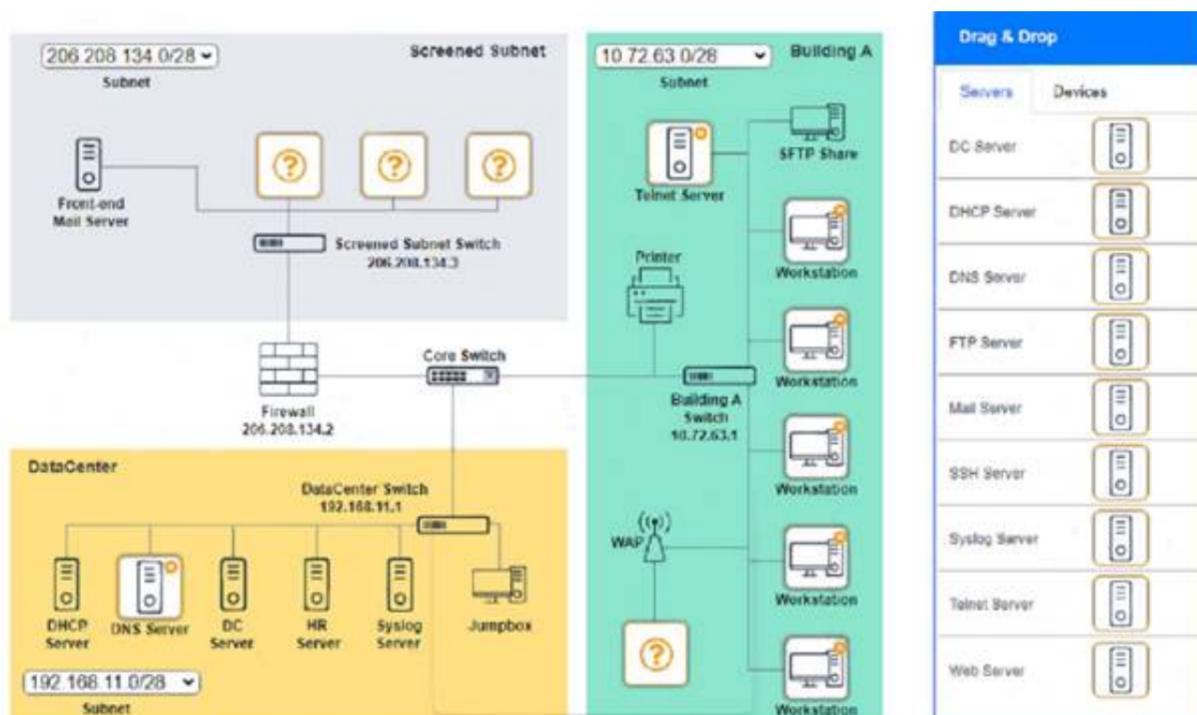
- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Screened Subnet devices – Web server, FTP server

Building A devices – SSH server top left, workstations on all 5 on the right, laptop on bottom left DataCenter devices – DNS server.



NEW QUESTION 99

- (Exam Topic 1)

A network engineer configured new firewalls with the correct configuration to be deployed to each remote branch. Unneeded services were disabled, and all firewall rules were applied successfully. Which of the following should the network engineer perform NEXT to ensure all the firewalls are hardened successfully?

- A. Ensure an implicit permit rule is enabled
- B. Configure the log settings on the firewalls to the central syslog server
- C. Update the firewalls with current firmware and software
- D. Use the same complex passwords on all firewalls

Answer: C

Explanation:

Updating the firewalls with current firmware and software is an important step to ensure all the firewalls are hardened successfully, as it can fix any known vulnerabilities or bugs and provide new features or enhancements. Enabling an implicit permit rule is not a good practice for firewall hardening, as it can allow unwanted traffic to pass through the firewall. Configuring the log settings on the firewalls to the central syslog server is a good practice for monitoring and auditing purposes, but it does not harden the firewalls themselves. Using the same complex passwords on all firewalls is not a good practice for password security, as it can increase the risk of compromise if one firewall is breached. References: CompTIA Network+ Certification Exam Objectives Version 2.0 (Exam Number: N10-006), Domain 3.0 Network Security, Objective 3.3 Given a scenario, implement network hardening techniques.

NEW QUESTION 104

- (Exam Topic 1)

A network administrator redesigned the positioning of the APs to create adjacent areas of wireless coverage. After project validation, some users still report poor connectivity when their devices maintain an association to a distanced AP. Which of the following should the network administrator check FIRST?

- A. Validate the roaming settings on the APs and WLAN clients
- B. Verify that the AP antenna type is correct for the new layout
- C. Check to see if MU-MIMO was properly activated on the APs
- D. Deactivate the 2.4GHz band on the APS

Answer: A

Explanation:

The network administrator should check the roaming settings on the APs and WLAN clients first. Roaming is the process of switching from one AP to another without losing connectivity. If the roaming settings are not configured properly, some users may experience poor connectivity when their devices stay connected to a distant AP instead of switching to a closer one. References: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-roam-faq.html>

NEW QUESTION 108

- (Exam Topic 1)

Which of the following would MOST likely be used to review previous upgrades to a system?

- A. Business continuity plan
- B. Change management
- C. System life cycle
- D. Standard operating procedures

Answer: B

Explanation:

Change management is the process of reviewing previous upgrades to a system. It is a systematic approach to managing changes to an organization's IT systems and infrastructure. Change management involves the assessment of potential risks associated with a change, as well as the identification of any necessary resources required to implement the change. References: Network+ Certification Study Guide, Chapter 8: Network Troubleshooting

NEW QUESTION 109

- (Exam Topic 1)

A network administrator needs to query the NSs for a remote application. Which of the following commands would BEST help the administrator accomplish this task?

- A. dig
- B. arp
- C. show interface
- D. hostname

Answer: A

Explanation:

The dig command is used to query the NSs for a remote application. It is a command-line tool that is commonly used to troubleshoot DNS issues. When used with specific options, dig can be used to obtain information about domain names, IP addresses, and DNS records. References: Network+ Certification Study Guide, Chapter 3: Network Infrastructure

NEW QUESTION 111

- (Exam Topic 2)

A network engineer is designing a new secure wireless network. The engineer has been given the following requirements:

- * 1 Must not use plaintext passwords
- * 2 Must be certificate based
- * 3. Must be vendor neutral

Which of the following methods should the engineer select?

- A. TWP-RC4
- B. CCMP-AES
- C. EAP-TLS
- D. WPA2

Answer: C

Explanation:

EAP-TLS is the method that should be selected to meet the requirements for designing a new secure wireless network. EAP-TLS (Extensible Authentication Protocol - Transport Layer Security) is an authentication protocol that uses X.509 digital certificates for both clients and servers. It provides strong security and mutual authentication by using TLS encryption and public key cryptography. It does not use plaintext passwords or shared secrets that can be compromised or guessed. It is also an open standard that is vendor neutral and supported by most wireless devices¹. References: <https://www.securew2.com/blog/what-is-eap-tls>
1

NEW QUESTION 114

- (Exam Topic 2)

Which of the following services can provide data storage, hardware options, and scalability to a third-party company that cannot afford new devices?

- A. SaaS
- B. IaaS
- C. PaaS
- D. DaaS

Answer: B

Explanation:

IaaS stands for Infrastructure as a Service, which is a cloud computing model that provides virtualized computing resources such as servers, storage, and networking over the Internet. IaaS can provide data storage, hardware options, and scalability to a third-party company that cannot afford new devices by allowing them to rent or lease the infrastructure they need from a cloud provider. The company can pay only for what they use and scale up or down as needed. References: <https://www.comptia.org/blog/what-is-iaas>

NEW QUESTION 115

- (Exam Topic 2)

A business is using the local cable company to provide Internet access. Which of the following types of cabling will the cable company MOST likely use from the demarcation point back to the central office?

- A. Multimode
- B. Cat 5e
- C. RG-6
- D. Cat 6
- E. 100BASE-T

Answer: C

Explanation:

RG-6 is a type of coaxial cable that is commonly used by cable companies to provide Internet access from the demarcation point back to the central office. It has a thicker conductor and better shielding than RG-59, which is another type of coaxial cable. Multimode and Cat 5e are types of fiber optic and twisted pair cables respectively, which are not typically used by cable companies. Cat 6 and 100BASE-T are standards for twisted pair cables, not types of cabling.

NEW QUESTION 119

- (Exam Topic 2)

A network technician was troubleshooting an issue for a user who was being directed to cloned websites that were stealing credentials. The URLs were correct for the websites but an incorrect IP address was revealed when the technician used ping on the user's PC. After checking the DNS settings, the technician found the DNS server address was incorrect. Which of the following describes the issue?

- A. Rogue DHCP server

- B. Misconfigured HSRP
- C. DNS poisoning
- D. Exhausted IP scope

Answer: C

Explanation:

DNS poisoning is a type of attack that modifies the DNS records of a domain name to point to a malicious IP address instead of the legitimate one. This can result in users being directed to cloned websites that are stealing credentials, even if they enter the correct URL for the website. The incorrect DNS server address on the user's PC could be a sign of DNS poisoning, as the attacker could have compromised the DNS server or spoofed its response to redirect the user's queries. References: <https://www.comptia.org/blog/what-is-dns-poisoning>

NEW QUESTION 121

- (Exam Topic 2)

A technician is troubleshooting a previously encountered issue. Which of the following should the technician reference to find what solution was implemented to resolve the issue?

- A. Standard operating procedures
- B. Configuration baseline documents
- C. Work instructions
- D. Change management documentation

Answer: D

Explanation:

Change management documentation is a record of the changes that have been made to a system or process, including the reason, date, time, and impact of each change. A technician can reference this documentation to find what solution was implemented to resolve a previously encountered issue, as well as any potential side effects or dependencies of the change. References: <https://www.comptia.org/blog/what-is-change-management>

NEW QUESTION 122

- (Exam Topic 2)

A network technician is reviewing an upcoming project's requirements to implement IaaS. Which of the following should the technician consider?

- A. Software installation processes
- B. Type of database to be installed
- C. Operating system maintenance
- D. Server hardware requirements

Answer: D

Explanation:

IaaS stands for Infrastructure as a Service, which is a cloud computing model that provides virtualized computing resources such as servers, storage, and networking over the Internet. When implementing IaaS, the network technician should consider the server hardware requirements, such as CPU, RAM, disk space, and network bandwidth, that are needed to run the applications and services on the cloud. The other options are not relevant to IaaS, as they are either handled by the cloud provider or by the end-user. References: <https://www.comptia.org/blog/what-is-iaas>

NEW QUESTION 125

- (Exam Topic 2)

A network administrator wants to analyze attacks directed toward the company's network. Which of the following must the network administrator implement to assist in this goal?

- A. A honeypot
- B. Network segmentation
- C. Antivirus
- D. A screened subnet

Answer: A

Explanation:

A honeypot is a decoy system that is intentionally left vulnerable or exposed to attract attackers and divert them from the real targets. A honeypot can also be used to collect information about the attackers' techniques and motives. A network administrator can implement a honeypot to analyze attacks directed toward the company's network, as a honeypot can help identify the source, target, method, and impact of an attack, as well as provide recommendations for remediation. References:

References:

<https://www.comptia.org/blog/what-is-a-honeypot>

NEW QUESTION 126

- (Exam Topic 2)

Which of the following is used to provide networking capability for VMs at Layer 2 of the OSI model?

- A. VPN
- B. VRRP
- C. vSwitch
- D. VIP

Answer: C

Explanation:

A vSwitch (virtual switch) is a software-based switch that provides networking capability for VMs (virtual machines) at Layer 2 of the OSI model. It connects the

VMs to each other or to external networks using virtual NICs (network interface cards). A VPN (virtual private network) is a technology that creates a secure tunnel over a public network for remote access or site-to-site connectivity. VRRP (Virtual Router Redundancy Protocol) is a protocol that provides high availability for routers by creating a virtual router with multiple physical routers. A VIP (virtual IP) is an IP address that can be shared by multiple servers or devices for load balancing or failover purposes.

NEW QUESTION 130

- (Exam Topic 2)

A technician wants to install a WAP in the center of a room that provides service in a radius surrounding a radio. Which of the following antenna types should the AP utilize?

- A. Omni
- B. Directional
- C. Yagi
- D. Parabolic

Answer: A

Explanation:

An omni antenna should be used by the AP to provide service in a radius surrounding a radio. An omni antenna is a type of antenna that has a 360-degree horizontal radiation pattern. It can provide wireless coverage in all directions from the antenna with varying degrees of vertical coverage. It is suitable for indoor environments where users are located around the AP. References: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-omni-vs-direct.html> 1

NEW QUESTION 131

- (Exam Topic 2)

A wireless network was installed in a warehouse for employees to scan crates with a wireless handheld scanner. The wireless network was placed in the corner of the building near the ceiling for maximum coverage. However, users in the offices adjacent to the warehouse have noticed a large amount of signal overlap from the new network. Additionally, warehouse employees report difficulty connecting to the wireless network from the other side of the building; however, they have no issues when they are near the antenna. Which of the following is MOST likely the cause?

- A. The wireless signal is being refracted by the warehouse's windows
- B. The antenna's power level was set too high and is overlapping
- C. An omnidirectional antenna was used instead of a unidirectional antenna
- D. The wireless access points are using channels from the 5GHz spectrum

Answer: C

Explanation:

An omnidirectional antenna was used instead of a unidirectional antenna, which is most likely the cause of the wireless network issues. An omnidirectional antenna provides wireless coverage in all directions from the antenna, which can cause signal overlap with adjacent offices and interference with other wireless networks. A unidirectional antenna, on the other hand, provides wireless coverage in a specific direction from the antenna, which can reduce signal overlap and interference and increase signal range and quality. A unidirectional antenna would be more suitable for a warehouse environment where users are located on one side of the building. References: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-omni-vs-direct.html> 1

NEW QUESTION 135

- (Exam Topic 2)

An organization wants to implement a method of centrally managing logins to network services. Which of the following protocols should the organization use to allow for authentication, authorization, and auditing?

- A. MS-CHAP
- B. RADIUS
- C. LDAPS
- D. RSTP

Answer: B

Explanation:

RADIUS (Remote Authentication Dial-In User Service) is a protocol that should be used by the organization to allow for authentication, authorization, and auditing of network services. RADIUS is an AAA (Authentication, Authorization, and Accounting) protocol that manages network access by verifying user credentials, granting access permissions, and logging user activities. RADIUS uses a client-server model where a RADIUS client (such as a router, switch, or VPN server) sends user information to a RADIUS server (such as an authentication server) for verification and authorization. The RADIUS server can also send accounting information to another server for billing or reporting purposes. References: <https://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838>

NEW QUESTION 137

- (Exam Topic 2)

A technician is implementing a new wireless network to serve guests at a local office. The network needs to provide Internet access but disallow associated stations from communicating with each other. Which of the following would BEST accomplish this requirement?

- A. Wireless client isolation
- B. Port security
- C. Device geofencing
- D. DHCP snooping

Answer: A

Explanation:

Wireless client isolation is a feature on wireless routers that limits the connectivity between wireless devices connected to the same network. It prevents them from

accessing resources on other wireless or wired devices, as a security measure to reduce attacks and threats. This feature can be useful for guest and BYOD SSIDs, but it can also be disabled on the router's settings. References:
<https://www.howtogeek.com/179089/lock-down-your-wi-fi-network-with-your-routers-wireless-isolation-option>

NEW QUESTION 141

- (Exam Topic 2)

A network administrator is talking to different vendors about acquiring technology to support a new project for a large company. Which of the following documents will MOST likely need to be signed before information about the project is shared?

- A. BYOD policy
- B. NDA
- C. SLA
- D. MOU

Answer: B

Explanation:

NDA stands for Non-Disclosure Agreement, which is a legal contract between two or more parties that outlines confidential material, knowledge, or information that the parties wish to share with one another for certain purposes, but wish to restrict access to by others. A network administrator may need to sign an NDA before sharing information about a new project with different vendors, as the project may involve sensitive or proprietary data that the company wants to protect from competitors or unauthorized use. References: <https://www.adobe.com/sign/esignature-resources/sign-nda.html>

NEW QUESTION 144

- (Exam Topic 2)

A network technician is installing an analog desk phone for a new receptionist. After running a new phone line, the technician now needs to crimp on a new connector. Which of the following connectors would MOST likely be used in this case?

- A. DB9
- B. RJ11
- C. RJ45
- D. DB25

Answer: B

Explanation:

RJ11 is a type of connector that is commonly used for analog phone lines. RJ11 has four wires and six positions, but only two or four of them are used. A technician can crimp an RJ11 connector to a new phone line to install an analog desk phone for a new receptionist. References: <https://www.comptia.org/blog/what-is-rj11>

NEW QUESTION 147

- (Exam Topic 2)

Which of the following protocols will a security appliance that is correlating network events from multiple devices MOST likely rely on to receive event messages?

- A. Syslog
- B. Session Initiation Protocol
- C. Secure File Transfer Protocol
- D. Server Message Block

Answer: A

Explanation:

Syslog is a protocol that provides a standard way for network devices and applications to send event messages to a logging server or a security appliance. Syslog messages can contain information about security incidents, errors, warnings, system status, configuration changes, and other events. A security appliance that is correlating network events from multiple devices can rely on Syslog to receive event messages from different sources and formats. References: <https://www.comptia.org/blog/what-is-syslog>

NEW QUESTION 149

- (Exam Topic 2)

A local firm has hired a consulting company to clean up its IT infrastructure. The consulting company notices remote printing is accomplished by port forwarding via publicly accessible IPs through the firm's firewall. Which of the following would be the MOST appropriate way to enable secure remote printing?

- A. SSH
- B. VPN
- C. Telnet
- D. SSL

Answer: B

Explanation:

VPN (Virtual Private Network) is the most appropriate way to enable secure remote printing. VPN is a technology that creates a secure and encrypted tunnel over a public network such as the Internet. It allows remote users or sites to access a private network as if they were directly connected to it. VPN can be used for various purposes such as accessing corporate resources, bypassing geo-restrictions, or enhancing privacy and security. VPN can also be used for remote printing by allowing users to connect to a printer on the private network and send print jobs securely over the VPN tunnel. References: <https://www.cisco.com/c/en/us/support/docs/security-vpn/ipsec-negotiation-ike-protocols/14106-how-vpn-work>

NEW QUESTION 154

- (Exam Topic 2)

A network field technician is installing and configuring a secure wireless network. The technician performs a site survey. Which of the following documents would

MOST likely be created as a result of the site survey?

- A. Physical diagram
- B. Heat map
- C. Asset list
- D. Device map

Answer: B

Explanation:

A heat map would most likely be created as a result of the site survey. A heat map is a graphical representation of the wireless signal strength and coverage in a given area. It can show the location of APs, antennas, walls, obstacles, interference sources, and dead zones. It can help with planning, optimizing, and troubleshooting wireless networks. References: <https://www.netspotapp.com/what-is-a-wifi-heatmap.html>

NEW QUESTION 158

- (Exam Topic 2)

A network technician is investigating an issue with a desktop that is not connecting to the network. The desktop was connecting successfully the previous day, and no changes were made to the environment. The technician locates the switchport where the device is connected and observes the LED status light on the switchport is not lit even though the desktop is turned on. Other devices that are plugged into the switch are connecting to the network successfully. Which of the following is MOST likely the cause of the desktop not connecting?

- A. Transceiver mismatch
- B. VLAN mismatch
- C. Port security
- D. Damaged cable
- E. Duplex mismatch

Answer: D

Explanation:

A damaged cable is most likely the cause of the desktop not connecting to the network. A damaged cable can cause physical layer issues such as loss of signal, attenuation, interference, or crosstalk. These issues can prevent the desktop from establishing a link with the switch and result in the LED status light on the switchport being off. Other possible causes of physical layer issues are faulty connectors, ports, or transceivers. References: <https://www.cisco.com/c/en/us/support/docs/lan-switching/ethernet/14119-37.html>

NEW QUESTION 161

- (Exam Topic 2)

A technician is troubleshooting a workstation's network connectivity and wants to confirm which switchport corresponds to the wall jack the PC is using. Which of the following concepts would BEST help the technician?

- A. Consistent labeling
- B. Change management
- C. Standard work instructions
- D. Inventory management
- E. Network baseline

Answer: A

Explanation:

Consistent labeling would be the concept that would best help the technician to confirm which switchport corresponds to the wall jack the PC is using. Consistent labeling is a practice of using standardized and descriptive labels for network devices, ports, cables, jacks, and other components. It can help with identifying, locating, and troubleshooting network issues. For example, a technician can use consistent labeling to trace a cable from a PC to a wall jack, and then from a patch panel to a switchport. References: https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Data_Center/DC_Infra2_5/DCInfra_6.html

NEW QUESTION 166

- (Exam Topic 2)

A company is being acquired by a large corporation. As part of the acquisition process, the company's address should now redirect clients to the corporate organization page. Which of the following DNS records needs to be created?

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

Answer: C

Explanation:

Reference:

<https://www.namecheap.com/support/knowledgebase/article.aspx/9604/2237/types-of-domain-redirects-301-302>

CNAME (Canonical Name) is a type of DNS record that maps an alias name to another name, which can be either another alias or the canonical name of a host or domain. A CNAME record can be used to redirect clients from one domain name to another domain name, such as from the company's address to the corporate organization page. SOA (Start of Authority) is a type of DNS record that specifies authoritative information about a DNS zone, such as the primary name server, contact email address, serial number, refresh interval, etc., which does not redirect clients to another domain name. NS (Name Server) is a type of DNS record that specifies which name server is authoritative for a domain or subdomain, which does not redirect clients to another domain name. TXT (Text) is a type of DNS record that provides arbitrary text information about a domain or subdomain, such as SPF (Sender Policy Framework) records or DKIM (DomainKeys Identified Mail) records, which does not redirect clients to another domain name.

NEW QUESTION 167

- (Exam Topic 2)

A network administrator decided to use SLAAC in an extensive IPv6 deployment to alleviate IP address management. The devices were properly connected into the LAN but autoconfiguration of the IP address did not occur as expected. Which of the following should the network administrator verify?

- A. The network gateway is configured to send router advertisements.
- B. A DHCP server is present on the same broadcast domain as the clients.
- C. The devices support dual stack on the network layer.
- D. The local gateway supports anycast routing.

Answer: A

Explanation:

SLAAC (Stateless Address Autoconfiguration) is a method for IPv6 devices to automatically configure their IP addresses based on the network prefix advertised by a router. The router sends periodic router advertisements (RAs) that contain the network prefix and other parameters for the devices to use. If the network gateway is not configured to send RAs, then SLAAC will not work. A DHCP server is not needed for SLAAC, as the devices generate their own addresses without relying on a server. Dual stack and anycast routing are not related to SLAAC.

NEW QUESTION 169

- (Exam Topic 2)

An organization with one core and five distribution switches is transitioning from a star to a full-mesh topology. Which of the following is the number of additional network connections needed?

- A. 5
- B. 7
- C. 10
- D. 15

Answer: C

Explanation:

10 additional network connections are needed to transition from a star to a full-mesh topology. A star topology is a network topology where each device is connected to a central device, such as a switch or a hub. A full-mesh topology is a network topology where each device is directly connected to every other device. The number of connections needed for a full-mesh topology can be calculated by the formula $n(n-1)/2$, where n is the number of devices. In this case, there are six devices (one core and five distribution switches), so the number of connections needed for a full-mesh topology is $6(6-1)/2 = 15$. Since there are already five connections in the star topology (one from each distribution switch to the core switch), the number of additional connections needed is $15 - 5 = 10$. References: <https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html>

NEW QUESTION 172

- (Exam Topic 2)

A network technician is configuring a new firewall for a company with the necessary access requirements to be allowed through the firewall. Which of the following would normally be applied as the LAST rule in the firewall?

- A. Secure SNMP
- B. Port security
- C. Implicit deny
- D. DHCP snooping

Answer: C

Explanation:

Implicit deny is a firewall rule that blocks all traffic that is not explicitly allowed by other rules. Implicit deny is usually applied as the last rule in the firewall to ensure that only the necessary access requirements are allowed through the firewall and that any unwanted or malicious traffic is rejected. Implicit deny can also provide a default security policy and a baseline for auditing and logging purposes.

Secure SNMP is a protocol that allows network devices to send event messages to a centralized server or console for logging and analysis. Secure SNMP can be used to monitor and manage the status, performance, and configuration of network devices. Secure SNMP can also help to detect and respond to potential problems or faults on the network. However, secure SNMP is not a firewall rule; it is a network management protocol.

Port security is a feature that allows a switch to restrict the devices that can connect to a specific port based on their MAC addresses. Port security can help to prevent unauthorized access, spoofing, or MAC flooding attacks on the switch. However, port security is not a firewall rule; it is a switch feature.

DHCP snooping is a feature that allows a switch to filter DHCP messages and prevent rogue DHCP servers from assigning IP addresses to devices on the network. DHCP snooping can help to prevent IP address conflicts, spoofing, or denial-of-service attacks on the network. However, DHCP snooping is not a firewall rule; it is a switch feature.

NEW QUESTION 174

- (Exam Topic 2)

A company requires a disaster recovery site to have equipment ready to go in the event of a disaster at its main datacenter. The company does not have the budget to mirror all the live data to the disaster recovery site. Which of the following concepts should the company select?

- A. Cold site
- B. Hot site
- C. Warm site
- D. Cloud site

Answer: C

Explanation:

A warm site is a type of disaster recovery site that has equipment ready to go in the event of a disaster at the main datacenter, but does not have live data or applications. A warm site requires some time and effort to restore the data and services from backups, but it is less expensive than a hot site that has live data and applications. A cold site is a disaster recovery site that has no equipment or data, and requires a lot of time and money to set up after a disaster. A cloud site is a disaster recovery site that uses cloud computing resources to provide data and services, but it may have issues with bandwidth, latency, security, and cost.

References: <https://www.comptia.org/blog/what-is-a-warm-site>

NEW QUESTION 177

- (Exam Topic 2)

An IT technician suspects a break in one of the uplinks that provides connectivity to the core switch. Which of the following command-line tools should the technician use to determine where the incident is occurring?

- A. nslookup
- B. show config
- C. netstat
- D. show interface
- E. show counters

Answer: D

Explanation:

show interface is a command-line tool that displays information about the status, configuration, and statistics of an interface on a network device. A technician can use show interface to determine where the incident is occurring in a network by checking the uplink status, speed, duplex mode, errors, collisions, and other parameters of each interface. References: <https://www.comptia.org/blog/what-is-show-interface>

NEW QUESTION 182

- (Exam Topic 2)

A network administrator needs to implement an HDMI over IP solution. Which of the following will the network administrator MOST likely use to ensure smooth video delivery?

- A. Link aggregation control
- B. Port tagging
- C. Jumbo frames
- D. Media access control

Answer: C

Explanation:

Giants are packets that exceed the configured MTU (Maximum Transmission Unit) of a switchport or interface, which causes them to be dropped or fragmented by the switch or router. The MTU is the maximum size of a packet that can be transmitted without fragmentation on a given medium or protocol. Giants can indicate misconfiguration or mismatch of MTU values between devices or interfaces on a network, which can cause performance issues or errors. CRC errors are errors that occur when the cyclic redundancy check (CRC) value of a packet does not match the calculated CRC value at the destination, which indicates corruption or alteration of data during transmission due to noise, interference, faulty cabling, etc., but not necessarily exceeding MTU values. Runts are packets that are smaller than the minimum size allowed by the medium or protocol, which causes them to be dropped or ignored by the switch or router. Flooding is a technique where a switch sends packets to all ports except the source port when it does not have an entry for the destination MAC address in its MAC address table, which can cause congestion or broadcast storms on a network.

NEW QUESTION 183

- (Exam Topic 2)

Which of the following technologies allows traffic to be sent through two different ISPs to increase performance?

- A. Fault tolerance
- B. Quality of service
- C. Load balancing
- D. Port aggregation

Answer: C

Explanation:

Load balancing is a technology that allows traffic to be sent through two different ISPs to increase performance. Load balancing is a process of distributing network traffic across multiple servers or links to optimize resource utilization, throughput, latency, and reliability. Load balancing can be implemented at different layers of the OSI model, such as layer 4 (transport) or layer 7 (application). Load balancing can also be used for outbound traffic by using multiple ISPs and routing protocols such as BGP (Border Gateway Protocol) to select the best path for each packet. References:

https://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/border-gateway-protocol-bgp/prod_white_

NEW QUESTION 186

- (Exam Topic 2)

During the security audit of a financial firm the Chief Executive Officer (CEO) questions why there are three employees who perform very distinct functions on the server. There is an administrator for creating users another for assigning the users to groups and a third who is the only administrator to perform file rights assignment Which of the following mitigation techniques is being applied?

- A. Privileged user accounts
- B. Role separation
- C. Container administration
- D. Job rotation

Answer: B

Explanation:

Role separation is a security principle that involves dividing the tasks and privileges for a specific business process among multiple users. This reduces the risk of fraud and errors, as no one user has complete control over the process. In the scenario, there are three employees who perform very distinct functions on the server, which is an example of role separation. References: <https://hyperproof.io/resource/segregation-of-duties/>

NEW QUESTION 191

- (Exam Topic 2)

A company that uses VoIP telephones is experiencing intermittent issues with one-way audio and dropped conversations The manufacturer says the system will

work if ping times are less than 50ms. The company has recorded the following ping times:

| | | | | | | | | | | |
|------|------|------|-------|------|-----|-----|------|-------|-----|-----|
| 10ms | 10ms | 10ms | 100ms | 70ms | 5ms | 5ms | 80ms | 100ms | 5ms | 5ms |
|------|------|------|-------|------|-----|-----|------|-------|-----|-----|

Which of the following is MOST likely causing the issue?

- A. Attenuation
- B. Latency
- C. VLAN mismatch
- D. Jitter

Answer: D

Explanation:

Jitter is most likely causing the issue of intermittent one-way audio and dropped conversations for the company that uses VoIP telephones. Jitter is a variation in delay of packets arriving at the destination. It can cause choppy or distorted audio quality for VoIP applications, especially over WAN links that have limited bandwidth and high latency. The recommended jitter for VoIP is less than 10ms. The company has recorded ping times that exceed 50ms, which indicates high jitter and latency on their network. References: <https://www.voip-info.org/voip-jitter/> 1

NEW QUESTION 194

- (Exam Topic 2)

A technician is connecting DSL for a new customer. After installing and connecting the on-premises equipment, the technician verifies DSL synchronization. When connecting to a workstation, however, the link LEDs on the workstation and modem do not light up. Which of the following should the technician perform during troubleshooting?

- A. Identify the switching loops between the modem and the workstation.
- B. Check for asymmetrical routing on the modem.
- C. Look for a rogue DHCP server on the network.
- D. Replace the cable connecting the modem and the workstation.

Answer: D

Explanation:

If the link LEDs on the workstation and modem do not light up when connecting to a workstation, it could indicate a problem with the cable connecting them. The cable could be damaged, defective, or incompatible with the devices. A technician should replace the cable with a known good one and check if the link LEDs light up. If not, the problem could be with the network interface cards (NICs) on the workstation or modem. References: <https://www.comptia.org/blog/what-is-link-light>

NEW QUESTION 198

- (Exam Topic 2)

A network administrator is configuring a database server and would like to ensure the database engine is listening on a certain port. Which of the following commands should the administrator use to accomplish this goal?

- A. nslookup
- B. netstat -a
- C. ipconfig /a
- D. arp -a

Answer: B

Explanation:

netstat -a is a command that displays information about active TCP connections and listening ports on a system. A network administrator can use netstat -a to check if the database engine is listening on a certain port, as well as verify if there are any connections established to or from that port. References: <https://www.comptia.org/blog/what-is-netstat>

NEW QUESTION 201

- (Exam Topic 2)

A city has hired a new employee who needs to be able to work when traveling at home and at the municipal sourcing of a neighboring city that shares services. The employee is issued a laptop, and a technician needs to train the employee on the appropriate solutions for secure access to the network from all the possible locations. On which of the following solutions would the technician MOST likely train the employee?

- A. Site-to-site VPNs between the two city locations and client-to-site software on the employee's laptop for all other remote access
- B. Client-to-site VPNs between the travel locations and site-to-site software on the employee's laptop for all other remote access
- C. Client-to-site VPNs between the two city locations and site-to-site software on the employee's laptop for all other remote access
- D. Site-to-site VPNs between the home and city locations and site-to-site software on the employee's laptop for all other remote access

Answer: A

Explanation:

The technician would most likely train the employee on using site-to-site VPNs between the two city locations and client-to-site software on the employee's laptop for all other remote access. A VPN (Virtual Private Network) is a technology that creates a secure and encrypted tunnel over a public network such as the Internet. It allows remote users or sites to access a private network as if they were directly connected to it. A site-to-site VPN connects two or more networks, such as branch offices or data centers, using a VPN gateway device at each site. A client-to-site VPN connects individual users, such as mobile workers or telecommuters, using a VPN client software on their devices. In this scenario, the employee needs to access the network from different locations, such as home, travel, or another city. Therefore, the technician would train the employee on how to use site-to-site VPNs to connect to the network from another city location that shares services, and how to use client-to-site software to connect to the network from home or travel locations. References: <https://www.cisco.com/c/en/us/support/docs/security-vpn/ipsec-negotiation-ike-protocols/14106-how-vpn-work>

NEW QUESTION 203

- (Exam Topic 2)

Which of the following would be used to expedite MX record updates to authoritative NSs?

- A. UDP forwarding
- B. DNS caching
- C. Recursive lookup
- D. Time to live

Answer: D

Explanation:

Time to live (TTL) is a value that indicates how long a DNS record can be cached by authoritative NSs (name servers) or other DNS servers before it expires and needs to be updated. A lower TTL value would expedite MX record updates to authoritative NSs, as they would refresh the record more frequently. UDP forwarding is not a DNS term, but a technique of sending UDP packets from one host to another. DNS caching is the process of storing DNS records locally for faster resolution, which does not expedite MX record updates. Recursive lookup is a type of DNS query where a DNS server queries other DNS servers on behalf of a client until it finds the answer, which does not expedite MX record updates.

NEW QUESTION 204

- (Exam Topic 2)

A small, family-run business uses a single SOHO router to provide Internet and WiFi to its employees. At the start of a new week, employees come in and find their usual WiFi network is no longer available, and there is a new wireless network to which they cannot connect. Given that information, which of the following should have been done to avoid this situation?

- A. The device firmware should have been kept current.
- B. Unsecure protocols should have been disabled.
- C. Parental controls should have been enabled.
- D. The default credentials should have been changed.

Answer: D

Explanation:

The default credentials are the username and password that come with a device or service when it is first installed or configured. They are often easy to guess or find online, which makes them vulnerable to unauthorized access or attacks. The default credentials should be changed to something unique and strong as soon as possible to avoid this situation. If the default credentials were not changed, someone could have accessed the SOHO router and changed the WiFi settings without the employees' knowledge. References: <https://www.comptia.org/blog/network-security-basics-6-easy-ways-to-protect-your-network>

NEW QUESTION 209

- (Exam Topic 2)

A network administrator is setting up several IoT devices on a new VLAN and wants to accomplish the following

- * 1. Reduce manual configuration on each system
- * 2. Assign a specific IP address to each system
- * 3. Allow devices to move to different switchports on the same VLAN

Which of the following should the network administrator do to accomplish these requirements?

- A. Set up a reservation for each device
- B. Configure a static IP on each device
- C. Implement private VLANs for each device
- D. Use DHCP exclusions to address each device

Answer: A

Explanation:

A reservation is a feature of DHCP that assigns a specific IP address to a device based on its MAC address. This way, the device will always receive the same IP address from the DHCP server, regardless of its location or connection time. A network administrator can set up a reservation for each IoT device to accomplish the requirements of reducing manual configuration, assigning a specific IP address, and allowing devices to move to different switchports on the same VLAN. References: <https://www.comptia.org/blog/what-is-dhcp>

NEW QUESTION 210

- (Exam Topic 3)

A network administrator views a network pcap and sees a packet containing the following:

```
community: public
request-id: 13438
get-response 1.3.6.1.2.1.1.3.0 Value:206801150
```

Which of the following are the BEST ways for the administrator to secure this type of traffic? (Select TWO).

- A. Migrate the network to IPv6.
- B. Implement 802.1 X authentication
- C. Set a private community string
- D. Use SNMPv3.
- E. Incorporate SSL encryption
- F. Utilize IPsec tunneling.

Answer: CD

Explanation:

The packet shown in the image is an SNMP (Simple Network Management Protocol) packet, which is used to monitor and manage network devices. SNMP uses community strings to authenticate requests and responses between SNMP agents and managers. However, community strings are sent in clear text and can be easily intercepted by attackers. Therefore, one way to secure SNMP traffic is to set a private community string that is not the default or well-known value. Another way to secure SNMP traffic is to use SNMPv3, which is the latest version of the protocol that supports encryption and authentication of SNMP messages. References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.5: Given a scenario, use remote access methods.

NEW QUESTION 215

- (Exam Topic 3)

A technician is investigating a misconfiguration on a Layer 3 switch. When the technician logs in and runs a command, the following data is shown: Which of the following commands generated this output?

- A. show route
- B. show config
- C. show interface
- D. tcpdump
- E. netstat -s

Answer: C

Explanation:

The output shown in the image is from the show interface command, which displays information about the status and configuration of a network interface on a switch or router. The output includes the interface name, description, MAC address, IP address, speed, duplex mode, status, and statistics. The show route command displays the routing table of the device. The show config command displays the current configuration of the device. The tcpdump command captures and analyzes network traffic. The netstat -s command displays statistics for each protocol.

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 218

- (Exam Topic 3)

A network technician needs to ensure the company's external mail server can pass reverse lookup checks. Which of the following records would the technician MOST likely configure? (Choose Correct option and give explanation directly from CompTIA Network+ Study guide or documents)

- A. PTR
- B. AAAA
- C. SPF
- D. CNAME

Answer: A

Explanation:

A PTR (Pointer) record is used to map an IP address to a domain name, which is necessary for reverse lookup checks. Reverse lookup checks are performed by external mail servers to verify the identity of the sender of the email. By configuring a PTR record, the network technician can ensure that the company's external mail server can pass these checks. According to the CompTIA Network+ Study Guide, "A PTR record is used to map an IP address to a domain name, and it is often used for email authentication."

NEW QUESTION 222

- (Exam Topic 3)

Which of the following is used to elect an STP root?

- A. A bridge ID
- B. A bridge protocol data unit
- C. Interface port priority
- D. A switch's root port

Answer: B

Explanation:

"Using special STP frames known as bridge protocol data units (BPDUs), switches communicate with other switches to prevent loops from happening in the first place. Configuration BPDUs establish the topology, where one switch is elected root bridge and acts as the center of the STP universe. Each switch then uses the root bridge as a reference point to maintain a loop-free topology."

NEW QUESTION 223

- (Exam Topic 3)

Which of the following needs to be tested to achieve a Cat 6a certification for a company's data cabling?

- A. RJ11
- B. LC ports
- C. Patch panel
- D. F-type connector

Answer: D

NEW QUESTION 225

- (Exam Topic 3)

A technician performed a manual reconfiguration of a firewall, and network connectivity was reestablished. Some connection events that were previously sent to a syslog server are no longer being generated by the firewall. Which of the following should the technician perform to fix the issue?

- A. Adjust the proper logging level on the new firewall.
- B. Tune the filter for logging the severity level on the syslog server.
- C. Activate NetFlow traffic between the syslog server and the firewall.
- D. Restart the SNMP service running on the syslog server.

Answer: A

Explanation:

Logging level is a setting that determines what types of events are recorded by a device and sent to a syslog server. Different logging levels have different severity levels, ranging from emergency to debug. If the technician performed a manual reconfiguration of the firewall, it is possible that the logging level was changed or reset to a lower level that does not include the connection events that were previously sent to the syslog server. To fix the issue, the technician should adjust the proper logging level on the new firewall to match the desired level of detail and severity for the connection events. References: Network+ Study Guide Objective 3.4: Explain common scanning, monitoring and patching processes and summarize their expected outputs. Subobjective: Syslog.

NEW QUESTION 230

- (Exam Topic 3)

A company needs a redundant link to provide a channel to the management network in an incident response scenario. Which of the following remote access methods provides the BEST solution?

- A. Out-of-band access
- B. Split-tunnel connections
- C. Virtual network computing
- D. Remote desktop gateways

Answer: A

Explanation:

Out-of-band access is a remote access method that provides a separate, independent channel for accessing network devices and systems. Out-of-band access uses a dedicated network connection or a separate communication channel, such as a dial-up or cellular connection, to provide access to network devices and systems. This allows an administrator to access the management network even if the primary network connection is unavailable or impaired. Out-of-band access is a good solution for providing a redundant link to the management network in an incident response scenario because it can be used to access the network even if the primary connection is unavailable or impaired.

NEW QUESTION 233

- (Exam Topic 3)

A network device needs to discover a server that can provide it with an IPv4 address. Which of the following does the device need to send the request to?

- A. Default gateway
- B. Broadcast address
- C. Unicast address
- D. Link local address

Answer: B

Explanation:

The DHCP client sends broadcast request packets to the network; the DHCP servers respond with broadcast packets that offer IP parameters, such as an IP address for the client. After the client chooses the IP parameters, communication between the client and server is by unicast packets.

"When a DHCP client boots up, it automatically sends out a DHCP Discover UDP datagram to the broadcast address, 255.255.255.255. This DHCP Discover message asks "Are there any DHCP servers out there?" The client can't send unicast traffic yet, as it doesn't have a valid IP address that can be used."

NEW QUESTION 236

- (Exam Topic 3)

Network connectivity in an extensive forest reserve was achieved using fiber optics. A network fault was detected, and now the repair team needs to check the integrity of the fiber cable. Which of the following actions can reduce repair time?

- A. Using a tone generator and wire map to determine the fault location
- B. Using a multimeter to locate the fault point
- C. Using an OTDR In one end of the optic cable to get the fiber length information
- D. Using a spectrum analyzer and comparing the current wavelength with a working baseline

Answer: C

NEW QUESTION 239

- (Exam Topic 3)

A technician manages a DHCP scope but needs to allocate a portion of the scope's subnet for statically assigned devices. Which of the following DHCP concepts would be BEST to use to prevent IP address conflicts?

- A. Dynamic assignment
- B. Exclusion range
- C. Address reservation
- D. IP helper

Answer: B

Explanation:

To prevent IP address conflicts when allocating a portion of a DHCP scope's subnet for statically assigned devices, it is recommended to use the concept of DHCP exclusion ranges. DHCP exclusion ranges allow a DHCP administrator to specify a range of IP addresses within the scope that should not be assigned to DHCP clients. This can be useful in situations where some devices on the network need to be assigned static IP addresses, as it ensures that the statically assigned addresses do not overlap with addresses assigned by the DHCP server. To set up a DHCP exclusion range, the administrator needs to specify the start and end IP addresses of the range, as well as the subnet mask. The DHCP server will then exclude the specified range of addresses from its pool of available addresses, and will not assign them to DHCP clients. By using DHCP exclusion ranges, the technician can ensure that the statically assigned addresses do not conflict with addresses assigned by the DHCP server, and can prevent IP address conflicts on the network.

Anthony Sequeira

"Another frequent configuration you might make in a DHCP implementation is to configure an exclusion range. This is a portion of the address pool that you never want leased out to clients in the network. Perhaps you have numbered your servers 192.168.1.1–192.168.1.10. Because the servers are statically configured with these addresses, you exclude these addresses from the 192.168.1.0/24 pool of addresses."

Mike Meyers

"Exclusion ranges represent an IP address or range of IP addresses from the pool of addresses that are not to be given out by the DHCP server. Exclusions should be made for the static addresses manually configured on servers and router interfaces, so these IP addresses won't be offered to DHCP clients."

NEW QUESTION 242

- (Exam Topic 3)

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

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

Answer: C

Explanation:

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

References: Network+ Study Guide Objective 2.5: Implement network troubleshooting methodologies

NEW QUESTION 244

- (Exam Topic 3)

A network administrator notices excessive wireless traffic occurring on an access point after normal business hours. The access point is located on an exterior wall. Which of the following should the administrator do to limit wireless access outside the building?

- A. Set up a private VLAN.
- B. Disable roaming on the WAP.
- C. Change to a directional antenna.
- D. Stop broadcasting of the SSID.

Answer: C

Explanation:

A directional antenna is a type of antenna that radiates or receives radio waves in a specific direction. This can help limit wireless access outside the building by focusing the signal towards the intended area and reducing the signal strength in other directions. A private VLAN is a feature that isolates network devices within a VLAN. Disabling roaming on the WAP prevents wireless clients from switching to another WAP when the signal is weak. Stopping broadcasting of the SSID hides the network name from wireless clients, but does not prevent them from connecting if they know the SSID.

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 3.1: Given a scenario, install and configure wireless LAN infrastructure and implement the appropriate technologies in support of wireless capable devices.

NEW QUESTION 246

- (Exam Topic 3)

A network technician needs to ensure that all files on a company's network can be moved in a safe and protected manner without interception from someone who is not the intended recipient. Which of the following would allow the network technician to meet these requirements?

- A. FTP
- B. TFTP
- C. SMTP
- D. SFTP

Answer: D

NEW QUESTION 251

- (Exam 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 252

- (Exam Topic 3)

Which of the following provides guidance to an employee about restricting non-business access to the company's videoconferencing solution?

- A. Acceptable use policy
- B. Data loss prevention

- C. Remote access policy
- D. Standard operating procedure

Answer: A

Explanation:

An acceptable use policy (AUP) is a set of rules that outline the proper and improper use of an organization's resources, such as its videoconferencing solution. An AUP can provide guidance to employees about what is expected of them when using the organization's videoconferencing solution, including restricting non-business access to it.

NEW QUESTION 253

- (Exam Topic 3)

Which of the following would MOST likely utilize PoE?

- A. A camera
- B. A printer
- C. A hub
- D. A modem

Answer: A

Explanation:

A camera is most likely to utilize PoE (Power over Ethernet). PoE is a technology that allows electrical power to be delivered over Ethernet cables. It is used to power a variety of devices, such as cameras, phones, access points, and other networking equipment. Cameras are particularly well-suited for PoE because they are often installed in locations where it is difficult or impossible to run electrical power. By using PoE, cameras can be powered directly over the Ethernet cable, eliminating the need for separate power cables and outlets. Other devices, such as printers, hubs, and modems, are less likely to utilize PoE because they typically do not need to be powered over Ethernet. These devices are usually powered by AC (alternating current) power and are typically connected to a power outlet rather than an Ethernet cable.

NEW QUESTION 258

- (Exam Topic 3)

A security vendor needs to add a note to the DNS to validate the ownership of a company domain before services begin. Which of the following records did the security company MOST likely ask the company to configure?

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

Answer: A

Explanation:

TXT stands for Text and is a type of DNS record that can store arbitrary text data associated with a domain name. TXT records can be used for various purposes, such as verifying the ownership of a domain, providing information about a domain, or implementing security mechanisms such as SPF (Sender Policy Framework) or DKIM (DomainKeys Identified Mail). In this scenario, the security company most likely asked the company to configure a TXT record with a specific value that can prove the ownership of the domain. AAAA stands for IPv6 Address and is a type of DNS record that maps a domain name to an IPv6 address. CNAME stands for Canonical Name and is a type of DNS record that maps an alias name to another name. SRV stands for Service and is a type of DNS record that specifies the location of a service on a network.

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 1.8: Explain the purposes and use cases for advanced networking devices.

NEW QUESTION 263

- (Exam Topic 3)

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

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

Answer: B

Explanation:

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

NEW QUESTION 267

- (Exam Topic 3)

A technician thinks one of the router ports is flapping. Which of the following available resources should the technician use in order to determine if the router is flapping?

- A. Audit logs
- B. NetFlow
- C. Syslog
- D. Traffic logs

Answer: C

Explanation:

Syslog is a protocol that allows network devices to send event messages to a centralized server or console for logging and analysis¹. Syslog can help a technician to determine if a router port is flapping by providing timestamps, severity levels, and descriptions of the events that occur on the router, such as interface up or down, link state change, or error messages. Syslog can also help to identify the cause and frequency of the port flapping and troubleshoot the issue.

Audit logs are records of actions or events that occur on a system or network, such as user login, file access, configuration change, or policy violation. Audit logs can help to monitor and verify the activities and behaviors of users, devices, or applications on a system or network. Audit logs can also help to detect and investigate security incidents, compliance issues, or performance problems. However, audit logs do not provide detailed information about router port flapping.

NetFlow is a protocol that collects and analyzes network traffic data for monitoring and troubleshooting purposes². NetFlow can help to identify the sources, destinations, volumes, and types of traffic on a network. NetFlow can also help to optimize network performance, security, and capacity planning. However, NetFlow does not provide detailed information about router port flapping.

Traffic logs are records of network traffic that pass through a device or application, such as a firewall, proxy, or web server. Traffic logs can help to monitor and filter the network traffic based on rules or policies. Traffic logs can also help to detect and prevent malicious traffic, such as malware, attacks, or unauthorized access. However, traffic logs do not provide detailed information about router port flapping.

NEW QUESTION 270

- (Exam Topic 3)

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

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

Answer: D

NEW QUESTION 275

- (Exam Topic 3)

An administrator is attempting to add a new system to monitoring but is unsuccessful. The administrator notices the system is similar to another one on the network; however, the new one has an updated OS version. Which of the following should the administrator consider updating?

- A. Management information bases
- B. System baseline
- C. Network device logs
- D. SNMP traps

Answer: A

NEW QUESTION 279

- (Exam Topic 3)

Several end users viewing a training video report seeing pixelated images while watching. A network administrator reviews the core switch and is unable to find an immediate cause. Which of the following BEST explains what is occurring?

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

Answer: A

Explanation:

"Jitter is the loss of packets due to an overworked WAP. Jitter shows up as choppy conversations over a video call, strange jumps in the middle of an online game—pretty much anything that feels like the network has missed some data. Latency is when data stops moving for a moment due to a WAP being unable to do the work. This manifests as a Word document that stops loading, for example, or an online file that stops downloading."

NEW QUESTION 284

- (Exam Topic 3)

Due to a surge in business, a company is onboarding an unusually high number of salespeople. The salespeople are assigned desktops that are wired to the network. The last few salespeople to be onboarded are able to access corporate materials on the network but not sales-specific resources. Which of the following is MOST likely the cause?

- A. The switch was configured with port security.
- B. Newly added machines are running into DHCP conflicts.
- C. The IPS was not configured to recognize the new users.
- D. Recently added users were assigned to the wrong VLAN

Answer: D

NEW QUESTION 286

- (Exam Topic 3)

Which of the following can be used to limit the ability of devices to perform only HTTPS connections to an internet update server without exposing the devices to the public internet?

- A. Allow connections only to an internal proxy server.
- B. Deploy an IDS system and place it in line with the traffic.
- C. Create a screened network and move the devices to it.
- D. Use a host-based network firewall on each device.

Answer: A

Explanation:

An internal proxy server is a server that acts as an intermediary between internal devices and external servers on the internet. An internal proxy server can be used to limit the ability of devices to perform only HTTPS connections to an internet update server by filtering and forwarding the requests and responses based on predefined rules or policies. An internal proxy server can also prevent the devices from being exposed to the public internet by hiding their IP addresses and providing a layer of security and privacy.

NEW QUESTION 289

- (Exam Topic 3)

A technician wants to monitor and provide traffic segmentation across the network. The technician would like to assign each department a specific identifier. Which of the following will the technician MOST likely use?

- A. Flow control
- B. Traffic shaping
- C. VLAN tagging
- D. Network performance baselines

Answer: C

Explanation:

To monitor and provide traffic segmentation across the network, a technician may use the concept of VLANs (Virtual Local Area Networks). VLANs are a way of dividing a single physical network into multiple logical networks, each with its own unique identifier or "tag."

By assigning each department a specific VLAN identifier, the technician can segment the network traffic and ensure that the different departments' traffic is kept separate from one another. This can help to improve network security, performance, and scalability, as well as allowing for better monitoring and control of the network traffic.

To implement VLANs, the technician will need to configure VLAN tagging on the network devices, such as switches and routers, and assign each department's devices to the appropriate VLAN. The technician may also need to configure VLAN trunking to allow the different VLANs to communicate with each other.

By using VLANs, the technician can effectively monitor and segment the network traffic, providing better control and visibility into the network.

NEW QUESTION 290

- (Exam Topic 3)

A company with multiple routers would like to implement an HA network gateway with the least amount of downtime possible. This solution should not require changes on the gateway setting of the network clients. Which of the following should a technician configure?

- A. Automate a continuous backup and restore process of the system's state of the active gateway.
- B. Use a static assignment of the gateway IP address on the network clients.
- C. Configure DHCP relay and allow clients to receive a new IP setting.
- D. Configure a shared VIP and deploy VRRP on the routers.

Answer: D

Explanation:

The open standard protocol Virtual Router Redundancy Protocol (VRRP) is similar to HSRP, the differences mainly being in terminology and packet formats. In VRRP, the active router is known as the master, and all other routers in the group are known as backup routers. There is no specific standby router; instead, all backup routers monitor the status of the master, and in the event of a failure, a new master router is selected from the available backup routers based on priority.

NEW QUESTION 295

- (Exam Topic 3)

SIMULATION

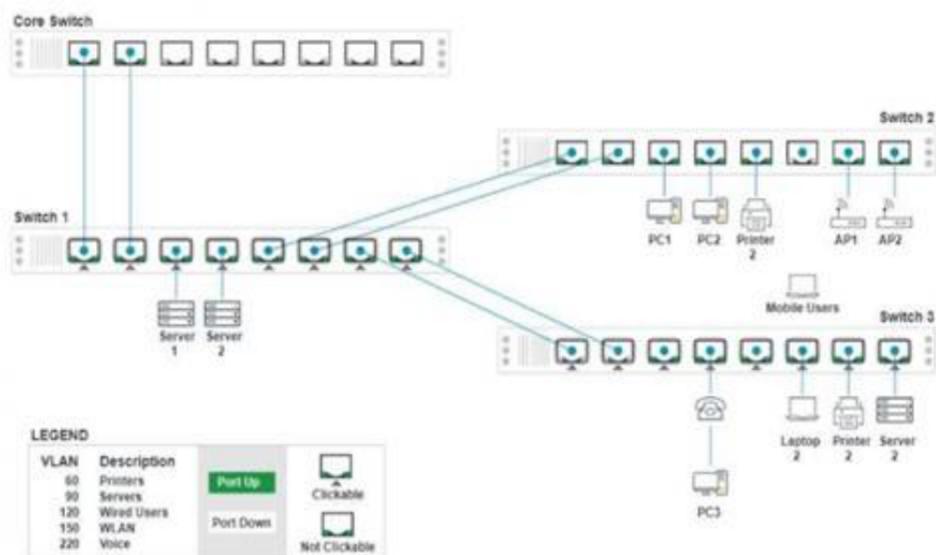
A network technician replaced a switch and needs to reconfigure it to allow the connected devices to connect to the correct networks.

INSTRUCTIONS

Click on the appropriate port(s) on Switch 1 and Switch 3 to verify or reconfigure the correct settings:

- Ensure each device accesses only its correctly associated network
- Disable all unused switch ports
- Require fault-tolerant connections between the switches
- Only make necessary changes to complete the above requirements

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



Switch 3 - Port 8 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration

+ Add VLAN

VLAN1
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 3 - Port 7 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration

+ Add VLAN

VLAN1
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 3 - Port 6 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration

+ Add VLAN

VLAN150
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 3 - Port 4 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
+ Add VLAN

VLAN1
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 3 - Port 1 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
+ Add VLAN

VLAN1
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 1 - Port 7 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

| | | |
|-----------------------------------|-----------------------------------|-----------------------------------|
| VLAN60 Port Tagging Tagged | VLAN90 Port Tagging Tagged | VLAN120 Port Tagging Tagged |
| VLAN150 Port Tagging Tagged | VLAN220 Port Tagging Tagged | |

Reset to Default Save Close

Switch 1 - Port 8 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

| | | |
|-----------------------------------|-----------------------------------|-----------------------------------|
| VLAN60 Port Tagging Tagged | VLAN90 Port Tagging Tagged | VLAN120 Port Tagging Tagged |
| VLAN150 Port Tagging Tagged | VLAN220 Port Tagging Tagged | |

Reset to Default Save Close

Switch 1 - Port 6 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

| | | |
|----------------------------------|-----------------------------------|-----------------------------------|
| VLAN60 Port Tagging Tagged | VLAN120 Port Tagging Tagged | VLAN150 Port Tagging Tagged |
|----------------------------------|-----------------------------------|-----------------------------------|

Reset to Default Save Close

Switch 1 - Port 2 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

| | | |
|-----------------------------------|-----------------------------------|-----------------------------------|
| VLAN60 Port Tagging Tagged | VLAN90 Port Tagging Tagged | VLAN120 Port Tagging Tagged |
| VLAN150 Port Tagging Tagged | VLAN220 Port Tagging Tagged | |

Reset to Default Save Close

Switch 1 - Port 1 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

| | | |
|-----------------------------------|-----------------------------------|-----------------------------------|
| VLAN60 Port Tagging Tagged | VLAN90 Port Tagging Tagged | VLAN120 Port Tagging Tagged |
| VLAN150 Port Tagging Tagged | VLAN220 Port Tagging Tagged | |

Reset to Default Save Close

Switch 1 - Port 5 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

| | | |
|----------------------------------|-----------------------------------|-----------------------------------|
| VLAN60 Port Tagging Tagged | VLAN120 Port Tagging Tagged | VLAN150 Port Tagging Tagged |
|----------------------------------|-----------------------------------|-----------------------------------|

Reset to Default Save Close

Switch 1 - Port 4 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN90
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 1 - Port 3 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN90
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 3 - Port 2 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN90
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Switch 1 and Switch 2 is the only two switches that can be configured. Only switches linked together with their switch ports need to be "tagged" and "LACP" needs to be enabled. The other ports must be untagged with no LACP enabled. You only need to assign the correct vlan via each port. 'Speed and Duplex' needs to be Speed=1000 and Duplex=Full, which is by default.

<https://resources.infosecinstitute.com/topic/what-are-tagged-and-untagged-ports/>

NEW QUESTION 297

- (Exam 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 300

- (Exam Topic 3)

A network administrator installed an additional IDF during a building expansion project. Which of the following documents need to be updated to reflect the change? (Select TWO).

- A. Data loss prevention policy
- B. BYOD policy
- C. Acceptable use policy
- D. Non-disclosure agreement
- E. Disaster recovery plan
- F. Physical network diagram

Answer: BF

NEW QUESTION 304

- (Exam Topic 3)

A network administrator would like to purchase a device that provides access ports to endpoints and has the ability to route between networks. Which of the following would be BEST for the administrator to purchase?

- A. An IPS
- B. A Layer 3 switch
- C. A router
- D. A wireless LAN controller

Answer: B

NEW QUESTION 309

- (Exam Topic 3)

An administrator would like to create a fault-tolerant ring between three switches within a Layer 2 network. Which of the following Ethernet features should the administrator employ?

- A. Spanning Tree Protocol
- B. Open Shortest Path First
- C. Port mirroring
- D. An interior gateway protocol

Answer: A

Explanation:

Spanning Tree Protocol (STP) is a network protocol that ensures a loop-free topology in Ethernet networks by actively blocking certain links and enabling others. STP prevents loops by putting some of the links in a blocking state, effectively creating a loop-free topology. This ensures that there is only one active path between two devices, which helps prevent network loops and the associated problems (such as broadcast storms) that can result from them. STP is used to create a fault-tolerant ring between three switches within a Layer 2 network.

NEW QUESTION 311

- (Exam Topic 3)

A network technician is implementing a solution that will allow end users to gain access to multiple applications after logging on. Which of the following authentication methods would allow this type of access?

- A. SSO

- B. LDAP
- C. EAP
- D. TACACS+

Answer: A

NEW QUESTION 312

- (Exam 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 317

- (Exam Topic 3)

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

Switch 1:

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

Switch 2:

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

Switch 3:

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

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

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

Answer: AE

NEW QUESTION 322

- (Exam Topic 3)

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

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

Answer: B

Explanation:

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

NEW QUESTION 327

- (Exam Topic 3)

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

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

Answer: B

NEW QUESTION 331

- (Exam Topic 3)

On a network with redundant switches, a network administrator replaced one of the switches but was unable to get a connection with another switch. Which of the following should the administrator check after successfully testing the cable that was wired for TIA/EIA-568A on both ends?

- A. If MDIX is enabled on the new switch
- B. If PoE is enabled
- C. If a plenum cable is being used
- D. If STP is disabled on the switches

Answer: A

Explanation:

Auto-MDIX (or medium dependent interface crossover) is a feature that automatically detects the type of cable connection and configures the interface accordingly (i.e. straight-through or crossover). This ensures that the connection between the two switches is successful. This is referenced in the CompTIA Network+ Study Manual, page 519.

NEW QUESTION 335

- (Exam Topic 3)

Users within a corporate network need to connect to the Internet, but corporate network policy does not allow direct connections. Which of the following is MOST likely to be used?

- A. Proxy server
- B. VPN client
- C. Bridge
- D. VLAN

Answer: A

NEW QUESTION 339

- (Exam 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 340

- (Exam Topic 3)

Which of the following protocols can be routed?

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

Answer: C

Explanation:

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

FCoE (Fibre Channel over Ethernet) is a protocol that allows Fibre Channel frames to be encapsulated and transported over Ethernet networks¹. FCoE cannot be routed because it does not contain a network address, only a device address. FCoE operates at the data link layer and requires special switches and adapters to

support it. FCoE can also be used to access block-level storage devices over a network, such as SAN.

Fibre Channel is a protocol that provides high-speed and low-latency communication between servers and storage devices¹. Fibre Channel cannot be routed because it does not use IP networks, but rather its own dedicated network infrastructure. Fibre Channel operates at the physical layer and the data link layer and requires special cables, switches, and adapters to support it. Fibre Channel can also be used to access block-level storage devices over a network, such as SAN. NetBEUI (NetBIOS Extended User Interface) is an old protocol that provides session-level communication between devices on a local network¹. NetBEUI cannot be routed because it does not contain a network address, only a device address. NetBEUI operates at the transport layer and relies on NetBIOS for name resolution. NetBEUI is obsolete and has been replaced by other protocols, such as TCP/IP.

NEW QUESTION 342

- (Exam Topic 3)

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

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

Answer: A

NEW QUESTION 343

- (Exam Topic 3)

A technician discovered that some information on the local database server was changed during a file transfer to a remote server. Which of the following should concern the technician the MOST?

- A. Confidentiality
- B. Integrity
- C. DDoS
- D. On-path attack

Answer: B

Explanation:

The technician should be most concerned about data integrity and security. If information on the local database server was changed during a file transfer to a remote server, it could indicate that unauthorized access or modifications were made to the data. It could also indicate a failure in the file transfer process, which could result in data loss or corruption. The technician should investigate the cause of the changes and take steps to prevent it from happening again in the future. Additionally, they should verify the integrity of the data and restore it from a backup if necessary to ensure that the correct and complete data is available. The technician should also take appropriate actions such as notifying the system administrator and management of the incident, and following the incident management process to minimize the damage caused by the incident.

NEW QUESTION 347

- (Exam Topic 3)

Which of the following is used to provide disaster recovery capabilities to spin up an critical devices using internet resources?

- A. Cloud site
- B. Hot site
- C. Cold site
- D. Warm site

Answer: A

NEW QUESTION 348

- (Exam Topic 3)

A new company recently moved into an empty office space Within days, users in the next office began noticing increased latency and packet drops with their Wi-Fi-connected devices. Which of the following is the MOST likely reason for this issue?

- A. Channel overlap
- B. Distance from the AP
- C. Bandwidth latency
- D. RF attenuation
- E. Network congestion

Answer: A

NEW QUESTION 350

- (Exam Topic 3)

A network administrator is configuring logging on an edge switch. The requirements are to log each time a switch port goes up or down. Which of the following logging levels will provide this information?

- A. Warnings
- B. Notifications
- C. Alert
- D. Errors

Answer: B

Explanation:

Notifications are the lowest logging level and will provide the desired information regarding switch port up/down activity. According to the CompTIA Network+ Study Manual, notifications "are used for logging normal activities, such as port up/down events, link changes, and link flaps."

NEW QUESTION 353

- (Exam Topic 3)

A network engineer is investigating reports of poor performance on a videoconferencing application. Upon reviewing the report, the engineer finds that available bandwidth at the WAN connection is low.

Which Of the following is the MOST appropriate mechanism to handle this issue?

- A. Traffic shaping
- B. Flow control
- C. NetFlow
- D. Link aggregation

Answer: A

Explanation:

Traffic shaping is a congestion management method that regulates network data transfer by delaying the flow of less important or less desired packets¹. Traffic shaping can help to improve the performance of a videoconferencing application by prioritizing its packets over other types of traffic and smoothing out traffic bursts. Traffic shaping can also help to avoid packet loss and ensure fair allocation of bandwidth among different applications or users.

Flow control is a mechanism that prevents a sender from overwhelming a receiver with more data than it can handle. Flow control can help to avoid buffer overflow and data loss, but it does not prioritize different types of traffic or smooth out traffic bursts. Flow control operates at the data link layer or the transport layer, while traffic shaping operates at the network layer or above.

NetFlow is a protocol that collects and analyzes network traffic data for monitoring and troubleshooting purposes². NetFlow can help to identify the sources, destinations, volumes, and types of traffic on a network, but it does not regulate or shape the traffic flow. NetFlow operates at the network layer or above.

Link aggregation is a technique that combines multiple physical links into one logical link for increased bandwidth, redundancy, and load balancing. Link aggregation can help to improve the performance of a videoconferencing application by providing more available bandwidth at the WAN connection, but it does not prioritize different types of traffic or smooth out traffic bursts. Link aggregation operates at the data link layer.

NEW QUESTION 355

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