

CompTIA

Exam Questions N10-008

CompTIA Network+Exam



NEW QUESTION 1

- (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 2

- (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 3

- (Topic 1)

Which of the following would need to be configured to ensure a device with a specific MAC address is always assigned the same IP address from DHCP?

- A. Scope options
- B. Reservation
- C. Dynamic assignment
- D. Exclusion
- E. Static assignment

Answer: B

Explanation:

A reservation should be configured to ensure a device with a specific MAC address is always assigned the same IP address from DHCP. A reservation is a feature of DHCP that allows an administrator to assign a fixed 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, even if it is powered off or disconnected from the network for a long time. References: <https://docs.microsoft.com/en-us/windows-server/troubleshoot/configure-dhcp-reservations>

NEW QUESTION 4

- (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 5

- (Topic 1)

A store owner would like to have secure wireless access available for both business equipment and patron use. Which of the following features should be configured to allow different wireless access through the same equipment?

- A. MIMO
- B. TKIP
- C. LTE
- D. SSID

Answer: D

Explanation:

SSID (Service Set Identifier) is a feature that should be configured to allow different wireless access through the same equipment. SSID is the name of a wireless network that identifies it from other networks in the same area. A wireless access point (AP) can support multiple SSIDs with different security settings and network policies. For example, a store owner can create one SSID for business equipment and another SSID for patron use, and assign different passwords, VLANs, and QoS levels for each SSID. References: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/70931-multiple-ssid.html>

NEW QUESTION 6

- (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 7

- (Topic 1)

A network engineer is investigating reports of poor network performance. Upon reviewing a device configuration, the engineer finds that duplex settings are mismatched on both ends. Which of the following would be the MOST likely result of this finding?

- A. Increased CRC errors
- B. Increased giants and runts
- C. Increased switching loops
- D. Increased device temperature

Answer: A

Explanation:

Mismatched duplex settings can cause an increase in CRC errors, which are errors in data transmission that can result in corrupted data. References: CompTIA Network+ Certification Study Guide, Chapter 4: Infrastructure.

NEW QUESTION 8

- (Topic 1)

The following configuration is applied to a DHCP server connected to a VPN concentrator:

```
IP address:      10.0.0.1
Subnet mask:     255.255.255.0
Gateway:        10.0.0.254
```

There are 300 non-concurrent sales representatives who log in for one hour a day to upload reports, and 252 of these representatives are able to connect to the VPN without any issues. The remaining sales representatives cannot connect to the VPN over the course of the day. Which of the following can be done to resolve the issue without utilizing additional resources?

- A. Decrease the lease duration
- B. Reboot the DHCP server
- C. Install a new VPN concentrator
- D. Configure a new router

Answer: A

Explanation:

Decreasing the lease duration on the DHCP server will cause clients to renew their IP address leases more frequently, freeing up IP addresses for other clients to use. References: CompTIA Network+ Certification Study Guide, Chapter 3: IP Addressing.

NEW QUESTION 9

- (Topic 1)

Which of the following transceiver types can support up to 40Gbps?

- A. SFP+
- B. QSFP+
- C. QSFP
- D. SFP

Answer: B

Explanation:

QSFP+ is a transceiver type that can support up to 40Gbps. It stands for Quad Small Form-factor Pluggable Plus and uses four lanes of data to achieve high-speed transmission. It is commonly used for data center and high-performance computing applications. References:

https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/transceiver-modules/data_sheet_c78-660083.html

NEW QUESTION 10

- (Topic 1)

A systems administrator needs to improve WiFi performance in a densely populated office tower and use the latest standard. There is a mix of devices that use 2.4 GHz and 5 GHz. Which of the following should the systems administrator select to meet this requirement?

- A. 802.11ac
- B. 802.11ax
- C. 802.11g
- D. 802.11n

Answer: B

Explanation:

802.11ax is the latest WiFi standard that improves WiFi performance in densely populated environments and supports both 2.4 GHz and 5 GHz bands. 802.11ac is the previous standard that only supports 5 GHz band. 802.11g and 802.11n are older standards that support 2.4 GHz band only or both bands respectively.

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.techtarget.com/searchnetworking/tip/Whats-the-difference-between-80211ax-vs-80211ac>

NEW QUESTION 10

- (Topic 1)

A network technician is manually configuring the network settings for a new device and is told the network block is 192.168.0.0/20. Which of the following subnets should the technician use?

- A. 255.255.128.0
- B. 255.255.192.0
- C. 255.255.240.0
- D. 255.255.248.0

Answer: C

Explanation:

A subnet mask is a binary number that indicates which bits of an IP address belong to the network portion and which bits belong to the host portion. A slash notation (/n) indicates how many bits are used for the network portion. A /20 notation means that 20 bits are used for the network portion and 12 bits are used for the host portion. To convert /20 to a dotted decimal notation, we need to write 20 ones followed by 12 zeros in binary and then divide them into four octets separated by dots. This gives us 11111111.11111111.11110000.00000000 or 255.255.240.0 in decimal. 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/950/subnet-mask>

NEW QUESTION 11

- (Topic 1)

Which of the following types of devices can provide content filtering and threat protection, and manage multiple IPSec site-to-site connections?

- A. Layer 3 switch
- B. VPN headend
- C. Next-generation firewall
- D. Proxy server
- E. Intrusion prevention

Answer: C

Explanation:

Next-generation firewalls can provide content filtering and threat protection, and can manage multiple IPSec site-to-site connections. References: CompTIA Network+ Certification Study Guide, Chapter 5: Network Security.

NEW QUESTION 12

- (Topic 1)

A client recently added 100 users who are using VMs. All users have since reported slow or unresponsive desktops. Reports show minimal network congestion, zero packet loss, and acceptable packet delay. Which of the following metrics will MOST accurately show the underlying performance issues? (Choose two.)

- A. CPU usage
- B. Memory
- C. Temperature
- D. Bandwidth
- E. Latency
- F. Jitter

Answer: AB

NEW QUESTION 16

- (Topic 1)

A workstation is configured with the following network details:

IP address	Subnet mask	Default gateway
10.1.2.23	10.1.2.0/27	10.1.2.1

Software on the workstation needs to send a query to the local subnet broadcast address. To which of the following addresses should the software be configured to send the query?

- A. 10.1.2.0
- B. 10.1.2.1
- C. 10.1.2.23
- D. 10.1.2.255
- E. 10.1.2.31

Answer: D

Explanation:

The software on the workstation should be configured to send the query to 10.1.2.255, which is the local subnet broadcast address. A broadcast address is a special address that allows a device to send a message to all devices on the same subnet. It is usually derived by setting all the host bits to 1 in the network address. In this case, the network address is 10.1.2.0/27, which has 27 network bits and 5 host bits. By setting all the host bits to 1, we get 10.1.2.31 as the broadcast address in decimal notation, or 10.1.2.255 in dotted decimal notation. References: <https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html>

NEW QUESTION 17

- (Topic 1)

An IT organization needs to optimize speeds for global content distribution and wants to reduce latency in high-density user locations. Which of the following technologies BEST meets the organization's requirements?

- A. Load balancing
- B. Geofencing
- C. Public cloud
- D. Content delivery network
- E. Infrastructure as a service

Answer: D

Explanation:

A content delivery network (CDN) is a distributed network of servers that delivers web content to users based on their geographic location. By replicating content across multiple servers in various locations, a CDN can optimize speed and reduce latency in high-density user locations.

NEW QUESTION 18

- (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 20

- (Topic 1)

Which of the following TCP ports is used by the Windows OS for file sharing?

- A. 53
- B. 389
- C. 445
- D. 1433

Answer: C

Explanation:

TCP port 445 is used by the Windows OS for file sharing. It is also known as SMB (Server Message Block) or CIFS (Common Internet File System) and allows users to access files, printers, and other shared resources on a network. References: <https://docs.microsoft.com/en-us/windows-server/storage/file-server/troubleshoot/detect-enable-and-disable-smbv1-v2-v3>

NEW QUESTION 25

- (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 29

- (Topic 1)

A network engineer performs the following tasks to increase server bandwidth: Connects two network cables from the server to a switch stack
Configure LACP on the switchports

Verifies the correct configurations on the switch interfaces Which of the following needs to be configured on the server?

- A. Load balancing
- B. Multipathing
- C. NIC teaming
- D. Clustering

Answer: C

Explanation:

NIC teaming is a technique that combines two or more network interface cards (NICs) on a server into a single logical interface that can increase bandwidth, provide redundancy, and balance traffic. NIC teaming can be configured with different modes and algorithms depending on the desired outcome. Link Aggregation Control Protocol (LACP) is a protocol that enables NIC teaming by dynamically bundling multiple links between two devices into one logical link. 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://docs.microsoft.com/en-us/windows-server/networking/technologies/nic-teaming/nic-teaming>

NEW QUESTION 32

- (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 37

- (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 40

- (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 45

- (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 50

- (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: B

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 53

- (Topic 1)

Which of the following is used to prioritize Internet usage per application and per user on the network?

- A. Bandwidth management
- B. Load balance routing
- C. Border Gateway Protocol
- D. Administrative distance

Answer: A

Explanation:

Bandwidth management is used to prioritize Internet usage per application and per user on the network. This allows an organization to allocate network resources to mission-critical applications and users, while limiting the bandwidth available to non- business-critical applications. References: Network+ Certification Study Guide, Chapter 2: Network Operations

NEW QUESTION 56

- (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 57

- (Topic 1)

Access to a datacenter should be individually recorded by a card reader even when multiple employees enter the facility at the same time. Which of the following allows the enforcement of this policy?

- A. Motion detection
- B. Access control vestibules
- C. Smart lockers
- D. Cameras

Answer: B

Explanation:

The most effective security mechanism against physical intrusions due to stolen credentials would likely be a combination of several of these options. However, of the options provided, the most effective security mechanism would probably be an access control vestibule. An access control vestibule is a secure area that is located between the outer perimeter of a facility and the inner secure area. It is designed to provide an additional layer of security by requiring that individuals pass through a series of security checks before being allowed access to the secure area. This could include biometric authentication, access card readers, and motion detection cameras.

Access control vestibules allow the enforcement of the policy that access to a datacenter should be individually recorded by a card reader even when multiple employees enter the facility at the same time. An access control vestibule is a physical security device that consists of two doors with an interlocking mechanism. Only one door can be opened at a time, and only one person can pass through each door. This prevents tailgating or piggybacking, where unauthorized persons follow authorized persons into a secure area. An access control vestibule can also be integrated with a card reader or other authentication system to record each individual's access. References: <https://www.boonedam.us/blog/what-are-access-control-vestibules>

NEW QUESTION 60

SIMULATION - (Topic 1)

SIMULATION

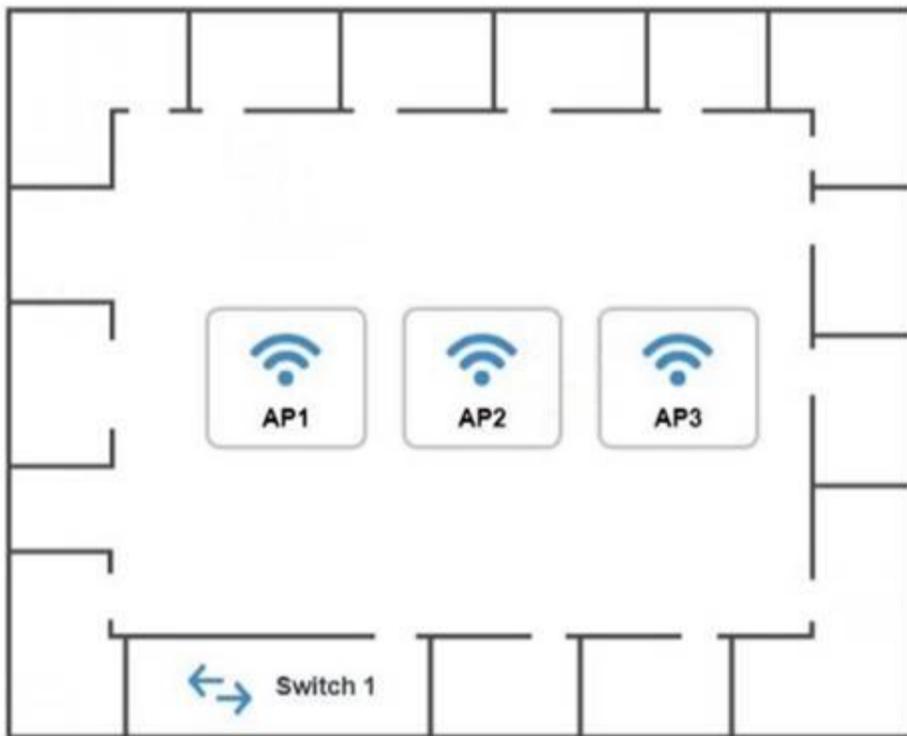
You have been tasked with setting up a wireless network in an office. The network will consist of 3 Access Points and a single switch. The network must meet the following parameters:

The SSIDs need to be configured as CorpNet with a key of S3cr3t! The wireless signals should not interfere with each other

The subnet the Access Points and switch are on should only support 30 devices maximum The Access Points should be configured to only support TKIP clients at a maximum speed INSTRUCTIONS

Click on the wireless devices and review their information and adjust the settings of the access points to meet the given requirements.

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



192.168.1.2
Speed: Auto
Duplex: Auto

AP1 Configuration

https://ap1.setup.do

Basic Configuration

Access Point Name: AP1

IP Address: /

Gateway: 192.168.1.1

SSID:

SSID Broadcast: Yes No

Wireless

Mode:

Channel:

Wired

Speed: Auto 100 1000

Duplex: Auto Half Full

Security Configuration

Security Settings: None WEP WPA WPA2 WPA2 - Enterprise

Key or Passphrase:

AP2 Configuration

https://ap2.setup.do

Basic Configuration

Access Point Name: AP2

IP Address: /

Gateway: 192.168.1.1

SSID:

SSID Broadcast: Yes No

Wireless

Mode:
 B
 G

Channel:
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11

Wired

Speed: Auto 100 1000

Duplex: Auto Half Full

Security Configuration

Security Settings: None WEP WPA WPA2 WPA2 - Enterprise

Key or Passphrase:

AP3 Configuration

https://ap3.setup.do

Basic Configuration

Access Point Name: AP3

IP Address: /

Gateway: 192.168.1.1

SSID:

SSID Broadcast: Yes No

Wireless

Mode:
 B
 G

Channel:
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11

Wired

Speed: Auto 100 1000

Duplex: Auto Half Full

Security Configuration

Security Settings: None WEP WPA WPA2 WPA2 - Enterprise

Key or Passphrase:

Reset to Default Save Close

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

On the first exhibit, the layout should be as follows

The screenshot shows the 'AP1 Configuration' web interface. At the top, there is a blue header with the title 'AP1 Configuration' and a close button. Below the header is a navigation bar with back, forward, and refresh icons, and a URL field containing 'https://ap1.setup.do'. The main content area is divided into three sections: 'Basic Configuration', 'Wireless', and 'Security Configuration'. In the 'Basic Configuration' section, the 'Access Point Name' is 'AP1', 'IP Address' is '192.168.1.32', 'Gateway' is '192.168.1.1', 'SSID' is 'CorpNet', and 'SSID Broadcast' is set to 'Yes'. The 'Wireless' section shows 'Mode' as 'B' and 'Channel' as '3'. The 'Wired' section shows 'Speed' as '100' and 'Duplex' as 'Full'. The 'Security Configuration' section shows 'Security Settings' as 'WPA2 - Enterprise' and 'Key or Passphrase' as 'S3cr3t!'. The interface uses a clean, modern design with a blue and white color scheme and yellow highlights for selected or active elements.

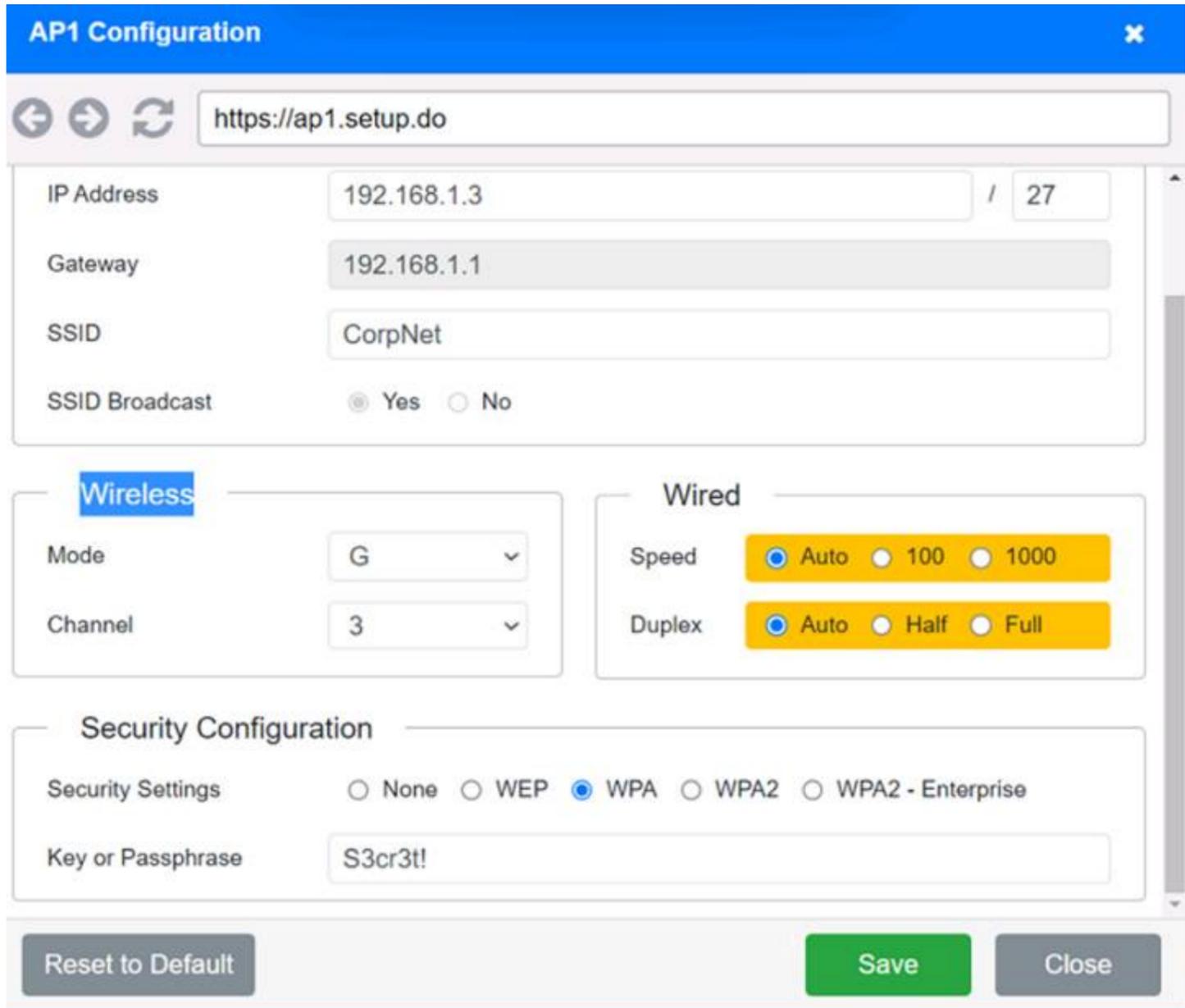
Graphical user interface, text, application, chat or text message Description automatically generated

This screenshot is similar to the first one, but it highlights the 'IP Address' field. The IP address '192.168.1.32' is displayed, and a dropdown menu is open next to it, showing the number '27'. The rest of the configuration is identical to the first screenshot.

Graphical user interface Description automatically generated

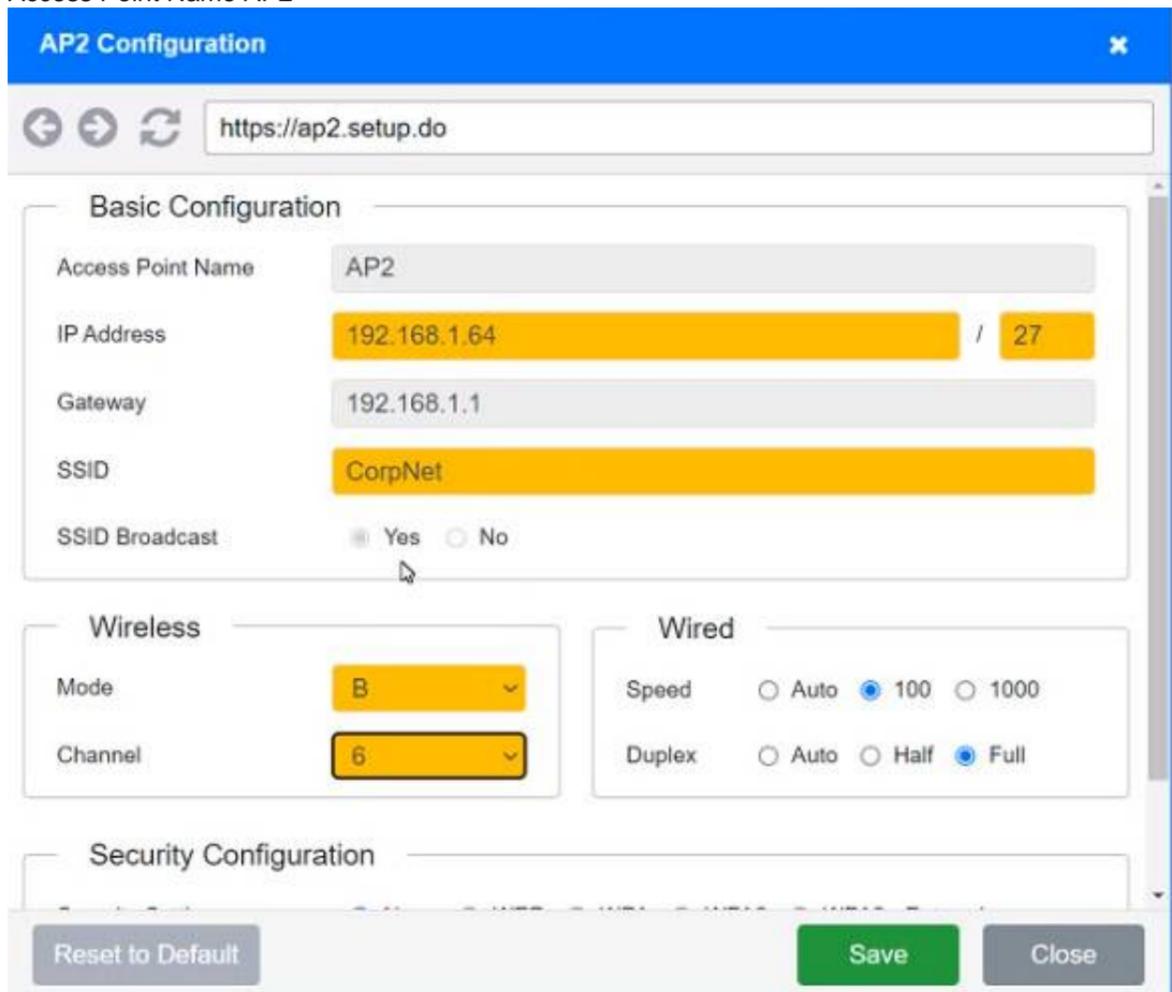
This is a close-up view of the 'Security Configuration' section. It shows the 'Security Settings' with radio buttons for 'None', 'WEP', 'WPA', 'WPA2', and 'WPA2 - Enterprise'. The 'WPA2 - Enterprise' option is selected. Below it is a text input field for the 'Key or Passphrase' containing the text 'S3cr3t!'.

Graphical user interface, text, application, chat or text message Description automatically generated



The screenshot shows the 'AP1 Configuration' web interface. At the top, there is a blue header with the title and a close button. Below the header is a navigation bar with back, forward, and refresh icons, and a URL field containing 'https://ap1.setup.do'. The main configuration area is divided into several sections: 'Basic Configuration' with fields for IP Address (192.168.1.3), Gateway (192.168.1.1), SSID (CorpNet), and SSID Broadcast (Yes selected); 'Wireless' section with Mode (G) and Channel (3); 'Wired' section with Speed (Auto selected) and Duplex (Auto selected); and 'Security Configuration' with Security Settings (WPA selected) and Key or Passphrase (S3cr3t!). At the bottom, there are three buttons: 'Reset to Default', 'Save', and 'Close'.

Graphical user interface
Description automatically generated
Exhibit 2 as follows
Access Point Name AP2



The screenshot shows the 'AP2 Configuration' web interface. It has a similar layout to AP1. The 'Basic Configuration' section shows Access Point Name (AP2), IP Address (192.168.1.64), Gateway (192.168.1.1), and SSID (CorpNet). The 'Wireless' section shows Mode (B) and Channel (6). The 'Wired' section shows Speed (100 selected) and Duplex (Full selected). The 'Security Configuration' section is partially visible. At the bottom, there are three buttons: 'Reset to Default', 'Save', and 'Close'.

Graphical user interface
Description automatically generated

Security Configuration

Security Settings None WEP WPA WPA2 WPA2 - Enterprise

Key or Passphrase

Graphical user interface, text, application, chat or text message
Description automatically generated

AP2 Configuration ✕

← → ↻

IP Address /

Gateway

SSID

SSID Broadcast Yes No

Wireless

Mode

Channel

Wired

Speed Auto 100 1000

Duplex Auto Half Full

Security Configuration

Security Settings None WEP WPA WPA2 WPA2 - Enterprise

Key or Passphrase

Graphical user interface
Description automatically generated
Exhibit 3 as follows
Access Point Name AP3

The screenshot shows the 'AP3 Configuration' window with a blue header and a close button. Below the header is a browser address bar with 'https://ap3.setup.do'. The main content is divided into three sections: 'Basic Configuration', 'Wireless', and 'Wired'. 'Basic Configuration' includes fields for 'Access Point Name' (AP3), 'IP Address' (192.168.1.96), 'Gateway' (192.168.1.1), 'SSID' (CorpNet), and 'SSID Broadcast' (Yes/No). 'Wireless' has 'Mode' (B) and 'Channel' (9) dropdowns. 'Wired' has 'Speed' (Auto, 100, 1000) and 'Duplex' (Auto, Half, Full) radio buttons. At the bottom are 'Reset to Default', 'Save', and 'Close' buttons.

Graphical user interface
Description automatically generated

The screenshot shows the 'Security Configuration' window. It features a 'Security Settings' section with radio buttons for 'None', 'WEP', 'WPA', 'WPA2', and 'WPA2 - Enterprise' (which is selected). Below this is a 'Key or Passphrase' text field containing 'S3cr3t!'. The window has a light gray border and a close button in the top right corner.

Graphical user interface, text, application, chat or text message
Description automatically generated

The screenshot shows the 'AP3 Configuration' window with a blue header and a close button. Below the header is a browser address bar with 'https://ap3.setup.do'. The main content is divided into six sections: 'IP Address' (192.168.1.5), 'Gateway' (192.168.1.1), 'SSID' (CorpNet), 'SSID Broadcast' (Yes/No), 'Wireless' (Mode: G, Channel: 9), and 'Wired' (Speed: Auto, Duplex: Auto). The 'Security Configuration' section at the bottom has 'Security Settings' (WPA selected) and 'Key or Passphrase' (S3cr3t!). At the bottom are 'Reset to Default', 'Save', and 'Close' buttons.

Graphical user interface
Description automatically generated

NEW QUESTION 64

- (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 69

- (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 73

- (Topic 1)

Client devices cannot enter a network, and the network administrator determines the DHCP scope is exhausted. The administrator wants to avoid creating a new DHCP pool. Which of the following can the administrator perform to resolve the issue?

- A. Install load balancers
- B. Install more switches
- C. Decrease the number of VLANs
- D. Reduce the lease time

Answer: D

Explanation:

To resolve the issue of DHCP scope exhaustion without creating a new DHCP pool, the administrator can reduce the lease time. By decreasing the lease time, the IP addresses assigned by DHCP will be released back to the DHCP scope more quickly, allowing them to be assigned to new devices.

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.
- ? <https://www.networkcomputing.com/data-centers/10-tips-optimizing-dhcp-performance>

NEW QUESTION 74

- (Topic 1)

Which of the following devices would be used to manage a corporate WLAN?

- A. A wireless NAS
- B. A wireless bridge
- C. A wireless router
- D. A wireless controller

Answer: D

Explanation:

A wireless controller is used to manage a corporate WLAN, providing centralized management and configuration of access points. References: CompTIA Network+ Certification Study Guide, Chapter 8: Wireless Networks.

NEW QUESTION 76

- (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 79

- (Topic 2)

A network administrator is required to ensure that auditors have read-only access to the system logs, while systems administrators have read and write access to the system logs, and operators have no access to the system logs. The network administrator has configured security groups for each of these functional categories. Which of the following security capabilities will allow the network administrator to maintain these permissions with the LEAST administrative effort?

- A. Mandatory access control
- B. User-based permissions
- C. Role-based access
- D. Least privilege

Answer: C

Explanation:

Role-based access is a security capability that assigns permissions to users based on their roles or functions within an organization. It allows the network administrator to maintain these permissions with the least administrative effort, as they only need to configure the security groups for each role once and then assign users to those groups. Mandatory access control is a security capability that assigns permissions based on security labels or classifications, which requires more administrative effort to maintain. User-based permissions are a security capability that assigns permissions to individual users, which is not scalable or efficient for large organizations. Least privilege is a security principle that states that users should only have the minimum level of access required to perform their tasks, which is not a security capability by itself.

NEW QUESTION 82

- (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 85

- (Topic 2)

Given the following output:

```
192.168.22.1      00-13-5d-00-c6-23
192.168.22.15    00-15-88-00-58-00
192.168.22.10    00-13-5d-00-c6-23
192.168.22.100   00-13-5d-00-c6-23
```

Which of the following attacks is this MOST likely an example of?

- A. ARP poisoning
- B. VLAN hopping
- C. Rogue access point
- D. Amplified DoS

Answer: A

Explanation:

The output is most likely an example of an ARP poisoning attack. ARP poisoning, also known as ARP spoofing, is a type of attack that exploits the ARP protocol to associate a malicious device's MAC address with a legitimate IP address on a local area network. This allows the attacker to intercept, modify, or redirect network traffic between two devices without their knowledge. The output shows that there are multiple entries for the same IP address (192.168.1.1) with different MAC addresses in the ARP cache of the device. This indicates that an attacker has sent fake ARP replies to trick the device into believing that its MAC address is associated with the IP address of another device (such as the default gateway). References: <https://www.cisco.com/c/en/us/about/security-center/arp-spoofing.html>

NEW QUESTION 87

- (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 89

- (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 92

- (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 97

- (Topic 2)

A user reports a weak signal when walking 20ft (6.1 m) away from the WAP in one direction, but a strong signal when walking 20ft in the opposite direction. The technician has reviewed the configuration and confirmed the channel type is correct. There is no jitter or latency on the connection. Which of the following would be the MOST likely cause of the issue?

- A. Antenna type
- B. Power levels
- C. Frequency
- D. Encryption type

Answer: A

Explanation:

The antenna type affects the signal strength and coverage of a WAP. Different types of antennas have different radiation patterns and gain, which determine how far and wide the signal can reach. If the user experiences a weak signal in one direction but a strong signal in the opposite direction, it could mean that the antenna type is not suitable for the desired coverage area. The technician should consider changing the antenna type to one that has a more balanced or directional radiation pattern. References: <https://community.cisco.com/t5/wireless-small-business/wap200-poor-signal-strength/td-p/1565796>

NEW QUESTION 101

- (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 105

- (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 108

- (Topic 2)

A user is having difficulty with video conferencing and is looking for assistance. Which of the following would BEST improve performance?

- A. Packet shaping
- B. Quality of service
- C. Port mirroring
- D. Load balancing

Answer: B

Explanation:

Quality of service (QoS) is a mechanism that prioritizes network traffic based on different criteria, such as application type, source and destination address, port number, etc., and allocates bandwidth and resources accordingly. QoS would best improve performance for video conferencing, as it would ensure that video traffic gets higher priority and lower latency than other types of traffic on the network. Packet shaping is a technique that controls the rate or volume of network traffic by delaying or dropping packets that exceed certain thresholds or violate certain policies, which may not improve performance for video conferencing if it causes packet loss or jitter. Port mirroring is a technique that copies traffic from one port to another port on a switch for monitoring or analysis purposes, which does not improve performance for video conferencing at all. Load balancing is a technique that distributes network traffic across multiple servers or devices for improved availability and scalability, which does not

NEW QUESTION 109

- (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 110

- (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-works.html>

NEW QUESTION 111

- (Topic 2)

An IDS was installed behind the edge firewall after a network was breached. The network was then breached again even though the IDS logged the attack. Which of the following should be used in place of these devices to prevent future attacks?

- A. A network tap
- B. A proxy server
- C. A UTM appliance
- D. A content filter

Answer: C

Explanation:

A UTM appliance stands for Unified Threat Management appliance, which is a device that combines multiple security functions into one solution. A UTM appliance can provide firewall, IDS/IPS, antivirus, VPN, web filtering, and other security features. A network technician can use a UTM appliance in place of an edge firewall and an IDS to prevent future attacks, as a UTM appliance can block malicious traffic and detect and respond to intrusions more effectively. References: <https://www.comptia.org/blog/what-is-utm>

NEW QUESTION 112

- (Topic 2)

A systems administrator is running a VoIP network and is experiencing jitter and high latency. Which of the following would BEST help the administrator determine the cause of these issues?

- A. Enabling RADIUS on the network
- B. Configuring SNMP traps on the network
- C. Implementing LDAP on the network
- D. Establishing NTP on the network

Answer: B

Explanation:

SNMP (Simple Network Management Protocol) is a protocol that allows network devices to communicate with a network management system (NMS) for monitoring and configuration purposes. SNMP traps are unsolicited messages sent by network devices to the NMS when certain events or conditions occur, such as errors, failures, or thresholds. Configuring SNMP traps on the network would best help the administrator determine the cause of jitter and high latency on a VoIP network, as they would provide real-time alerts and information about the network performance and status. Enabling RADIUS on the network is not relevant to troubleshooting VoIP issues, as RADIUS is a protocol that provides authentication, authorization, and accounting services for network access. Implementing LDAP on the network is also not relevant to troubleshooting VoIP issues, as LDAP is a protocol that provides directory services for storing and querying information about users, groups, devices, etc. Establishing NTP on the network is not directly related to troubleshooting VoIP issues, as NTP is a protocol that synchronizes the clocks of network devices.

NEW QUESTION 115

- (Topic 2)

Which of the following policies is MOST commonly used for guest captive portals?

- A. AUP
- B. DLP
- C. BYOD
- D. NDA

Answer: A

Explanation:

AUP stands for Acceptable Use Policy, which is a policy that defines the rules and guidelines for using a network or service. A guest captive portal is a web page that requires users to agree to the AUP before accessing the Internet or other network resources. This is a common way to enforce security and legal compliance for guest users. References: https://www.arubanetworks.com/techdocs/Instant_87_WebHelp/Content/instant-ug/captive-portal/captive-portal.htm

NEW QUESTION 120

- (Topic 2)

A user recently made changes to a PC that caused it to be unable to access websites by both FQDN and IP Local resources, such as the file server remain accessible. Which of the following settings did the user MOST likely misconfigure?

- A. Static IP
- B. Default gateway
- C. DNS entries
- D. Local host file

Answer: B

Explanation:

The default gateway is the setting that the user most likely misconfigured on the PC that caused it to be unable to access websites by both FQDN and IP. The default gateway is a device, usually a router or a firewall, that connects a local network to other networks such as the Internet. It acts as an intermediary between devices on different networks and forwards packets based on their destination IP addresses. If the default gateway is not configured correctly on a PC, it will not be able to communicate with devices outside its local network, such as web servers or DNS servers. References: <https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/16448-default-gateway.html>

NEW QUESTION 122

- (Topic 2)

Two remote offices need to be connected securely over an untrustworthy MAN. Each office needs to access network shares at the other site. Which of the following will BEST provide this functionality?

- A. Client-to-site VPN
- B. Third-party VPN service
- C. Site-to-site VPN
- D. Split-tunnel VPN

Answer: C

Explanation:

A site-to-site VPN is a type of VPN that connects two or more remote offices securely over an untrustworthy network, such as the Internet. A site-to-site VPN allows each office to access network shares and resources at the other site, as if they were on the same local network. A site-to-site VPN encrypts and tunnels the traffic between the offices, ensuring privacy and integrity of the data. References: <https://www.comptia.org/blog/what-is-a-site-to-site-vpn>

NEW QUESTION 127

- (Topic 2)

An ARP request is broadcasted and sends the following request. "Who is 192.168.1.200? Tell 192.168.1.55"

At which of the following layers of the OSI model does this request operate?

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

Answer: B

Explanation:

An ARP request operates at the data link layer of the OSI model. ARP (Address Resolution Protocol) is a protocol that maps IP addresses to MAC addresses on a local area network. It allows devices to communicate with each other without knowing their MAC addresses beforehand. ARP operates at the data link layer (layer 2) of the OSI model, which is responsible for framing and addressing data packets on a physical medium. References: <https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html>

NEW QUESTION 130

- (Topic 2)

A network administrator wants to improve the security of the management console on the company's switches and ensure configuration changes made can be correlated to the administrator who conformed them Which of the following should the network administrator implement?

- A. Port security
- B. Local authentication
- C. TACACS+
- D. Access control list

Answer: C

Explanation:

TACACS+ is a protocol that provides centralized authentication, authorization, and accounting (AAA) for network devices and users. TACACS+ can help improve the security of the management console on the company's switches by verifying the identity and credentials of the administrators, enforcing granular access policies and permissions, and logging the configuration changes made by each administrator. This way, the network administrator can ensure only authorized and authenticated users can access and modify the switch settings, and also track and correlate the changes made by each user. References: <https://www.comptia.org/blog/what-is-tacacs>

NEW QUESTION 134

- (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 ccmp 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 138

- (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_paper0900aecd806c4eeb.html

NEW QUESTION 142

- (Topic 3)

A technician notices that equipment is being moved around and misplaced in the server room, even though the room has locked doors and cabinets. Which of the following would be the BEST solution to identify who is responsible?

- A. Install motion detection
- B. Install cameras.
- C. Install tamper detection.
- D. Hire a security guard.

Answer: B

Explanation:

Installing cameras in the server room is the best solution to identify who is responsible for the equipment being moved and misplaced. Cameras provide a way to monitor the server room in real time and can be used to identify suspicious activity. Additionally, they provide a way to review past activity and allow you to review footage to determine who may be responsible for the misplacement of equipment.

NEW QUESTION 143

- (Topic 3)

A user reports having intermittent connectivity issues to the company network. The network configuration for the user reveals the following:

IP address: 192.168.1.10

Subnet mask: 255.255.255.0

Default gateway: 192.168.1.254

The network switch shows the following ARP table:

MAC address	IP address	Interface	VLAN
0c00.1134.0001	192.168.1.10	eth4	10
0c00.1983.210a	192.168.2.13	eth5	11
0c00.1298.d239	192.168.1.10	eth6	10
0c00.a291.c113	192.168.2.12	eth7	11
0c00.923b.2391	192.168.1.11	eth8	10
feff.2391.1022	192.168.1.254	eth1	10

Which of the following is the most likely cause of the user's connection issues?

- A. A port with incorrect VLAN assigned
- B. A switch with spanning tree conflict
- C. Another PC with manually configured IP
- D. A router with overlapping route tables

Answer: C

Explanation:

This is the most likely cause of the user's connection issues, because the ARP table of the switch shows that there are two devices with the same IP address of 192.168.1.10, but different MAC addresses. This indicates that there is an IP address conflict on the network, where two devices are trying to use the same IP address. This can cause intermittent connectivity issues, as the switch may not be able to forward packets to the correct destination .

NEW QUESTION 148

- (Topic 3)

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

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

Answer: D

Explanation:

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

NEW QUESTION 153

- (Topic 3)

A customer needs to distribute Ethernet to multiple computers in an office. The customer would like to use non-proprietary standards. Which of the following blocks does the technician need to install?

- A. 110
- B. 66
- C. Bix
- D. Krone

Answer: A

Explanation:

A 110 block is a type of punch-down block that is used to distribute Ethernet to multiple computers in an office. A punch-down block is a device that connects one group of wires to another group of wires by using a special tool that pushes the wires into slots on the block. A 110 block is a non-proprietary standard that supports up to Category 6 cabling and can be used for voice or data applications. References: <https://www.comptia.org/training/books/network-n10-008-study-guide> (page 64)

NEW QUESTION 156

- (Topic 3)

A technician is working on a ticket for a user in the human resources department who received a new PC that does not connect to the internet. All users in human resources can access the internet. The technician can ping the PC from the human resources router but not from the IT network. Which of the following is the most likely cause of the issue?

- A. Duplicate IP address
- B. Misconfigured RIP
- C. Improper VLAN assignment
- D. Incorrect default gateway

Answer: D

Explanation:

An incorrect default gateway can cause a PC to not connect to the internet, because the default gateway is the device that routes traffic from the local network to other networks. If the PC has a wrong default gateway configured, it may not be able to reach the internet router or the IT network router. The technician can ping the PC from the human resources router because they are on the same local network, but not from the IT network router because they are on different networks. A duplicate IP address can cause a PC to not communicate with other devices on the same network, because the IP address is the unique identifier of a device on a network. If two devices have the same IP address, they may cause IP conflicts and packet loss. However, a duplicate IP address would not prevent the technician from pinging the PC from the human resources router, because they are on the same network.

A misconfigured RIP can cause a router to not learn or advertise routes to other networks, because RIP is a routing protocol that dynamically exchanges routing information between routers. If a router has a wrong RIP configuration, it may not be able to reach or share routes with other routers. However, a misconfigured RIP would not affect the PC's connectivity to the internet, because the PC does not use RIP.

An improper VLAN assignment can cause a PC to not communicate with other devices on the same or different networks, because a VLAN is a logical segmentation of a network that isolates traffic based on criteria such as function, security, or performance. If a PC is assigned to a wrong VLAN, it may not be able to access the resources or services that it needs. However, an improper VLAN assignment would not prevent the technician from pinging the PC from the human resources router, because they are on the same physical network.

References

What is a Default Gateway?

What's an IP Conflict and How Do You Resolve It? What is RIP (Routing Information Protocol)?

What is a VLAN? How to Set Up a VLAN Network

CompTIA Network+ Certification All-in-One Exam Guide, Eighth Edition (Exam N10-008)

NEW QUESTION 161

- (Topic 3)

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

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

Answer: A

Explanation:

A password policy must be addressed to reduce the likelihood of a rainbow table being effective. A rainbow table is a precomputed table of hashed passwords and their corresponding plaintext values. A rainbow table can be used to crack hashed passwords by performing a reverse lookup of the hash value in the table. A password policy is a set of rules and guidelines that define how passwords should be created, used, and managed in an organization. A password policy can help prevent rainbow table attacks by enforcing strong password requirements, such as length, complexity, expiration, and history. A strong password is one that is

hard to guess or crack by using common methods such as brute force or dictionary attacks. References: [CompTIA Network+ Certification Exam Objectives], What Is Rainbow Table Attack? | Kaspersky, Password Policy Best Practices | Thycotic

NEW QUESTION 163

- (Topic 3)

A malicious user is using special software to perform an on-path attack. Which of the following best practices should be configured to mitigate this threat?

- A. Dynamic ARP inspection
- B. Role-based access
- C. Control plane policing
- D. MAC filtering

Answer: A

NEW QUESTION 168

- (Topic 3)

A network administrator is working to configure a new device to provide Layer 2 connectivity to various endpoints including several WAPs. Which of the following devices will the administrator MOST likely configure?

- A. WLAN controller
- B. Cable modem
- C. Load balancer
- D. Switch
- E. Hub

Answer: D

Explanation:

A switch is a device that provides Layer 2 connectivity to various endpoints by forwarding frames based on MAC addresses. A switch can also connect to several WAPs (wireless access points) to provide wireless connectivity to wireless devices.

NEW QUESTION 173

- (Topic 3)

A technician is investigating why a PC cannot reach a file server with the IP address 192.168.8.129. Given the following TCP/IP network configuration:

Link-local IPv6 address	fe80::28e4:a7cc:a55e:4bea
IPv4 address	192.168.8.105
Subnet mask	255.255.255.128
Default gateway	192.168.8.1

Which of the following configurations on the PC is incorrect?

- A. Subnet mask
- B. IPv4 address
- C. Default gateway
- D. IPv6 address

Answer: C

Explanation:

The default gateway is the IP address of the router that connects the PC to other networks. The default gateway should be on the same subnet as the PC's IPv4 address. However, in this case, the default gateway is 192.168.9.1, which is on a different subnet than the PC's IPv4 address of 192.168.8.105. Therefore, the default gateway configuration on the PC is incorrect and prevents the PC from reaching the file server on another subnet.

NEW QUESTION 174

- (Topic 3)

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

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

Answer: D

Explanation:

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

NEW QUESTION 177

- (Topic 3)

While setting up a new workstation, a technician discovers that the network connection is only 100 full duplex (FD), although it is connected to a gigabit switch. While reviewing the interface information in the switch CLI, the technician notes the port is operating at IOOFD but Shows many RX and TX errors. The technician moves the computer to another switchport and experiences the same issues.

Which of the following is MOST likely the cause of the low data rate and port errors?

- A. Bad switch ports
- B. Duplex issues
- C. Cable length
- D. Incorrect pinout

Answer: B

NEW QUESTION 181

- (Topic 3)

Which of the following devices would be used to extend the range of a wireless network?

- A. A repeater
- B. A media converter
- C. A router
- D. A switch

Answer: A

Explanation:

A repeater is a device used to extend the range of a wireless network by receiving, amplifying, and retransmitting wireless signals. It is typically used to extend the range of a wireless network in a large area, such as an office building or a campus. Repeaters can also be used to connect multiple wireless networks together, allowing users to move seamlessly between networks. As stated in the CompTIA Network+ Study Manual, "a wireless repeater is used to extend the range of a wireless network by repeating the signal from one access point to another."

NEW QUESTION 186

- (Topic 3)

A network administrator is investigating a performance issue on a dual-link connection—VPN and MPLS—to a partner network. The MPLS is the primary path, and the VPN is used as a backup. While communicating, the delay is measured at 18ms, which is higher than the 6ms expected when the MPLS link is operational but lower than the 30ms expected for the VPN connection. Which of the following will MOST likely point to the root cause of the issue?

- A. Checking the routing tables on both sides to ensure there is no asymmetric routing
- B. Checking on the partner network for a missing route pointing to the VPN connection
- C. Running iPerf on both sides to confirm the delay that is measured is accurate
- D. Checking for an incorrect VLAN assignment affecting the MPLS traffic

Answer: A

Explanation:

Asymmetric routing can occur when two routers have different paths for the same two hosts, resulting in increased latency and possible packet loss. According to the CompTIA Network+ Study Manual, "If the path from the source to the destination is not the same in both directions, the packets will take different routes and the latency can increase significantly." To confirm this, the network administrator should check the routing tables on both sides of the connection and ensure that the same path is used in both directions.

NEW QUESTION 187

- (Topic 3)

Which of the following routing technologies is used to prevent network failure at the gateway by protecting data traffic from a failed router?

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

Answer: D

Explanation:

FHRP stands for First Hop Redundancy Protocol, and it is a group of protocols that allow routers to work together to provide backup or failover for the default gateway in a network. FHRP can prevent network failure at the gateway by protecting data traffic from a failed router and ensuring that there is always an active router to forward packets. Some examples of FHRP protocols are HSRP, VRRP, and GLBP.

References: 1: CompTIA Network+ N10-008 Cert Guide - Chapter 13: Routing Protocols 32: First Hop Redundancy Protocols (FHRP) Explained 4

NEW QUESTION 191

- (Topic 3)

The Chief Executive Officer of a company wants to ensure business operations are not disrupted in the event of a disaster. The solution must have fully redundant equipment, real-time synchronization, and zero data loss. Which of the following should be prepared?

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

Answer: C

Explanation:

A hot site is a backup site that is fully equipped and ready to take over the operations of the primary site in the event of a disaster. A hot site has real-time synchronization with the primary site and can provide zero data loss. A hot site is the most expensive and reliable option for disaster recovery.

References: Network+ Study Guide Objective 5.3: Explain common scanning, monitoring and patching processes and summarize their expected outputs.

NEW QUESTION 194

- (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 195

- (Topic 3)

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

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

Answer: D

Explanation:

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

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

NEW QUESTION 198

- (Topic 3)

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

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

Answer: A

NEW QUESTION 202

- (Topic 3)

Which of the following would be used to adjust resources dynamically for a virtual web server under variable loads?

- A. Elastic computing
- B. Scalable networking
- C. Hybrid deployment
- D. Multitenant hosting

Answer: B

Explanation:

A technique used to adjust resources dynamically for a virtual web server under variable loads is called auto-scaling. Auto-scaling automatically increases or decreases the number of instances of a virtual web server in response to changes in demand, ensuring that the right amount of resources are available to handle incoming traffic. This can help to improve the availability and performance of a web application, as well as reduce costs by avoiding the need to provision and maintain excess capacity.

NEW QUESTION 203

- (Topic 3)

A company is considering shifting its business to the cloud. The management team is concerned at the availability of the third-party cloud service. Which of the following should the management team consult to determine the promised availability of the cloud provider?

- A. Memorandum of understanding
- B. Business continuity plan
- C. Disaster recovery plan
- D. Service-level agreement

Answer: D

Explanation:

A Service-level agreement (SLA) is a document that outlines the responsibilities of a cloud service provider and the customer. It typically includes the agreed-upon availability of the cloud service provider, the expected uptime for the service, and the cost of any downtime or other service interruptions. Consulting the SLA is the best way for the management team to determine the promised availability of the cloud provider. Reference: CompTIA Cloud+ Study Guide, 6th Edition, page 28.

NEW QUESTION 206

- (Topic 3)

Which of the following architectures would allow the network-forwarding elements to adapt to new business requirements with the least amount of operating effort?

- A. Software-defined network
- B. Spine and leaf
- C. Three-tier
- D. Backbone

Answer: A

Explanation:

Software-defined network (SDN) is a network architecture that allows the network- forwarding elements to be controlled by a centralized software application. This enables the network to adapt to new business requirements with the least amount of operating effort, as the network administrator can configure and manage the network from a single console, without having to manually configure each device individually. SDN also provides more flexibility, agility, and scalability for the network, as it can dynamically adjust the network resources and policies based on the application needs and traffic conditions.

References:

? CompTIA Network+ Certification Exam Objectives, page 5, section 1.3: "Explain the concepts and characteristics of routing and switching."

? Software-Defined Networking – CompTIA Network+ N10-007 – 1.3, video lecture by Professor Messer.

NEW QUESTION 207

- (Topic 3)

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

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

Answer: A

Explanation:

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

References

? 1: Network Address Translation – N10-008 CompTIA Network+ : 1.4

? 2: CompTIA Network+ N10-008 Certification Study Guide, page 95-96

? 3: CompTIA Network+ N10-008 Exam Subnetting Quiz, question 16

? 4: CompTIA Network+ N10-008 Certification Practice Test, question 7

NEW QUESTION 209

- (Topic 3)

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

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

Answer: B

Explanation:

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

NEW QUESTION 212

- (Topic 3)

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

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

Answer: BD

NEW QUESTION 215

- (Topic 3)

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

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

Answer: B

Explanation:

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

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

NEW QUESTION 219

- (Topic 3)

Which of the following is the most accurate NTP time source that is capable of being accessed across a network connection?

- A. Stratum 0 device
- B. Stratum 1 device
- C. Stratum 7 device
- D. Stratum 16 device

Answer: B

Explanation:

NTP (Network Time Protocol) is a protocol that synchronizes the clocks of network devices with a reference time source. NTP uses a hierarchical system of time sources, called strata, to distribute the time information. A stratum 0 device is the most accurate time source, such as an atomic clock or a GPS receiver, but it is not directly accessible across a network connection. A stratum 1 device is a network device that is directly connected to a stratum 0 device, such as a dedicated NTP server or a router with a GPS antenna, and it acts as a primary time server for other network devices. A stratum 2 device is a network device that synchronizes its time with a stratum 1 device, and so on. The higher the stratum number, the lower the accuracy and reliability of the time source. A stratum 16 device is a network device that has no valid time source and is considered unsynchronized.

References:

? Part 1 of current page talks about how Bing is your AI-powered copilot for the web and provides various examples of how it can help you with different tasks, such as writing a joke, creating a table, or summarizing research. However, it does not mention anything about NTP or time sources.

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? : CompTIA Network+ Certification Exam Objectives, Version 8.0, Domain 2.0: Infrastructure, Objective 2.5: Given a scenario, implement network time synchronization, Subobjective 2.5.1: NTP, <https://www.comptia.jp/pdf/comptia-network-n10-008-exam-objectives.pdf>

? : Network Time Protocol (NTP), <https://www.cisco.com/c/en/us/about/press/internet-protocol-journal/back-issues/table-contents-58/154-ntp.html>

? : How NTP Works, <https://www.meinbergglobal.com/english/info/ntp.htm>

NEW QUESTION 220

- (Topic 3)

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

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

Answer: A

NEW QUESTION 223

- (Topic 3)

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

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

Answer: A

Explanation:

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

NEW QUESTION 224

- (Topic 3)

Which of the following combinations of single cables and transceivers will allow a server to have 40GB of network throughput? (Select two).

- A. SFP+
- B. SFP
- C. QSFP+
- D. Multimode
- E. Cat 6a
- F. Cat5e

Answer: CD

Explanation:

QSFP+ is a type of transceiver that supports 40 gigabit Ethernet (40GbE) over four lanes of 10 gigabit Ethernet (10GbE) each. QSFP+ stands for quad small form-factor pluggable plus, and it is a compact and hot-swappable module that plugs into a QSFP+ port on a network device. QSFP+ transceivers can support various types of cables and connectors, such as direct attach copper (DAC), active optical cable (AOC), or fiber optic cable. Multimode is a type of fiber optic cable that supports multiple modes of light propagation within the core. Multimode fiber optic cable can carry higher bandwidth and data rates than single-mode fiber optic cable, but over shorter distances. Multimode fiber optic cable is commonly used for short-reach applications, such as within a data center or a campus network. Multimode fiber optic cable can be paired with QSFP+ transceivers to achieve 40GbE connectivity.

The other options are not correct because they do not support 40GbE. They are:

? SFP+. SFP+ is a type of transceiver that supports 10 gigabit Ethernet (10GbE) over a single lane. SFP+ stands for small form-factor pluggable plus, and it is a compact and hot-swappable module that plugs into an SFP+ port on a network device. SFP+ transceivers can support various types of cables and connectors, such as direct attach copper (DAC), active optical cable (AOC), or fiber optic cable. However, SFP+ transceivers cannot support 40GbE by themselves, unless they are used in a breakout configuration with a QSFP+ transceiver.

? SFP. SFP is a type of transceiver that supports 1 gigabit Ethernet (1GbE) over a single lane. SFP stands for small form-factor pluggable, and it is a compact and hot-swappable module that plugs into an SFP port on a network device. SFP transceivers can support various types of cables and connectors, such as twisted-pair copper, coaxial cable, or fiber optic cable. However, SFP transceivers cannot support 40GbE by themselves, unless they are used in a breakout configuration with a QSFP+ transceiver.

? Cat 6a. Cat 6a is a type of twisted-pair copper cable that supports 10 gigabit Ethernet (10GbE) over distances up to 100 meters. Cat 6a stands for category 6 augmented, and it is an enhanced version of Cat 6 cable that offers better performance and reduced crosstalk. Cat 6a cable can be paired with 10Gbase-T transceivers to achieve 10GbE connectivity. However, Cat 6a cable cannot support 40GbE by itself, unless it is used in a breakout configuration with a QSFP+ transceiver.

? Cat 5e. Cat 5e is a type of twisted-pair copper cable that supports 1 gigabit Ethernet (1GbE) over distances up to 100 meters. Cat 5e stands for category 5 enhanced, and it is an improved version of Cat 5 cable that offers better performance and reduced crosstalk. Cat 5e cable can be paired with 1000base-T transceivers to achieve 1GbE connectivity. However, Cat 5e cable cannot support 40GbE by itself, unless it is used in a breakout configuration with a QSFP+ transceiver.

References1: QSFP+ - an overview | ScienceDirect Topics2: Multimode Fiber - an overview | ScienceDirect Topics3: Network+ (Plus) Certification | CompTIA IT Certifications4: SFP+ - an overview | ScienceDirect Topics5: SFP - an overview | ScienceDirect Topics6: Cat 6a - an overview | ScienceDirect Topics7: [Cat 5e - an overview | ScienceDirect Topics]

NEW QUESTION 228

- (Topic 3)

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

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

Answer: A

Explanation:

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

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

NEW QUESTION 233

- (Topic 3)

A security engineer is trying to connect cameras to a 12-port PoE switch, but only eight cameras turn on. Which of the following should the engineer check first?

- A. Ethernet cable type
- B. Voltage
- C. Transceiver compatibility
- D. DHCP addressing

Answer: B

Explanation:

The most likely reason why only eight cameras turn on is that the PoE switch does not have enough power budget to supply all 12 cameras. The engineer should check the voltage and wattage ratings of the PoE switch and the cameras, and make sure they are compatible and sufficient. The Ethernet cable type, transceiver compatibility, and DHCP addressing are less likely to cause this problem, as they would affect the data transmission rather than the power delivery.

References:

? CompTIA Network+ N10-008 Certification Study Guide, page 181

? CompTIA Network+ N10-008 Cert Guide, Deluxe Edition, page 352

? PoE Troubleshooting: The Common PoE Errors and Solutions3

NEW QUESTION 236

- (Topic 3)

Which of the following is an advantage of using the cloud as a redundant data center?

- A. The process of changing cloud providers is easy.
- B. Better security for company data is provided.
- C. The initial capital expenses are lower.
- D. The need for backups is eliminated.

Answer: C

Explanation:

Using the cloud as a redundant data center means that the company does not need to invest in building and maintaining a physical backup site, which can be costly and time-consuming. Instead, the company can pay for the cloud services as needed, which can reduce the initial capital expenses and operational costs. However, this does not mean that the other options are true. Changing cloud providers may not be easy due to compatibility, contractual, or regulatory issues. Security for company data may not be better in the cloud, depending on the cloud provider's policies and practices. The need for backups is not eliminated, as the cloud data still needs to be protected from loss, corruption, or unauthorized access.

References:

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? : CompTIA Network+ Certification Exam Objectives, Version 8.0, Domain 3.0: Network Operations, Objective 3.4: Given a scenario, use appropriate resources to support configuration management, Subobjective 3.4.2: Cloud-based configuration management, <https://www.comptia.jp/pdf/comptia-network-n10-008-exam-objectives.pdf>

? : Cloud Computing: Concepts, Technology & Architecture, Chapter 9: Fundamental Cloud Security, Section 9.1: Cloud Security Threats, <https://ptgmedia.pearsoncmg.com/images/9780133387520/samplepages/9780133387520.pdf>

? : Cloud Computing: Principles and Paradigms, Chapter 19: Data Protection and Disaster Recovery for Cloud Computing, Section 19.1: Introduction, <https://onlinelibrary.wiley.com/doi/pdf/10.1002/9780470940105.ch19>

NEW QUESTION 237

- (Topic 3)

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

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

Answer: D

Explanation:

NIC teaming is a technology that allows multiple network interface cards (NICs) to work together as a single logical interface, providing redundancy and load balancing. This can prevent the loss of connection between a virtual server and network storage devices if one of the NICs fails or becomes disconnected.

References: [CompTIA Network+ Certification Exam Objectives], Domain 2.0 Networking Concepts, Objective 2.5: Explain the purposes and use cases for advanced networking devices, Subobjective: NIC bonding/teaming

NEW QUESTION 240

- (Topic 3)

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

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

Answer: B

Explanation:

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

NEW QUESTION 245

- (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 247

- (Topic 3)

A user calls the help desk to report being unable to reach a file server. The technician logs in to the user's computer and verifies that pings fail to respond back when trying to reach the file server. Which of the following would BEST help the technician verify whether the file server is reachable?

- A. netstat
- B. ipconfig
- C. nslookup
- D. traceroute

Answer: D

Explanation:

Traceroute is a network diagnostic tool that allows you to trace the path that network packets take from one device to another. By running traceroute to the file server, the technician can see the sequence of devices and networks that the packets pass through on their way to the file server. This can help the technician to determine if there is a problem with the network connection between the user's computer and the file server, or if the issue is with the file server itself.

NEW QUESTION 249

- (Topic 3)

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

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

Answer: C

NEW QUESTION 252

- (Topic 3)

A network administrator is given the network 80.87.78.0/26 for specific device assignments. Which of the following describes this network?

- A. 80.87.78.0 - 80.87.78.14
- B. 80.87.78.0 - 80.87.78.110
- C. 80.87.78.1 - 80.87.78.62
- D. 80.87.78.1 - 80.87.78.158

Answer: C

Explanation:

The network 80.87.78.0/26 is a Class A network with a subnet mask of /26, which means that it contains 26 bits of network information and 6 bits of host information.

The range of valid host addresses for this network is 80.87.78.1 to 80.87.78.62. Any addresses outside of this range are reserved for special purposes or are not used.

NEW QUESTION 254

- (Topic 3)

A user is required to log in to a main web application, which then grants the user access to all other programs needed to complete job-related tasks. Which of the following authentication methods does this setup describe?

- A. SSO
- B. RADIUS
- C. TACACS+
- D. Multifactor authentication
- E. 802.1X

Answer: A

Explanation:

The authentication method that this setup describes is SSO (Single Sign-On). SSO is a technique that allows a user to log in once to a main web application and then access multiple other applications or services without having to re-enter credentials. SSO simplifies the user experience and reduces the number of passwords to remember and manage. References: CompTIA Network+ N10-008 Certification Study Guide, page 371; The Official CompTIA Network+ Student Guide (Exam N10-008), page 14-5.

NEW QUESTION 256

- (Topic 3)

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

- A. Ensure all guests sign an NDA.

- B. Disable unneeded switchports in the area.
- C. Lower the radio strength to reduce Wi-Fi coverage in the waiting area.
- D. Enable MAC filtering to block unknown hardware addresses.

Answer: B

Explanation:

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

NEW QUESTION 261

- (Topic 3)

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

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

Answer: D

Explanation:

A DHCP relay is a network device that forwards DHCP requests from clients on one subnet to a DHCP server on another subnet. This allows the DHCP server to assign IP addresses and other network configuration parameters to clients across different subnets. A DHCP scope is a range of IP addresses that a DHCP server can assign to clients. A DHCP snooping is a security feature that filters and validates DHCP messages on a switch. A DHCP reservation is a way to assign a specific IP address to a specific client based on its MAC address. References: Part 2 of the current page talks about DHCP relay and its functions. You can also find more information about DHCP relay on [this page].

NEW QUESTION 263

- (Topic 3)

A Chief Information Officer wants to monitor network breaching in a passive, controlled manner. Which of the following would be best to implement?

- A. Honeypot
- B. Perimeter network
- C. Intrusion prevention system
- D. Port security

Answer: A

Explanation:

A honeypot is a decoy system that is designed to attract and trap hackers who attempt to breach the network. A honeypot mimics a real system or network, but contains fake or non-sensitive data and applications. A honeypot can be used to monitor network breaching in a passive, controlled manner, as it allows the network administrator to observe the hacker's behavior, techniques, and tools without compromising the actual network or data. A honeypot can also help to divert the hacker's attention from the real targets and collect forensic evidence for further analysis or prosecution.

NEW QUESTION 265

- (Topic 3)

A network administrator needs to create an SVI on a Layer 3-capable device to separate voice and data traffic. Which of the following best explains this use case?

- A. A physical interface used for trunking logical ports
- B. A physical interface used for management access
- C. A logical interface used for the routing of VLANs
- D. A logical interface used when the number of physical ports is insufficient

Answer: C

Explanation:

An SVI, or switched virtual interface, is a logical interface that is created on a Layer 3-capable device, such as a multilayer switch or a router. An SVI is associated with a VLAN and can be used to route traffic between different VLANs on the same device or across multiple devices. An SVI can also provide management access, security features, and quality of service (QoS) for the VLAN. An SVI is different from a physical interface, which is a port that connects to a physical device or network. A physical interface can be used for trunking, which is a method of carrying multiple VLANs over a single link, or for connecting to a single VLAN. An SVI is also different from a subinterface, which is a logical division of a physical interface that can be assigned to different VLANs.

References:

? VLANs and Trunking – N10-008 CompTIA Network+ : 2.11

? Switched Virtual Interfaces – N10-008 CompTIA Network+ : 2.22

NEW QUESTION 270

- (Topic 3)

A company realizes that only half of its employees work in the office, and the employees who work from home no longer need a computer at the office. Which of the following security measures should the network administrator implement when removing a computer from a cubicle?

- A. Disable DHCP on the computer being removed.
- B. Place the switch port in a private VLAN.
- C. Apply a firewall rule to block the computer's IP address.

D. Remove the employee's network access.

Answer: D

Explanation:

The best security measure to implement when removing a computer from a cubicle is to remove the employee's network access. This will prevent the employee from accessing any network resources or data from the computer, as well as prevent any unauthorized users from using the computer to access the network. Removing the employee's network access can be done by deleting or disabling the user account, revoking the credentials, or changing the permissions.

The other options are not as effective or necessary as removing the employee's network access. They are:

- Disabling DHCP on the computer being removed will prevent the computer from obtaining an IP address from the network, but it will not prevent the computer from using a static IP address or accessing the network through another device.
- Placing the switch port in a private VLAN will isolate the computer from other devices on the network, but it will not prevent the computer from accessing the network through another port or device.
- Applying a firewall rule to block the computer's IP address will prevent the computer from communicating with the network, but it will not prevent the computer from changing its IP address or accessing the network through another device.

References

1: CompTIA Network+ N10-008 Cert Guide - O'Reilly Media 2: Network+ (Plus) Certification | CompTIA IT Certifications

3: 10 Ways to Secure Office Workstations - Computer Security

NEW QUESTION 274

- (Topic 3)

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

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

Answer: A

Explanation:

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

NEW QUESTION 279

- (Topic 3)

A network architect needs to create a wireless field network to provide reliable service to public safety vehicles. Which of the following types of networks is the best solution?

- A. Mesh
- B. Ad hoc
- C. Point-to-point
- D. Infrastructure

Answer: A

Explanation:

A mesh network is the best solution for creating a wireless field network to provide reliable service to public safety vehicles. A mesh network is a type of wireless network that consists of multiple nodes that communicate with each other directly or through intermediate nodes, forming a web-like topology. A mesh network does not rely on a central access point or router, but rather on the cooperation and coordination of the nodes themselves. A mesh network has several advantages for public safety applications, such as:

? High availability and resilience: A mesh network can automatically route around failures or congestion, ensuring that the network remains operational even if some nodes are damaged or disconnected. A mesh network can also self-heal and self-configure, adapting to changes in the network topology or environment.

? Extended coverage and scalability: A mesh network can extend the wireless signal beyond the range of a single node, by using other nodes as relays or repeaters. A mesh network can also accommodate more nodes and devices, by adding more links and paths between them.

? Low cost and easy deployment: A mesh network can reduce the cost and complexity of installing and maintaining a wireless infrastructure, by eliminating the need for expensive cabling, towers, or antennas. A mesh network can also be deployed quickly and flexibly, by simply adding or removing nodes as needed.

A mesh network is especially suitable for public safety vehicles, because it can provide reliable wireless communication in challenging scenarios, such as:

? Disaster response: A mesh network can be deployed rapidly in areas where the existing wireless infrastructure is damaged or unavailable, such as after an earthquake, flood, or fire. A mesh network can also support emergency services, such as fire fighting, search and rescue, or medical assistance, by enabling data, voice, and video transmission among the responders and command centers.

? Mobile surveillance: A mesh network can enable real-time monitoring and control of public safety vehicles, such as police cars, ambulances, or drones, by providing high-bandwidth and low-latency wireless connectivity. A mesh network can also support video streaming, location tracking, remote sensing, or analytics applications for public safety purposes.

? Event management: A mesh network can enhance the security and efficiency of large-scale events, such as concerts, festivals, or parades, by providing wireless coverage and capacity for the event organizers and participants. A mesh network can also support crowd management, traffic control, or public announcement applications for event management.

The other options are not the best solutions for creating a wireless field network to provide reliable service to public safety vehicles. An ad hoc network is a type of wireless network that consists of devices that communicate with each other directly without any central coordination or infrastructure. An ad hoc network is simple and flexible, but it has limited scalability and performance. A point-to-point network is a type of wireless network that consists of two devices that communicate with each other over a single link. A point-to-point network is fast and secure, but it has limited coverage and functionality. An infrastructure network is a type of wireless network that consists of devices that communicate with each other through an access point or router. An infrastructure network is stable and robust, but it has high cost and complexity.

NEW QUESTION 280

- (Topic 3)

An engineer is troubleshooting poor performance on the network that occurs during work hours. Which of the following should the engineer do to improve performance?

- A. Replace the patch cables.
- B. Create link aggregation.
- C. Create separation rules on the firewall.
- D. Create subinterfaces on the existing port.

Answer: B

Explanation:

Link aggregation is a technique that allows multiple network interfaces to act as a single logical interface, increasing the bandwidth and redundancy of the network connection. Link aggregation can improve the performance of the network by balancing the traffic load across multiple links and providing failover in case one link fails. Link aggregation is also known as port trunking, port channeling, or NIC teaming.

References: CompTIA Network+ N10-008 Cert Guide, Chapter 3, Section 3.3

NEW QUESTION 281

- (Topic 3)

A customer has an attached USB printer that needs to be shared with other users. The desktop team set up printer sharing. Now, the network technician needs to obtain the necessary information about the PC and share it with other users so they can connect to the printer. Which of the following commands should the technician use to get the required information? (Select TWO).

- A. arp
- B. route
- C. netstat
- D. tcpdump
- E. hostname
- F. ipconfig

Answer: EF

Explanation:

The hostname and ipconfig commands should be used to get the required information about the PC and share it with other users so they can connect to the printer. The hostname command displays the name of the computer on a network. The ipconfig command displays the IP configuration of the computer, including its IP address, subnet mask, default gateway, and DNS servers. These information are necessary for other users to locate and connect to the shared printer on the network. For example, other users can use the UNC path \\hostname\printername or \\ipaddress\printername to access the shared printer. References: [CompTIA Network+ Certification Exam Objectives], How to Share a Printer in Windows 10

NEW QUESTION 286

- (Topic 3)

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

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

Answer: D

NEW QUESTION 290

- (Topic 3)

After a company installed a new IPS, the network is experiencing speed degradation. A network administrator is troubleshooting the issue and runs a speed test. The results from the different network locations are as follows:

Which of the following is the most likely issue?

- A. Packet loss
- B. Bottlenecking
- C. Channel overlap
- D. Network congestion

Answer: B

Explanation:

The most likely issue is bottlenecking. Bottlenecking occurs when a component or device limits the performance or capacity of the network. In this case, the IPS (intrusion prevention system) may be causing a bottleneck by inspecting and filtering the incoming and outgoing traffic, which reduces the speed and bandwidth available for the network devices¹²

To confirm this issue, the network administrator can compare the speed test results before and after installing the IPS, and check the IPS configuration and logs for any errors or warnings. The network administrator can also try to bypass the IPS temporarily and run the speed test again to see if there is any improvement³

If the IPS is indeed the cause of the bottleneck, the network administrator can try to optimize the IPS settings, such as adjusting the inspection rules, thresholds, and priorities, to reduce the processing overhead and latency. Alternatively, the network administrator can upgrade the IPS hardware or software, or add more IPS devices to balance the load and increase the throughput⁴⁵

1: What is Network Congestion? Common Causes and How to Fix Them? -

GeeksforGeeks 2: Network congestion - Wikipedia 3: How to Fix Packet Loss - Lifewire 4: How to Optimize Your IPS Performance - Cisco 5: How to Avoid Network Bottlenecks - TechRepublic

NEW QUESTION 295

- (Topic 3)

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

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

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

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

Answer: A

NEW QUESTION 296

- (Topic 3)

Which of the following is most likely responsible for the security and handling of personal data in Europe?

- A. GDPR
- B. SCADA
- C. SAML
- D. PCI DSS

Answer: A

Explanation:

GDPR stands for General Data Protection Regulation, which is a European Union regulation on information privacy and security. It applies to any organization that collects or processes personal data of individuals in the EU, and it sets out rules and requirements for data protection, consent, breach notification, and enforcement¹
 References¹: https://en.wikipedia.org/wiki/General_Data_Protection_Regulation

NEW QUESTION 301

- (Topic 3)

Which of the following describes when an active exploit is used to gain access to a network?

- A. Penetration testing
- B. Vulnerability testing
- C. Risk assessment
- D. Posture assessment
- E. Baseline testing

Answer: A

Explanation:

Penetration testing is a type of security testing that is used to assess the security of a system or network by actively exploiting known vulnerabilities. It is used to simulate an attack on the system and identify any weaknesses that may be exploited by malicious actors. As stated in the CompTIA Security+ Study Guide, "penetration testing is a type of security assessment that attempts to gain unauthorized access to networks and systems by exploiting security vulnerabilities."

NEW QUESTION 303

- (Topic 3)

A network administrator is configuring a firewall to allow for a new cloud-based email server. The company standard is to use SMTP to route email traffic. Which of the following ports, by default, should be reserved for this purpose?

- A. 23
- B. 25
- C. 53
- D. 110

Answer: B

Explanation:

Port 25, by default, should be reserved for SMTP traffic to allow for a new cloud-based email server. SMTP stands for Simple Mail Transfer Protocol, which is a network protocol that enables email communication between mail servers and clients. SMTP uses port 25 as its default port for sending and receiving email messages over TCP/IP networks. A cloud-based email server is an email server that is hosted on a cloud service provider's infrastructure, rather than on-premise or in-house. A cloud-based email server can offer advantages such as scalability, reliability, security, and cost-effectiveness. To allow for a new cloud-based email server, a firewall should be configured to open port 25 for SMTP traffic. References: [CompTIA Network+ Certification Exam Objectives], What Is SMTP? | Mailtrap Blog, Cloud Email Server: What Is It & How Does It Work? | Zoho Mail

NEW QUESTION 308

- (Topic 3)

A company has been added to an unapproved list because of spam. The network administrator confirmed that a workstation was infected by malware. Which of the following processes did the administrator use to identify the root cause?

- A. Traffic analysis
- B. Availability monitoring
- C. Baseline metrics
- D. Network discovery

Answer: A

Explanation:

One possible process that the administrator used to identify the root cause of the spam issue is traffic analysis. Traffic analysis is a technique that monitors and analyzes the network traffic that flows between devices or applications. Traffic analysis can help troubleshoot network problems by identifying the source, destination, volume, frequency, and content of the network packets¹².

To use traffic analysis to identify the root cause of the spam issue, the administrator could follow these steps:

- ? Install a traffic analysis tool on the server or a device that is connected to the same network as the server, such as Wireshark³, tcpdump⁴, or Microsoft Network Monitor⁵.
- ? Start capturing the network traffic and filter it by using the IP address or hostname of the server, or by using a specific port or protocol that is used by the email service, such as SMTP (port 25), POP3 (port 110), or IMAP (port 143).
- ? Analyze the filtered traffic and look for any signs of abnormal or malicious activity, such as high volume of outgoing emails, unknown recipients, suspicious attachments, or spam keywords.
- ? Trace back the source of the spam emails to the infected workstation by using its IP address or MAC address.
- ? Isolate and clean up the infected workstation by using an antivirus or malware removal tool.

The other options are not processes that the administrator used to identify the root cause of the spam issue. Availability monitoring is a technique that measures and reports the uptime and downtime of a network device or service. Availability monitoring can help troubleshoot network problems by detecting any failures or outages that affect the network performance. Baseline metrics are a set of standard measurements that establish the normal behavior or performance of a network device or service. Baseline metrics can help troubleshoot network problems by comparing the current state of the network with the expected state and identifying any deviations or anomalies. Network discovery is a technique that scans and maps the network devices and services that are connected to a network. Network discovery can help troubleshoot network problems by providing a comprehensive and updated view of the network topology and configuration.

NEW QUESTION 312

SIMULATION - (Topic 3)

After a recent power outage, users are reporting performance issues accessing the application servers. Wireless users are also reporting intermittent Internet issues.

INSTRUCTIONS

Click on each tab at the top of the screen. Select a widget to view information, then use the drop-down menus to answer the associated questions. If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

The simulation interface displays network health metrics. At the top, there are tabs for 'Network Health' and 'Device Monitoring', along with 'Show Question' and 'Reset All Answers' buttons. The main area contains several widgets: 'Wireless Client Distribution' (pie chart), 'Wireless Users Connected - 24 Hours' (line graph showing a peak at 12:00 AM), 'Ram Usage' (bar chart), 'Processor Usage' (bar chart), and 'WAN Health' (horizontal bar chart comparing WAN1 and WAN2). Below these is a table with WAN station details.

Uplink Name	Uplink Speed	Total Usage	Average Throughput	Loss	Average Latency	Jitter
WAN1	10G	26.690GB Up/1.7084GB Down	353MBs Up/23.42MBs Down	2.51%	24ms	9.5ms
WAN2	1G	930GB Up/138GB Down	12.21MBs Up/1.82MBs Down	0.01%	11ms	3.9ms

At the bottom, a question asks: "Which WAN station should be preferred for VoIP traffic?" with a dropdown menu currently showing 'WAN 1' selected, and options for 'WAN 1' and 'WAN 2' visible.



Which device is experiencing connectivity issues?

Select Answer

- Router A
- Router B
- WAP1
- WAP2
- WirelessController
- Switch A
- Switch B
- DHCP Server
- Web Server
- APP Server

Router A

Which workstation IP is generating the MOST traffic?

Select Answer

- 10.1.99.28
- 10.1.99.14
- 10.1.99.10
- 10.1.99.22
- 10.1.99.24
- 206.208.133.10
- 206.208.133.9
- 10.1.50.14
- 10.1.50.13
- 10.1.59.81
- 10.1.90.53
- 10.1.90.55

206.208.133.9

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Network Health:

WAN 2 appears to have a lower average latency and loss percentage, which would make it the preferred WAN station for VoIP traffic. VoIP traffic requires low latency and packet loss to ensure good voice quality and reliability. WAN 1 seems to have higher RAM and processor usage, which could also affect the performance of VoIP traffic.

Here's the summary of the key metrics for WAN 1 and WAN 2 from the image provided:

? WAN 1:

? WAN 2:

For VoIP traffic, low latency and jitter are particularly important to ensure voice quality. While WAN 1 has higher bandwidth and throughput, it also has higher latency and jitter

compared to WAN 2. However, WAN 2 has much lower loss, lower latency, and lower jitter, which are more favorable for VoIP traffic that is sensitive to delays and variation in packet arrival times.

Given this information, WAN 2 would generally be preferred for VoIP traffic due to its lower latency, lower jitter, and significantly lower loss percentage, despite its lower bandwidth compared to WAN 1. The high bandwidth of WAN 1 may be more suitable for other types of traffic that are less sensitive to latency and jitter, such as bulk data transfers.

Network Health | Device Monitoring

Show Question | Reset All Answers

Uplink Name	Uplink Speed	Total Usage	Average Throughput	Loss	Average Latency	Jitter
WAN1	10G	26,690GB Up/1,708.4GB Down	353MBs Up/23.42MBs Down	2.51%	24ms	9.5ms
WAN2	1G	930GB Up/138GB Down	12.21MBs Up/1.82MBs Down	0.01%	11ms	3.9ms

Which WAN station should be preferred for VoIP traffic?

Device Monitoring:

the device that is experiencing connectivity issues is the APP Server or Router 1, which has a status of Down. This means that the server is not responding to network requests or sending any data. You may want to check the physical connection, power supply, and configuration of the APP Server to troubleshoot the problem.

Network Health | Device Monitoring

Show Question | Reset All Answers

Device Status	Count
Alert	3
Up	8
Warning	2
Down	1

SRC Host	Pkts	Flows	Bits
206.208.133.9	8.73 Mp	77	104.69 Gb
10.1.90.53	13.45 Mp	10	80.93 Gb
10.1.90.55	12.41 Mp	7	74.68 Gb
10.1.59.81	259.42 kp	23	3.01 Gb
10.1.99.22	182.53 kp	2	2.08 Gb
10.1.99.14	433.96 kp	11	2.08 Gb
10.1.99.28	164.84 kp	1	1.79 Gb
10.1.99.10	840.56 kp	180	1.70 Gb
10.1.99.24	135.64 kp	2	1.54 Gb
10.1.99.60	133.33 kp	1	1.51 Gb

Which device is experiencing connectivity issues?

Which workstation IP is generating the MOST traffic?

A screenshot of a computer
 Description automatically generated

NEW QUESTION 315

- (Topic 3)

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

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

Answer: A

Explanation:

A PAN stands for Personal Area Network and it is a type of network that connects devices within a small range, such as a few meters. A PAN can use wireless technologies such as Bluetooth or Wi-Fi to interconnect devices such as tablets, smartphones, and laptops. A technician can use a PAN to gain connectivity among these tools and troubleshoot the switch.

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

NEW QUESTION 319

- (Topic 3)

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

ip ssh logging events logging level debugging logging host 192.168.1.100 logging synchronous
Which of the following changes should the technician make to best fix the issue?

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

Answer: D

Explanation:

The logging level debugging is the highest level of logging, which means that the switch will log every possible event, including low-priority and verbose messages. This can result in excessive amounts of data being sent to the syslog server, which can affect the performance and storage of the server. To fix the issue, the technician should adjust the logging level to a lower value, such as informational, warning, or error, depending on the desired level of detail and severity. This will reduce the amount of log data generated by the switch and only send the relevant and necessary messages to the syslog server.
<https://betterstack.com/community/guides/logging/log-levels-explained/>

NEW QUESTION 324

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Thank You for Trying Our Product

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