

# CompTIA

## Exam Questions N10-008

CompTIA Network+Exam



**NEW QUESTION 1**

- (Exam Topic 1)

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

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

**Answer: B**

**NEW QUESTION 2**

- (Exam Topic 1)

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

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

**Answer: C**

**NEW QUESTION 3**

- (Exam Topic 1)

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

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

**Answer: A**

**NEW QUESTION 4**

- (Exam 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**

**NEW QUESTION 5**

- (Exam Topic 1)

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

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

**Answer: A**

**NEW QUESTION 6**

- (Exam Topic 1)

Which of the following is the physical topology for an Ethernet LAN?

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

**Answer: D**

**NEW QUESTION 7**

- (Exam Topic 1)

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

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

**Answer: A**

**NEW QUESTION 8**

- (Exam 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**

**NEW QUESTION 9**

- (Exam Topic 1)

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

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

**Answer: D**

**NEW QUESTION 10**

- (Exam Topic 1)

Which of the following can be used to centrally manage credentials for various types of administrative privileges on configured network devices?

- A. SSO
- B. TACACS+
- C. Zero Trust
- D. Separation of duties
- E. Multifactor authentication

**Answer: B**

**NEW QUESTION 10**

- (Exam Topic 1)

A user reports being unable to access network resources after making some changes in the office. Which of the following should a network technician do FIRST?

- A. Check the system's IP address
- B. Do a ping test against the servers
- C. Reseat the cables into the back of the PC
- D. Ask what changes were made

**Answer: D**

**NEW QUESTION 11**

- (Exam Topic 1)

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

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

**Answer: C**

**NEW QUESTION 12**

- (Exam Topic 1)

A company hired a technician to find all the devices connected within a network. Which of the following software tools would BEST assist the technician in completing this task?

- A. IP scanner
- B. Terminal emulator
- C. NetFlow analyzer

D. Port scanner

**Answer:** A

**NEW QUESTION 15**

- (Exam Topic 1)

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

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

**Answer:** A

**NEW QUESTION 19**

- (Exam Topic 1)

Which of the following provides redundancy on a file server to ensure the server is still connected to a LAN even in the event of a port failure on a switch?

- A. NIC teaming
- B. Load balancer
- C. RAID array
- D. PDUs

**Answer:** A

**NEW QUESTION 22**

- (Exam Topic 1)

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

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

**Answer:** B

**NEW QUESTION 26**

- (Exam Topic 1)

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

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

**Answer:** C

**NEW QUESTION 28**

- (Exam Topic 1)

Which of the following connector types would have the MOST flexibility?

- A. SFP
- B. BNC
- C. LC
- D. RJ45

**Answer:** A

**NEW QUESTION 33**

- (Exam Topic 1)

A technician wants to deploy a new wireless network that comprises 30 WAPs installed throughout a three-story office building. All the APs will broadcast the same SSID for client access. Which of the following BEST describes this deployment?

- A. Extended service set
- B. Basic service set
- C. Unified service set
- D. Independent basic service set

**Answer:** B

**NEW QUESTION 35**

- (Exam Topic 1)

A network administrator is implementing OSPF on all of a company's network devices. Which of the following will MOST likely replace all the company's hubs?

- A. A Layer 3 switch
- B. A proxy server
- C. A NGFW
- D. A WLAN controller

**Answer: A**

#### **NEW QUESTION 40**

- (Exam Topic 1)

A technician is writing documentation regarding a company's server farm. The technician needs to confirm the server name for all Linux servers. Which of the following commands should the technician run?

- A. ipconfig
- B. nslookup
- C. arp
- D. route

**Answer: B**

#### **NEW QUESTION 41**

- (Exam 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**

#### **NEW QUESTION 44**

- (Exam Topic 1)

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

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

**Answer: A**

#### **NEW QUESTION 49**

- (Exam Topic 1)

An attacker is attempting to find the password to a network by inputting common words and phrases in plaintext to the password prompt. Which of the following attack types BEST describes this action?

- A. Pass-the-hash attack
- B. Rainbow table attack
- C. Brute-force attack
- D. Dictionary attack

**Answer: D**

#### **NEW QUESTION 53**

- (Exam Topic 1)

A technician is deploying a new switch model and would like to add it to the existing network monitoring software. The technician wants to know what metrics can be gathered from a given switch. Which of the following should the technician utilize for the switch?

- A. MIB
- B. Trap
- C. Syslog
- D. Audit log

**Answer: A**

#### **NEW QUESTION 54**

- (Exam Topic 1)

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

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

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

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

**Answer: A**

**NEW QUESTION 58**

- (Exam Topic 1)

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

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

**Answer: B**

**NEW QUESTION 62**

- (Exam Topic 1)

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

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

**Answer: B**

**NEW QUESTION 65**

- (Exam Topic 1)

After the A record of a public website was updated, some visitors were unable to access the website. Which of the following should be adjusted to address the issue?

- A. TTL
- B. MX
- C. TXT
- D. SOA

**Answer: A**

**NEW QUESTION 69**

- (Exam 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.

**NEW QUESTION 74**

- (Exam Topic 1)

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

- A. VIP
- B. NAT

- C. APIPA
- D. IPv6 tunneling
- E. Broadcast IP

**Answer:** A

**NEW QUESTION 75**

- (Exam 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

**NEW QUESTION 77**

- (Exam Topic 1)

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

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

**Answer:** A

**NEW QUESTION 82**

- (Exam Topic 1)

A network technician needs to ensure outside users are unable to telnet into any of the servers at the datacenter. Which of the following ports should be blocked when checking firewall configuration?

- A. 22
- B. 23
- C. 80
- D. 3389
- E. 8080

**Answer:** B

**NEW QUESTION 87**

- (Exam Topic 1)

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

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

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

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

**Answer:** A

**NEW QUESTION 88**

- (Exam Topic 1)

Which of the following is MOST likely to generate significant East-West traffic in a datacenter?

- A. A backup of a large video presentation to cloud storage for archival purposes
- B. A duplication of a hosted virtual server to another physical server for redundancy
- C. A download of navigation data to a portable device for offline access
- D. A query from an IoT device to a cloud-hosted server for a firmware update

**Answer:** B

**NEW QUESTION 90**

- (Exam 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**

**NEW QUESTION 93**

- (Exam Topic 2)

Which of the following is a system that is installed directly on a server's hardware and abstracts the hardware from any guest machines?

- A. Storage array
- B. Type 1 hypervisor
- C. Virtual machine
- D. Guest OS

**Answer: A**

**NEW QUESTION 94**

- (Exam 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**

**NEW QUESTION 97**

- (Exam Topic 2)

Which of the following policies should be referenced when a user wants to access work email on a personal cell phone?

- A. Offboarding policy
- B. Acceptable use policy
- C. BYOD policy
- D. Remote access policy

**Answer: C**

**NEW QUESTION 98**

- (Exam Topic 2)

To comply with industry requirements, a security assessment on the cloud server should identify which protocols and weaknesses are being exposed to attackers on the Internet. Which of the following tools is the MOST appropriate to complete the assessment?

- A. Use tcpdump and parse the output file in a protocol analyzer.
- B. Use an IP scanner and target the cloud WAN network addressing.
- C. Run netstat in each cloud server and retrieve the running processes.
- D. Use nmap and set the servers' public IPs as the targets.

**Answer: D**

**NEW QUESTION 99**

- (Exam Topic 2)

A network administrator wants to reduce overhead and increase efficiency on a SAN. Which of the following can be configured to achieve these goals?

- A. Port aggregation
- B. Traffic shaping
- C. Jumbo frames
- D. Flow control

**Answer: C**

**NEW QUESTION 104**

- (Exam Topic 2)

A firewall administrator is implementing a rule that directs HTTP traffic to an internal server listening on a non-standard socket. Which of the following types of rules is the administrator implementing?

- A. NAT
- B. PAT
- C. STP
- D. SNAT
- E. ARP

**Answer: D**

**NEW QUESTION 109**

- (Exam Topic 2)

A network technician is installing an analog desk phone for a new receptionist. After running a new phone line, the technician now needs to connect to 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: A**

**NEW QUESTION 110**

- (Exam Topic 2)

A systems administrator is configuring a firewall using NAT with PAT. Which of the following would be BEST suited for the LAN interface?

- A. 172.15.0.0/18
- B. 172.18.0.0/10
- C. 172.23.0.0/16
- D. 172.28.0.0/8
- E. 172.32.0.0/14

**Answer: C**

**NEW QUESTION 114**

- (Exam 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**

**NEW QUESTION 118**

- (Exam Topic 2)

Which of the following is required when connecting an endpoint device with an RJ45 port to a network device with an ST port?

- A. A media converter
- B. A bridge
- C. An MDIX
- D. A load balancer

**Answer: A**

**NEW QUESTION 121**

- (Exam Topic 2)

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

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

**Answer: A**

**NEW QUESTION 125**

- (Exam Topic 2)

A network technician is investigating an issue with handheld devices in a warehouse. Devices have not been connecting to the nearest APs, but they have been connecting to an AP on the far side of the warehouse. Which of the following is the MOST likely cause of this issue?

- A. The nearest APs are configured for 802.11g.
- B. An incorrect channel assignment is on the nearest APs.
- C. The power level is too high for the AP on the far side.
- D. Interference exists around the AP on the far side.

**Answer: A**

**NEW QUESTION 128**

- (Exam Topic 2)

The management team has instituted a 48-hour RTO as part of the disaster recovery plan. Which of the following procedures would meet the policy's requirements?

- A. Recover all systems to a loss of 48 hours of data.
- B. Limit network downtime to a maximum of 48 hours per year.

- C. Recover all systems within 48 hours.
- D. Require 48 hours of system backup maintenance.

**Answer:** C

**Explanation:**

Reference: <https://www.druva.com/blog/understanding-rpo-and-rto/>

**NEW QUESTION 130**

- (Exam Topic 2)

A company's network is set up so all Internet-bound traffic from all remote offices exits through a main datacenter. Which of the following network topologies would BEST describe this setup?

- A. Bus
- B. Spine-and-leaf
- C. Hub-and-spoke
- D. Mesh

**Answer:** C

**NEW QUESTION 133**

- (Exam Topic 2)

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

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

**Answer:** A

**NEW QUESTION 134**

- (Exam Topic 2)

A network technician needs to correlate security events to analyze a suspected intrusion. Which of the following should the technician use?

- A. SNMP
- B. Log review
- C. Vulnerability scanning
- D. SIEM

**Answer:** D

**NEW QUESTION 137**

- (Exam Topic 2)

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

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

**Answer:** C

**NEW QUESTION 140**

- (Exam Topic 2)

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

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

**Answer:** A

**NEW QUESTION 142**

- (Exam Topic 2)

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

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

Which of the following methods should the engineer select?

- A. TWP-RC4
- B. CCMP-AES

- C. EAP-TLS
- D. WPA2

**Answer:** C

**NEW QUESTION 144**

- (Exam 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

**NEW QUESTION 148**

- (Exam Topic 2)

Which of the following cable types would MOST likely be used to provide high-speed network connectivity between nearby buildings?

- A. UTP
- B. Coaxial
- C. Fiber
- D. Cat 5
- E. Twinaxial

**Answer:** C

**NEW QUESTION 151**

- (Exam Topic 2)

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

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

**Answer:** C

**NEW QUESTION 152**

- (Exam 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

**NEW QUESTION 153**

- (Exam Topic 2)

A network technician is investigating an IP phone that does not register in the VoIP system. Although it received an IP address, it did not receive the necessary DHCP options. The information that is needed for the registration is distributed by the DHCP scope. All other IP phones are working properly. Which of the following does the technician need to verify?

- A. VLAN mismatch
- B. Transceiver mismatch
- C. Latency
- D. DHCP exhaustion

**Answer:** A

**NEW QUESTION 156**

- (Exam 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

**NEW QUESTION 158**

- (Exam Topic 2)

A voice engineer is troubleshooting a phone issue. When a call is placed, the caller hears echoes of the receiver's voice. Which of the following are the causes of this issue? (Choose two.)

- A. Jitter
- B. Speed mismatch
- C. QoS misconfiguration
- D. Protocol mismatch
- E. CRC errors
- F. Encapsulation errors

Answer: AC

**NEW QUESTION 162**

- (Exam Topic 2)

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

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

Answer: A

**NEW QUESTION 167**

- (Exam Topic 2)

A network administrator is downloading a large patch that will be uploaded to several enterprise switches simultaneously during the day's upgrade cycle. Which of the following should the administrator do to help ensure the upgrade process will be less likely to cause problems with the switches?

- A. Confirm the patch's MD5 hash prior to the upgrade
- B. Schedule the switches to reboot after an appropriate amount of time.
- C. Download each switch's current configuration before the upgrade
- D. Utilize FTP rather than TFTP to upload the patch

Answer: C

**NEW QUESTION 170**

- (Exam Topic 2)

A network field technician is installing and configuring a secure wireless network. The technician performs a site survey. Which of the following documents would MOST likely be created as a result of the site survey?

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

Answer: B

**NEW QUESTION 172**

- (Exam Topic 2)

A packet is assigned a value to ensure it does not traverse a network indefinitely. Which of the following BEST represents this value?

- A. Zero Trust
- B. Planned obsolescence
- C. Time to live
- D. Caching

Answer: C

**NEW QUESTION 174**

- (Exam 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

**NEW QUESTION 178**

- (Exam Topic 2)

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

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

**Answer: A**

**NEW QUESTION 182**

- (Exam 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**

**NEW QUESTION 187**

- (Exam Topic 2)

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

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

**Answer: A**

**NEW QUESTION 189**

- (Exam Topic 2)

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

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

**Answer: C**

**NEW QUESTION 193**

- (Exam Topic 2)

Which of the following attacks encrypts user data and requires a proper backup implementation to recover?

- A. DDoS
- B. Phishing
- C. Ransomware
- D. MAC spoofing

**Answer: C**

**NEW QUESTION 194**

- (Exam Topic 2)

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

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

**Answer: B**

**NEW QUESTION 198**

- (Exam 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

#### NEW QUESTION 203

- (Exam Topic 2)

A network administrator has been directed to present the network alerts from the past week to the company's executive staff. Which of the following will provide the BEST collection and presentation of this data?

- A. A port scan printout
- B. A consolidated report of various network devices
- C. A report from the SIEM tool
- D. A report from a vulnerability scan done yesterday

**Answer:** C

#### NEW QUESTION 205

- (Exam Topic 2)

A network requirement calls for segmenting departments into different networks. The campus network is set up with users of each department in multiple buildings. Which of the following should be configured to keep the design simple and efficient?

- A. MDIX
- B. Jumbo frames
- C. Port tagging
- D. Flow control

**Answer:** C

#### NEW QUESTION 206

- (Exam Topic 2)

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

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

**Answer:** C

#### Explanation:

Reference:

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

#### NEW QUESTION 207

- (Exam Topic 2)

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

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

**Answer:** D

#### NEW QUESTION 212

- (Exam Topic 2)

A lab environment hosts Internet-facing web servers and other experimental machines, which technicians use for various tasks. A technician installs software on one of the web servers to allow communication to the company's file server, but it is unable to connect to it. Other machines in the building are able to retrieve files from the file server. Which of the following is the MOST likely reason the web server cannot retrieve the files, and what should be done to resolve the problem?

- A. The lab environment's IDS is blocking the network traffic. The technician can whitelist the new application in the IDS.
- B. The lab environment is located in the DMZ, and traffic to the LAN zone is denied by default.
- C. The technician can move the computer to another zone or request an exception from the administrator.
- D. The lab environment has lost connectivity to the company router, and the switch needs to be rebooted. The technician can get the key to the wiring closet and manually restart the switch.
- E. The lab environment is currently set up with hubs instead of switches, and the requests are getting bounced back. The technician can submit a request for upgraded equipment to management.

**Answer:** B

#### NEW QUESTION 215

- (Exam Topic 2)

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

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

**Answer: B**

#### **NEW QUESTION 218**

- (Exam Topic 3)

Which of the following is an advanced distance vector routing protocol that automates routing tables and also uses some features of link-state routing protocols?

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

**Answer: C**

#### **Explanation:**

EIGRP is an advanced distance vector routing protocol that is able to automatically update routing tables and also uses features of link-state routing protocols, such as the ability to send updates about the current topology of the network. EIGRP also has the ability to use a variety of algorithms to determine the best route for a packet to take, allowing for more efficient routing across the network.

#### **NEW QUESTION 223**

- (Exam Topic 3)

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

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

**Answer: A**

#### **Explanation:**

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

#### **NEW QUESTION 225**

- (Exam Topic 3)

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

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

**Answer: A**

#### **NEW QUESTION 228**

- (Exam Topic 3)

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

- A. F-type connector
- B. TIA/EIA-568-B
- C. LC
- D. SC

**Answer: B**

#### **Explanation:**

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

#### **NEW QUESTION 231**

- (Exam Topic 3)

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

- A. Capture a network baseline

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 234**

- (Exam Topic 3)

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

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

**Answer:** C

**NEW QUESTION 237**

- (Exam Topic 3)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 239**

- (Exam Topic 3)

Which of the Mowing architectures reduces network latency by enforcing a limit on the number of switching devices on the frame's path between any internal hosts?

- A. Spine and leaf
- B. Software-defined network
- C. Three-tiered
- D. Collapsed core

**Answer:** A

**Explanation:**

It does this by using a two-level hierarchy of switches, where the spine switches connect to the leaf switches, which in turn connect to the end hosts. This reduces the number of hops a packet must take from one host to another, thus reducing latency. According to the CompTIA Network+ N10-008 Exam Guide, the Spine and Leaf topology is a modern architecture that is used to reduce latency in large networks.

**NEW QUESTION 243**

- (Exam Topic 3)

Which of the following BEST describes a North-South traffic flow?

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

**Answer:** D

**NEW QUESTION 246**

- (Exam Topic 3)

An organization set up its offices so that a desktop is connected to the network through a VoIP phone. The VoIP vendor requested that voice traffic be segmented separately from non-voice traffic. Which of the following would allow the organization to configure multiple devices with network isolation on a single switch port?

- A. Subinterfaces
- B. Link aggregation
- C. Load balancing

D. Tunneling

**Answer:** A

**NEW QUESTION 248**

- (Exam Topic 3)

A technician is installing the Wi-Fi infrastructure for legacy industrial machinery at a warehouse. The equipment only supports 802.11a and 802.11b standards. Speed of transmission is the top business requirement. Which of the following is the correct maximum speed for this scenario?

- A. 11Mbps
- B. 54Mbps
- C. 128Mbps
- D. 144Mbps

**Answer:** B

**Explanation:**

802.11b (Wi-Fi 1)  
11 Mbps  
100 meter maximum effective range  
802.11a (Wi-Fi 2)  
54 Mbps  
50 meter maximum effective range

**NEW QUESTION 252**

- (Exam Topic 3)

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

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

**Answer:** BC

**NEW QUESTION 254**

- (Exam Topic 3)

An administrator would like to allow Windows clients from outside the office to access workstations without using third-party software. Which of the following access methods would meet this requirement?

- A. Remote desktop gateway
- B. Split tunnel
- C. Site-to-site VPN
- D. VNC

**Answer:** A

**Explanation:**

To allow Windows clients from outside the office to access workstations without using third-party software, the administrator can use the Remote Desktop Protocol (RDP). RDP is a built-in feature of the Windows operating system that allows users to remotely connect to and control other Windows computers over a network connection.

To use RDP, the administrator will need to enable the Remote Desktop feature on the workstations that need to be accessed, and ensure that the appropriate firewall rules are in place to allow RDP traffic to pass through. The administrator will also need to provide the remote users with the necessary credentials to access the workstations.

Once RDP is set up and configured, the remote users can use the Remote Desktop client on their own computers to connect to the workstations and access them as if they were physically present in the office. This allows the administrator to provide remote access to the workstations without the need for any additional software or third-party tools.

**NEW QUESTION 255**

- (Exam Topic 3)

After rebooting an AP a user is no longer able to connect to the enterprise LAN. A technician plugs a laptop in to the same network jack and receives the IP 169.254.0.200. Which of the following is MOST likely causing the issue?

- A. DHCP scope exhaustion
- B. Signal attenuation
- C. Channel overlap
- D. Improper DNS configuration

**Answer:** A

**Explanation:**

DHCP scope exhaustion occurs when the number of available IP addresses to be leased from a DHCP server have been used up. This could be caused by a large number of clients on the network, or a misconfigured

DHCP scope. When this happens, clients will be assigned an IP address from the APIPA range (169.254.0.0 to 169.254.255.255). To resolve this issue, the DHCP scope needs to be expanded or adjusted to accommodate the number of clients on the network.

**NEW QUESTION 259**

- (Exam Topic 3)

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

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

**Answer: B**

**NEW QUESTION 260**

- (Exam Topic 3)

Which of the following types of attacks can be used to gain credentials by setting up rogue APs with identical corporate SSIDs?

- A. VLAN hopping
- B. Evil twin
- C. DNS poisoning
- D. Social engineering

**Answer: B**

**NEW QUESTION 262**

- (Exam Topic 3)

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

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

**Answer: B**

**Explanation:**

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

**NEW QUESTION 264**

- (Exam 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 269**

- (Exam Topic 3)

Which of the following topologies is designed to fully support applications hosted in on-premises data centers, public or private clouds, and SaaS services?

- A. SDWAN
- B. MAN
- C. PAN
- D. MPLS

**Answer: A**

**NEW QUESTION 273**

- (Exam Topic 3)

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

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

**Answer: D**

#### NEW QUESTION 276

- (Exam Topic 3)

Two network technicians are installing a fiber-optic link between routers. The technicians used a light meter to verify the correct fibers. However, when they connect the fibers to the router interface the link does not connect. Which of the following would explain the issue? (Select TWO).

- A. They used the wrong type of fiber transceiver.
- B. Incorrect TX/RX polarity exists on the link
- C. The connection has duplexing configuration issues.
- D. Halogen light fixtures are causing interference.
- E. One of the technicians installed a loopback adapter.
- F. The RSSI was not strong enough on the link

**Answer:** AB

#### NEW QUESTION 277

- (Exam Topic 3)

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

- A. AP transmit power
- B. Channel utilization
- C. Signal loss
- D. Update ARP tables
- E. Antenna gain
- F. AP association time

**Answer:** AE

#### Explanation:

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

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

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

#### NEW QUESTION 279

- (Exam Topic 3)

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

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

**Answer:** D

#### Explanation:

Reference: <https://scoop.co.za/blog/choosing-the-right-cable-for-your-network>

#### NEW QUESTION 280

- (Exam Topic 3)

A technician is troubleshooting a connectivity issue with an end user. The end user can access local network shares and intranet pages but is unable to access the internet or remote resources. Which of the following needs to be reconfigured?

- A. The IP address
- B. The subnet mask
- C. The gateway address
- D. The DNS servers

**Answer:** C

#### NEW QUESTION 284

- (Exam Topic 3)

A systems administrator wants to use the least amount of equipment to segment two departments that have cables terminating in the same room. Which of the following would allow this to occur?

- A. A load balancer
- B. A proxy server
- C. A Layer 3 switch
- D. A hub
- E. A Layer 7 firewall
- F. The RSSI was not strong enough on the link

Answer: C

#### NEW QUESTION 289

- (Exam Topic 3)

A Wi-Fi network was originally configured to be able to handle interference from a microwave oven. The microwave oven was recently removed from the office. Now the network administrator wants to optimize the system to maximize the range of the signal. The main sources of signal degradation are the numerous cubicles and wooden walls between the WAP and the intended destination. Which of the following actions should the administrator take?

- A. Implement CDMA.
- B. Change from omni to directional.
- C. Change the SSID.
- D. Change the frequency.

Answer: D

#### Explanation:

- the microwave was already removed from the office
- the signal is OK now

- Notice that the question mentions "numerous cubicles and wooden walls" - meaning the signal now won't have the interference as before

- KEY POINT: the admin wants to "maximize the range of the signal:"

Manually change the frequency to 2.4 GHz for more reliable speeds and range. While 5 GHz gives you a stronger signal, it doesn't travel through walls or ceilings as well, so it doesn't give you the best range.

"Microwave ovens: Older microwave ovens, which might not have sufficient shielding, can emit relatively high-powered signals in the 2.4GHz band, resulting in significant interference with WLAN devices operating in the 2.4GHz band."

#### NEW QUESTION 294

- (Exam Topic 3)

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

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

Answer: A

#### Explanation:

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

#### NEW QUESTION 296

- (Exam Topic 3)

A newly installed VoIP phone is not getting the DHCP IP address it needs to connect to the phone system. Which of the following tasks needs to be completed to allow the phone to operate correctly?

- A. Assign the phone's switchport to the correct VLAN
- B. Statically assign the phone's gateway address.
- C. Configure a route on the VoIP network router.
- D. Implement a VoIP gateway

Answer: A

#### NEW QUESTION 298

- (Exam Topic 3)

A company wants to add a local redundant data center to its network in case of failure at its primary location. Which of the following would give the LEAST amount of redundancy for the company's network?

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

Answer: A

#### NEW QUESTION 303

- (Exam Topic 3)

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

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

Answer: B

#### Explanation:

NIC Teaming, also known as load balancing and failover (LBFO), allows multiple network adapters on a computer to be placed into a team for the following purposes: (<https://www.bing.com/search?q=what+is+nic+teaming+used+for%3F&form=QBLH&sp=-1&pq=what+is+nic>)

#### NEW QUESTION 304

- (Exam Topic 3)

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

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

**Answer: C**

#### Explanation:

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

#### NEW QUESTION 308

- (Exam Topic 3)

A technician is checking network devices to look for opportunities to improve security. Which of the following tools would BEST accomplish this task?

- A. Wi-Fi analyzer
- B. Protocol analyzer
- C. Nmap
- D. IP scanner

**Answer: B**

#### Explanation:

A protocol analyzer is a tool that can capture and analyze network traffic and identify security issues such as unauthorized devices, malicious packets, or misconfigured settings.

A Wi-Fi analyzer is a tool that can measure the signal strength, interference, and channel usage of wireless networks, but it cannot provide detailed information about network security.

Nmap and IP scanner are tools that can scan network hosts and ports for open services, vulnerabilities, or operating systems, but they cannot monitor network traffic in real time.

#### NEW QUESTION 309

- (Exam Topic 3)

A computer engineer needs to ensure that only a specific workstation can connect to port 1 on a switch. Which of the following features should the engineer configure on the switch interface?

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

**Answer: B**

#### Explanation:

Port security is a feature that can be configured on a switch interface to limit and identify the MAC addresses of workstations that are allowed to connect to that specific port. This can help ensure that only a specific workstation (or workstations) can connect to the interface. According to the CompTIA Network+ Study Manual, "Port security can be used to specify which MAC addresses are allowed to connect to a particular switch port. If a port security violation is detected, the switch can take a number of different actions, such as shutting down the port, sending an SNMP trap, or sending an email alert."

#### NEW QUESTION 314

- (Exam Topic 3)

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

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

**Answer: B**

#### Explanation:

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

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

#### NEW QUESTION 315

- (Exam Topic 3)

SIMULATION

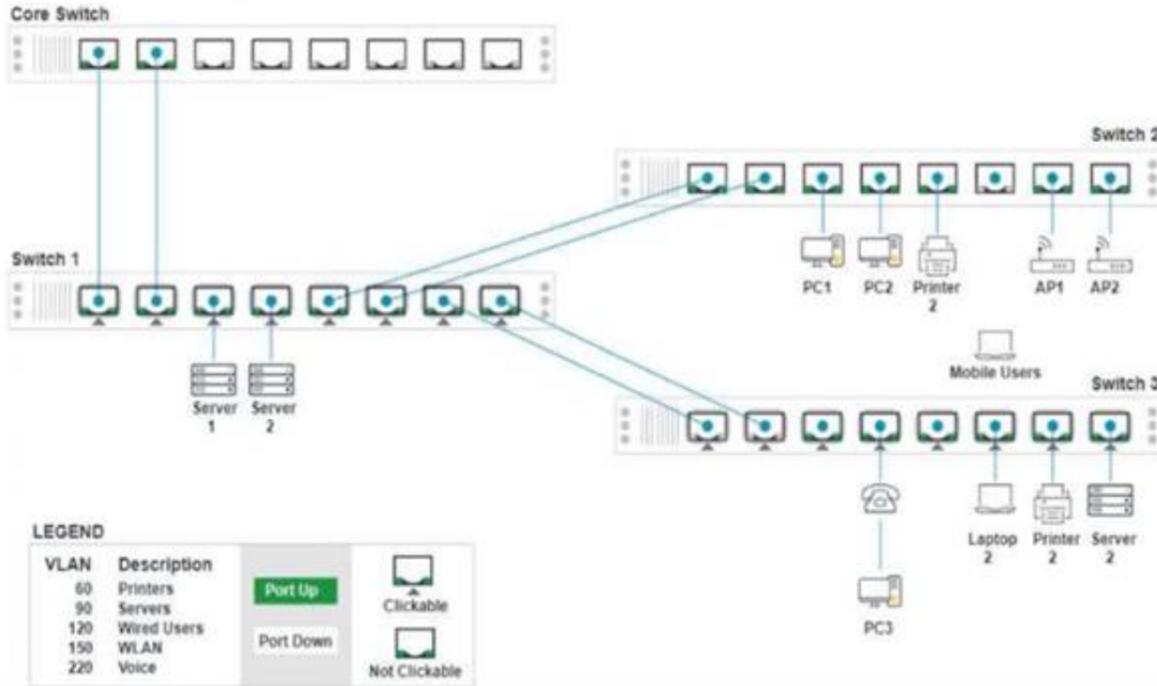
A network technician replaced a switch and needs to reconfigure it to allow the connected devices to connect to the correct networks.

**INSTRUCTIONS**

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

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

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



### Switch 3 - Port 8 Configuration

**Status**

Port  Enabled

LACP  Disabled

**Wired**

Speed  Auto  100  1000

Duplex  Auto  Half  Full

**VLAN Configuration**

+ Add VLAN

VLAN1

Port Tagging

UnTagged

Tagged

UnTagged

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

Reset to Default
Save
Close

### Switch 3 - Port 7 Configuration

**Status**  
Port  Enabled  
LACP  Disabled

**Wired**  
Speed  Auto  100  1000  
Duplex  Auto  Half  Full

**VLAN Configuration**  
  
VLAN1   
Port Tagging: UnTagged, Tagged, UnTagged  
VLAN 1, VLAN 60, VLAN 90, VLAN 120, VLAN 150, VLAN 220

### Switch 3 - Port 6 Configuration

**Status**  
Port  Enabled  
LACP  Disabled

**Wired**  
Speed  Auto  100  1000  
Duplex  Auto  Half  Full

**VLAN Configuration**  
  
VLAN150   
Port Tagging: UnTagged, Tagged, UnTagged  
VLAN 1, VLAN 60, VLAN 90, VLAN 120, VLAN 150, VLAN 220

### Switch 3 - Port 4 Configuration

**Status**  
Port  Enabled  
LACP  Disabled

**Wired**  
Speed  Auto  100  1000  
Duplex  Auto  Half  Full

**VLAN Configuration**  
  
VLAN1        
Port Tagging  
    
VLAN 1  
VLAN 60  
VLAN 90  
VLAN 120  
VLAN 150  
VLAN 220

### Switch 3 - Port 1 Configuration

**Status**  
Port  Enabled  
LACP  Disabled

**Wired**  
Speed  Auto  100  1000  
Duplex  Auto  Half  Full

**VLAN Configuration**  
  
VLAN1        
Port Tagging  
    
VLAN 1  
VLAN 60  
VLAN 90  
VLAN 120  
VLAN 150  
VLAN 220

### Switch 1 - Port 7 Configuration ✕

**Status**

Port  Enabled

LACP  Enabled

**Wired**

Speed  Auto  100  1000

Duplex  Auto  Half  Full

**VLAN Configuration**

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

### Switch 1 - Port 8 Configuration ✕

**Status**

Port  Enabled

LACP  Enabled

**Wired**

Speed  Auto  100  1000

Duplex  Auto  Half  Full

**VLAN Configuration**

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

### Switch 1 - Port 6 Configuration ✕

**Status**

Port  Enabled

LACP  Enabled

**Wired**

Speed  Auto  100  1000

Duplex  Auto  Half  Full

**VLAN Configuration**

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

### Switch 1 - Port 2 Configuration ✕

**Status**

Port  Enabled

LACP  Enabled

**Wired**

Speed  Auto  100  1000

Duplex  Auto  Half  Full

**VLAN Configuration**

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

### Switch 1 - Port 1 Configuration ✕

**Status**

Port  Enabled

LACP  Enabled

**Wired**

Speed  Auto  100  1000

Duplex  Auto  Half  Full

**VLAN Configuration**

<b>VLAN60</b> ✕ Port Tagging Tagged	<b>VLAN90</b> ✕ Port Tagging Tagged	<b>VLAN120</b> ✕ Port Tagging Tagged
<b>VLAN150</b> ✕ Port Tagging Tagged	<b>VLAN220</b> ✕ Port Tagging Tagged	

### Switch 1 - Port 5 Configuration ✕

**Status**

Port  Enabled

LACP  Enabled

**Wired**

Speed  Auto  100  1000

Duplex  Auto  Half  Full

**VLAN Configuration**

<b>VLAN60</b> ✕ Port Tagging Tagged	<b>VLAN120</b> ✕ Port Tagging Tagged	<b>VLAN150</b> ✕ Port Tagging Tagged

### Switch 1 - Port 4 Configuration

**Status**  
Port  Enabled  
LACP  Disabled

**Wired**  
Speed  Auto  100  1000  
Duplex  Auto  Half  Full

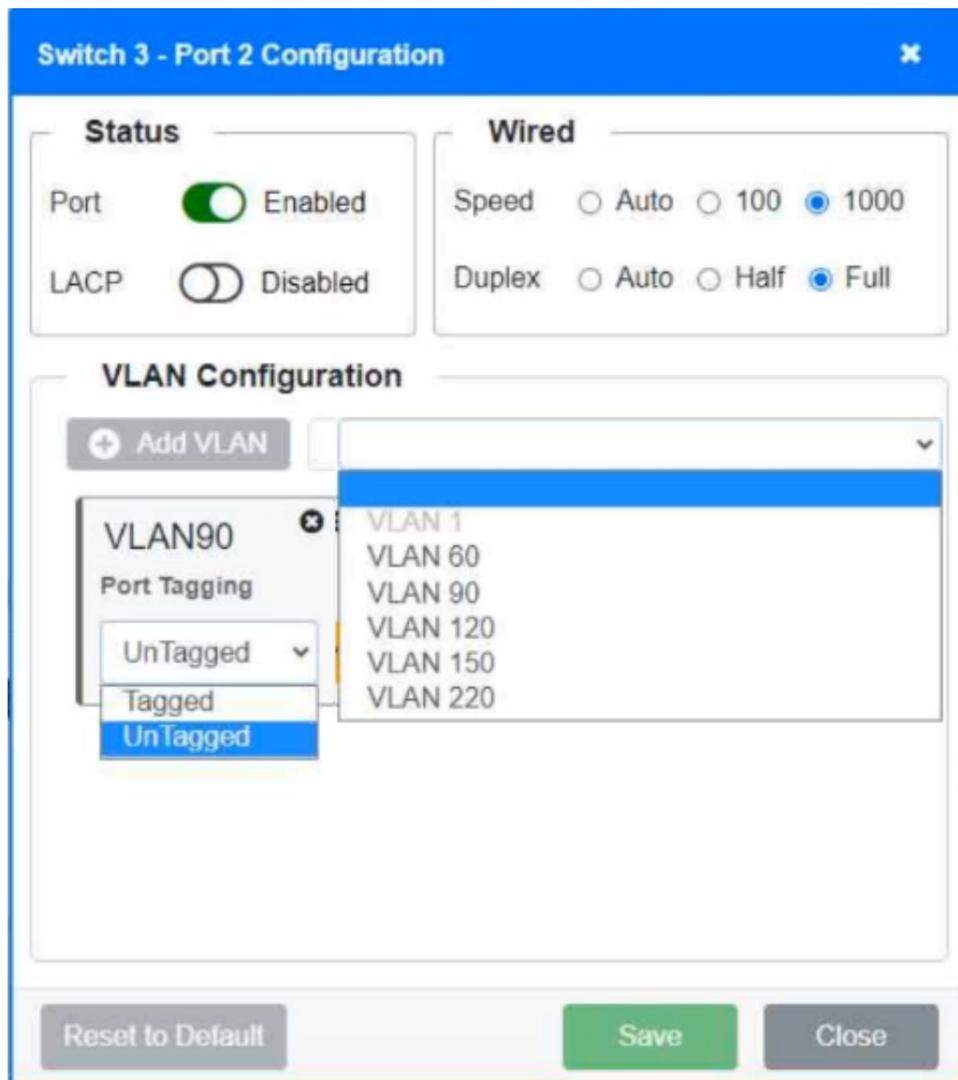
**VLAN Configuration**  
  
VLAN90   
Port Tagging: UnTagged, Tagged, UnTagged  
VLAN 1, VLAN 60, VLAN 90, VLAN 120, VLAN 150, VLAN 220

### Switch 1 - Port 3 Configuration

**Status**  
Port  Enabled  
LACP  Disabled

**Wired**  
Speed  Auto  100  1000  
Duplex  Auto  Half  Full

**VLAN Configuration**  
  
VLAN90   
Port Tagging: UnTagged, Tagged, UnTagged  
VLAN 1, VLAN 60, VLAN 90, VLAN 120, VLAN 150, VLAN 220



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

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

**NEW QUESTION 317**

- (Exam Topic 3)

A network technician 13 troubleshooting a specific port on a switch. Which of the following commands should the technician use to see the port configuration?

- A. show route
- B. show Interface
- C. show arp
- D. show port

**Answer:** B

**Explanation:**

To see the configuration of a specific port on a switch, the network technician should use the "show interface" command. This command provides detailed information about the interface, including the current configuration, status, and statistics for the interface.

**NEW QUESTION 319**

- (Exam Topic 3)

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

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

**Answer:** A

**NEW QUESTION 324**

- (Exam Topic 3)

A network technician receives a report from the server team that a server's network connection is not working correctly. The server team confirms the server is operating correctly except for the network connection. The technician checks the switchport connected to the server and reviews the following data;

Metric	Value
Bytes input	441,164,698
Bytes output	2,625,115,257
Runts	0
CRCs	5,489
Collisions	1
MDIX	On
Speed	1,000
Duplex	Full

Which of the following should the network technician perform to correct the issue?

- A. Replace the Cat 5 patch cable with a Cat 6 cable
- B. Install a crossover cable between the server and the switch
- C. Reset the switchport configuration.
- D. Use NetFlow data from the switch to isolate the issue.
- E. Disable MDIX on the switchport and reboot the server.

**Answer:** A

**Explanation:**

"Bad cables, incorrect pinouts, or bent pins: Faulty cables (with electrical characteristics preventing successful transmission) or faulty connectors (which do not properly make connections) can prevent successful data transmission at Layer 1. A bad cable could simply be an incorrect category of cable being used for a specific purpose. For example, using a Cat 5 cable (instead of a Cat 6 or higher cable) to connect two 1000BASE-TX devices would result in data corruption. Bent pins in a connector or incorrect pinouts could also cause data to become corrupted."

**NEW QUESTION 326**

- (Exam Topic 3)

A user in a branch office reports that access to all files has been lost after receiving a new PC. All other users in the branch can access fileshares. The IT engineer who is troubleshooting this incident is able to ping the workstation from the branch router, but the machine cannot ping the router. Which of the following is MOST likely the cause of the incident?

- A. Incorrect subnet mask
- B. Incorrect DNS server
- C. Incorrect IP class
- D. Incorrect TCP port

**Answer:** A

**NEW QUESTION 331**

- (Exam 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 fall 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 336**

- (Exam Topic 3)

A company joins a bank's financial network and establishes a connection to the clearinghouse servers in the range 192.168.124.0/27. An IT technician then realizes the range exists within the VM pool at the data center. Which of the following is the BEST way for the technician to connect to the bank's servers?

- A. NAT
- B. PAT
- C. CIDR
- D. SLAAC

**Answer:** A

**NEW QUESTION 340**

- (Exam Topic 3)

Which of the following connectors and terminations are required to make a Cat 6 cable that connects from a PC to a non-capable MDIX switch? (Select TWO).

- A. T1A-568-A - TIA-568-B
- B. TIA-568-B - TIA-568-B
- C. RJ11
- D. RJ45

E. F-type

**Answer:** AD

**NEW QUESTION 343**

- (Exam Topic 3)

A technician is troubleshooting a report about network connectivity issues on a workstation. Upon investigation, the technician notes the workstation is showing an APIPA address on the network interface. The technician verifies that the VLAN assignment is correct and that the network interlace has connectivity. Which of the following is MOST likely the issue the workstation is experiencing?

- A. DHCP exhaustion
- B. A rogue DHCP server
- C. A DNS server outage
- D. An incorrect subnet mask

**Answer:** A

**NEW QUESTION 345**

- (Exam Topic 3)

Given the following Information:

Connection	Cable length	Cable type	Configuration
PC A to switch 1	394ft (120m)	Cat 5	Straight through
Switch 1 to switch 2	3.3ft (1m)	Cat 6	Crossover
Switch 2 to PC B	16ft (5m)	Cat 5	Straight through

Which of the following would cause performance degradation between PC A and PC B'?

- A. Attenuation
- B. Interference
- C. Decibel loss
- D. Incorrect pinout

**Answer:** D

**NEW QUESTION 346**

- (Exam Topic 3)

Due to space constraints in an IDF, a network administrator can only do a single switch to accommodate three data networks. The administrator needs a configuration that will allow each device to access its expected network without additional connections. The configuration must also allow each device to access the rest of the network. Which of the following should the administrator do to meet these requirements? (Select TWO).

- A. Untag the three VLANs across the uplink
- B. Tag an individual VLAN across the uplink
- C. Untag an individual VLAN per device port
- D. Tag an individual VLAN per device port
- E. Tag the three VLANs across the uplink.
- F. Tag the three VLANs per device port.

**Answer:** AC

**Explanation:**

To achieve this, you should do two things:

- Tag the three VLANs across the uplink port that connects to another switch or router. This will allow data packets from different VLANs to cross over into other networks.
- Untag an individual VLAN per device port that connects to an end device. This will assign each device to its expected network without additional connections.

**NEW QUESTION 350**

- (Exam Topic 3)

ARP spoofing would normally be a part of:

- A. an on-path attack.
- B. DNS poisoning.
- C. a DoS attack.
- D. a rogue access point.

**Answer:** A

**NEW QUESTION 351**

- (Exam Topic 3)

A network administrator is reviewing the following metrics from a network management system regarding a switchport. The administrator suspects an issue because users are calling in regards to the switchport's performance:

Metric	Value
Uptime	201 days, 3 hours, 18 minutes
MDIX	On
CRCs	0
Giants	2508
Output queue maximum	40
Packets input	136208849
Packets output	64458087024

Based on the information in the chart above, which of the following is the cause of these performance issues?

- A. The connected device is exceeding the configured MTU.
- B. The connected device is sending too many packets
- C. The switchport has been up for too long
- D. The connected device is receiving too many packets.
- E. The switchport does not have enough CRCs

**Answer: A**

**NEW QUESTION 353**

- (Exam Topic 3)

A technician is connecting a Cat 6 Ethernet cable to a device that only has LC ports. Which of the following will the technician MOST likely use to accomplish this task?

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

**Answer: B**

**NEW QUESTION 358**

- (Exam Topic 3)

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

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

**Answer: A**

**NEW QUESTION 362**

- (Exam Topic 3)

A network administrator needs to run a single command-line tool capable of displaying routing table and multicast memberships. Which of the following would BEST help the administrator achieve the requirements?

- A. arp
- B. show route
- C. show config
- D. netstate

**Answer: A**

**NEW QUESTION 364**

- (Exam Topic 3)

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

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

**Answer: D**

**Explanation:**

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

**NEW QUESTION 365**

- (Exam Topic 3)

Which of the following types of datacenter architectures will MOST likely be used in a large SDN and can be extended beyond the datacenter? (Choose two.)

- A. iSCSI
- B. FCoE

- C. Three-tiered network
- D. Spine and leaf
- E. Top-of-rack switching

**Answer:** CD

#### NEW QUESTION 368

- (Exam Topic 3)

Which of the following describes traffic going in and out of a data center from the internet?

- A. Demarcation point
- B. North-South
- C. Fibre Channel
- D. Spine and leaf

**Answer:** B

#### NEW QUESTION 369

- (Exam Topic 3)

A network technician is planning a network scope. The web server needs to be within 12.31.69.1 to 12.31.69.29. Which of the following would meet this requirement?

- A. Lease time
- B. Range reservation
- C. DNS
- D. Superscope

**Answer:** A

#### NEW QUESTION 371

- (Exam Topic 3)

Which of the following is the primary function of the core layer of the three-tiered model?

- A. Routing
- B. Repeating
- C. Bridging
- D. Switching

**Answer:** A

#### Explanation:

<https://www.omniseccu.com/cisco-certified-network-associate-ccna/three-tier-hierarchical-network-model.php>

Core Layer consists of biggest, fastest, and most expensive routers with the highest model numbers and Core Layer is considered as the back bone of networks. Core Layer routers are used to merge geographically separated networks. The Core Layer routers move information on the network as fast as possible. The switches operating at core layer switches packets as fast as possible.

#### NEW QUESTION 376

- (Exam Topic 3)

Several users with older devices are reporting intermittent connectivity while in an outdoor patio area. After some research, the network administrator determines that an outdoor WAP might help with the issue. However, the company does not want the signal to bleed into the building and cause interference. Which of the following should the network administrator perform to BEST resolve the issue?

- A. Disable the SSID broadcast on the WAP in the patio area.
- B. Install a WAP and enable 5GHz only within the patio area.
- C. Install a directional WAP in the direction of the patio.
- D. Install a repeater on the back wall of the patio area.

**Answer:** C

#### NEW QUESTION 377

- (Exam Topic 3)

A network engineer receives the following when connecting to a switch to configure a port:

```
telnet 10.1.200.1
Connecting to 10.1.200.1...Could not open connection to the host, on port 23: Connect failed.
```

Which of the following is the MOST likely cause for the failure?

- A. The network engineer is using the wrong protocol
- B. The network engineer does not have permission to configure the device
- C. SNMP has been secured with an ACL
- D. The switchport the engineer is trying to configure is down

**Answer:** D

#### NEW QUESTION 381

- (Exam Topic 3)

A Wi-Fi network was recently deployed in a new, multilevel building. Several issues are now being reported related to latency and drops in coverage. Which of the

following is the FIRST step to troubleshoot the issues?

- A. Perform a site survey.
- B. Review the AP placement
- C. Monitor channel utilization.
- D. Test cable attenuation.

**Answer:** A

#### NEW QUESTION 384

- (Exam Topic 3)

A network administrator is troubleshooting the communication between two Layer 2 switches that are reporting a very high runt count. After trying multiple ports on both switches, the issue persists. Which of the following should the network administrator perform to resolve the issue?

- A. Increase the MTU size on both switches.
- B. Recertify the cable between both switches.
- C. Perform a factory reset on both switches.
- D. Enable debug logging on both switches.

**Answer:** A

#### NEW QUESTION 388

- (Exam Topic 3)

A network administrator is trying to identify a device that is having issues connecting to a switchport. Which of the following would BEST help identify the issue?

- A. A syslog server
- B. Change management records
- C. A rack diagram
- D. The security log

**Answer:** A

#### NEW QUESTION 393

- (Exam Topic 3)

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

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

**Answer:** A

#### NEW QUESTION 394

- (Exam Topic 3)

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

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

**Answer:** A

#### Explanation:

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

#### NEW QUESTION 395

- (Exam 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 400

- (Exam 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 403

- (Exam Topic 3)

A security administrator is trying to prevent incorrect IP addresses from being assigned to clients on the network. Which of the following would MOST likely prevent this and allow the network to continue to operate?

- A. Configuring DHCP snooping on the switch
- B. Preventing broadcast messages leaving the client network
- C. Blocking ports 67/68 on the client network
- D. Enabling port security on access ports

**Answer: A**

#### Explanation:

To prevent incorrect IP addresses from being assigned to clients on the network and allow the network to continue to operate, the security administrator should consider configuring DHCP (Dynamic Host

Configuration Protocol) snooping on the switch. DHCP snooping is a security feature that is used to prevent unauthorized DHCP servers from operating on a network. It works by allowing the switch to monitor and validate DHCP traffic on the network, ensuring that only legitimate DHCP messages are forwarded to clients. This can help to prevent incorrect IP addresses from being assigned to clients, as it ensures that only authorized DHCP servers are able to provide IP addresses to clients on the network.

#### NEW QUESTION 405

- (Exam 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 410

- (Exam Topic 3)

A technician is documenting an application that is installed on a server and needs to verify all existing web and database connections to the server. Which of the following tools should the technician use to accomplish this task?

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

**Answer: C**

#### NEW QUESTION 412

- (Exam Topic 3)

A network engineer needs to pass both data and telephony on an access port. Which of the following features should be configured to meet this requirement?

- A. VLAN
- B. VoIP
- C. VIP
- D. VRRP

**Answer:** A

**NEW QUESTION 415**

- (Exam Topic 3)

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

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

**Answer:** D

**NEW QUESTION 419**

- (Exam Topic 3)

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

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

**Answer:** B

**Explanation:**

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

**NEW QUESTION 422**

- (Exam Topic 3)

Which of the following security controls indicates unauthorized hardware modifications?

- A. Biometric authentication
- B. Media device sanitization
- C. Change management policy
- D. Tamper-evident seals

**Answer:** A

**NEW QUESTION 423**

- (Exam Topic 3)

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

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

**Answer:** C

**NEW QUESTION 426**

- (Exam Topic 3)

A Fortune 500 firm is deciding on the kind of data center equipment to install given its five-year budget outlook. The Chief Information Officer is comparing equipment based on the life expectancy of different models.

Which of the following concepts BEST represents this metric?

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

**Answer:** A

**NEW QUESTION 431**

- (Exam 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 432**

- (Exam Topic 3)

Which of the following attack vectors represents a large number of devices sending access requests to a website, making it unavailable to respond?

- A. Virus
- B. Botnet
- C. ARP spoofing
- D. DDoS

**Answer:** D

**NEW QUESTION 437**

- (Exam Topic 3)

A technician is consolidating a topology with multiple SSIDs into one unique SSID deployment. Which of the following features will be possible after this new configuration?

- A. Seamless roaming
- B. Basic service set
- C. WPA
- D. MU-MIMO

**Answer:** A

**NEW QUESTION 440**

- (Exam Topic 3)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 441**

- (Exam Topic 3)

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

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

**Answer:** C

**NEW QUESTION 446**

- (Exam Topic 3)

An attacker targeting a large company was able to inject malicious A records into internal name resolution servers. Which of the following attack types was MOST likely used?

- A. DNS poisoning
- B. On-path
- C. IP spoofing
- D. Rogue DHCP

**Answer:** A

#### NEW QUESTION 447

- (Exam Topic 3)

A network administrator is installing a new server in the data center. The administrator is concerned the amount of traffic generated will exceed 1GB, and higher-throughput NiCs are not available for installation. Which of the following is the BEST solution for this issue?

- A. Install an additional NIC and configure LACP.
- B. Remove some of the applications from the server.
- C. Configure the NIC to use full duplex
- D. Configure port mirroring to send traffic to another server.
- E. Install a SSD to decrease data processing time.

**Answer: A**

#### NEW QUESTION 451

- (Exam Topic 3)

A company just migrated its email service to a cloud solution. After the migration, two-thirds of the internal users were able to connect to their mailboxes, but the connection fails for the other one-third of internal users. Users working externally are not reporting any issues. The network administrator identifies the following output collected from an internal host:

```
c:\user> nslookup newmail.company.com
```

Non-Authoritative answer:

Name: newmail.company.com

IPs: 3.219.13.186, 64.58.225.184, 184.168.131.243

Which of the following verification tasks should the network administrator perform NEXT?

- A. Check the firewall ACL to verify all required IP addresses are included.
- B. Verify the required router PAT rules are properly configured.
- C. Confirm the internal DNS server is replying to requests for the cloud solution.
- D. Validate the cloud console to determine whether there are unlicensed requests.

**Answer: A**

#### NEW QUESTION 456

- (Exam Topic 3)

An auditor assessing network best practices was able to connect a rogue switch into a network Jack and get network connectivity. Which of the following controls would BEST address this risk?

- A. Activate port security on the switchports providing end user access.
- B. Deactivate Spanning Tree Protocol on network interfaces that are facing public areas.
- C. Disable Neighbor Resolution Protocol in the Layer 2 devices.
- D. Ensure port tagging is in place for network interfaces in guest areas

**Answer: A**

#### NEW QUESTION 457

- (Exam Topic 3)

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

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

**Answer: A**

#### Explanation:

"Benefits of Voice VLAN

It ensures that your VoIP (Voice over Internet Phone) devices do not have to contend directly with all the broadcasts and other traffic from the data VLAN. A voice VLAN can simplify network configuration in some circumstances."

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

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

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

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

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

#### NEW QUESTION 459

- (Exam Topic 3)

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

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

**Answer: D**

#### NEW QUESTION 460

- (Exam Topic 3)

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

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

**Answer: C**

#### NEW QUESTION 464

- (Exam Topic 3)

A small office has a wireless network with several access points that are used by mobile devices. Users occasionally report that the wireless connection drops or becomes very slow. Reports confirm that this only happens when the devices are connected to the office wireless network. Which of the following is MOST likely the cause?

- A. The configuration of the encryption protocol
- B. Interference from other devices
- C. Insufficient bandwidth capacity
- D. Duplicate SSIDs

**Answer: B**

#### NEW QUESTION 467

- (Exam Topic 3)

Which of the following OSI model layers contains IP headers?

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

**Answer: D**

#### NEW QUESTION 472

- (Exam Topic 3)

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

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

**Answer: C**

#### Explanation:

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

#### NEW QUESTION 476

- (Exam Topic 3)

A company's primary ISP is experiencing an outage. However, the network administrator notices traffic continuing to flow through a secondary connection to the same ISP. Which of the following BEST describes this configuration?

- A. Diverse paths
- B. Load balancing
- C. Multipathing
- D. Virtual Router Redundancy Protocol

**Answer: A**

#### NEW QUESTION 478

- (Exam Topic 3)

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

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

**Answer: B**

#### Explanation:

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

#### **NEW QUESTION 483**

- (Exam Topic 3)

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

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

**Answer: A**

#### **Explanation:**

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

#### **NEW QUESTION 488**

- (Exam Topic 3)

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

- A. Acceptable use policy
- B. Data loss prevention
- C. Remote access policy
- D. Standard operating procedure

**Answer: A**

#### **Explanation:**

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

#### **NEW QUESTION 489**

- (Exam Topic 3)

A cafeteria is facing lawsuits related to criminal internet access that was made over its guest network. The marketing team, however, insists on keeping the cafeteria phone number as the wireless passphrase. Which of the following actions would improve wireless security while accommodating the marketing team and accepting the terms of use?

- A. Setting WLAN security to use EAP-TLS
- B. Deploying a captive portal for user authentication
- C. Using geofencing to limit the area covered by the WLAN
- D. Configuring guest network isolation

**Answer: B**

#### **Explanation:**

A captive portal is a web page that is presented to a user before they are allowed to access a network. It is used to authenticate users and to ensure that all users have accepted the terms of use for the network. By deploying a captive portal, the cafeteria can require users to enter their phone number as the passphrase, while still providing an additional layer of security. Reference: CompTIA Network+ Study Guide, 8th Edition, page 182.

#### **NEW QUESTION 493**

- (Exam Topic 3)

Which of the following protocols would enable a company to upgrade its internet connection by acquiring its own public IP prefixes and autonomous system number?

- A. EIGRP
- B. BGP
- C. IPv6
- D. MPLS

**Answer: B**

#### **Explanation:**

BGP is a routing protocol that is used to exchange routing information between different autonomous systems (ASes) on the internet. An autonomous system is a network or group of networks that is under the same administrative control and uses a common routing protocol. By acquiring its own public IP prefixes and autonomous system number, a company can use BGP to advertise these prefixes to other ASes and establish its own internet connection. This would enable the company to have more control over its internet connection and potentially improve its connectivity. EIGRP (Enhanced Interior Gateway Routing Protocol) is a routing protocol used within a single autonomous system, so it would not be used to establish a connection to the internet. IPv6 is a version of the Internet Protocol (IP) used to identify devices on a network. It is not a routing protocol and would not be used to establish an internet connection. MPLS (Multi-Protocol Label Switching) is a networking technology that is used to route packets between different networks. It is not a routing protocol and would not be used to establish an internet connection.

#### NEW QUESTION 497

- (Exam Topic 3)

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

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

**Answer: A**

#### NEW QUESTION 502

- (Exam Topic 3)

A network administrator determines that even when optimal wireless coverage is configured, the network users still report constant disconnections. After troubleshooting, the administrator determines that moving from one location to another causes the disconnection. Which of the following settings should provide better network stability?

- A. Client association timeout
- B. RSSI roaming threshold
- C. RF attenuation ratio
- D. EIRP power setting

**Answer: B**

#### Explanation:

In this case, the most likely cause of the constant disconnections when moving from one location to another is likely due to a problem with the roaming functionality of the wireless network. The setting that would likely provide better network stability in this situation is the RSSI roaming threshold, which determines the signal strength required for a client device to remain connected to the wireless network. If the roaming threshold is set too low, the client device may disconnect and reconnect to the network too frequently as it moves between different access points. On the other hand, if the threshold is set too high, the client device may not roam to a new access point when necessary, leading to a loss of connectivity. Adjusting the RSSI roaming threshold to an appropriate value may help to improve the stability of the wireless network in this situation.

#### NEW QUESTION 503

- (Exam Topic 3)

Which of the following is the IEEE link cost for a Fast Ethernet interface in STP calculations?

- A. 2
- B. 4
- C. 19
- D. 100

**Answer: D**

#### Explanation:

The IEEE standard for link cost for a Fast Ethernet interface is 100, and for a Gigabit Ethernet interface is 19. These values are based on the bandwidth of the interface, with lower values indicating a higher-bandwidth interface.

#### NEW QUESTION 505

- (Exam Topic 3)

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

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

**Answer: A**

#### Explanation:

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

#### NEW QUESTION 508

- (Exam Topic 3)

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

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

**Answer: B**

**Explanation:**

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

**NEW QUESTION 509**

- (Exam Topic 3)

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

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

**Answer: C**

**NEW QUESTION 513**

- (Exam Topic 3)

A network technician is troubleshooting an application issue. The technician is able to recreate the issue in a virtual environment. According to the troubleshooting methodology, which of the following actions will the technician most likely perform NEXT?

- A. Gather information from the initial report.
- B. Escalate the issue to a supervisor.
- C. Implement a solution to resolve the issue.
- D. Establish a theory of probable cause.

**Answer: D**

**NEW QUESTION 517**

- (Exam Topic 3)

A network technician needs to determine the IPv6 address of a malicious website. Which of the following record types would pre-ride this information?

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

**Answer: B**

**NEW QUESTION 522**

- (Exam Topic 3)

AGRE tunnel has been configured between two remote sites. Which of the following features, when configured, ensures the GRE overhead does not affect payload?

- A. jumbo frames
- B. Auto medium-dependent Interface
- C. Interface crossover
- D. Collision detection

**Answer: A**

**Explanation:**

One of the features that can be configured to ensure that GRE overhead does not affect payload is A. jumbo frames. Jumbo frames are Ethernet frames that have a payload size larger than 1500 bytes, which is the standard maximum transmission unit (MTU) for Ethernet. By using jumbo frames, more data can be sent in each packet, reducing the overhead ratio and improving efficiency.

Auto medium-dependent interface (MDI), interface crossover, and collision detection are features related to Ethernet physical layer connectivity, but they do not affect GRE overhead or payload.

**NEW QUESTION 523**

- (Exam Topic 3)

Which of the following protocols would allow a secure connection to a Linux-based system?

- A. SMB
- B. FTP
- C. RDP
- D. SSH

**Answer: D**

**NEW QUESTION 526**

- (Exam Topic 3)

A technician is deploying a new SSID for an industrial control system. The control devices require the network to use encryption that employs TKIP and a symmetrical password to connect. Which of the following should the technician configure to ensure compatibility with the control devices?

- A. WPA2-Enterprise
- B. WPA-Enterprise
- C. WPA-PSK

D. WPA2-PSK

**Answer:** C

**Explanation:**

"WPA uses Temporal Key Integrity Protocol (TKIP) for enhanced encryption. TKIP uses RC4 for the encryption algorithm, and the CompTIA Network+ exam may reference TKIP-RC4 in a discussion of wireless."

"WPA2 uses Counter Mode with Cipher Block Chaining Message Authentication Code Protocol (CCMP) for integrity checking and Advanced Encryption Standard (AES) for encryption. On the Network+ exam, you might find this referenced as simply CCMP-AES"

**NEW QUESTION 530**

- (Exam Topic 3)

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

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

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

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

**Answer:** A

**NEW QUESTION 533**

- (Exam Topic 3)

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

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

**Answer:** C

**Explanation:**

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

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

**NEW QUESTION 536**

- (Exam Topic 3)

A network administrator responds to a support ticket that was submitted by a customer who is having issues connecting to a website inside of the company network. The administrator verifies that the customer could not connect to a website using a URL. Which of the following troubleshooting steps would be BEST for the administrator to take?

- A. Check for certificate issues
- B. Contact the ISP
- C. Attempt to connect to the site via IP address
- D. Check the NTP configuration.

**Answer:** C

**Explanation:**

The best option for the administrator to take would be to attempt to connect to the site via IP address. This will help to determine if the issue is related to the website's DNS address or if the site itself is not accessible. Checking for certificate issues may be necessary, but this should be done after the administrator has attempted to connect to the site via IP address. Contacting the ISP is unnecessary since the issue is related to the website inside of the company network, and checking the NTP configuration is not relevant to this issue.

When a customer is having issues connecting to a website using a URL, one of the first troubleshooting steps a network administrator should take is attempting to connect to the site using the IP address of the website. This will help to determine if the issue is related to a DNS resolution problem or a connectivity problem. If the administrator is able to connect to the website using the IP address, then the issue may be related to a DNS problem. However, if the administrator is still unable to connect, then the issue may be related to a connectivity problem. In either case, further troubleshooting steps will be necessary. Checking for certificate issues or NTP configuration, and contacting the ISP would not be the BEST initial steps in this scenario.

**NEW QUESTION 540**

- (Exam Topic 3)

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

- A. Asset tags

- B. Biometrics
- C. Access control vestibules
- D. Smart lockers

**Answer: C**

**NEW QUESTION 542**

- (Exam Topic 3)

A client who shares office space and an IT closet with another company recently reported connectivity issues throughout the network. Multiple third-party vendors regularly perform on-site maintenance in the shared IT closet. Which of the following security techniques would BEST secure the physical networking equipment?

- A. Disabling unneeded switchports
- B. Implementing role-based access
- C. Changing the default passwords
- D. Configuring an access control list

**Answer: A**

**NEW QUESTION 545**

- (Exam Topic 3)

A false camera is installed outside a building to assist with physical security. Which of the following is the device assisting?

- A. Detection
- B. Recovery
- C. Identification
- D. Prevention

**Answer: A**

**NEW QUESTION 550**

- (Exam Topic 3)

A network technician was hired to harden the security of a network. The technician is required to enable encryption and create a password for AP security through the web browser. Which of the following would BEST support these requirements?

- A. ESP
- B. WPA2
- C. IPSec
- D. ACL

**Answer: B**

**NEW QUESTION 553**

- (Exam Topic 3)

Which of the following can have multiple VLAN interfaces?

- A. Hub
- B. Layer 3 switch
- C. Bridge
- D. Load balancer

**Answer: B**

**NEW QUESTION 555**

- (Exam Topic 3)

A network is experiencing extreme latency when accessing a particular website. Which of the following commands will BEST help identify the issue?

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

**Answer: C**

**NEW QUESTION 560**

- (Exam Topic 3)

A network administrator needs to provide evidence to confirm that recent network outages were caused by increased traffic generated by a recently released application. Which of the following actions will BEST support the administrator's response?

- A. Generate a network baseline report for comparison.
- B. Export the firewall traffic logs.
- C. Collect the router's NetFlow data.
- D. Plot interface statistics for dropped packets.

**Answer: C**

**NEW QUESTION 565**

- (Exam Topic 3)

An administrator is investigating reports of network slowness in a building. While looking at the uplink interface statistics in the switch's CLI, the administrator discovers the uplink is at 100% utilization. However, the administrator is unsure how to identify what traffic is causing the saturation. Which of the following tools should the administrator utilize to identify the source and destination addresses of the traffic?

- A. SNMP
- B. Traps
- C. Syslog
- D. NetFlow

**Answer: D**

**Explanation:**

To identify the source and destination addresses of the traffic causing network saturation, the network administrator should use a network protocol analyzer that supports the NetFlow protocol. NetFlow is a network protocol that collects IP traffic information as it enters or exits an interface and sends it to a NetFlow collector for analysis. This data includes the source and destination addresses of the traffic, the ports used, and the number of bytes and packets transferred.

Therefore, the correct answer is option D, NetFlow.

Reference: CompTIA Network+ Study Guide, Exam N10-007, Fourth Edition, by Todd Lammler (Chapter 6: Network Devices)

**NEW QUESTION 566**

- (Exam Topic 3)

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

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

**Answer: D**

**Explanation:**

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

**NEW QUESTION 568**

- (Exam Topic 3)

Which of the following commands can be used to display the IP address, subnet address, gateway address, and DNS address on a Windows computer?

- A. netstat -a
- B. ifconfig
- C. ip addr
- D. ipconfig /all

**Answer: D**

**Explanation:**

The ipconfig command is a utility that allows you to view and modify the network configuration of a Windows computer. By running the command "ipconfig /all", you can view detailed information about the network configuration of your computer, including the IP address, subnet mask, default gateway, and DNS server addresses.

Option A (netstat -a) is a command that displays active network connections and their status, but it does not display IP address or other network configuration information. Option B (ifconfig) is a command used on Linux and Unix systems to view and modify network configuration, but it is not available on Windows. Option C (ip addr) is a command used on Linux and Unix systems to view and modify network configuration, but it is not available on Windows.

**NEW QUESTION 569**

- (Exam Topic 3)

A network technician is attempting to increase throughput by configuring link port aggregation between a Gigabit Ethernet distribution switch and a Fast Ethernet access switch. Which of the following is the BEST choice concerning speed and duplex for all interfaces that are participating in the link aggregation?

- A. Half duplex and 1GB speed
- B. Full duplex and 1GB speed
- C. Half duplex and 100MB speed
- D. Full duplex and 100MB speed

**Answer: B**

**Explanation:**

The best choice for configuring link port aggregation between a Gigabit Ethernet distribution switch and a Fast Ethernet access switch is to use full duplex and 1GB speed for all interfaces that are participating in the link aggregation. This will allow for maximum throughput, as the full duplex connection will enable simultaneous sending and receiving of data, and the 1GB speed will ensure that the data is transferred quickly.

According to the CompTIA Network+ Study Guide, "Full-duplex Ethernet allows the network adapter to transmit and receive data simultaneously, which can result in double the bandwidth of half-duplex Ethernet." Additionally, the official text states, "Ethernet and Fast Ethernet use different speeds for data transmission, with Ethernet being 1,000 megabits (1 gigabit) per second and Fast Ethernet being 100 megabits per second."

**NEW QUESTION 570**

- (Exam Topic 3)

A company rents out a large event space and includes wireless internet access for each tenant. Tenants reserve a two-hour window from the company each week, which includes a tenant-specific SSID. However, all users share the company's network hardware.

Wireless encryption	WPA2
Captive portal	Disabled
AP isolation	Enabled
Subnet mask	255.255.255.0
DNS server	10.0.0.1
Default gateway	10.1.10.1
DHCP scope begin	10.1.10.10
DHCP scope end	10.1.10.150
DHCP lease time	24 hours

The network support team is receiving complaints from tenants that some users are unable to connect to the wireless network. Upon investigation, the support teams discover a pattern indicating that after a tenant with a particularly large attendance ends its sessions, tenants throughout the day are unable to connect. The following settings are common to all network configurations:

Which of the following actions would MOST likely reduce this issue? (Select TWO).

- A. Change to WPA encryption
- B. Change the DNS server to 10.1.10.1.
- C. Change the default gateway to 10.0.0.1.
- D. Change the DHCP scope end to 10.1.10.250
- E. Disable AP isolation
- F. Change the subnet mask to 255.255.255.192.
- G. Reduce the DHCP lease time to four hours.

**Answer: DG**

**NEW QUESTION 572**

- (Exam Topic 3)

A security engineer is trying to determine whether an internal server was accessed by hosts on the internet. The internal server was shut down during the investigation. Which of the following will the engineer review to determine whether the internal server had an unauthorized access attempt?

- A. The server's syslog
- B. The NetFlow statistics
- C. The firewall logs
- D. The audit logs on the core switch

**Answer: A**

**NEW QUESTION 577**

- (Exam Topic 3)

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

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

**Answer: D**

**Explanation:**

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

**NEW QUESTION 581**

- (Exam Topic 3)

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

Switch 1:

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

Switch 2:

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

Switch 3:

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

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

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

**Answer:** AE

**NEW QUESTION 586**

- (Exam Topic 3)

Which of the following network devices can perform routing between VLANs?

- A. Layer 2 switch
- B. Layer 3 switch
- C. Load balancer
- D. Bridge

**Answer:** B

**Explanation:**

<https://www.practicalnetworking.net/stand-alone/routing-between-vlans/#:~:text=A%20router%20will%20perfo>

**NEW QUESTION 587**

- (Exam 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

**NEW QUESTION 589**

- (Exam Topic 3)

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

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

**Answer:** A

**NEW QUESTION 594**

- (Exam Topic 3)

A network technician is performing tests on a potentially faulty network card that is installed in a server. Which of the following addresses will MOST likely be used during traffic diagnostic tests?

- A. 10.10.10.10
- B. 127.0.0.1
- C. 192.168.0.1
- D. 255.255.255.0

**Answer:** B

**Explanation:**

\* 127.1.1.1 is the loopback address, it is used to test the functionality of a network card by sending traffic to the card and then verifying that it is received properly. This address is used because it is guaranteed to always point to the local host, regardless of the network configuration. The IP address range for loopback addresses is 127.0.0.0/8.

**NEW QUESTION 595**

- (Exam Topic 3)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 598**

- (Exam Topic 3)

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

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

**Answer:** A

**NEW QUESTION 602**

- (Exam Topic 3)

Which of the following devices have the capability to allow communication between two different subnetworks? (Select TWO).

- A. IDS
- B. Access point
- C. Layer 2 switch
- D. Layer 3 switch
- E. Router
- F. Media converter

**Answer:** DE

**NEW QUESTION 605**

- (Exam Topic 3)

A network engineer developed a plan of action to resolve an ongoing issue. Which of the following steps should the engineer take NEXT?

- A. Verify full system functionality and implement preventative measures.
- B. Implement the solution to resolve the problem.
- C. Document findings, actions, outcomes, and lessons learned.
- D. Establish a theory of probable cause.

**Answer:** B

**Explanation:**

Network troubleshooting is a repeatable process, which means that you can break it down into clear steps that anyone can follow. Identify the Problem. ... Develop a Theory. ... Test the Theory. ... Plan of Action. ... Implement the Solution. ... Verify System Functionality. ... Document the Issue. Theory of probable cause is before Plan of action. <https://www.comptia.org/content/guides/a-guide-to-network-troubleshooting>

**NEW QUESTION 610**

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