# CompTIA

## Exam Questions N10-009

CompTIA Network+ Exam

**NEW QUESTION 1**
- (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 2**
- (Topic 3)
Which of the following would most likely affect design considerations when building out an IDF?

A. The source panel amperage
B. The fire suppression system
C. The humidity levels
D. The cable transmission speeds

**Answer:** B

**Explanation:**
The fire suppression system is a design consideration when building out an IDF because it can affect the safety and reliability of the network equipment and cabling. A fire suppression system is a system that detects and extinguishes fires in a building, using water, gas, or chemicals. Depending on the type of fire suppression system, it can have different impacts on the IDF design, such as:
? Water-based systems, such as sprinklers, can damage the network equipment and cabling if they are activated by a fire or a false alarm. Therefore, the IDF should be designed to protect the equipment and cabling from water exposure, such as using waterproof cabinets, drip pans, and conduits.
? Gas-based systems, such as clean agent systems, can displace the oxygen in the IDF and cause suffocation for anyone inside. Therefore, the IDF should be designed to allow for ventilation and air circulation, as well as warning signs and alarms to alert anyone in the IDF before the gas is released.
? Chemical-based systems, such as dry chemical systems, can leave a residue on the network equipment and cabling that can affect their performance and lifespan. Therefore, the IDF should be designed to minimize the contact between the chemical and the equipment and cabling, as well as provide a means for cleaning and restoring them after a fire.
The other options are not correct because:
? The source panel amperage is not a design consideration when building out an IDF, as it is determined by the electrical circuit and the power needs of the network equipment and cabling. The source panel amperage does not affect the layout, location, or protection of the IDF.
? The humidity levels are not a design consideration when building out an IDF, as they are controlled by the HVAC system and the ventilation of the IDF. The humidity levels do not affect the layout, location, or protection of the IDF.
? The cable transmission speeds are not a design consideration when building out an IDF, as they are determined by the type and quality of the network cabling and the network equipment. The cable transmission speeds do not affect the layout, location, or protection of the IDF.

**NEW QUESTION 3**
- (Topic 3)
Which of the following compromises internet-connected devices and makes them vulnerable to becoming part of a botnet? (Select TWO).

A. Deauthentication attack
B. Malware infection
C. IP spoofing
D. Firmware corruption
E. Use of default credentials
F. Dictionary attack

**Answer:** BE

**NEW QUESTION 4**
- (Topic 3)
During an incident, an analyst sends reports regularly to the investigation and leadership teams. Which of the following best describes how PII should be safeguarded during an incident?

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

**Answer:** C

**Explanation:**
PII stands for Personally Identifiable Information, which is any data that can be used to identify, contact, or locate a specific individual, such as name, address, phone number, email, social security number, and so on. PII should be safeguarded during an incident to protect the privacy and security of the individuals involved, and to comply with the legal and ethical obligations of the organization. One way to safeguard PII during an incident is to implement data encryption, which is a process of transforming data into an unreadable format that can only be accessed by authorized parties who have the decryption key. Data encryption can prevent unauthorized access, modification, or disclosure of PII by malicious actors or third parties. Another way to safeguard PII during an incident is to create a standardized procedure for deleting data that is no longer needed, such as after the incident is resolved or the investigation is completed. Deleting data that is no longer needed can reduce the risk of data breaches, data leaks, or data theft, and can also save storage space and resources. A standardized procedure for deleting data can ensure that the data is erased securely and completely, and that the deletion process is documented and audited.
References
? 1: CompTIA Network+ N10-008 Certification Study Guide, page 304-305
? 2: CompTIA Network+ N10-008 Exam Subnetting Quiz, question 13

? 3: CompTIA Network+ N10-008 Certification Practice Test, question 5
? 4: Data Encryption – N10-008 CompTIA Network+ : 3.1

**NEW QUESTION 5**
- (Topic 3)
A network administrator needs to create an SVI on a Layer 3-capable device to separate voice and data traffic. Which of the following best explains this use case?

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

**Answer:** C

**Explanation:**
An SVI, or switched virtual interface, is a logical interface that is created on a Layer 3- capable device, such as a multilayer switch or a router. An SVI is associated with a VLAN and can be used to route traffic between different VLANs on the same device or across multiple devices. An SVI can also provide management access, security features, and quality of service (QoS) for the VLAN. An SVI is different from a physical interface, which is a port that connects to a physical device or network. A physical interface can be used for trunking, which is a method of carrying multiple VLANs over a single link, or for connecting to a single VLAN. An SVI is also different from a subinterface, which is a logical division of a physical interface that can be assigned to different VLANs.
References:
? VLANs and Trunking – N10-008 CompTIA Network+ : 2.11
? Switched Virtual Interfaces – N10-008 CompTIA Network+ : 2.22

**NEW QUESTION 6**
- (Topic 3)
A technician is trying to install a VoIP phone, but the phone is not turning on. The technician checks the cable gong 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 7**
- (Topic 3)
A user is required to log in to a main web application, which then grants the user access to all other programs needed to complete job-related tasks. Which of the following authentication methods does this setup describe?

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

**Answer:** A

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

**NEW QUESTION 8**
- (Topic 3)
Which of the following IP packet header fields is the mechanism for ending loops at Layer 3?

A. Checksum
B. Type
C. Time-to-live
D. Protocol

**Answer:** C

**Explanation:**
The time-to-live (TTL) field is the mechanism for ending loops at Layer 3, which is the network layer of the OSI model. The TTL field is an 8-bit field that indicates the maximum time or number of hops that an IP packet can travel before it is discarded. Every time an IP packet passes through a router, the router decrements the TTL value by one. If the TTL value reaches zero, the router drops the packet and sends an ICMP message back to the source, informing that the packet has expired. This way, the TTL field prevents an IP packet from looping endlessly in a network with routing errors or cycles123.
The other options are not mechanisms for ending loops at Layer 3. The checksum field is a 16-bit field that is used to verify the integrity of the IP header. The checksum field is calculated by adding all the 16-bit words in the header and taking the one's complement of the result. If the checksum field does not match the calculated value, the IP packet is considered corrupted and discarded12. The type field, also known as the type of service (TOS) or differentiated services code point (DSCP) field, is an 8-bit field that is used to specify the quality of service (QoS) or priority of the IP packet. The type field can indicate how the packet should be handled in terms of delay, throughput, reliability, or cost12. The protocol field is an 8-bit field that is used to identify the transport layer protocol that is encapsulated in the IP packet. The protocol field can indicate whether the payload is a TCP segment, a UDP datagram, an ICMP message, or another protocol12.

**NEW QUESTION 9**
- (Topic 3)
A network technician is investigating a trouble ticket for a user who does not have network connectivity. All patch cables between the wall jacks and computers in the building were upgraded over the weekend from Cat 5 to Cat 6. The newly installed cable is crimped with a TIA/EIA 568A on one end and a TIA/EIA 568B on the other end.
Which of the following should the technician do to MOST likely fix the issue?

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

**Answer:** B

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

**NEW QUESTION 10**
- (Topic 3)
A technician is monitoring a network interface and notices the device is dropping packets. The cable and interfaces, however, are in working order. Which of the following is MOST likely the cause?

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

**Answer:** C

**NEW QUESTION 10**
- (Topic 3)
During the troubleshooting of an E1 line, the point-to-point link on the core router was accidentally unplugged and left unconnected for several hours. However, the network management team was not notified. Which of the following could have been configured to allow early detection and possible resolution of the issue?

A. Traps
B. MIB
C. OID
D. Baselines

**Answer:** A

**Explanation:**
Traps are unsolicited messages sent by network devices to a network management system (NMS) when an event or a change in status occurs. Traps can help notify the network management team of any issues or problems on the network, such as a link failure or a device reboot. Traps can also trigger actions or alerts on the NMS, such as sending an email or logging the event. MIB stands for Management Information Base and is a database of information that can be accessed and managed by an NMS using SNMP (Simple Network Management Protocol). OID stands for Object Identifier and is a unique name that identifies a specific variable in the MIB. Baselines are measurements of normal network performance and behavior that can be used for comparison and analysis. References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.5: Given a scenario, use remote access methods.

**NEW QUESTION 13**
- (Topic 3)
A technician is expanding a wireless network and adding new access points. The company requires that each access point broadcast the same SSID. Which of the following should the technician implement for this requirement?

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

**Answer:** D

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

**NEW QUESTION 15**
- (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 19**
- (Topic 3)
A company receives a cease-and-desist order from its ISP regarding prohibited torrent activity. Which of the following should be implemented to comply with the cease-and-desist order?

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

**Answer:** B

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

**NEW QUESTION 20**
- (Topic 3)
A technician discovered that some information on the local database server was changed during a tile 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 21**
- (Topic 3)
Which of the following protocols is widely used in large-scale enterprise networks to support complex networks with multiple routers and balance traffic load on multiple links?

A. OSPF
B. RIPv2
C. QoS
D. STP

**Answer:** A

**NEW QUESTION 23**
- (Topic 3)
A Wi-Fi network was recently deployed in a new, multilevel budding. 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 25**
- (Topic 3)
A technician is troubleshooting network connectivity from a wall jack. Readings from a multimeter indicate extremely low ohmic values instead of the rated impedance from the switchport. Which of the following is the MOST likely cause of this issue?

A. Incorrect transceivers
B. Faulty LED
C. Short circuit
D. Upgraded OS version on switch

**Answer:** C

**Explanation:**
A short circuit is a condition where two conductors in a circuit are connected unintentionally, creating a low resistance path for the current. This causes the voltage to drop and the current to increase, which can damage the circuit or cause a fire. A multimeter can measure the resistance or impedance of a circuit, and if it shows extremely low values, it indicates a short circuit.

**NEW QUESTION 29**
- (Topic 3)
Which of the following technologies would MOST likely De used to prevent the loss of connection between a virtual server and network storage devices?

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

**Answer:** D

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

**NEW QUESTION 31**
- (Topic 3)
A large number of PCs are obtaining an APIPA IP address, and a number of new computers were added to the network. Which of the following is MOST likely causing the PCs to obtain an APIPA address?

A. Rogue DHCP server
B. Network collision
C. Incorrect DNS settings
D. DHCP scope exhaustion

**Answer:** D

**Explanation:**
DHCP scope exhaustion means that there are no more available IP addresses in the DHCP server's pool of addresses to assign to new devices on the network. When this happens, the devices will use APIPA (Automatic Private IP Addressing) to self-configure an IP address in the range of 169.254.0.1 to 169.254.255.2541. These addresses are not routable and can only communicate with other devices on the same local network.
A rogue DHCP server (A) is an unauthorized DHCP server that can cause IP address conflicts or security issues by assigning IP addresses to devices on the network. A network collision (B) is a situation where two or more devices try to send data on the same network segment at the same time, causing interference and data loss. Incorrect DNS settings © can prevent devices from resolving domain names to IP addresses, but they do not affect the DHCP process.

**NEW QUESTION 35**
- (Topic 3)
Which of the following records can be used to track the number of changes on a DNS zone?

A. SOA
B. SRV
C. PTR
D. NS

**Answer:** A

**Explanation:**
The DNS 'start of authority' (SOA) record stores important information about a domain or zone such as the email address of the administrator, when the domain was last updated, and how long the server should wait between refreshes. All DNS zones need an SOA record in order to conform to IETF standards. SOA records are also important for zone transfers.

**NEW QUESTION 37**
- (Topic 3)
While troubleshooting a network, a VoIP systems engineer discovers a significant inconsistency in the amount of time required for data to reach its destination and return. Which of the following terms best describes this issue?

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

**Answer:** C

**Explanation:**
Jitter is the variation in the delay of data packets over a network. It is caused by factors such as network congestion, routing changes, packet loss, or improper queuing. Jitter affects the quality of VoIP calls because it can cause gaps, distortion, or out-of-order delivery of voice data. Jitter can be measured by the difference between the expected and actual arrival times of packets2. To reduce jitter, VoIP systems use buffers to store and reorder packets before playing them back. However, too much buffering can also increase latency, which is the total time it takes for data to travel from one point to another3.
References2 - VoIP Troubleshooting: 5 Fixes for Common Connection Issues - Nextiva3 - Troubleshooting VoIP — Is it You or the Network? - PingPlotter

**NEW QUESTION 40**
- (Topic 3)
Which of the following combinations of single cables and transceivers will allow a server to have 40GB of network throughput? (Select two).

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

**Answer:** CD

**Explanation:**
QSFP+ is a type of transceiver that supports 40 gigabit Ethernet (40GbE) over four lanes of 10 gigabit Ethernet (10GbE) each. QSFP+ stands for quad small form-factor pluggable plus, and it is a compact and hot-swappable module that plugs into a QSFP+ port on a network device. QSFP+ transceivers can support various types of cables and connectors, such as direct attach copper (DAC), active optical cable (AOC), or fiber optic cable. Multimode is a type of fiber optic cable that supports multiple modes of light propagation within the core. Multimode fiber optic cable can carry higher bandwidth and data rates than single-mode fiber optic cable, but over shorter distances. Multimode fiber optic cable is commonly used for short-reach applications, such as within a data center or a campus network. Multimode fiber optic cable can be paired with QSFP+ transceivers to achieve 40GbE connectivity.
The other options are not correct because they do not support 40GbE. They are:
? SFP+. SFP+ is a type of transceiver that supports 10 gigabit Ethernet (10GbE) over a single lane. SFP+ stands for small form-factor pluggable plus, and it is a compact and hot-swappable module that plugs into an SFP+ port on a network device. SFP+ transceivers can support various types of cables and connectors, such as direct attach copper (DAC), active optical cable (AOC), or fiber optic cable. However, SFP+ transceivers cannot support 40GbE by themselves, unless they are used in a breakout configuration with a QSFP+ transceiver.
? SFP. SFP is a type of transceiver that supports 1 gigabit Ethernet (1GbE) over a single lane. SFP stands for small form-factor pluggable, and it is a compact and hot-swappable module that plugs into an SFP port on a network device. SFP transceivers can support various types of cables and connectors, such as twisted-pair copper, coaxial cable, or fiber optic cable. However, SFP transceivers cannot
support 40GbE by themselves, unless they are used in a breakout configuration with a QSFP+ transceiver.
? Cat 6a. Cat 6a is a type of twisted-pair copper cable that supports 10 gigabit
Ethernet (10GbE) over distances up to 100 meters. Cat 6a stands for category 6 augmented, and it is an enhanced version of Cat 6 cable that offers better performance and reduced crosstalk. Cat 6a cable can be paired with 10Gbase-T transceivers to achieve 10GbE connectivity. However, Cat 6a cable cannot support 40GbE by itself, unless it is used in a breakout configuration with a QSFP+ transceiver.
? Cat 5e. Cat 5e is a type of twisted-pair copper cable that supports 1 gigabit
Ethernet (1GbE) over distances up to 100 meters. Cat 5e stands for category 5 enhanced, and it is an improved version of Cat 5 cable that offers better performance and reduced crosstalk. Cat 5e cable can be paired with 1000base-T transceivers to achieve 1GbE connectivity. However, Cat 5e cable cannot support 40GbE by itself, unless it is used in a breakout configuration with a QSFP+ transceiver.
References1: QSFP+ - an overview | ScienceDirect Topics2: Multimode Fiber - an overview | ScienceDirect Topics3: Network+ (Plus) Certification | CompTIA IT Certifications4: SFP+ - an overview | ScienceDirect Topics5: SFP - an overview | ScienceDirect Topics6: Cat 6a - an overview | ScienceDirect Topics7: [Cat 5e - an overview | ScienceDirect Topics]

**NEW QUESTION 41**
- (Topic 3)
A bank installed a new smart TV to stream online video services, but the smart TV was not able to connect to the branch Wi-Fi. The next day. a technician was able to connect the TV to the Wi-Fi, but a bank laptop lost network access at the same time. Which of the following is the MOST likely cause?

A. DHCP scope exhaustion
B. AP configuration reset
C. Hidden SSID
D. Channel overlap

**Answer:** A

**Explanation:**
 DHCP scope exhaustion is the situation when a DHCP server runs out of available IP addresses to assign to clients. DHCP stands for Dynamic Host Configuration Protocol, which is a network protocol that automatically assigns IP addresses and other configuration parameters to clients on a network. A DHCP scope is a range of IP addresses that a DHCP server can distribute to clients. If the DHCP scope is exhausted, new clients will not be able to obtain an IP address and connect to the network. This can explain why the smart TV was not able to connect to the branch Wi-Fi on the first day, and why the bank laptop lost network access on the next day when the TV was connected. The technician should either increase the size of the DHCP scope or reduce the lease time of the IP addresses to avoid DHCP scope exhaustion. References: [CompTIA Network+ Certification Exam Objectives], DHCP Scope Exhaustion - What Is It? How Do You Fix It?

**NEW QUESTION 42**
- (Topic 3)
Users in a branch can access an In-house database server, but II is taking too long to fetch records. The analyst does not know whether the Issue is being caused by network latency. Which of the following will the analyst MOST likely use to retrieve the metrics that are needed to resolve this issue?

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

**Answer:** A

**NEW QUESTION 47**
- (Topic 3)
Which of the following DNS records maps an alias to a true name?

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

**Answer:** D

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

**NEW QUESTION 49**
- (Topic 3)
Which of the following fiber connector types is the most likely to be used on a network interface card?

A. LC
B. SC
C. ST
D. MPO

**Answer:** A

**Explanation:**
LC (local connector) is the most likely fiber connector type to be used on a network interface card, because it is a small form factor connector that can fit more interfaces on a single card. LC connectors use square connectors that have a locking mechanism on the top, similar to an RJ45 copper connector. LC connectors are also compatible with SFP (small form-factor pluggable) modules that are often used to link a gigabit Ethernet port with a fiber network12.
References:
? Optical Fiber Connectors – CompTIA Network+ N10-007 – 2.11
? CompTIA Network+ Certification Exam Objectives2

**NEW QUESTION 50**
- (Topic 3)
A network administrator would like to purchase a device that provides access ports to endpoints and has the ability to route between networks. Which of the following would be BEST for the administrator to purchase?

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

**Answer:** B

**NEW QUESTION 54**
- (Topic 3)
A customer reports there is no access to resources following the replacement of switches. A technician goes to the site to examine the configuration and discovers redundant links between two switches. Which of the following is the reason the network is not functional?

A. The ARP cache has become corrupt.
B. CSMA/CD protocols have failed.
C. STP is not configured.
D. The switches are incompatible models

**Answer:** C

**Explanation:**
The reason the network is not functional is that STP (Spanning Tree Protocol) is not configured on the switches. STP is a protocol that prevents loops in a network topology by blocking redundant links between switches. If STP is not enabled, the switches will forward broadcast frames endlessly, creating a broadcast storm that consumes network resources and disrupts communication. References: CompTIA Network+ N10-008 Certification Study Guide, page 67; The Official CompTIA Network+ Student Guide (Exam N10-008), page 2-14.

**NEW QUESTION 57**
- (Topic 3)
Which of the following BEST describes a north-south traffic flow?

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

**Answer:** A

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

Examples of north-south traffic flow include:

? A public internet user accessing a published web server

? A remote employee connecting to a VPN

? An email client sending email to an external server

? A customer connecting to an e-commerce website

References:

? CompTIA Network+ N10-008 Exam Objectives, Version 5.0, August 2022, page 12

? CompTIA Network+ Certification Study Guide, Seventh Edition, Todd Lammle, Sybex, 2022, page 17

**NEW QUESTION 61**

- (Topic 3)

Which of the following attacks utilizes a network packet that contains multiple network tags?

A. MAC flooding

B. VLAN hopping

C. DNS spoofing

D. ARP poisoning

**Answer:** B

**NEW QUESTION 64**

- (Topic 3)

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

A. Software-defined network

B. Spine and leaf

C. Three-tier

D. Backbone

**Answer:** A

**Explanation:**

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

References:

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

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

**NEW QUESTION 67**

- (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 me following terminations should the technician use when running a cable from the ISP's port lo the front desk?

A. F-type connector

B. TIA/E1A-56S-B

C. LC

D. SC

**Answer:** B

**Explanation:**

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

**NEW QUESTION 68**

- (Topic 3)

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

A. Disable unneeded ports

B. Disable SSH service

C. Disable MAC filtering

D. Disable port security

**Answer:** A

**NEW QUESTION 70**

- (Topic 3)

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

A. Implement NetFlow.

B. Hire a programmer to write a script to perform the checks

C. Utilize ping to measure the response.

D. Use SNMP with an existing collector server

**Answer:** D

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

**NEW QUESTION 71**
- (Topic 3)
A company is reviewing ways to cut the overall cost of Its IT budget. A network technician suggests removing various computer programs from the IT budget and only providing these
programs on an as-needed basis. Which of the following models would meet this requirement?

A. Multitinency
B. IaaS
C. SaaS
D. VPN

**Answer:** C

**Explanation:**
SaaS stands for Software as a Service and is a cloud computing model where software applications are hosted and delivered over the internet by a service provider. SaaS can help the company cut the overall cost of its IT budget by eliminating the need to purchase, install, update, and maintain various computer programs on its own devices. The company can access the programs on an as-needed basis and pay only for what it uses. Multitenancy is a feature of cloud computing where multiple customers share the same physical or virtual resources. IaaS stands for Infrastructure as a Service and is a cloud computing model where computing resources such as servers, storage, and networking are provided over the internet by a service provider. VPN stands for Virtual Private Network and is a technology that creates a secure and encrypted connection over a public network.
References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 1.9: Compare and contrast common network service types.

**NEW QUESTION 72**
- (Topic 3)
Which of the following redundant devices creates broadcast storms when connected together on a high-availability network?

A. Switches
B. Routers
C. Access points
D. Servers

**Answer:** A

**Explanation:**
Switches are devices that forward data based on MAC addresses. They create separate collision domains for each port, which reduces the chance of collisions on the network. However, if multiple switches are connected together without proper configuration, they can create broadcast storms, which are situations where broadcast frames are endlessly forwarded between switches, consuming network bandwidth and resources. Broadcast storms can be prevented by using protocols such as Spanning Tree Protocol (STP), which eliminates loops in the network topology. References: CompTIA Network+ N10-008 Certification Study Guide, page 67; The Official CompTIA Network+ Student Guide (Exam N10-008), page 2-14.

**NEW QUESTION 75**
- (Topic 3)
A user calls the IT department to report being unable to log in after locking the computer The user resets the password, but later in the day the user is again unable to log in after locking the computer Which of the following attacks against the user IS MOST likely taking place?

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

**Answer:** A

**NEW QUESTION 80**
- (Topic 3)
In which of the following components do routing protocols belong in a software-defined network?

A. Infrastructure layer
B. Control layer
C. Application layer
D. Management plane

**Answer:** B

**Explanation:**
A software-defined network (SDN) is a network architecture that decouples the control plane from the data plane and centralizes the network intelligence in a software controller. The control plane is the part of the network that makes decisions about how to route traffic, while the data plane is the part of the network that forwards traffic based on the control plane's instructions. The control layer is the layer in an SDN that contains the controller and the routing protocols that communicate with the network devices. The control layer is responsible for managing and configuring the network devices and providing them with the necessary information to forward traffic. References: https://www.comptia.org/training/books/network-n10-008-study-guide (page 378)

**NEW QUESTION 85**
- (Topic 3)
Which of the following routing technologies is used to prevent network failure at the gateway by protecting data traffic from a failed router?

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

**Answer:** D

**Explanation:**
FHRP stands for First Hop Redundancy Protocol, and it is a group of protocols that allow routers to work together to provide backup or failover for the default gateway in a network. FHRP can prevent network failure at the gateway by protecting data traffic from a failed router and ensuring that there is always an active router to forward packets. Some examples of FHRP protocols are HSRP, VRRP, and GLBP12.
References: 1: CompTIA Network+ N10-008 Cert Guide - Chapter 13: Routing Protocols32: First Hop Redundancy Protocols (FHRP) Explained4

**NEW QUESTION 90**
- (Topic 3)
A technician installed an 8-port switch in a user's office. The user needs to add a second computer in the office, so the technician connects both PCs to the switch and connects the switch to the wall jack. However, the new PC cannot connect to network resources. The technician then observes the following:
• The new computer does not get an IP address on the client's VLAN.
• Both computers have a link light on their NICs.
• The new PC appears to be operating normally except for the network issue.
• The existing computer operates normally.
Which of the following should the technician do NEXT to address the situation?

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

**Answer:** A

**NEW QUESTION 95**
- (Topic 3)
A technician is troubleshooting reports that a networked printer is unavailable. The printer's IP address is configured with a DHCP reservation, but the address cannot be pinged from the print server in the same subnet. Which of the following is MOST likely the cause of me connectivity failure?

A. Incorrect VLAN
B. DNS failure
C. DHCP scope exhaustion
D. Incorrect gateway

**Answer:** D

**NEW QUESTION 97**
- (Topic 3)
A network engineer designed and implemented a new office space with the following characteristics:

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

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

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

**Answer:** D

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

**NEW QUESTION 102**

- (Topic 3)

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

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

**Answer:** AF

**NEW QUESTION 106**

- (Topic 3)

An IT intern moved the location of a WAP from one conference room to another. The WAP was unable to boot following the move. Which of the following should be used to fix the issue?

A. Antenna
B. WLAN controller
C. Media converter
D. PoE injector

**Answer:** D

**Explanation:**

A PoE injector is a device that provides power over Ethernet (PoE) to a WAP or other network device that does not have a built-in power supply. A PoE injector connects to a power outlet and an Ethernet cable, and sends both power and data to the WAP. If the WAP was moved to a location where there is no power outlet or PoE switch, it would need
a PoE injector to boot up. References:
? Part 3 of the current page talks about PoE and PoE injectors as a way to power WAPs.
? [This article] explains how PoE injectors work and how to use them.

**NEW QUESTION 110**

- (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 114**

- (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 117**

- (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 120**
- (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 125**
- (Topic 3)
A technician received a report that some users in a large, 30-floor building are having intermittent connectivity issues. Users on each floor have stable connectivity, but do not have connectivity to other floors. Which of the following devices is MOST likely causing the issue?

A. User devices
B. Edge devices
C. Access switch
D. Core switch

**Answer:** D

**Explanation:**
 A core switch is the most likely device causing the issue where users on each floor have stable connectivity, but do not have connectivity to other floors. A core switch is a high-performance switch that connects multiple access switches in a network. An access switch is a switch that connects end devices, such as computers and printers, to the network. A core switch acts as the backbone of the network, providing interconnection and routing between different subnets or VLANs. If the core switch is malfunctioning or misconfigured, it can prevent communication between different segments of the network, resulting in intermittent connectivity issues. References: [CompTIA Network+ Certification Exam Objectives], Core Switch vs Access Switch: What Are the Differences?

**NEW QUESTION 128**
- (Topic 3)
While setting up a new workstation, a technician discovers that the network connection is only 100 full duplex (FD), although it is connected to a gigabit switch. While reviewing the interface information in the switch CLI, the technician notes the port is operating at IOOFD but Shows many RX and TX errors. The technician moves the computer to another switchport and experiences the same issues.
Which of the following is MOST likely the cause of the low data rate and port errors?

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

**Answer:** B

**NEW QUESTION 130**
- (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 131**
- (Topic 3)
A network administrator is working to configure a new device to provide Layer 2 connectivity to various endpoints including several WAPs. Which of the following devices will the administrator MOST likely configure?

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

**Answer:** D

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

**NEW QUESTION 132**
- (Topic 3)
A network administrator is concerned about a rainbow table being used to help access network resources. Which of the following must be addressed to reduce the likelihood of a rainbow table being effective?

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

**Answer:** A

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

**NEW QUESTION 137**
- (Topic 3)
A technician is working on a ticket for a user in the human resources department who received a new PC that does not connect to the internet. All users in human resources can access the
internet. The technician can ping the PC from the human resources router but not from the IT network. Which of the following is the most likely cause of the issue?

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

**Answer:** D

**Explanation:**
An incorrect default gateway can cause a PC to not connect to the internet, because the default gateway is the device that routes traffic from the local network to other networks. If the PC has a wrong default gateway configured, it may not be able to reach the internet router or the IT network router. The technician can ping the PC from the human resources router because they are on the same local network, but not from the IT network router because they are on different networks.
A duplicate IP address can cause a PC to not communicate with other devices on the same network, because the IP address is the unique identifier of a device on a network. If two devices have the same IP address, they may cause IP conflicts and packet loss. However, a duplicate IP address would not prevent the technician from pinging the PC from the human resources router, because they are on the same network.
A misconfigured RIP can cause a router to not learn or advertise routes to other networks, because RIP is a routing protocol that dynamically exchanges routing information between routers. If a router has a wrong RIP configuration, it may not be able to reach or share routes with other routers. However, a misconfigured RIP would not affect the PC's connectivity to the internet, because the PC does not use RIP.
An improper VLAN assignment can cause a PC to not communicate with other devices on the same or different networks, because a VLAN is a logical segmentation of a network that isolates traffic based on criteria such as function, security, or performance. If a PC is assigned to a wrong VLAN, it may not be able to access the resources or services that it needs. However, an improper VLAN assignment would not prevent the technician from pinging the PC from the human resources router, because they are on the same physical network.
References
What is a Default Gateway?
What's an IP Conflict and How Do You Resolve It? What is RIP (Routing Information Protocol)?
What is a VLAN? How to Set Up a VLAN Network
CompTIA Network+ Certification All-in-One Exam Guide, Eighth Edition (Exam N10-008)

**NEW QUESTION 141**
- (Topic 3)
A company's web server is hosted at a local ISP. This is an example of:

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

**Answer:** D

**NEW QUESTION 144**
- (Topic 3)
A network engineer needs to change an entire subnet of SLAAC-configured workstation addresses. Which of the following methods would be the best for the engineer to use?

A. Change the address prefix in ARP in order for the workstations to retrieve their new addresses.
B. Change the address prefix in a router in order for the router to advertise the new prefix with an ND.
C. Change the address prefix scope in a DHCP server in order for the workstations to retrieve their new addresses.
D. Change the workstations' address prefix manually because an automated method does not exist.

**Answer:** B

**Explanation:**
SLAAC (Stateless Address Autoconfiguration) is a mechanism that enables each host on the network to auto-configure a unique IPv6 address without any device keeping track of which address is assigned to which node12. SLAAC uses link-local addresses and the interface's MAC address or a random number to generate the host portion of the IPv6 address2. SLAAC also relies on Router Solicitation (RS) and Router Advertisement (RA) messages to obtain the network prefix and

other information from a router12. Therefore, to change an entire subnet of SLAAC-configured workstation addresses, the network engineer needs to change the address prefix in a router and let the router advertise the new prefix with an ND (Neighbor Discovery) message. This way, the workstations will receive the new prefix and update their IPv6 addresses accordingly3.
References1 - IPv6 Stateless Address Auto-configuration (SLAAC) | NetworkAcademy.io2 - IPv6 SLAAC – Stateless Address Autoconfiguration - Study-CCNA3 - Mastering IPv6
SLAAC Concepts and Configuration - Cisco Press

**NEW QUESTION 148**
- (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 152**
- (Topic 3)
Which of the following ports is a secure protocol?

A. 20
B. 23
C. 443
D. 445

**Answer:** C

**Explanation:**
This is the port number for HTTPS, which stands for Hypertext Transfer Protocol Secure. HTTPS is a secure version of HTTP, which is the protocol used to communicate between web browsers and web servers. HTTPS encrypts the data sent and received using SSL/TLS, which are cryptographic protocols that provide authentication, confidentiality, and integrity. HTTPS is commonly used for online transactions, such as banking and shopping, where security and privacy are important

**NEW QUESTION 153**
- (Topic 3)
Users are reporting intermittent Wi-Fi connectivity in specific parts of a building. Which of the following should the network administrator check FIRST when troubleshooting this issue? (Select TWO).

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

**Answer:** AC

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

**NEW QUESTION 154**
- (Topic 3)
During a risk assessment which of the following should be considered when planning to mitigate high CPU utilization of a firewall?

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

**Answer:** D

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

**NEW QUESTION 159**
- (Topic 3)
Which of the following network cables involves bouncing light off of protective cladding?

A. Twinaxial
B. Coaxial
C. Single-mode
D. Multimode

**Answer:** D

**Explanation:**
Multimode fiber optic cables use multiple paths of light that bounce off the cladding, which is a layer of glass or plastic that surrounds the core of the cable.
https://www.explainthatstuff.com/fiberoptics.html

**NEW QUESTION 162**
- (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 10OMB 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 167**
- (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 169**
- (Topic 3)
A user took a laptop on a trip and made changes to the network parameters while at the airport. The user can access all internet websites but not corporate intranet websites. Which of the following is the most likely cause of the issue?

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

**Answer:** C

**Explanation:**
DNS (Domain Name System) is a service that translates domain names into IP addresses. Corporate intranet websites are usually hosted on private IP addresses that are not accessible from the public internet. Therefore, the user's laptop needs to use the correct DNS server that can resolve the intranet domain names to the private IP addresses. If the user changed the network parameters at the airport and did not revert them back, the laptop might be using a public DNS server that does not have the records for the intranet websites. This would cause the user to access all internet websites but not corporate intranet websites.
References:
? An Overview of DNS - N10-008 CompTIA Network+ : 1.61
? DNS Configuration – CompTIA A+ 220-11012
? CompTIA Network+ Certification Exam Objectives, page 53

**NEW QUESTION 174**
- (Topic 3)
To reduce costs and increase mobility, a Chief Technology Officer (CTO) wants to adopt cloud services for the organization and its affiliates. To reduce the impact for users, the CTO wants key services to run from the on-site data center and enterprise services to run in the cloud. Which of the following deployment models is the best choice for the organization?

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

**Answer:** B

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

**NEW QUESTION 177**
- (Topic 3)
A network technician is troubleshooting a connectivity issue. All users within the network report that they are unable to navigate to websites on the internet;

however, they can still access local network resources. The technician issues a command and receives the following results:

```
Pinging comptia.com [172.67.217.56] with 32 bytes of data:
Reply from 172.67.217.56: TTL expired in transit.
Reply from 172.67.217.56: TTL expired in transit.
Reply from 172.67.217.56: TTL expired in transit.
Reply from 172.67.217.56: TTL expired in transit.
```

Which of the following best explains the result of this command?

A. Incorrect VLAN settings
B. Upstream routing loop
C. Network collisions
D. DNS misconfiguration

**Answer:** D

**Explanation:**
The users are unable to navigate to websites on the internet but can access local network resources, indicating a possible DNS issue. The ping command result showing "TTL expired in transit" suggests that packets are not reaching their destination due to a DNS misconfiguration that is not resolving website names into IP addresses correctly3. A possible solution is to check and correct the DNS server settings on the network devices4.
References: 3: What does "TTL expired in transit" mean?54: CompTIA Network+ N10-008 Cert Guide - Chapter 14: Network Monitoring2

**NEW QUESTION 179**
- (Topic 3)
A network client is trying to connect to the wrong TCP port. Which of the following responses would the client MOST likely receive?

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

**Answer:** A

**NEW QUESTION 182**
- (Topic 3)
A network administrator wants to test the throughput of a new metro Ethernet circuit to verify that its performance matches the requirements specified m the SLA. Which of the following would BEST help measure the throughput?

A. iPerf
B. Ping
C. NetFlow
D. Netstat

**Answer:** A

**NEW QUESTION 186**
- (Topic 3)
An employee working in a warehouse facility is experiencing interruptions in mobile applications while walking around the facility. According to a recent site survey, the WLAN comprises autonomous APs that are directly connected to the internet, providing adequate signal coverage. Which of the following is the BEST solution to improve network stability?

A. Implement client roaming using an extended service deployment employing a wireless controller.
B. Remove omnidirectional antennas and adopt a directional bridge.
C. Ensure all APs of the warehouse support MIMO and Wi-Fi 4.
D. Verify that the level of EIRP power settings is set to the maximum permitted by regulations.

**Answer:** A

**Explanation:**
Client roaming refers to the ability of a wireless device to seamlessly connect to a different access point (AP) as the user moves around the facility. This can help to improve network stability and reduce interruptions in mobile applications. An extended service deployment is a type of wireless network configuration that uses multiple APs to cover a large area, such as a warehouse facility. By using a wireless controller to manage the APs, the network can be better optimized for client roaming, which can improve network stability.
"Roaming With multiple WAPs in an ESS, clients will connect to whichever WAP has the strongest signal. As clients move through the space covered by the broadcast area, they will change WAP connections seamlessly, a process called roaming."

**NEW QUESTION 190**
- (Topic 3)
A network engineer is troubleshooting application connectivity issues between a server and a client. The network engineer needs to view the certificate exchange between the two hosts. Which of the following tools should the network engineer use?

A. dig
B. tcpdump
C. nmap
D. traceroute

**Answer:** B

**Explanation:**
tcpdump is a tool that can capture and analyze network traffic, including the certificate exchange between two hosts. It can display the contents of packets, such as the SSL/TLS handshake, which involves the exchange of certificates. dig is a tool that can query DNS servers for domain name information. nmap is a tool that can scan ports and services on a network. traceroute is a tool that can show the path and hops between a source and a destination.

## NEW QUESTION 192
- (Topic 3)
Which of the following layers of the OSI model has new protocols activated when a user moves from a wireless to a wired connection?

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

**Answer:** A

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

## NEW QUESTION 196
- (Topic 3)
Which of the following cloud components can filter inbound and outbound traffic between cloud resources?

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

**Answer:** C

**Explanation:**
Network security groups are cloud components that can filter inbound and outbound traffic between cloud resources based on rules and priorities. Network security groups can be applied to virtual machines, subnets, or network interfaces to control the network access and security. Network security groups can allow or deny traffic based on the source, destination, port, and protocol of the packets. Network security groups are different from NAT gateways, service endpoints, and virtual private clouds, which are other cloud components that have different functions and purposes.
References
? 1: Network Security Groups – N10-008 CompTIA Network+ : 3.2
? 2: CompTIA Network+ N10-008 Certification Study Guide, page 329-330
? 3: CompTIA Network+ N10-008 Exam Subnetting Quiz, question 17
? 4: CompTIA Network+ N10-008 Certification Practice Test, question 10

## NEW QUESTION 197
- (Topic 3)
An online gaming company needs a cloud solution that will allow for more virtual resources to be deployed when tournaments are held. The number of users who access the service increases during tournaments. The company also needs the resources to return to baseline levels once the resources are not needed in order to reduce cost. Which of the following cloud concepts would provide the best solution?

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

**Answer:** D

**Explanation:**
Elasticity is the ability of a cloud service to automatically adjust the amount of resources allocated to meet the changing demand of the users. Elasticity enables a cloud service to scale up or down resources quickly and efficiently, without requiring manual intervention or planning. Elasticity is ideal for scenarios where the demand is unpredictable, dynamic, or seasonal, such as online gaming tournaments. By using elasticity, the online gaming company can ensure optimal performance and user experience during peak times, while also saving costs and avoiding overprovisioning during off-peak times.
The other options are not correct because they do not address the specific needs of the online gaming company. They are:
•Scalability is the ability of a cloud service to handle an increase or decrease in the demand of the users by adding or removing resources. Scalability is similar to elasticity, but it is more manual, planned, and predictive, while elasticity is automatic, prompt, and reactive. Scalability is suitable for scenarios where the demand is steady, predictable, or gradual, such as a growing business or a long-term project.
•Hybrid is a type of cloud model that combines two or more clouds, such as on-premises private, hosted private, or public, that can be centrally managed to enable interoperability for various use cases. Hybrid cloud can offer benefits such as flexibility, security, and cost- efficiency, but it does not directly address the need for dynamic resource allocation for the online gaming company.
•Multitenancy is a feature of cloud services that allows multiple users or customers to share the same physical or virtual resources, such as servers, databases, or applications, while maintaining isolation and privacy. Multitenancy can offer benefits such as efficiency, scalability, and cost-effectiveness, but it does not directly address the need for dynamic resource allocation for the online gaming company.
References
1: Understand cloud concepts | Microsoft Press Store 2: What Is Hybrid Cloud? - Cisco
3: Difference between Elasticity and Scalability in Cloud Computing 4: Scalability and Elasticity in Cloud Computing - GeeksforGeeks

## NEW QUESTION 199
- (Topic 3)

A network team is getting reports that air conditioning is out in an IDF. The team would like to determine whether additional network issues are occurring. Which of the following should the network team do?

A. Confirm that memory usage on the network devices in the IDF is normal.
B. Access network baseline data for references to an air conditioning issue.
C. Verify severity levels on the corporate syslog server.
D. Check for SNMP traps from a network device in the IDF.
E. Review interface statistics looking for cyclic redundancy errors.

**Answer:** D

**Explanation:**
"Baselines play an integral part in network documentation because they let you monitor the network's overall performance. In simple terms, a baseline is a measure of performance that indicates how hard the network is working and where network resources are spent. The purpose of a baseline is to provide a basis of comparison. For example, you can compare the network's performance results taken in March to results taken in June, or from one year to the next. More commonly, you would compare the baseline information at a time when the network is having a problem to information recorded when the network was operating with greater efficiency. Such comparisons help you determine whether there has been a problem with the network, how significant that problem is, and even where the problem lies."

**NEW QUESTION 203**
- (Topic 3)
Which of the following disaster recovery metrics describes the average length of time a piece of equipment can be expected to operate normally?

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

**Answer:** D

**Explanation:**
MTBF is the disaster recovery metric that describes the average length of time a piece of equipment can be expected to operate normally. MTBF stands for mean time between failures, which is a measure of the reliability and availability of a device or system. MTBF is calculated by dividing the total operating time by the number of failures that occurred during that time. MTBF indicates how often a device or system fails and how long it can run without interruption. A higher MTBF means a lower failure rate and a longer operational life span. References: [CompTIA Network+ Certification Exam Objectives], What Is Mean Time Between Failures (MTBF)? | Definition & Examples | Forcepoint

**NEW QUESTION 208**
- (Topic 3)
Which of the following would be used to enforce and schedule critical updates with supervisory approval and include backup plans in case of failure?

A. Business continuity plan
B. Onboarding and offboarding policies
C. Acceptable use policy
D. System life cycle
E. Change management

**Answer:** A

**NEW QUESTION 212**
- (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 215**
- (Topic 3)
To comply with an industry regulation, all communication destined to a secure server should be logged and archived on a storage device. Which of the Mowing can be configured to fulfill this requirement?

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

**Answer:** B

**NEW QUESTION 216**
- (Topic 3)
An engineer is using a tool to run an ICMP sweep of a network to find devices that are online. When reviewing the results, the engineer notices a number of workstations that are currently verified as being online are not listed in the report.
The tool was configured to scan using the following information: Network address: 172.28.16.0

CIDR: /22
The engineer collected the following information from the client workstation: IP address: 172.28.17.206
Subnet mask: 255.255.252.0
Which of the following MOST likely explains why the tool is failing to detect some workstations?

A. The scanned network range is incorrect.
B. The subnet mask on the client is misconfigured.
C. The workstation has a firewall enabled.
D. The tool is unable to scan remote networks.

**Answer:** C

**Explanation:**
A firewall is a device or software that filters and controls the incoming and outgoing network traffic based on predefined rules. A firewall can block ICMP packets, which are used for ping and other diagnostic tools. If the workstation has a firewall enabled, it may not respond to the ICMP sweep and appear as offline. The engineer should check the firewall settings on the workstation and allow ICMP traffic if needed.
References: Network+ Study Guide Objective 4.1: Given a scenario, use the appropriate tool.


**NEW QUESTION 218**
- (Topic 3)
Which of the following allows for an devices within a network to share a highly reliable time source?

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

**Answer:** A

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


**NEW QUESTION 222**
- (Topic 3)
A Network engineer is investigating issues on a Layer 2 Switch. The department typically snares a Switchport during meetings for presentations, but atter the first user Shares, no Other users can connect. Which Of the following is MOST likely related to this issue?

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

**Answer:** C


**NEW QUESTION 223**
- (Topic 3)
A network administrator is setting up a web-based application for a company. The application needs to be continually accessible to all end users.
Which of the following would best ensure this need is fulfilled?

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

**Answer:** D

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


**NEW QUESTION 224**
- (Topic 3)
A technician is investigating packet loss to a device that has varying data bursts throughout the day. Which of the following will the technician MOST likely configure to resolve the issue?

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

**Answer:** A

**Explanation:**
Ethernet flow control is a mechanism for temporarily stopping the transmission of data on Ethernet family computer networks. The goal of this mechanism is to

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

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

**NEW QUESTION 228**
- (Topic 3)
A network administrator Is looking at switch features and is unsure whether to purchase a model with PoE Which of the following devices that commonly utilize PoE should the administrator consider? (Select TWO)

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

**Answer:** AB

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

**NEW QUESTION 231**
- (Topic 3)
Which of the following can be used to limit the ability of devices to perform only HTTPS connections to an internet update server without exposing the devices to the public internet?

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

**Answer:** A

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

**NEW QUESTION 235**
- (Topic 3)
A network engineer is installing hardware in a newly renovated data center. Major concerns that were addressed during the renovation induded air circulation, building power redundancy, and the need for continuous monitoring. The network engineer IS creating alerts based on the following operation specifications:

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

Which of the following should the network engineer configure?

A. Environmental monitoring alerts for humidity greater than 95%
B. SIEM to parse syslog events for a failed power supply
C. SNMP traps to report when the chassis temperature exceeds 950F (3500)
D. UPS monitoring to report when input voltage drops below 220VAC

**Answer:** C

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

CompTIA Network+ N10-008 Certification Study Guide, page 228; The Official CompTIA Network+ Student Guide (Exam N10-008), page 8-11.

**NEW QUESTION 236**
- (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 237**
- (Topic 3)
A network technician is troubleshooting a connection to a web server. The Technician Is unable to ping the server but is able to verify connectivity to the web service using Tenet. Which of the following protocols is being blocked by me firewall?

A. UDP
B. ARP
C. ICMP
D. TCP

**Answer:** C

**Explanation:**
ICMP (Internet Control Message Protocol) is a protocol that is used to send error and control messages between network devices, such as ping requests and replies. ICMP is being blocked by the firewall, which prevents the network technician from pinging the web server. TCP (Transmission Control Protocol) is a protocol that provides reliable and ordered delivery of data between network devices, such as web service requests and responses using HTTP (Hypertext Transfer Protocol). TCP is not being blocked by the firewall, which allows the network technician to verify connectivity to the web service using Telnet. UDP (User Datagram Protocol) is a protocol that provides fast and efficient delivery of data between network devices, but does not guarantee reliability or order. UDP is used for applications such as streaming media or online gaming. ARP (Address Resolution Protocol) is a protocol that resolves IP addresses to MAC addresses on a local network. References: [CompTIA Network+ Certification Exam Objectives], Domain 2.0 Networking Concepts, Objective 2.1: Compare and contrast OSI and TCP/IP models, Subobjective: TCP/IP model layers (Application/Transport/Internet/Network Interface)

**NEW QUESTION 240**
- (Topic 3)
A network administrator is setting up a new phone system and needs to define the location where VoIP phones can download configuration files. Which of the following DHCP services can be used to accomplish this task?

A. Scope options
B. Exclusion ranges
C. Lease time
D. Relay

**Answer:** A

**Explanation:**
To define the location where VoIP phones can download configuration files, the network administrator can use scope options within the Dynamic Host Configuration Protocol (DHCP) service. Scope options are a set of values that can be configured within a DHCP scope, which defines a range of IP addresses that can be leased to clients on a network. One of the scope options that can be configured is the option for the location of the configuration file server, which specifies the URL or IP address of the server where the configuration files can be downloaded.
https://pbxbook.com/voip/dhcpcfg.html

**NEW QUESTION 241**
- (Topic 3)
A network administrator received a report staling a critical vulnerability was detected on an application that is exposed to the internet. Which of the following Is the appropriate NEXT step?

A. Check for the existence of a known exploit in order to assess the risk
B. Immediately shut down the vulnerable application server.
C. Install a network access control agent on the server.
D. Deploy a new server to host the application.

**Answer:** A

**Explanation:**
The appropriate next step in this situation would be to check for the existence of a known exploit in order to assess the risk. This is important because it will help the network administrator determine the severity of the vulnerability and the potential impact it could have on the organization. Once the network administrator has assessed the risk, they can then take appropriate action to address the vulnerability. This might include patching the application, deploying a new server to host the application, or implementing other security measures to mitigate the risk. It is generally not advisable to immediately shut down the vulnerable application server, as this could disrupt business operations and cause significant downtime. Similarly, installing a network access control agent on the server may not be the most effective solution, as it would not address the underlying vulnerability.

**NEW QUESTION 244**

- (Topic 3)
A network deployment engineer is deploying a new single-channel 10G optical connection. Which of the following optics should the engineer MOST likely use to satisfy this requirement?

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

**Answer:** D

**Explanation:**
SFP+ is a type of optical transceiver that supports 10G single-channel transmission over fiber optic cables. SFP+ stands for small form-factor pluggable plus, and it is compatible with SFP slots on switches and routers.

**NEW QUESTION 249**
- (Topic 3)
A device is connected to a managed Layer 3 network switch. The MAC address of the device is known, but the static IP address assigned to the device is not. Which of the following features of a Layer 3 network switch should be used to determine the IPv4 address of the device?

A. MAC table
B. Neighbor Discovery Protocol
C. ARP table
D. IPConfig
E. ACL table

**Answer:** C

**Explanation:**
The ARP table is a database that is used by a device to map MAC addresses to their corresponding IP addresses. When a device sends a packet to another device on the same network, it uses the MAC address of the destination device to deliver the packet. The ARP table allows the device to determine the IP address of the destination device based on its MAC address.

**NEW QUESTION 254**
- (Topic 3)
A technician is concerned about unauthorized personnel moving assets that are installed in a data center server rack. The technician installs a networked sensor that sends an alert when the server rack door is opened. Which of the following did the technician install?

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

**Answer:** D

**Explanation:**
Tamper detection is a physical security feature that can alert the technician when someone opens the server rack door without authorization. Tamper detection sensors can be installed inside the equipment or on the rack itself, and they can send an alert via email, SMS, or other methods. Tamper detection can help prevent unauthorized access, theft, or damage to the network assets.
References:
? Physical Security – N10-008 CompTIA Network+ : 4.51

**NEW QUESTION 255**
- (Topic 3)
Which of the following network types is composed of computers that can all communicate with one another with equal permissions and allows users to directly share what is on or
attached to their computers?

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

**Answer:** B

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

**NEW QUESTION 260**
- (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 265**
- (Topic 3)
Which of the following would be used to forward requests and replies between a DHCP server and client?

A. Relay
B. Lease
C. Scope
D. Range

**Answer:** B

**NEW QUESTION 269**
- (Topic 3)
A technician is equipped with a tablet, a smartphone, and a laptop to troubleshoot a switch with the help of support over the phone. However, the technician is having issues interconnecting all these tools in troubleshooting the switch. Which Of the following should the technician use to gain connectivity?

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

**Answer:** A

**Explanation:**
A PAN stands for Personal Area Network and it is a type of network that connects devices within a small range, such as a few meters. A PAN can use wireless technologies such as Bluetooth or Wi-Fi to interconnect devices such as tablets, smartphones, and laptops. A technician can use a PAN to gain connectivity among these tools and troubleshoot the switch.
References: Network+ Study Guide Objective 1.2: Explain devices, applications, protocols and services at their appropriate OSI layers.

**NEW QUESTION 273**
SIMULATION - (Topic 3)
After a recent power outage, users are reporting performance issues accessing the application servers. Wireless users are also reporting intermittent Internet issues.
INSTRUCTIONS
Click on each tab at the top of the screen. Select a widget to view information, then use the drop-down menus to answer the associated questions. If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

**Network Health** **Device Monitoring**

Show Question    Reset All Answers

**Device Status**

Alert (3)
Up (8)
Warning (2)
Down (1)

**Top Hosts**

| | SRC Host | Pkts | Flows | Bits |
|---|---|---|---|---|
| 1 | 206.208.133.9 | 8.73 Mp | 77 | 104.69 Gb |
| 2 | 10.1.90.53 | 13.45 Mp | 10 | 80.93 Gb |
| 3 | 10.1.90.55 | 12.41 Mp | 7 | 74.68 Gb |
| 4 | 10.1.59.81 | 259.42 kp | 23 | 3.01 Gb |
| 5 | 10.1.99.22 | 182.53 kp | 2 | 2.08 Gb |
| 6 | 10.1.99.14 | 433.96 kp | 11 | 2.08 Gb |
| 7 | 10.1.99.28 | 164.84 kp | 1 | 1.79 Gb |
| 8 | 10.1.99.10 | 840.56 kp | 180 | 1.70 Gb |
| 9 | 10.1.99.24 | 135.64 kp | 2 | 1.54 Gb |
| 10 | 10.1.99.60 | 133.33 kp | 1 | 1.51 Gb |

**Which device is experiencing connectivity issues?**

Select Answer
Router A
Router B
WAP1
WAP2
WirelessController
Switch A
Switch B
DHCP Server
Web Server
APP Server

Router A ∨

**Which workstation IP is generating the MOST traffic?**

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

206.208.133.9 ∨

A. Mastered
B. Not Mastered

**Answer:** A

**Explanation:**

Network Health:
WAN 2 appears to have a lower average latency and loss percentage, which would make it the preferred WAN station for VoIP traffic. VoIP traffic requires low latency and packet loss to ensure good voice quality and reliability. WAN 1 seems to have higher RAM and processor usage, which could also affect the performance of VoIP traffic.
Here's the summary of the key metrics for WAN 1 and WAN 2 from the image provided:
? WAN 1:
? WAN 2:
For VoIP traffic, low latency and jitter are particularly important to ensure voice quality. While WAN 1 has higher bandwidth and throughput, it also has higher latency and jitter
compared to WAN 2. However, WAN 2 has much lower loss, lower latency, and lower jitter, which are more favorable for VoIP traffic that is sensitive to delays and variation in packet arrival times.
Given this information, WAN 2 would generally be preferred for VoIP traffic due to its lower latency, lower jitter, and significantly lower loss percentage, despite its lower bandwidth compared to WAN 1. The high bandwidth of WAN 1 may be more suitable for other types of traffic that are less sensitive to latency and jitter, such as bulk data transfers.

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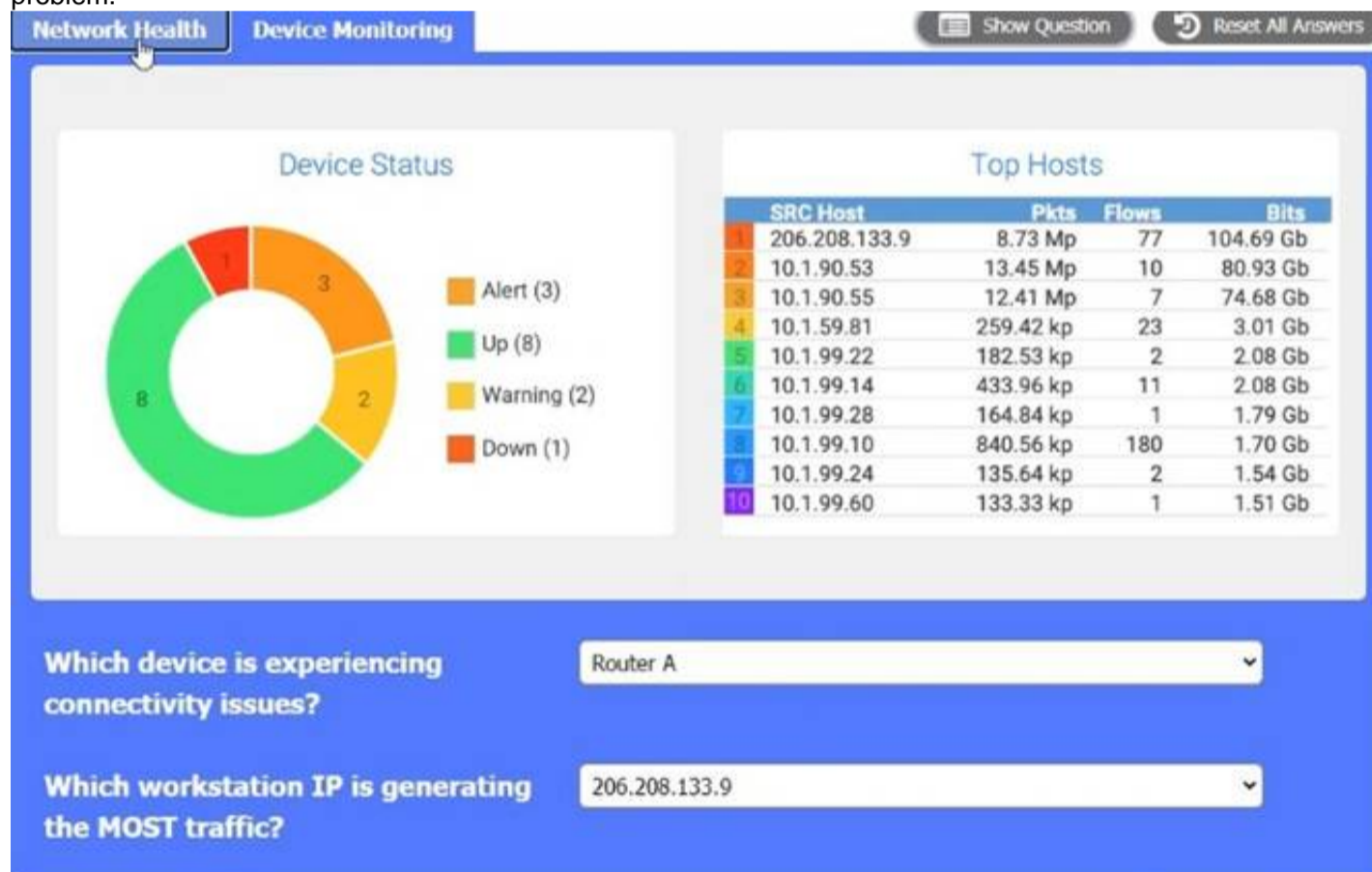


A screenshot of a computer
Description automatically generated

**NEW QUESTION 278**
- (Topic 3)
Which of me 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 280**
- (Topic 3)
An on-call network technician receives an automated email alert stating that a power supply on a firewall has just powered down. Which of the following protocols would best allow for this level of detailed device monitoring?

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

**Answer:** D

**Explanation:**
SNMP stands for Simple Network Management Protocol, and it is a protocol that allows network devices to communicate their status, performance, and configuration information to a central management system. SNMP can be used to monitor and manage various aspects of network devices, such as CPU usage, memory utilization, interface statistics, temperature, voltage, power supply, etc. SNMP can also generate alerts or notifications when certain events or thresholds are reached, such as a power supply failure, a link down, or a high traffic volume. SNMP is widely used for network monitoring and troubleshooting purposes, as it provides a comprehensive and detailed view of the network health and performance.
The other options are not correct because they are not protocols that allow for detailed device monitoring. They are:
? TFTP. TFTP stands for Trivial File Transfer Protocol, and it is a protocol that allows for simple and fast file transfer between network devices. TFTP is often used to transfer configuration files, firmware updates, or boot images to network devices, such as routers, switches, or firewalls. TFTP does not provide any monitoring or management capabilities for network devices, nor does it generate any alerts or notifications.
? TLS. TLS stands for Transport Layer Security, and it is a protocol that provides encryption and authentication for data transmission over a network. TLS is often used to secure web traffic, email, or other applications that use TCP as the transport protocol. TLS does not provide any monitoring or management capabilities for network devices, nor does it generate any alerts or notifications.
? SSL. SSL stands for Secure Sockets Layer, and it is a protocol that provides encryption and authentication for data transmission over a network. SSL is the predecessor of TLS, and it is still used to secure some web traffic, email, or other applications that use TCP as the transport protocol. SSL does not provide any monitoring or management capabilities for network devices, nor does it generate any alerts or notifications.
References1: What is SNMP? - Definition from WhatIs.com2: Network+ (Plus) Certification
| CompTIA IT Certifications3: What is TFTP? - Definition from WhatIs.com4: What is TLS? - Definition from WhatIs.com5: What is SSL? - Definition from WhatIs.com

**NEW QUESTION 281**
- (Topic 3)
Which of the following describes a network in which users and devices need to mutually authenticate before any network resource can be accessed?

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

**Answer:** C

**Explanation:**
A zero trust network is a network in which users and devices need to mutually authenticate before any network resource can be accessed. A zero trust network assumes that no one and nothing can be trusted by default, even if they were previously verified or are within the network perimeter. A zero trust network uses various technologies and practices, such as data and log aggregation, cybersecurity analytics, continuous diagnostics and mitigation, user behavior analytics, microsegmentation, and identity and access management, to enforce granular and dynamic policies based on the context and behavior of the users and devices123.
References:
? What is Zero Trust? | Internet of Things | CompTIA3
? The Death of the Perimeter: Zero Trust is (Almost) Here to Stay | Cybersecurity | CompTIA2
? CompTIA Network+ Certification Exam N10-008 Practice Test 17 -
ExamCompass1

**NEW QUESTION 284**
- (Topic 3)
An attacker sends more connection requests than a server can handle, causing the server to crash- Which of the following types of attacks is this an example of?

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

**Answer:** B

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

**NEW QUESTION 288**
- (Topic 3)
A network administrator is configuring a firewall to allow for a new cloud-based email server. The company standard is to use SMTP to route email traffic. Which of the following ports, by default, should be reserved for this purpose?

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

**Answer:** B

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

**NEW QUESTION 291**
- (Topic 3)
A technician uses a badge to enter a security checkpoint on a corporate campus. An unknown individual quickly walks in behind the technician without speaking. Which of the following types of attacks did the technician experience?

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

**Answer:** A

**Explanation:**
Tailgating is a type of physical security attack where an unauthorized person follows an authorized person into a restricted area without their consent or knowledge. Tailgating can allow an attacker to bypass security measures and gain access to sensitive information or resources. In this scenario, the technician experienced tailgating when the unknown individual walked in behind the technician without speaking. Piggybacking is similar to tailgating, but it involves the consent or cooperation of the authorized person. Evil twin is a type of wireless network attack where an attacker sets up a rogue access point that mimics a legitimate one. On-path is a type of network attack where an attacker intercepts and modifies traffic between two parties.
References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 3.2: Given a scenario, use appropriate network hardening techniques.

**NEW QUESTION 295**
- (Topic 3)
Which of the following describes when an active exploit is used to gain access to a network?

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

**Answer:** A

**Explanation:**
Penetration testing is a type of security testing that is used to assess the security of a system or network by actively exploiting known vulnerabilities. It is used to simulate an attack on the system and identify any weaknesses that may be exploited by malicious actors. As stated in the CompTIA Security+ Study Guide, "penetration testing is a type of security assessment that attempts to gain unauthorized access to networks and systems by exploiting security vulnerabilities."
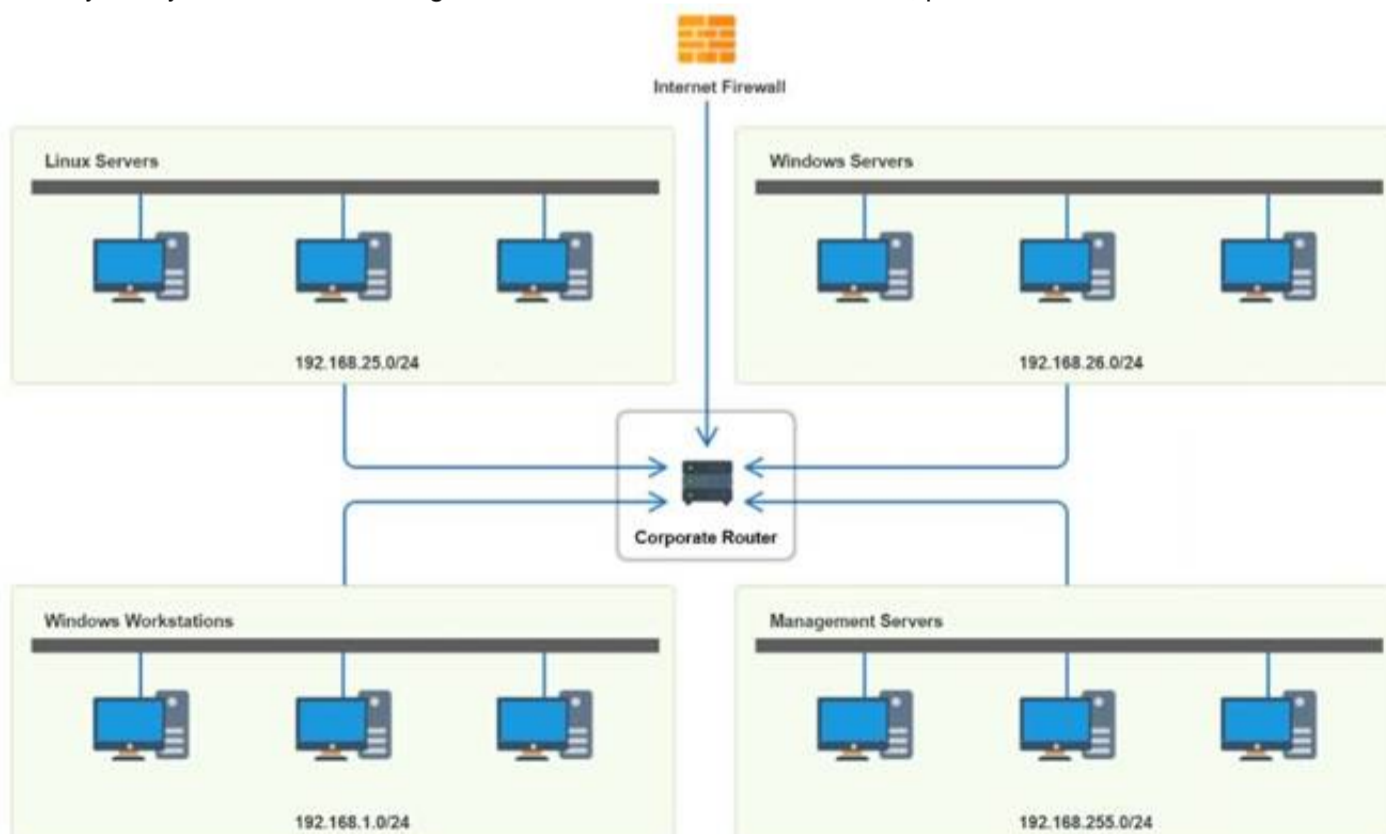
**NEW QUESTION 297**
SIMULATION - (Topic 3)
You have been tasked with implementing an ACL on the router that will:
* 1. Permit the most commonly used secure remote access technologies from the management network to all other local network segments
* 2. Ensure the user subnet cannot use the most commonly used remote access technologies in the Linux and Windows Server segments.
* 3. Prohibit any traffic that has not been specifically allowed.
INSTRUCTIONS
Use the drop-downs to complete the ACL
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

## Router Access Control List

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

A. Mastered
B. Not Mastered

**Answer:** A

**Explanation:**

**Router Access Control List**

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

**NEW QUESTION 299**
- (Topic 3)
Which of the following is most likely responsible for the security and handling of personal data in Europe?

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

**Answer:** A

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

**NEW QUESTION 301**
- (Topic 3)
A network security administrator needs to monitor the contents of data sent between a secure network and the rest of the company. Which of the following monitoring methods will accomplish this task?

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

**Answer:** A

**Explanation:**
Port mirroring is a method of monitoring network traffic by copying the data packets from one port to another port on the same switch or router. This allows the network security administrator to analyze the contents of the data sent between different networks without affecting the performance or security of the original traffic. Port mirroring can be configured to capture all traffic or only specific types of traffic, such as VLANs, protocols, or IP addresses.
References:
? Port Mirroring - CompTIA Network+ N10-008 Domain 3.1 - YouTube1
? CompTIA Network+ Certification Exam Objectives, page 142

**NEW QUESTION 305**
- (Topic 3)
A coffee shop owner hired a network consultant to provide recommendations for installing a new wireless network. The coffee shop customers expect high speeds even when the network is congested. Which of the following standards should the consultant recommend?

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

**Answer:** B

**Explanation:**
802.11ax is the latest and most advanced wireless standard, providing higher speeds, lower latency, and more capacity than previous standards. It also supports OFDMA, which allows multiple devices to share a channel and reduce congestion. The other options are older standards that have lower bandwidth, range, and efficiency than 802.11ax. Therefore, 802.11ax is the best option for the coffee shop owner who wants to provide high speeds even when the network is congested.

**NEW QUESTION 308**
- (Topic 3)
A network technician 13 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 311**
- (Topic 3)
An IT technician needs to increase bandwidth to a server. The server has multiple gigabit ports. Which of the following can be used to accomplish this without replacing hardware?

A. STP
B. 802. IQ
C. Duplex
D. LACP

**Answer:** D

**Explanation:**
LACP stands for Link Aggregation Control Protocol and is a protocol that allows multiple physical ports to be combined into a single logical port. This can increase bandwidth, redundancy, and load balancing for a server. LACP is part of the IEEE 802.3ad standard for link aggregation. STP stands for Spanning Tree Protocol and is a protocol that prevents loops in a network by blocking redundant links. 802.1Q is a standard for VLAN (Virtual Local Area Network) tagging, which allows multiple logical networks to share the same physical infrastructure. Duplex is a mode of communication that determines how data is transmitted and received on a link. Full duplex allows simultaneous transmission and reception, while half duplex allows only one direction at a time.
References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 1.5: Compare and contrast network cabling types, standards and speeds.

**NEW QUESTION 314**
- (Topic 3)
A network technician receives a report about a performance issue on a client PC that is connected to port 1/3 on a network switch. The technician observes the following configuration output from the switch:

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

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

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

**Answer:** A

**NEW QUESTION 319**
- (Topic 3)
After a company installed a new IPS, the network is experiencing speed degradation. A network administrator is troubleshooting the issue and runs a speed test. The results from the different network locations are as follows:
Which of the following is the most likely issue?

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

**Answer:** B

**Explanation:**
The most likely issue is bottlenecking. Bottlenecking occurs when a component or device limits the performance or capacity of the network. In this case, the IPS (intrusion prevention system) may be causing a bottleneck by inspecting and filtering the incoming and outgoing traffic, which reduces the speed and bandwidth available for the network devices12
To confirm this issue, the network administrator can compare the speed test results before and after installing the IPS, and check the IPS configuration and logs for any errors or warnings. The network administrator can also try to bypass the IPS temporarily and run the speed test again to see if there is any improvement3
If the IPS is indeed the cause of the bottleneck, the network administrator can try to optimize the IPS settings, such as adjusting the inspection rules, thresholds,

and priorities, to reduce the processing overhead and latency. Alternatively, the network administrator can upgrade the IPS hardware or software, or add more IPS devices to balance the load and increase the throughput45
1: What is Network Congestion? Common Causes and How to Fix Them? -
GeeksforGeeks 2: Network congestion - Wikipedia 3: How to Fix Packet Loss - Lifewire 4: How to Optimize Your IPS Performance - Cisco 5: How to Avoid Network Bottlenecks - TechRepublic

**NEW QUESTION 321**
- (Topic 3)
A large metropolitan city is looking to standardize the ability tor police department laptops to connect to the city government's VPN The city would like a wireless solution that provides the largest coverage across the city with a minimal number of transmission towers Latency and overall bandwidth needs are not high priorities. Which of the following would BEST meet the city's needs?

A. 5G
B. LTE
C. Wi-Fi 4
D. Wi-Fi 5
E. Wi-Fi 6

**Answer:** B

**NEW QUESTION 326**
- (Topic 3)
A customer has an attached USB printer that needs to be shared with other users. The desktop team set up printer sharing. Now, the network technician needs to obtain the necessary information about the PC and share it with other users so they can connect to the printer. Which of the following commands should the technician use to get the required information? (Select TWO).

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

**Answer:** EF

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

**NEW QUESTION 331**
- (Topic 3)
An engineer is troubleshooting poor performance on the network that occurs during work hours. Which of the following should the engineer do to improve performance?

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

**Answer:** B

**Explanation:**
Link aggregation is a technique that allows multiple network interfaces to act as a single logical interface, increasing the bandwidth and redundancy of the network connection. Link aggregation can improve the performance of the network by balancing the traffic load across multiple links and providing failover in case one link fails. Link aggregation is also known as port trunking, port channeling, or NIC teaming.
References: CompTIA Network+ N10-008 Cert Guide, Chapter 3, Section 3.3

**NEW QUESTION 335**
- (Topic 3)
When accessing corporate network resources, users are required to authenticate to each application they try to access. Which of the following concepts does this BEST represent?

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

**Answer:** B

**NEW QUESTION 336**
- (Topic 3)
A network architect needs to create a wireless field network to provide reliable service to public safety vehicles. Which of the following types of networks is the best solution?

A. Mesh

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

**Answer:** A

**Explanation:**
A mesh network is the best solution for creating a wireless field network to provide reliable service to public safety vehicles. A mesh network is a type of wireless network that consists of multiple nodes that communicate with each other directly or through intermediate nodes, forming a web-like topology. A mesh network does not rely on a central access point or router, but rather on the cooperation and coordination of the nodes themselves. A mesh network has several advantages for public safety applications, such as12:
? High availability and resilience: A mesh network can automatically route around failures or congestion, ensuring that the network remains operational even if some nodes are damaged or disconnected. A mesh network can also self-heal and self- configure, adapting to changes in the network topology or environment.
? Extended coverage and scalability: A mesh network can extend the wireless signal beyond the range of a single node, by using other nodes as relays or repeaters. A mesh network can also accommodate more nodes and devices, by adding more links and paths between them.
? Low cost and easy deployment: A mesh network can reduce the cost and complexity of installing and maintaining a wireless infrastructure, by eliminating the need for expensive cabling, towers, or antennas. A mesh network can also be deployed quickly and flexibly, by simply adding or removing nodes as needed.
A mesh network is especially suitable for public safety vehicles, because it can provide reliable wireless communication in challenging scenarios, such as12:
? Disaster response: A mesh network can be deployed rapidly in areas where the existing wireless infrastructure is damaged or unavailable, such as after an earthquake, flood, or fire. A mesh network can also support emergency services, such as fire fighting, search and rescue, or medical assistance, by enabling data, voice, and video transmission among the responders and command centers.
? Mobile surveillance: A mesh network can enable real-time monitoring and control of public safety vehicles, such as police cars, ambulances, or drones, by providing high-bandwidth and low-latency wireless connectivity. A mesh network can also support video streaming, location tracking, remote sensing, or analytics applications for public safety purposes.
? Event management: A mesh network can enhance the security and efficiency of large-scale events, such as concerts, festivals, or parades, by providing wireless coverage and capacity for the event organizers and participants. A mesh network can also support crowd management, traffic control, or public announcement applications for event management.
The other options are not the best solutions for creating a wireless field network to provide reliable service to public safety vehicles. An ad hoc network is a type of wireless network that consists of devices that communicate with each other directly without any central coordination or infrastructure. An ad hoc network is simple and flexible, but it has limited scalability and performance3. A point-to-point network is a type of wireless network that consists of two devices that communicate with each other over a single link. A point-to- point network is fast and secure, but it has limited coverage and functionality. An infrastructure network is a type of wireless network that consists of devices that communicate with each other through an access point or router. An infrastructure network is stable and robust, but it has high cost and complexity.

**NEW QUESTION 337**
- (Topic 3)
An AP uses a 98ft (30m) Cat 6 cable to connect to an access switch. The cable is wired through a duct close to a three-phase motor installation. Anytime the three-phase is turned on, all users connected to the switch experience high latency on the network. Which Of the following is MOST likely the cause Of the issue?

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

**Answer:** A

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

**NEW QUESTION 339**
- (Topic 3)
A user reports that a crucial fileshare is unreachable following a network upgrade that was completed the night before. A network technician confirms the problem exists. Which of the following
troubleshooting Steps should the network technician perform NEXT?

A. Establish a theory of probable cause.
B. Implement a solution to fix the problem.
C. Create a plan of action to resolve the problem.
D. Document the problem and the solution.

**Answer:** A

**Explanation:**
 Establishing a theory of probable cause is the third step in the general troubleshooting process, after identifying the problem and gathering information. Establishing a theory of probable cause involves using the information gathered to formulate one or more possible explanations for the problem and testing them to verify or eliminate them. In this scenario, the network technician has confirmed the problem exists
and should proceed to establish a theory of probable cause based on the information available, such as the network upgrade that was completed the night before.
Implementing a solution to fix the problem is the fifth step in the general troubleshooting process, after establishing a plan of action. Implementing a solution involves applying the chosen method or technique to resolve the problem and verifying its effectiveness. In this scenario, the network technician has not established a plan of action yet and should not implement a solution without knowing the cause of the problem.
Creating a plan of action to resolve the problem is the fourth step in the general troubleshooting process, after establishing a theory of probable cause. Creating a plan of action involves selecting the best method or technique to address the problem based on the available resources, constraints, and risks. In this scenario, the network technician has not established a theory of probable cause yet and should not create a plan of action without knowing the cause of the problem.
Documenting the problem and the solution is the seventh and final step in the general troubleshooting process, after implementing preventive measures. Documenting the problem and the solution involves recording the details of the problem, its symptoms, its cause, its solution, and its preventive measures for future reference and improvement. In this scenario, the network technician has not implemented preventive measures yet and should not document the problem and the solution without resolving and preventing it.

**NEW QUESTION 341**
- (Topic 3)
A technician is contracted to install a redundant cluster of devices from the ISP In case of a hardware failure within the network. Which of the following would provide the BEST redundant solution in Layer 2 devices?

A. Multiple routers
B. Multiple switches
C. Multiple firewalls
D. Multiple budges

**Answer:** B

**NEW QUESTION 342**
- (Topic 3)
A divide-and-conquer approach is a troubleshooting method that involves breaking a complex problem into smaller and more manageable parts, and then testing each part to isolate the cause of the problem. In this scenario, the technician is using a divide-and-conquer approach by pinging the default gateway and DNS server of the workstation, which are two possible sources of connectivity issues. By pinging these devices, the technician can determine if the problem is related to the local network or the external network.
Which of the following most likely requires the use of subinterfaces?

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

**Answer:** A

**Explanation:**

Subinterfaces are logical divisions of a physical interface that allow a router to communicate with multiple networks using a single LAN port. Subinterfaces can have different IP addresses, VLANs, and routing protocols. They are useful for reducing the number of physical interfaces and cables needed, as well as improving network performance and security.
References:
? Subinterfaces - CompTIA Network+ N10-008 Domain 1.21 - YouTube1
? CompTIA Network+ Certification Exam Objectives, page 92

**NEW QUESTION 346**
- (Topic 3)
Which of the following use cases would justify the deployment of an mGRE hub-and-spoke topology?

A. An increase in network security using encryption and packet encapsulation
B. A network expansion caused by an increase in the number of branch locations to the headquarters
C. A mandatory requirement to increase the deployment of an SDWAN network
D. An improvement in network efficiency by increasing the useful packet payload

**Answer:** B

**Explanation:**

mGRE (Multipoint GRE) is a type of GRE (Generic Routing Encapsulation) tunnel that allows a single interface to support multiple tunnel endpoints, instead of having to configure a separate point-to-point tunnel for each destination. mGRE simplifies the configuration and management of large-scale VPN networks, such as DMVPN (Dynamic Multipoint VPN), which is a Cisco technology that uses mGRE, NHRP (Next Hop Resolution Protocol), and IPsec to create secure and dynamic VPN connections between a hub and multiple spokes1.
A network expansion caused by an increase in the number of branch locations to the headquarters would justify the deployment of an mGRE hub-and-spoke topology, because it would reduce the complexity and overhead of configuring and maintaining multiple point- to-point tunnels between the hub and each spoke. mGRE would also enable spoke-to- spoke communication without having to go through the hub, which would improve the network performance and efficiency23.
The other options are not directly related to the use case of mGRE hub-and-spoke topology. An increase in network security using encryption and packet encapsulation can be achieved by using IPsec, which is a separate protocol that can be applied to any type of GRE tunnel, not just mGRE. A mandatory requirement to increase the deployment of an SDWAN network can be met by using various technologies and vendors, not necessarily mGRE or DMVPN. An improvement in network efficiency by increasing the useful packet payload can be achieved by using various techniques, such as compression, fragmentation, or QoS, not specifically mGRE.
ReferencesUnderstanding Cisco Dynamic Multipoint VPN - DMVPN, mGRE, NHRPMGRE Easy Steps - Cisco CommunityWhat is DMVPN (Dynamic Multipoint VPN), NHRP, mGRE and How to configu - Cisco Community

**NEW QUESTION 349**
......

# Thank You for Trying Our Product

## We offer two products:

1st - We have Practice Tests Software with Actual Exam Questions

2nd - Questons and Answers in PDF Format

## N10-009 Practice Exam Features:

* N10-009 Questions and Answers Updated Frequently

* N10-009 Practice Questions Verified by Expert Senior Certified Staff

* N10-009 Most Realistic Questions that Guarantee you a Pass on Your FirstTry

* N10-009 Practice Test Questions in Multiple Choice Formats and Updatesfor 1 Year

## 100% Actual & Verified — Instant Download, Please Click
Order The N10-009 Practice Test Here