



# CompTIA

## Exam Questions N10-009

CompTIA Network+ Exam

### NEW QUESTION 1

- (Exam Topic 1)

An IT director is setting up new disaster and HA policies for a company. Limited downtime is critical to operations. To meet corporate requirements, the director set up two different datacenters across the country that will stay current on data and applications. In the event of an outage, the company can immediately switch from one datacenter to another. Which of the following does this BEST describe?

- A. A warm site
- B. Data mirroring
- C. Multipathing
- D. Load balancing
- E. A hot site

**Answer:** E

#### **Explanation:**

A hot site is a fully redundant site that can take over operations immediately if the primary site goes down. In this scenario, the company has set up two different datacenters across the country that are current on data and applications, and they can immediately switch from one datacenter to another in case of an outage.

References:

> Network+ N10-008 Objectives: 1.5 Compare and contrast disaster recovery concepts and methodologies.

### NEW QUESTION 2

- (Exam Topic 1)

A network technician is installing new software on a Windows-based server in a different geographical location. Which of the following would be BEST for the technician to use to perform this task?

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

**Answer:** A

#### **Explanation:**

RDP (Remote Desktop Protocol) is the best option for a network technician to use when installing new software on a Windows-based server in a different geographical location. This protocol allows the technician to connect to the server remotely and control it as if they were physically present.

References:

> Network+ N10-007 Certification Exam Objectives, Objective 2.2: Given a scenario, implement the appropriate network-based security and troubleshoot common connectivity issues.

### NEW QUESTION 3

- (Exam Topic 1)

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

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

**Answer:** A

#### **Explanation:**

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

References:

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

### NEW QUESTION 4

- (Exam Topic 1)

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

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

**Answer:** A

#### **Explanation:**

An extended service set (ESS) is a wireless network that consists of multiple access points (APs) that share the same SSID and are connected by a wired network. An ESS allows wireless clients to roam seamlessly between different APs without losing connectivity. A basic service set (BSS) is a wireless network that consists of a single AP and its associated clients. An independent basic service set (IBSS) is a wireless network that consists of a group of clients that

communicate directly without an AP. A unified service set is not a standard term for a wireless network. References:  
[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)),  
[https://en.wikipedia.org/wiki/Service\\_set\\_\(802.11\\_network\)](https://en.wikipedia.org/wiki/Service_set_(802.11_network))

#### NEW QUESTION 5

- (Exam Topic 1)

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

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

**Answer:** D

#### Explanation:

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

#### NEW QUESTION 6

- (Exam Topic 1)

A technician is installing a high-density wireless network and wants to use an available frequency that supports the maximum number of channels to reduce interference. Which of the following standard 802.11 frequency ranges should the technician look for while reviewing WAP specifications?

- A. 2.4GHz
- B. 5GHz
- C. 6GHz
- D. 900MHz

**Answer:** B

#### Explanation:

\* 802.11 a/b/g/n/ac wireless networks operate in two frequency ranges: 2.4 GHz and 5 GHz. The 5 GHz frequency range supports more channels than the 2.4 GHz frequency range, making it a better choice for high-density wireless networks.

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

#### NEW QUESTION 7

- (Exam Topic 1)

At which of the following OSI model layers would a technician find an IP header?

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

**Answer:** C

#### Explanation:

An IP header can be found at the third layer of the OSI model, also known as the network layer. This layer is responsible for logical addressing, routing, and forwarding of data packets.

References:

> CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 2: Network Models, p. 82

#### NEW QUESTION 8

- (Exam Topic 1)

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

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

**Answer:** B

#### Explanation:

The nslookup command should be run to confirm the server name for all Linux servers. Nslookup is a tool that queries DNS servers to resolve hostnames to IP addresses or vice versa. It can also provide other information about DNS records, such as MX, NS, SOA, etc. By running nslookup with the IP address of a Linux server, the technician can obtain its hostname. References:

<https://www.howtogeek.com/663056/how-to-use-the-nslookup-command-on-linux/>

#### NEW QUESTION 9

- (Exam Topic 1)

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

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

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

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

**Answer:** A

**Explanation:**

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

References:

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

**NEW QUESTION 10**

- (Exam Topic 1)

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

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

**Answer:** D

**Explanation:**

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

**NEW QUESTION 10**

- (Exam Topic 1)

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

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

**Answer:** B

**Explanation:**

TACACS+ (Terminal Access Controller Access Control System Plus) can be used to centrally manage credentials for various types of administrative privileges on configured network devices. This protocol separates authentication, authorization, and accounting (AAA) functions, providing more granular control over access to network resources.

References:

- Network+ N10-007 Certification Exam Objectives, Objective 4.2: Given a scenario, implement secure network administration principles.

**NEW QUESTION 15**

- (Exam Topic 1)

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

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

**Answer:** B

**Explanation:**

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

[https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/transceiver-modules/data\\_sheet\\_c78-6600](https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/transceiver-modules/data_sheet_c78-6600)

**NEW QUESTION 16**

- (Exam Topic 1)

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

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

**Answer:** D

**Explanation:**

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

**NEW QUESTION 18**

- (Exam Topic 1)

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

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

**Answer:** C

**Explanation:**

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

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

**NEW QUESTION 21**

- (Exam Topic 1)

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

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

**Answer:** A

**Explanation:**

To determine what metrics can be gathered from a given switch, a technician should utilize the Management Information Base (MIB). The MIB is a database of network management information that is used to manage and monitor network devices. It contains information about device configuration, status, and performance. References: Network+ Certification Study Guide, Chapter 5: Network Security

**NEW QUESTION 25**

- (Exam Topic 1)

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

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

**Answer:** C

**Explanation:**

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

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

[https://en.wikipedia.org/wiki/Maximum\\_transmission\\_unit](https://en.wikipedia.org/wiki/Maximum_transmission_unit)

**NEW QUESTION 30**

- (Exam Topic 1)

A network administrator is designing a new datacenter in a different region that will need to communicate to the old datacenter with a secure connection. Which of the following access methods would provide the BEST security for this new datacenter?

- A. Virtual network computing
- B. Secure Socket Shell
- C. In-band connection
- D. Site-to-site VPN

**Answer:** D

**Explanation:**

Site-to-site VPN provides the best security for connecting a new datacenter to an old one because it creates a secure tunnel between the two locations, protecting data in transit. References: CompTIA Network+ Certification Study Guide, Chapter 5: Network Security.

**NEW QUESTION 35**

- (Exam Topic 1)

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

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

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

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

**Answer:** C

**Explanation:**

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

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

**NEW QUESTION 40**

- (Exam Topic 1)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 43**

- (Exam Topic 1)

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

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

**Answer:** A

**Explanation:**

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

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

**NEW QUESTION 47**

- (Exam Topic 1)

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

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

**Answer:** B

**Explanation:**

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

**NEW QUESTION 52**

- (Exam Topic 1)

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

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

**Answer:** A

**Explanation:**

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

References:

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

**NEW QUESTION 53**

- (Exam Topic 1)

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

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

**Answer:** A

**Explanation:**

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

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

**NEW QUESTION 58**

- (Exam Topic 1)

Which of the following service models would MOST likely be used to replace on-premises servers with a cloud solution?

- A. PaaS
- B. IaaS
- C. SaaS
- D. Disaster recovery as a Service (DRaaS)

**Answer:** B

**Explanation:**

IaaS stands for Infrastructure as a Service, which is a cloud service model that provides virtualized computing resources over the Internet, such as servers, storage, networking, and operating systems. IaaS allows customers to replace their on-premises servers with cloud servers that can be scaled up or down on demand and pay only for what they use. PaaS stands for Platform as a Service, which provides customers with a cloud-based platform for developing, testing, and deploying applications without managing the underlying infrastructure. SaaS stands for Software as a Service, which provides customers with access to cloud-based software applications over the Internet without installing or maintaining them on their devices. Disaster recovery as a Service (DRaaS) is a type of cloud service that provides customers with backup and recovery solutions for their data and applications in case of a disaster.

**NEW QUESTION 60**

- (Exam Topic 1)

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

Datacenter

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

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

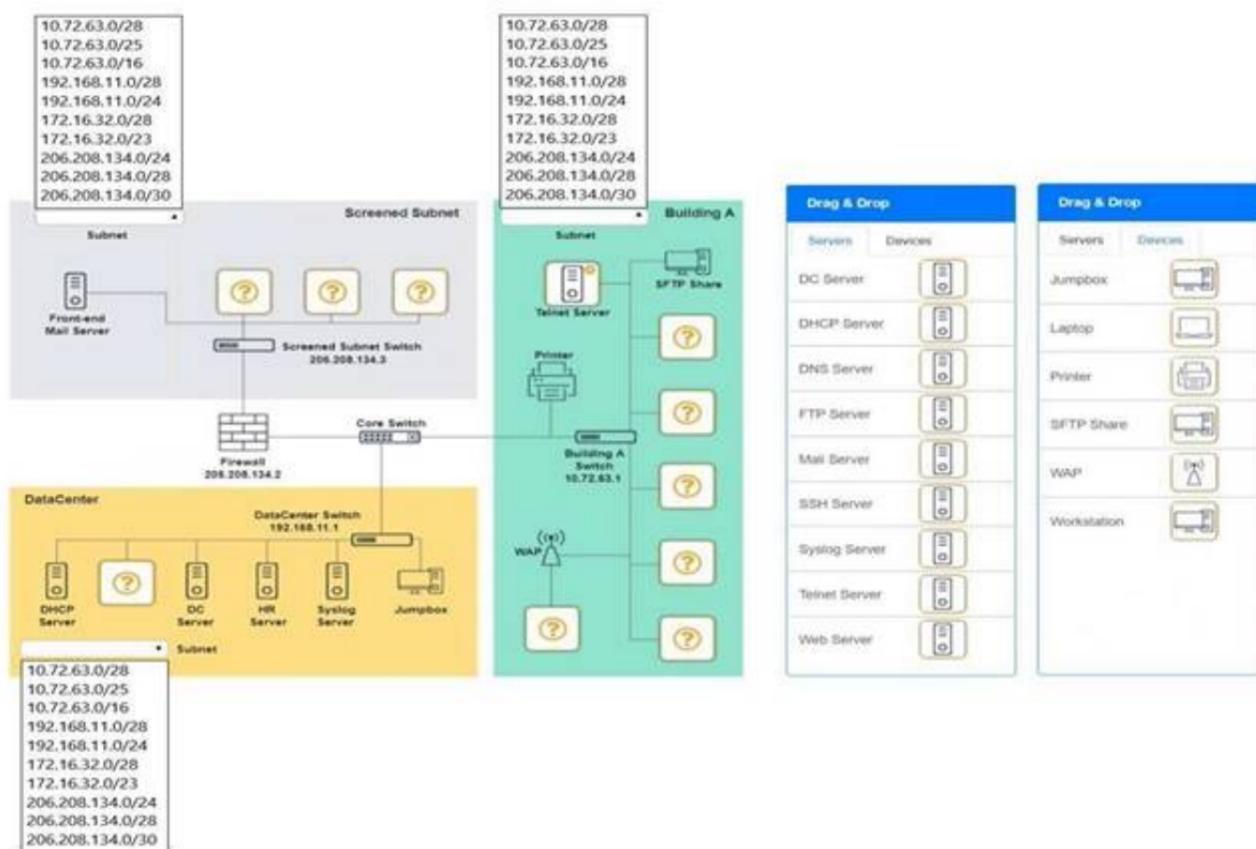
Ensure network is subnetted to allow all devices to communicate properly while minimizing address space usage

Provide devices to support 5 additional different office users

Add an additional mobile user

Replace the Telnet server with a more secure solution Screened subnet

Ensure network is subnetted to allow all devices to communicate properly while minimizing address space usage  
 Provide a server to handle external 80/443 traffic Provide a server to handle port 20/21 traffic INSTRUCTIONS  
 Drag and drop objects onto the appropriate locations. Objects can be used multiple times and not all placeholders need to be filled.  
 Available objects are located in both the Servers and Devices tabs of the Drag & Drop menu.  
 If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

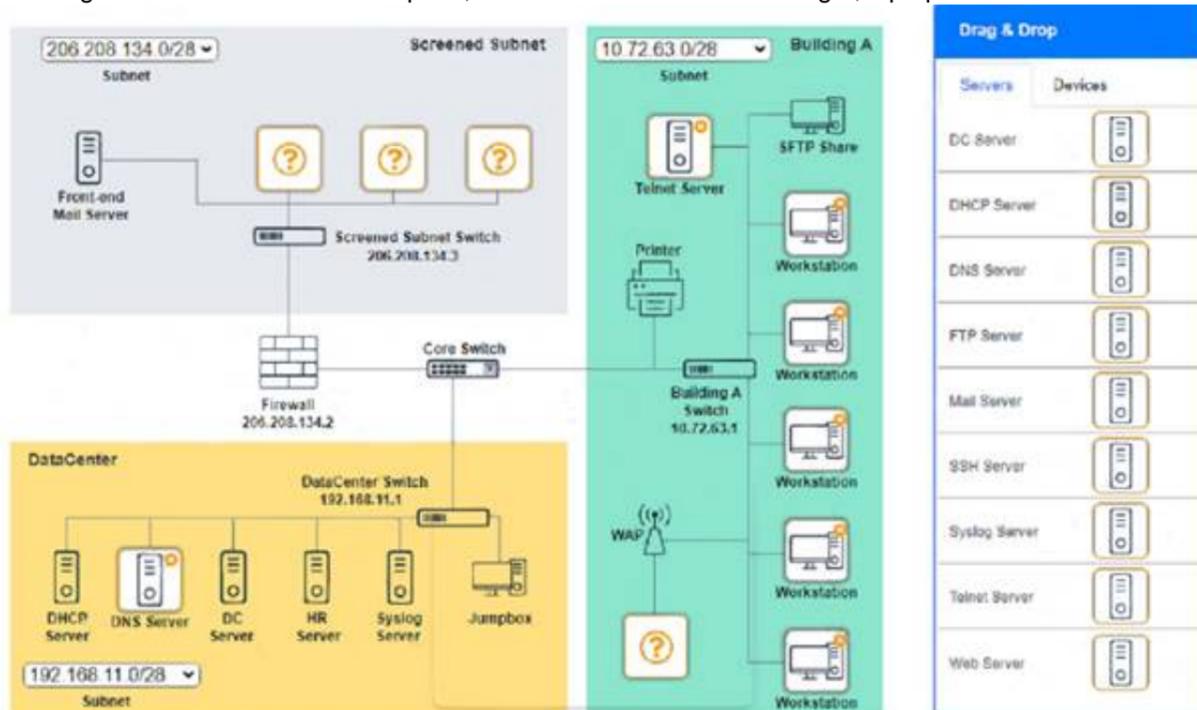


- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

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



**NEW QUESTION 62**

- (Exam Topic 1)

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

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

Answer: A

**Explanation:**

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

### NEW QUESTION 67

- (Exam Topic 1)

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

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

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

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

**Answer:** A

#### Explanation:

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

### NEW QUESTION 68

- (Exam Topic 1)

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

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

**Answer:** A

#### Explanation:

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

### NEW QUESTION 71

- (Exam Topic 2)

Which of the following uses the destination IP address to forward packets?

- A. A bridge
- B. A Layer 2 switch
- C. A router
- D. A repeater

**Answer:** C

#### Explanation:

A router is a device that uses the destination IP address to forward packets between different networks. A bridge and a Layer 2 switch operate at the data link layer and use MAC addresses to forward frames within the same network. A repeater is a device that amplifies or regenerates signals at the physical layer.

### NEW QUESTION 76

- (Exam Topic 2)

A SaaS provider has decided to leave an unpatched VM available via a public DMZ port. With which of the following concepts is this technique MOST closely associated?

- A. Insider threat
- B. War driving
- C. Evil twin
- D. Honeypot

**Answer:** D

#### Explanation:

A honeypot is a decoy system that is intentionally left vulnerable or exposed to attract attackers and divert them from the real targets. A honeypot can also be used to collect information about the attackers' techniques and motives. In the scenario, the SaaS provider has left an unpatched VM available via a public DMZ port, which could be a honeypot technique to lure attackers and monitor their activities. References: <https://www.comptia.org/blog/what-is-a-honey-pot>

### NEW QUESTION 80

- (Exam Topic 2)

A network technician is observing the behavior of an unmanaged switch when a new device is added to the network and transmits data. Which of the following BEST describes how the switch processes this information?

- A. The data is flooded out of every port

- B. including the one on which it came in.
- C. The data is flooded out of every port but only in the VLAN where it is located.
- D. The data is flooded out of every port, except the one on which it came in
- E. The data is flooded out of every port, excluding the VLAN where it is located

**Answer: C**

**Explanation:**

The switch processes the data by flooding it out of every port, except the one on which it came in. Flooding is a process where a switch sends a data frame to all ports except the source port when it does not have an entry for the destination MAC address in its MAC address table. Flooding allows the switch to learn the MAC addresses of the devices connected to its ports and update its MAC address table accordingly. Flooding also ensures that the data frame reaches its intended destination, even if the switch does not know its location. References: <https://www.cisco.com/c/en/us/support/docs/lan-switching/spanning-tree-protocol/10556-16.html>

**NEW QUESTION 83**

- (Exam Topic 2)

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

- A. Rogue DHCP server
- B. Misconfigured HSRP
- C. DNS poisoning
- D. Exhausted IP scope

**Answer: C**

**Explanation:**

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

**NEW QUESTION 84**

- (Exam Topic 2)

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

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

**Answer: A**

**Explanation:**

The network administrator should confirm the patch's MD5 hash prior to the upgrade to help ensure the upgrade process will be less likely to cause problems with the switches. MD5 (Message Digest 5) is a cryptographic hash function that produces a 128-bit hash value for any given input. It can be used to verify the integrity and authenticity of a file by comparing its hash value with a known or expected value. If the hash values match, it means that the file has not been corrupted or tampered with during transmission or storage. If the hash values do not match, it means that the file may be damaged or malicious and should not be used for the upgrade. References: <https://www.cisco.com/c/en/us/support/docs/security-vpn/secure-shell-ssh/15292-scp.html>

**NEW QUESTION 85**

- (Exam Topic 2)

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

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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 90**

- (Exam Topic 2)

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

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

**Answer:** A

**Explanation:**

An omni antenna should be used by the AP to provide service in a radius surrounding a radio. An omni antenna is a type of antenna that has a 360-degree horizontal radiation pattern. It can provide wireless coverage in all directions from the antenna with varying degrees of vertical coverage. It is suitable for indoor environments where users are located around the AP1. References: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-omni-vs-direct.html> 1

**NEW QUESTION 94**

- (Exam Topic 2)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 97**

- (Exam Topic 2)

A network technician has multimode fiber optic cable available in an existing IDF. Which of the following Ethernet standards should the technician use to connect the network switch to the existing fiber?

- A. 10GBaseT
- B. 1000BaseT
- C. 1000BaseSX
- D. 1000BaseLX

**Answer:** C

**Explanation:**

1000BaseSX is an Ethernet standard that should be used to connect the network switch to the existing multimode fiber optic cable. 1000BaseSX is a Gigabit Ethernet standard that uses short-wavelength laser (850 nm) over multimode fiber optic cable. It can support distances up to 550 meters depending on the cable type and quality. It is suitable for short-range network segments such as campus or building backbone networks. References: <https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/gigabit-ethernet-gbic-sfp-modules/produ>

**NEW QUESTION 98**

- (Exam Topic 2)

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

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

**Answer:** C

**Explanation:**

Ransomware is a type of malware that encrypts user data and demands a ransom for its decryption. Ransomware can prevent users from accessing their files and applications, and cause data loss or corruption. A proper backup implementation is essential to recover from a ransomware attack, as it can help restore the encrypted data without paying the ransom or relying on the attackers' decryption key. References: <https://www.comptia.org/blog/what-is-ransomware>

**NEW QUESTION 102**

- (Exam Topic 2)

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

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

**Answer:** A

**Explanation:**

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

#### NEW QUESTION 105

- (Exam Topic 2)

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

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

**Answer: B**

#### Explanation:

VPN (Virtual Private Network) is the most appropriate way to enable secure remote printing. VPN is a technology that creates a secure and encrypted tunnel over a public network such as the Internet. It allows remote users or sites to access a private network as if they were directly connected to it. VPN can be used for various purposes such as accessing corporate resources, bypassing geo-restrictions, or enhancing privacy and security. VPN can also be used for remote printing by allowing users to connect to a printer on the private network and send print jobs securely over the VPN tunnel. References:

<https://www.cisco.com/c/en/us/support/docs/security-vpn/ipsec-negotiation-ike-protocols/14106-how-vpn-work>

#### NEW QUESTION 109

- (Exam Topic 2)

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

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

**Answer: D**

#### Explanation:

A damaged cable is most likely the cause of the desktop not connecting to the network. A damaged cable can cause physical layer issues such as loss of signal, attenuation, interference, or crosstalk. These issues can prevent the desktop from establishing a link with the switch and result in the LED status light on the switchport being off. Other possible causes of physical layer issues are faulty connectors, ports, or transceivers. References:

<https://www.cisco.com/c/en/us/support/docs/lan-switching/ethernet/14119-37.html>

#### NEW QUESTION 111

- (Exam Topic 2)

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

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

**Answer: B**

#### Explanation:

The firewall administrator is implementing a PAT (Port Address Translation) rule that directs HTTP traffic to an internal server listening on a non-standard socket. PAT is a type of NAT (Network Address Translation) that allows multiple devices to share a single public IP address by using different port numbers. PAT can also be used to redirect traffic from one port to another port on the same or different IP address. This can be useful for security or load balancing purposes. For example, a firewall administrator can configure a PAT rule that redirects HTTP traffic (port 80) from the public IP address of the firewall to an internal server that listens on a non-standard port (such as 8080) on its private IP address. References: <https://www.cisco.com/c/en/us/support/docs/ip/network-address-translation-nat/13772-12.html>

#### NEW QUESTION 113

- (Exam Topic 2)

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

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

**Answer: C**

#### Explanation:

SIEM stands for Security Information and Event Management, which is a tool that collects, analyzes, and correlates data from various network devices and sources to provide alerts and reports on security incidents and events. A report from the SIEM tool can provide a comprehensive overview of the network alerts from the past week to the executive staff, highlighting any potential threats, vulnerabilities, or anomalies. References: <https://www.comptia.org/blog/what-is-siem>

#### NEW QUESTION 115

- (Exam Topic 2)

Which of the following OSI model layers is where conversations between applications are established, coordinated, and terminated?

- A. Session
- B. Physical
- C. Presentation
- D. Data link

**Answer:** A

**Explanation:**

Reference: <https://www.techtarget.com/searchnetworking/definition/OSI#:~:text=The%20session%20layer,and%20termina>

The session layer is where conversations between applications are established, coordinated, and terminated. It is responsible for creating, maintaining, and ending sessions between different devices or processes. The physical layer deals with the transmission of bits over a medium. The presentation layer formats and translates data for different applications. The data link layer provides reliable and error-free delivery of frames within a network.

**NEW QUESTION 120**

- (Exam Topic 2)

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

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

**Answer:** D

**Explanation:**

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

**NEW QUESTION 123**

- (Exam Topic 2)

A client moving into a new office wants the IP network set up to accommodate 412 network-connected devices that are all on the same subnet. The subnet needs to be as small as possible. Which of the following subnet masks should be used to achieve the required result?

- A. 255.255.0.0
- B. 255.255.252.0
- C. 255.255.254.0
- D. 255.255.255.0

**Answer:** B

**Explanation:**

\* 255.255.252.0 is a subnet mask that allows for 1022 network-connected devices on the same subnet, which is the smallest subnet that can accommodate 412 devices. The subnet mask determines how many bits are used for the network portion and how many bits are used for the host portion of an IP address. A smaller subnet mask means more bits are used for the network portion and less bits are used for the host portion, which reduces the number of available hosts on the subnet. 255.255.0.0 allows for 65534 hosts on the same subnet, which is too large. 255.255.254.0 allows for 510 hosts on the same subnet, which is also too large. 255.255.255.0 allows for 254 hosts on the same subnet, which is too small.

**NEW QUESTION 127**

- (Exam Topic 2)

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

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

**Answer:** B

**Explanation:**

The default gateway is the setting that the user most likely misconfigured on the PC that caused it to be unable to access websites by both FQDN and IP. The default gateway is a device, usually a router or a firewall, that connects a local network to other networks such as the Internet. It acts as an intermediary between devices on different networks and forwards packets based on their destination IP addresses. If the default gateway is not configured correctly on a PC, it will not be able to communicate with devices outside its local network, such as web servers or DNS servers. References:

<https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/16448-default-gateway.html>

**NEW QUESTION 128**

- (Exam Topic 2)

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

- A. The device firmware should have been kept current.

- B. Unsecure protocols should have been disabled.
- C. Parental controls should have been enabled
- D. The default credentials should have been changed

**Answer:** D

**Explanation:**

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

**NEW QUESTION 133**

- (Exam Topic 2)

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

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

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 135**

- (Exam Topic 3)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 140**

- (Exam Topic 3)

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

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

**Answer:** A

**NEW QUESTION 141**

- (Exam Topic 3)

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

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

**Answer:** D

**NEW QUESTION 144**

- (Exam 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. Multitenancy
- 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 145**

- (Exam Topic 3)

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

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

**Answer:** D

**Explanation:**

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

Therefore, the correct answer is option D, NetFlow.

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

**NEW QUESTION 148**

- (Exam Topic 3)

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

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

**Answer:** B

**Explanation:**

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

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

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

**NEW QUESTION 152**

- (Exam Topic 3)

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

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

**Answer:** C

**NEW QUESTION 156**

- (Exam Topic 3)

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

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

**Answer:** B

**Explanation:**

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

Anthony Sequeira

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

Mike Meyers

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

**NEW QUESTION 160**

- (Exam Topic 3)

Several employees have expressed concerns about the company monitoring their internet activity when they are working from home. The company wants to mitigate this issue and reassure employees that their private internet activity is not being monitored. Which of the following would satisfy company and employee needs?

- A. Split tunnel
- B. Full tunnel
- C. Site-to-site tunnel
- D. Virtual desktop

**Answer:** A

**Explanation:**

Split tunnel is a configuration that allows a remote user to access both the local network and the Internet at the same time. In a split tunnel configuration, only traffic destined for the corporate network is sent through the VPN tunnel, while all other traffic is sent directly to the Internet. This allows the remote user to access the Internet without the company's VPN server being able to monitor or intercept their traffic. Using a split tunnel configuration can help the company to mitigate employee concerns about internet activity being monitored and reassure employees that their private internet activity is not being monitored.

**NEW QUESTION 162**

- (Exam Topic 3)

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

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

**Answer:** BC

**NEW QUESTION 167**

- (Exam 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 169**

- (Exam Topic 3)

A non-employee was able to enter a server room. Which of the following could have prevented this from happening?

- A. A security camera
- B. A biometric reader
- C. OTP key fob
- D. Employee training

**Answer:** B

**Explanation:**

A biometric reader is a device that scans a person's physical characteristics, such as fingerprints, iris, or face, and compares them to a database of authorized users. A biometric reader can be used to restrict access to a server room and prevent unauthorized entry. A biometric reader provides a high level of security and

cannot be easily bypassed or duplicated.

References: Network+ Study Guide Objective 5.1: Summarize the importance of physical security controls.

#### NEW QUESTION 171

- (Exam Topic 3)

Which of the following OSI model layers would allow a user to access and download files from a remote computer?

- A. Session
- B. Presentation
- C. Network
- D. Application

**Answer:** D

#### Explanation:

The application layer of the OSI model (Open Systems Interconnection) is responsible for providing services to applications that allow users to access and download files from a remote computer. These services include file transfer, email, and web access, as well as other related services. In order for a user to access and download files from a remote computer, the application layer must provide the necessary services that allow the user to interact with the remote computer.

#### NEW QUESTION 172

- (Exam Topic 3)

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

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

**Answer:** A

#### Explanation:

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

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

#### NEW QUESTION 176

- (Exam Topic 3)

Which of the following is an example of on-demand scalable hardware that is typically housed in the vendor's data center?

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

**Answer:** B

#### NEW QUESTION 178

- (Exam Topic 3)

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

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

**Answer:** B

#### Explanation:

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

#### NEW QUESTION 183

- (Exam Topic 3)

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

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

**Answer:** C

**Explanation:**

Syslog is a protocol that allows network devices to send event messages to a centralized server or console for logging and analysis<sup>1</sup>. Syslog can help a technician to determine if a router port is flapping by providing timestamps, severity levels, and descriptions of the events that occur on the router, such as interface up or down, link state change, or error messages. Syslog can also help to identify the cause and frequency of the port flapping and troubleshoot the issue.

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

NetFlow is a protocol that collects and analyzes network traffic data for monitoring and troubleshooting purposes<sup>2</sup>. NetFlow can help to identify the sources, destinations, volumes, and types of traffic on a network. NetFlow can also help to optimize network performance, security, and capacity planning. However, NetFlow does not provide detailed information about router port flapping.

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

**NEW QUESTION 187**

- (Exam 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 192**

- (Exam Topic 3)

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

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

**Answer: C**

**NEW QUESTION 197**

- (Exam Topic 3)

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

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

**Answer: A**

**NEW QUESTION 202**

- (Exam Topic 3)

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

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

**Answer: D**

**Explanation:**

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

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

**NEW QUESTION 207**

- (Exam Topic 3)

**SIMULATION**

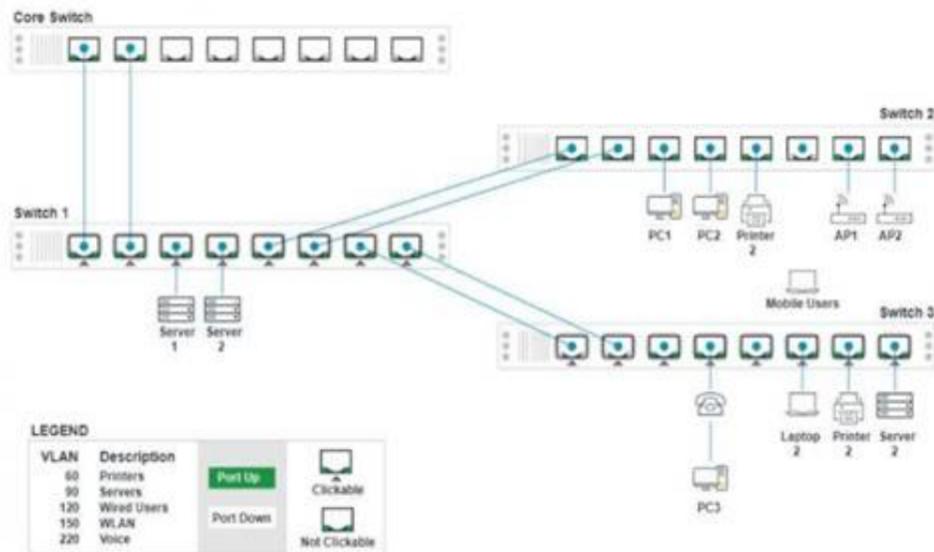
A network technician replaced a switch and needs to reconfigure it to allow the connected devices to connect to the correct networks.

**INSTRUCTIONS**

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

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

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



### Switch 3 - Port 8 Configuration

**Status**

Port  Enabled

LACP  Disabled

**Wired**

Speed  Auto  100  1000

Duplex  Auto  Half  Full

**VLAN Configuration**

Port Tagging:  UnTagged  Tagged  Un Tagged

VLANs: VLAN 1, VLAN 60, VLAN 90, VLAN 120, VLAN 150, VLAN 220

Reset to Default Save Close

### Switch 3 - Port 7 Configuration

**Status**

Port  Enabled

LACP  Disabled

**Wired**

Speed  Auto  100  1000

Duplex  Auto  Half  Full

**VLAN Configuration**

Port Tagging:  UnTagged  Tagged  Un Tagged

VLANs: VLAN 1, VLAN 60, VLAN 90, VLAN 120, VLAN 150, VLAN 220

Reset to Default Save Close

**Switch 3 - Port 6 Configuration**

**Status**  
Port  Enabled  
LACP  Disabled

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

**VLAN Configuration**  
Add VLAN

VLAN150  
Port Tagging: UnTagged

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

Reset to Default Save Close

**Switch 3 - Port 4 Configuration**

**Status**  
Port  Enabled  
LACP  Disabled

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

**VLAN Configuration**  
Add VLAN

VLAN1  
Port Tagging: UnTagged

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

Reset to Default Save Close

### Switch 3 - Port 1 Configuration

**Status**  
Port  Enabled  
LACP  Disabled

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

**VLAN Configuration**  
Add VLAN

VLAN1  
Port Tagging: UnTagged

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

Reset to Default Save Close

### Switch 1 - Port 7 Configuration

**Status**  
Port  Enabled  
LACP  Enabled

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

**VLAN Configuration**  
Add VLAN

VLAN60 Port Tagging: Tagged

VLAN90 Port Tagging: Tagged

VLAN120 Port Tagging: Tagged

VLAN150 Port Tagging: Tagged

VLAN220 Port Tagging: Tagged

Reset to Default Save Close

### Switch 1 - Port 8 Configuration

**Status**  
Port  Enabled  
LACP  Enabled

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

**VLAN Configuration**  
Add VLAN

VLAN60 Port Tagging: Tagged

VLAN90 Port Tagging: Tagged

VLAN120 Port Tagging: Tagged

VLAN150 Port Tagging: Tagged

VLAN220 Port Tagging: Tagged

Reset to Default Save Close

### Switch 1 - Port 6 Configuration

**Status**  
Port  Enabled  
LACP  Enabled

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

**VLAN Configuration**  
Add VLAN

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

Reset to Default Save Close

### Switch 1 - Port 2 Configuration

**Status**  
Port  Enabled  
LACP  Enabled

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

**VLAN Configuration**  
Add VLAN

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

Reset to Default Save Close

### Switch 1 - Port 1 Configuration

**Status**  
Port  Enabled  
LACP  Enabled

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

**VLAN Configuration**  
Add VLAN

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

Reset to Default Save Close

### Switch 1 - Port 5 Configuration

**Status**  
Port  Enabled  
LACP  Enabled

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

**VLAN Configuration**  
Add VLAN

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

Reset to Default Save Close

### Switch 1 - Port 4 Configuration

**Status**  
Port  Enabled  
LACP  Disabled

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

**VLAN Configuration**  
Add VLAN

VLAN90 Port Tagging UnTagged	VLAN 1 VLAN 60 VLAN 90 VLAN 120 VLAN 150 VLAN 220
------------------------------------	--

Reset to Default Save Close

### Switch 1 - Port 3 Configuration

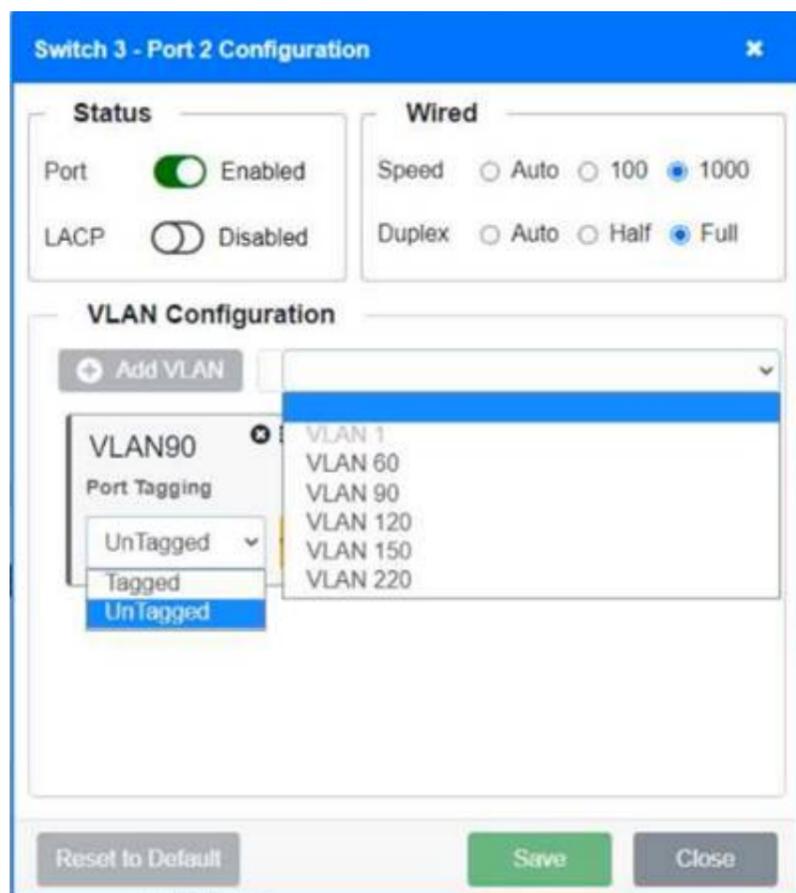
**Status**  
Port  Enabled  
LACP  Disabled

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

**VLAN Configuration**  
Add VLAN

VLAN90 Port Tagging UnTagged	VLAN 1 VLAN 60 VLAN 90 VLAN 120 VLAN 150 VLAN 220
------------------------------------	--

Reset to Default Save Close



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

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

**NEW QUESTION 209**

- (Exam Topic 3)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 214**

- (Exam Topic 3)

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

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

**Answer:** D

**Explanation:**

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

**NEW QUESTION 216**

- (Exam Topic 3)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 221**

- (Exam Topic 3)

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

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

**Answer:** C

**Explanation:**

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

**NEW QUESTION 225**

- (Exam Topic 3)

A help desk technician is concerned that a client's network cable issues may be causing intermittent connectivity. Which of the following would help the technician determine if this is the issue?

- A. Run the show interface command on the switch
- B. Run the traceroute command on the server
- C. Run iperf on the technician's desktop
- D. Ping the client's computer from the router
- E. Run a port scanner on the client's IP address

**Answer:** A

**Explanation:**

To determine if a client's network cable issues may be causing intermittent connectivity, the help desk technician can run the show interface command on the switch. This command allows the technician to view the status and statistics of the various interfaces on the switch, including the physical link status and the number of transmitted and received packets. If the interface is experiencing a large number of errors or dropped packets, this could indicate a problem with the network cable or with the connection between the client's device and the switch.

"Cisco routers and switches have a show interfaces IOS command that provides interface statistics/status information, including link state (up/down), speed/duplex, send/receive traffic, cyclic redundancy checks (CRCs), and protocol packet and byte counts."

**NEW QUESTION 230**

- (Exam Topic 3)

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

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

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

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

**Answer:** A

**NEW QUESTION 233**

- (Exam Topic 3)

A public, wireless ISP mounts its access points on top of traffic signal poles. Fiber-optic cables are installed from a fiber switch through the ground and up the pole to a fiber-copper media converter, and then connected to the AP. In one location, the switchport is showing sporadic link loss to the attached AP. A similar link loss is not seen at the AP interface. The fiber-optic cable is moved to another unused switchport with a similar result. Which of the following steps should the assigned technician complete NEXT?

- A. Disable and enable the switchport.
- B. Clean the fiber-optic cable ends.
- C. Replace the media converter.

D. Replace the copper patch cord.

**Answer:** B

**Explanation:**

Fiber-optic cables are cables that use light signals to transmit data over long distances at high speeds.

Fiber-optic cables are sensitive to dirt, dust, moisture, or other contaminants that can interfere with the light signals and cause link loss or signal degradation. To troubleshoot link loss issues with fiber-optic cables, one of the steps that should be completed next is to clean the fiber-optic cable ends with a lint-free cloth or a specialized cleaning tool. Cleaning the fiber-optic cable ends can remove any dirt or debris that may be blocking or reflecting the light signals and restore the link quality.

**NEW QUESTION 237**

- (Exam Topic 3)

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

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

**Answer:** B

**NEW QUESTION 241**

- (Exam Topic 3)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 242**

- (Exam Topic 3)

A technician knows the MAC address of a device and is attempting to find the device's IP address. Which of the following should the technician look at to find the IP address? (Select TWO).

- A. ARP table
- B. DHCP leases
- C. IP route table
- D. DNS cache
- E. MAC address table
- F. STP topology

**Answer:** BE

**NEW QUESTION 243**

- (Exam Topic 3)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 247**

- (Exam 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 249**

- (Exam Topic 3)

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

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

**Answer:** A

**NEW QUESTION 253**

- (Exam Topic 3)

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

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

**Answer:** B

**Explanation:**

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

**NEW QUESTION 258**

- (Exam 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. 802.1Q
- 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 259**

- (Exam 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 261**

- (Exam Topic 3)

A company is undergoing expansion but does not have sufficient rack space in its data center. Which of the following would be BEST to allow the company to host its new equipment without a major investment in facilities?

- A. Using a colocation service
- B. Using available rack space in branch offices
- C. Using a flat network topology

D. Reorganizing the network rack and installing top-of-rack switching

**Answer:** A

**Explanation:**

A colocation service is a service that provides rack space, power, cooling, security, and connectivity for a company's network equipment in a data center. A colocation service can be used when a company does not have sufficient rack space in its own data center and does not want to invest in building or expanding its own facilities. By using a colocation service, a company can host its new equipment in a professional and reliable environment without a major investment in facilities. References: <https://www.comptia.org/training/books/network-n10-008-study-guide> (page 414)

**NEW QUESTION 262**

- (Exam Topic 3)

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

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

**Answer:** C

**Explanation:**

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

**NEW QUESTION 264**

- (Exam Topic 3)

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

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

**Answer:** B

**Explanation:**

The best choice for configuring link port aggregation between a Gigabit Ethernet distribution switch and a Fast Ethernet access switch is to use full duplex and 1GB speed for all interfaces that are participating in the link aggregation. This will allow for maximum throughput, as the full duplex connection will enable simultaneous sending and receiving of data, and the 1GB speed will ensure that the data is transferred quickly. According to the CompTIA Network+ Study Guide, "Full-duplex Ethernet allows the network adapter to transmit and receive data simultaneously, which can result in double the bandwidth of half-duplex Ethernet." Additionally, the official text states, "Ethernet and Fast Ethernet use different speeds for data transmission, with Ethernet being 1,000 megabits (1 gigabit) per second and Fast Ethernet being 100 megabits per second."

**NEW QUESTION 266**

- (Exam Topic 3)

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

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

**Answer:** C

**Explanation:**

A hot site is a backup site that is fully equipped and ready to take over the operations of the primary site in the event of a disaster. A hot site has real-time synchronization with the primary site and can provide zero data loss. A hot site is the most expensive and reliable option for disaster recovery. References: Network+ Study Guide Objective 5.3: Explain common scanning, monitoring and patching processes and summarize their expected outputs.

**NEW QUESTION 269**

- (Exam Topic 3)

Which of the following is considered a physical security detection device?

- A. Cameras
- B. Biometric readers
- C. Access control vestibules
- D. Locking racks

**Answer:** A

**NEW QUESTION 273**

- (Exam Topic 3)

An international company is transferring its IT assets including a number of WAPs from the United States to an office in Europe for deployment. Which of the

following considerations should the company research before implementing the wireless hardware?

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

**Answer: B**

**Explanation:**

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

**NEW QUESTION 277**

- (Exam Topic 3)

A network engineer needs to create a subnet that has the capacity for five VLANs. with the following number of clients to be allowed on each:

VLAN 10	50 users
VLAN 20	35 users
VLAN 30	20 users
VLAN 40	75 users
VLAN 50	130 users

Which of the following is the SMALLEST subnet capable of this setup that also has the capacity to double the number of clients in the future?

- A. 10.0.0.0/21
- B. 10.0.0.0/22
- C. 10.0.0.0/23
- D. 10.0.0.0/24

**Answer: B**

**NEW QUESTION 280**

- (Exam Topic 3)

A network administrator is investigating reports about network performance and finds high utilization on a switch uplink. The administrator is unsure whether this is an anomaly or normal behavior that will require an upgrade to resolve. Which Of the following should the administrator reference to gain historical perspective?

- A. Device configuration review
- B. ARP table export
- C. Service-level agreement
- D. Network performance baseline

**Answer: D**

**Explanation:**

A network performance baseline is a set of metrics that represents the normal or expected behavior of a network under various conditions and scenarios. A network performance baseline can help a network administrator to investigate reports about network performance by comparing the current metrics with the historical metrics and identifying any deviations or anomalies. A network performance baseline can also help to plan and justify network upgrades by showing the trends and patterns of network utilization and performance over time.

A device configuration review is a process that involves checking and verifying the settings and parameters of a network device, such as a switch, router, firewall, or server. A device configuration review can help a network administrator to troubleshoot network issues by finding and fixing any errors, inconsistencies, or vulnerabilities in the device configuration. A device configuration review can also help to ensure compliance with security policies and best practices by applying the latest updates and patches to the device.

An ARP table export is a file that contains the contents of the ARP (Address Resolution Protocol) table of a network device. The ARP table is a data structure that maps IP addresses to MAC addresses on a local network. An ARP table export can help a network administrator to monitor and manage the network devices on a local network by showing their IP addresses and MAC addresses. An ARP table export can also help to detect and prevent ARP spoofing attacks by identifying any duplicate or malicious entries in the ARP table.

A service-level agreement (SLA) is a contract that defines the expectations and responsibilities of both parties in terms of service quality, availability, performance, and response time. An SLA can help a network administrator to provide and maintain a satisfactory level of service to the customers or users of the network by setting and measuring specific goals and metrics. An SLA can also help to resolve any disputes or issues that may arise between the service provider and the service consumer by establishing clear terms and conditions for the service delivery.

**NEW QUESTION 283**

- (Exam 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 288**

- (Exam Topic 3)

Which of the following can have multiple VLAN interfaces?

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

**Answer:** B

#### NEW QUESTION 290

- (Exam Topic 3)

A switch is connected to another switch. Incompatible hardware causes a surge in traffic on both switches. Which of the following configurations will cause traffic to pause, allowing the switches to drain buffers?

- A. Speed
- B. Flow control
- C. 802.1Q
- D. Duplex

**Answer:** B

#### Explanation:

Flow control is a mechanism that allows a network device to regulate the amount of traffic it can receive or send. Flow control can help prevent congestion and buffer overflow by sending pause frames or signals to the sender when the receiver's buffer is full or nearly full. Flow control can cause traffic to pause, allowing the switches to drain buffers and resume normal operation. Speed is a parameter that determines the data transfer rate of a network link. 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 291

- (Exam Topic 3)

A network administrator is troubleshooting a client's device that cannot connect to the network. A physical inspection of the switch shows the RJ45 is connected. The NIC shows no activity lights. The network administrator moves the device to another location and connects to the network without issues. Which Of the following tools would be the BEST option for the network administrator to use to further troubleshoot?

- A. Tone generator
- B. Multimeter
- C. Optical time-domain reflectometer
- D. Cable tester

**Answer:** D

#### Explanation:

A cable tester is a tool that can verify the integrity and functionality of a network cable. It can measure the electrical characteristics of the cable, such as resistance, capacitance, and impedance, and detect any faults or defects, such as shorts, opens, or crosstalk. A cable tester can help the network administrator troubleshoot the problem by determining if the cable is faulty or not. A tone generator is a tool that can send an audible signal through a cable to help locate and identify it. A multimeter is a tool that can measure voltage, current, and resistance of electrical circuits. An optical time-domain reflectometer (OTDR) is a tool that can test the quality and length of fiber optic cables.

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.3: Given a scenario, use the appropriate tool to support wired or wireless networks.

#### NEW QUESTION 295

- (Exam Topic 3)

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

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

**Answer:** A

#### NEW QUESTION 299

- (Exam Topic 3)

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

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

**Answer:** A

#### NEW QUESTION 303

- (Exam Topic 3)

A technician is configuring a static IP address on a new device in a newly created subnet. The work order specifies the following requirements:

- The IP address should use the highest address available in the subnet.

- The default gateway needs to be set to 172.28.85.94.
- The subnet mask needs to be 255.255.255.224.

Which of the following addresses should the engineer apply to the device?

- A. 172.28.85.93
- B. 172.28.85.95
- C. 172.28.85.254
- D. 172.28.85.255

**Answer:** A

**Explanation:**

<https://www.tunnelsup.com/subnet-calculator/> IP Address: 172.28.85.95/27  
Netmask: 255.255.255.224  
Network Address: 172.28.85.64  
Usable Host Range: 172.28.85.65 - 172.28.85.94  
Broadcast Address: 172.28.85.95

**NEW QUESTION 308**

- (Exam Topic 3)

A network administrator is testing performance improvements by configuring channel bonding on an 802.Hac AP. Although a site survey detected the majority of the 5GHz frequency spectrum was idle, being used only by the company's WLAN and a nearby government radio system, the AP is not allowing the administrator to manually configure a large portion of the 5GHz frequency range. Which of the following would be BEST to configure for the WLAN being tested?

- A. Upgrade the equipment to an AP that supports manual configuration of the EIRP power settings.
- B. Switch to 802.11
- C. disable channel auto-selection, and enforce channel bonding on the configuration.
- D. Set up the AP to perform a dynamic selection of the frequency according to regulatory requirements.
- E. Deactivate the band 5GHz to avoid Interference with the government radio

**Answer:** C

**NEW QUESTION 313**

- (Exam Topic 3)

A corporation is looking for a method to secure all traffic between a branch office and its data center in order to provide a zero-touch experience for all staff members who work there. Which of the following would BEST meet this requirement?

- A. Site-to-site VPN
- B. VNC
- C. Remote desktop gateway
- D. Virtual LANs

**Answer:** A

**Explanation:**

A site-to-site VPN is a method that creates a secure and encrypted connection between two internet gateways, such as routers or firewalls, that belong to different networks<sup>1</sup>. A site-to-site VPN can secure all traffic between a branch office and its data center by creating a virtual tunnel that protects the data from interception or tampering. A site-to-site VPN can also provide a zero-touch experience for all staff members who work there, as they do not need to install any software or configure any settings on their devices to access the data center resources. They can simply use their local network as if they were physically connected to the data center network.

VNC (Virtual Network Computing) is a method that allows remote access and control of a computer's desktop from another device over a network<sup>2</sup>. VNC can enable staff members to work remotely by accessing their office computers from their home computers or mobile devices. However, VNC does not secure all traffic between a branch office and its data center, as it only works at the application layer and does not encrypt the network layer. VNC also does not provide a zero-touch experience for staff members, as they need to install software and configure settings on both the host and the client devices.

Remote desktop gateway is a method that allows remote access and control of a computer's desktop from another device over a network using the Remote Desktop Protocol (RDP). Remote desktop gateway can also enable staff members to work remotely by accessing their office computers from their home computers or mobile devices. However, remote desktop gateway does not secure all traffic between a branch office and its data center, as it only works at the application layer and does not encrypt the network layer. Remote desktop gateway also does not provide a zero-touch experience for staff members, as they need to install software and configure settings on both the host and the client devices.

Virtual LANs (VLANs) are methods that create logical subdivisions of a physical network based on criteria such as function, department, or security level. VLANs can improve network performance, security, and management by reducing broadcast domains, isolating traffic, and enforcing policies. However, VLANs do not secure all traffic between a branch office and its data center, as they only work at the data link layer and do not encrypt the network layer. VLANs also do not provide a zero-touch experience for staff members, as they need to configure settings on their network devices to join or leave a VLAN.

**NEW QUESTION 317**

- (Exam Topic 3)

A company, which is located in a coastal town, retrofitted an office building for a new data center. The underground fiber optics were brought in and connected to the switches in the basement network MDF. A server data center was built on the fifth floor with the two rooms vertically connected by fiber optics. Which of the following types of environmental sensors is MOST needed?

- A. Temperature sensor in the network MDF
- B. Water sensor in the network MDF
- C. Temperature sensor in the data center
- D. Water sensor in the data center

**Answer:** B

**Explanation:**

A water sensor is a type of environmental sensor that detects the presence of water or moisture in an area. A water sensor is most needed in a network main distribution frame (MDF) that is located in a basement near underground fiber-optic cables. A network MDF is a central point where all the network connections

converge and where network equipment such as switches and routers are located. If water leaks into the basement and damages the fiber-optic cables or the network equipment, it can cause network outages, performance degradation, or data loss. A water sensor can alert the network administrator of any water intrusion and help prevent or minimize the damage. References:

<https://www.comptia.org/training/books/network-n10-008-study-guide> (page 446)

#### NEW QUESTION 322

- (Exam Topic 3)

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

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

**Answer:** A

#### Explanation:

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

#### NEW QUESTION 325

- (Exam 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 326

- (Exam Topic 3)

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

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

**Answer:** B

#### Explanation:

Role-based access is a security technique that assigns permissions and privileges to users or groups based on their roles or functions within an organization. Role-based access can help secure the physical networking equipment by limiting who can access, modify, or manage the devices in the shared IT closet. Only authorized personnel with a valid role and credentials should be able to access the networking equipment. Disabling unneeded switchports is a security technique that prevents unauthorized devices from connecting to the network by turning off unused ports on a switch. Changing the default passwords is a security technique that prevents unauthorized access to network devices by replacing the factory-set passwords with strong and unique ones. Configuring an access control list is a security technique that filters network traffic by allowing or denying packets based on criteria such as source and destination IP addresses, ports, or protocols. References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 3.2: Given a scenario, use appropriate network hardening techniques.

#### NEW QUESTION 327

- (Exam 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:

\* 802.11 ax 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 329

- (Exam Topic 3)

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

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

**Answer:** A

#### Explanation:

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

#### NEW QUESTION 330

- (Exam Topic 3)

A network administrator received a report stating 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 335

- (Exam Topic 3)

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

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

**Answer:** B

#### Explanation:

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

#### NEW QUESTION 339

- (Exam Topic 3)

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

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

**Answer:** C

#### NEW QUESTION 343

- (Exam Topic 3)

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

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

**Answer:** D

#### Explanation:

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

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

#### NEW QUESTION 347

- (Exam Topic 3)

Which of the following DHCP settings would be used to ensure a device gets the same IP address each time it is connected to the network?

- A. Scope options
- B. Reservation
- C. Exclusion
- D. Relay
- E. Pool

**Answer:** A

#### NEW QUESTION 351

- (Exam Topic 3)

Which of the following protocols uses Dijkstra's algorithm to calculate the LOWEST cost between routers?

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

**Answer:** B

#### Explanation:

OSPF stands for Open Shortest Path First and is a link-state routing protocol that uses Dijkstra's algorithm to calculate the lowest cost between routers. OSPF assigns a cost value to each link based on factors such as bandwidth, delay, or reliability, and builds a map of the network topology. OSPF then uses Dijkstra's algorithm to find the shortest path from each router to every other router in the network<sup>1</sup>. RIP stands for Routing Information Protocol and is a distance-vector routing protocol that uses hop count as the metric to find the best path. BGP stands for Border Gateway Protocol and is a path-vector routing protocol that uses attributes such as AS path, local preference, or origin to select the best route. EIGRP stands for Enhanced Interior Gateway Routing Protocol and is a hybrid routing protocol that uses a composite metric based on bandwidth, delay, load, and reliability.

References: <sup>1</sup> Dijkstra's algorithm - Wikipedia ([https://en.wikipedia.org/wiki/Dijkstra%27s\\_algorithm](https://en.wikipedia.org/wiki/Dijkstra%27s_algorithm))

#### NEW QUESTION 356

- (Exam Topic 3)

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

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

**Answer:** A

#### NEW QUESTION 357

- (Exam Topic 3)

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

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

**Answer:** A

#### NEW QUESTION 362

- (Exam Topic 3)

A network technician has determined the cause of a network disruption. Which of the following is the NEXT step for the technician to perform?

- A. Validate the findings in a top-to-bottom approach
- B. Duplicate the issue, if possible
- C. Establish a plan of action to resolve the issue
- D. Document the findings and actions

**Answer:** C

#### NEW QUESTION 365

- (Exam 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 370**

- (Exam Topic 3)

A technician is configuring a wireless network and needs to ensure users agree to an AUP before connecting. Which of the following should be implemented to achieve this goal?

- A. Captive portal
- B. Geofencing
- C. Wireless client isolation
- D. Role-based access

**Answer:** A

**NEW QUESTION 371**

- (Exam Topic 3)

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 372**

- (Exam Topic 3)

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

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

**Answer:** A

**NEW QUESTION 375**

- (Exam Topic 3)

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

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

**Answer:** C

**NEW QUESTION 380**

- (Exam Topic 3)

Which of the following would be used when connecting devices that have different physical characteristics?

- A. A proxy server
- B. An industrial control system
- C. A load balancer
- D. A media converter

**Answer:** D

**NEW QUESTION 385**

- (Exam Topic 3)

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

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

**Answer:** D

**Explanation:**

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

**NEW QUESTION 386**

- (Exam 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 389**

- (Exam Topic 3)

A company is designing a SAN and would like to use STP as its medium for communication. Which of the following protocols would BEST suit the company's needs?

- A. SFTP
- B. Fibre Channel
- C. iSCSI
- D. FTP

**Answer:** B

**Explanation:**

A SAN also employs a series of protocols enabling software to communicate or prepare data for storage. The most common protocol is the Fibre Channel Protocol (FCP), which maps SCSI commands over FC technology. The iSCSI SANs will employ an iSCSI protocol that maps SCSI commands over TCP/IP. STP (Spanning Tree Protocol) is a protocol used to prevent loops in Ethernet networks, and it is not a medium for communication in a storage area network (SAN). However, Fibre Channel is a protocol that is specifically designed for high-speed data transfer in SAN environments. It is a dedicated channel technology that provides high throughput and low latency, making it ideal for SANs. Therefore, Fibre Channel would be the best protocol for the company to use for its SAN. SFTP (Secure File Transfer Protocol), iSCSI (Internet Small Computer System Interface), and FTP (File Transfer Protocol) are protocols used for transferring files over a network and are not suitable for use in a SAN environment.

**NEW QUESTION 391**

- (Exam Topic 3)

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

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

**Answer:** B

**Explanation:**

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

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

**NEW QUESTION 394**

- (Exam Topic 3)

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

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

**Answer:** B

**NEW QUESTION 399**

- (Exam Topic 3)

A PC and a network server have no network connectivity, and a help desk technician is attempting to resolve the issue. The technician plans to run a constant ping command from a Windows workstation while testing various possible reasons for the connectivity issue. Which of the following should the technician use?

- A. ping —w
- B. ping -i
- C. ping —s
- D. ping —t

**Answer:** D

**Explanation:**

ping -t is an option for the ping command in Windows that allows the user to send continuous ping requests to a target until stopped by pressing Ctrl-C. This can help the technician run a constant ping command while testing various possible reasons for the connectivity issue. ping -w is an option for the ping command in Windows that allows the user to specify a timeout value in milliseconds for each ping request. ping -i is an option for the ping command in Linux that allows the user to specify the time interval in seconds between each ping request. ping -s is an option for the ping command in Linux that allows the user to specify the size of the data payload in bytes for each ping request.

References: How to Use the Ping Command in Windows - Lifewire (<https://www.lifewire.com/ping-command-2618099>)

**NEW QUESTION 403**

- (Exam Topic 3)

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

- A. 80.87.78 0 - 80.87.78.14
- B. 80.87.78 0 - 80.87.78.110
- C. 80.87.78 1 - 80.87.78.62
- D. 80.87.78.1 - 80.87.78.158

**Answer:** C

**Explanation:**

The network 80.87.78.0/26 is a Class A network with a subnet mask of /26, which means that it contains 26 bits of network information and 6 bits of host information. The range of valid host addresses for this network is 80.87.78.1 to 80.87.78.62. Any addresses outside of this range are reserved for special purposes or are not used.

**NEW QUESTION 405**

- (Exam Topic 3)

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

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

**Answer:** A

**NEW QUESTION 409**

- (Exam Topic 3)

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

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

**Answer:** A

**NEW QUESTION 412**

- (Exam Topic 3)

A company wants to set up a backup data center that can become active during a disaster. The site needs to contain network equipment and connectivity. Which of the following strategies should the company employ?

- A. Active-active
- B. Warm
- C. Cold
- D. Cloud

**Answer:** B

**Explanation:**

Active-active refers to more than one NIC being active at the same time. In my opinion, this question is referring to a recovery site (hot, warm, cold, cloud)

**NEW QUESTION 417**

- (Exam Topic 3)

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

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

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

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

**Answer: B**

#### NEW QUESTION 422

- (Exam Topic 3)

A network administrator needs to monitor traffic on a specific port on a switch. Which of the following should the administrator configure to accomplish the task?

- A. Port security
- B. Port tagging
- C. Port mirroring
- D. Media access control

**Answer: C**

#### Explanation:

Port mirroring is a feature that allows a network technician to monitor traffic on a specific port on a switch by copying all the traffic from that port to another port where a monitoring device is connected. Port mirroring can be used for troubleshooting, analysis, or security purposes, such as detecting network anomalies, performance issues, or malicious activities. References:

<https://www.comptia.org/training/books/network-n10-008-study-guide> (page 156)

#### NEW QUESTION 425

- (Exam Topic 3)

Classification using labels according to information sensitivity and impact in case of unauthorized access or leakage is a mandatory component of:

- A. an acceptable use policy.
- B. a memorandum of understanding.
- C. data loss prevention,
- D. a non-disclosure agreement.

**Answer: C**

#### Explanation:

Data loss prevention (DLP) is a set of tools and processes that aim to prevent unauthorized access or leakage of sensitive information. One of the components of DLP is data classification, which involves labeling data according to its information sensitivity and impact in case of unauthorized disclosure. Data classification helps to identify and protect the most critical and confidential data and apply appropriate security controls and policies. References: Network+ Study Guide Objective 5.1: Explain the importance of policies, processes and procedures for IT governance. Subobjective: Data loss prevention.

#### NEW QUESTION 429

- (Exam Topic 3)

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

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

**Answer: BD**

#### NEW QUESTION 430

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