

# Exam Questions SY0-701

CompTIA Security+ Exam

<https://www.2passeasy.com/dumps/SY0-701/>



#### NEW QUESTION 1

Which of the following agreement types defines the time frame in which a vendor needs to respond?

- A. SOW
- B. SLA
- C. MOA
- D. MOU

**Answer: B**

#### Explanation:

A service level agreement (SLA) is a type of agreement that defines the expectations and responsibilities between a service provider and a customer. It usually includes the quality, availability, and performance metrics of the service, as well as the time frame in which the provider needs to respond to service requests, incidents, or complaints. An SLA can help ensure that the customer receives the desired level of service and that the provider is accountable for meeting the agreed-upon standards.

References:

? Security+ (Plus) Certification | CompTIA IT Certifications, under “About the exam”, bullet point 3: “Operate with an awareness of applicable regulations and policies, including principles of governance, risk, and compliance.”

? CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 1, page 14: “Service Level Agreements (SLAs) are contracts between a service provider and a customer that specify the level of service expected from the service provider.”

#### NEW QUESTION 2

Which of the following is the best reason to complete an audit in a banking environment?

- A. Regulatory requirement
- B. Organizational change
- C. Self-assessment requirement
- D. Service-level requirement

**Answer: A**

#### Explanation:

A regulatory requirement is a mandate imposed by a government or an authority that must be followed by an organization or an individual. In a banking environment, audits are often required by regulators to ensure compliance with laws, standards, and policies related to security, privacy, and financial reporting. Audits help to identify and correct any gaps or weaknesses in the security posture and the internal controls of the organization. References:

? Official CompTIA Security+ Study Guide (SY0-701), page 507

? Security+ (Plus) Certification | CompTIA IT Certifications 2

#### NEW QUESTION 3

Which of the following can be used to identify potential attacker activities without affecting production servers?

- A. Honey pot
- B. Video surveillance
- C. Zero Trust
- D. Geofencing

**Answer: A**

#### Explanation:

A honey pot is a system or a network that is designed to mimic a real production server and attract potential attackers. A honey pot can be used to identify the attacker’s methods, techniques, and objectives without affecting the actual production servers. A honey pot can also divert the attacker’s attention from the real targets and waste their time and resources<sup>12</sup>.

The other options are not effective ways to identify potential attacker activities without affecting production servers:

? Video surveillance: This is a physical security technique that uses cameras and monitors to record and observe the activities in a certain area. Video surveillance can help to deter, detect, and investigate physical intrusions, but it does not directly identify the attacker’s activities on the network or the servers<sup>3</sup>.

? Zero Trust: This is a security strategy that assumes that no user, device, or network is trustworthy by default and requires strict verification and validation for every request and transaction. Zero Trust can help to improve the security posture and reduce the attack surface of an organization, but it does not directly identify the attacker’s activities on the network or the servers<sup>4</sup>.

? Geofencing: This is a security technique that uses geographic location as a criterion to restrict or allow access to data or resources. Geofencing can help to protect the data sovereignty and compliance of an organization, but it does not directly identify the attacker’s activities on the network or the servers<sup>5</sup>.

References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 542: Honeypots and Deception – SY0-601 CompTIA Security+ : 2.1, video by Professor Messer<sup>3</sup>: CompTIA Security+ SY0-701 Certification Study Guide, page 974: CompTIA Security+ SY0-701 Certification Study Guide, page 985:

CompTIA Security+ SY0-701 Certification Study Guide, page 99.

#### NEW QUESTION 4

Which of the following allows for the attribution of messages to individuals?

- A. Adaptive identity
- B. Non-repudiation
- C. Authentication
- D. Access logs

**Answer: B**

#### Explanation:

Non-repudiation is the ability to prove that a message or document was sent or signed by a particular person, and that the person cannot deny sending or signing it.

Non-repudiation can be achieved by using cryptographic techniques, such as hashing and digital signatures, that can verify the authenticity and integrity of the

message or document. Non-repudiation can be useful for legal, financial, or contractual purposes, as it can provide evidence of the origin and content of the message or document. References = Non- repudiation – CompTIA Security+ SY0-701 – 1.2, CompTIA Security+ SY0-301: 6.1 – Non-repudiation, CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 1.2, page 2.

#### NEW QUESTION 5

Malware spread across a company's network after an employee visited a compromised industry blog. Which of the following best describes this type of attack?

- A. Impersonation
- B. Disinformation
- C. Watering-hole
- D. Smishing

**Answer:** C

#### Explanation:

A watering-hole attack is a type of cyberattack that targets groups of users by infecting websites that they commonly visit. The attackers exploit vulnerabilities to deliver a malicious payload to the organization's network. The attack aims to infect users' computers and gain access to a connected corporate network. The attackers target websites known to be popular among members of a particular organization or demographic. The attack differs from phishing and spear-phishing attacks, which typically attempt to steal data or install malware onto users' devices<sup>1</sup>

In this scenario, the compromised industry blog is the watering hole that the attackers used to spread malware across the company's network. The attackers likely chose this blog because they knew that the employees of the company were interested in its content and visited it frequently. The attackers may have injected malicious code into the blog or redirected the visitors to a spoofed website that hosted the malware. The malware then infected the employees' computers and propagated to the network.

References<sup>1</sup>: Watering Hole Attacks: Stages, Examples, Risk Factors & Defense ...

#### NEW QUESTION 6

Which of the following enables the use of an input field to run commands that can view or manipulate data?

- A. Cross-site scripting
- B. Side loading
- C. Buffer overflow
- D. SQL injection

**Answer:** D

#### Explanation:

= SQL injection is a type of attack that enables the use of an input field to run commands that can view or manipulate data in a database. SQL stands for Structured Query Language, which is a language used to communicate with databases. By injecting malicious SQL statements into an input field, an attacker can bypass authentication, access sensitive information, modify or delete data, or execute commands on the server.

SQL injection is one of the most common and dangerous web application

vulnerabilities. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 5, page 195. CompTIA Security+ SY0-701 Exam Objectives, Domain 1.1, page 8.

#### NEW QUESTION 7

A company prevented direct access from the database administrators' workstations to the network segment that contains database servers. Which of the following should a database administrator use to access the database servers?

- A. Jump server
- B. RADIUS
- C. HSM
- D. Load balancer

**Answer:** A

#### Explanation:

A jump server is a device or virtual machine that acts as an intermediary between a user's workstation and a remote network segment. A jump server can be used to securely access servers or devices that are not directly reachable from the user's workstation, such as database servers. A jump server can also provide audit logs and access control for the remote connections. A jump server is also known as a jump box or a jump host<sup>12</sup>.

RADIUS is a protocol for authentication, authorization, and accounting of network access. RADIUS is not a device or a method to access remote servers, but rather a way to verify the identity and permissions of users or devices that request network access<sup>34</sup>. HSM is an acronym for Hardware Security Module, which is a physical device that provides secure storage and generation of cryptographic keys. HSMs are used to protect sensitive data and applications, such as digital signatures, encryption, and authentication. HSMs are not used to access remote servers, but rather to enhance the security of the data and applications that reside on them<sup>5</sup>.

A load balancer is a device or software that distributes network traffic across multiple servers or devices, based on criteria such as availability, performance, or capacity. A load balancer can improve the scalability, reliability, and efficiency of network services, such as web servers, application servers, or database servers. A load balancer is not used to access remote servers, but rather to optimize the delivery of the services that run on them. References =

? How to access a remote server using a jump host

? Jump server

? RADIUS

? Remote Authentication Dial-In User Service (RADIUS)

? Hardware Security Module (HSM)

? [What is an HSM?]

? [Load balancing (computing)]

? [What is Load Balancing?]

#### NEW QUESTION 8

A business received a small grant to migrate its infrastructure to an off-premises solution. Which of the following should be considered first?

- A. Security of cloud providers

- B. Cost of implementation
- C. Ability of engineers
- D. Security of architecture

**Answer:** D

**Explanation:**

Security of architecture is the process of designing and implementing a secure infrastructure that meets the business objectives and requirements. Security of architecture should be considered first when migrating to an off-premises solution, such as cloud computing, because it can help to identify and mitigate the potential risks and challenges associated with the migration, such as data security, compliance, availability, scalability, and performance. Security of architecture is different from security of cloud providers, which is the process of evaluating and selecting a trustworthy and reliable cloud service provider that can meet the security and operational needs of the business. Security of architecture is also different from cost of implementation, which is the amount of money required to migrate and maintain the infrastructure in the cloud. Security of architecture is also different from ability of engineers, which is the level of skill and knowledge of the IT staff who are responsible for the migration and management of the cloud infrastructure. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 3491

**NEW QUESTION 9**

An analyst is evaluating the implementation of Zero Trust principles within the data plane. Which of the following would be most relevant for the analyst to evaluate?

- A. Secured zones
- B. Subject role
- C. Adaptive identity
- D. Threat scope reduction

**Answer:** D

**Explanation:**

The data plane, also known as the forwarding plane, is the part of the network that carries user traffic and data. It is responsible for moving packets from one device to another based on the routing and switching decisions made by the control plane. The data plane is a critical component of the Zero Trust architecture, as it is where most of the attacks and breaches occur. Therefore, implementing Zero Trust principles within the data plane can help to improve the security and resilience of the network.

One of the key principles of Zero Trust is to assume breach and minimize the blast radius and segment access. This means that the network should be divided into smaller and isolated segments or zones, each with its own security policies and controls. This way, if one segment is compromised, the attacker cannot easily move laterally to other segments and access more resources or data. This principle is also known as threat scope reduction, as it reduces the scope and impact of a potential threat.

The other options are not as relevant for the data plane as threat scope reduction. Secured zones are a concept related to the control plane, which is the part of the network that makes routing and switching decisions. Subject role is a concept related to the identity plane, which is the part of the network that authenticates and authorizes users and devices. Adaptive identity is a concept related to the policy plane, which is the part of the network that defines and enforces the security policies and rules.

References = <https://bing.com/search?q=Zero+Trust+data+plane> <https://learn.microsoft.com/en-us/security/zero-trust/deploy/data>

**NEW QUESTION 10**

Which of the following practices would be best to prevent an insider from introducing malicious code into a company's development process?

- A. Code scanning for vulnerabilities
- B. Open-source component usage
- C. Quality assurance testing
- D. Peer review and approval

**Answer:** D

**Explanation:**

Peer review and approval is a practice that involves having other developers or experts review the code before it is deployed or released. Peer review and approval can help detect and prevent malicious code, errors, bugs, vulnerabilities, and poor quality in the development process. Peer review and approval can also enforce coding standards, best practices, and compliance requirements. Peer review and approval can be done manually or with the help of tools, such as code analysis, code review, and code signing.

References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 11: Secure Application Development, page 543 2

**NEW QUESTION 10**

An administrator notices that several users are logging in from suspicious IP addresses. After speaking with the users, the administrator determines that the employees were not logging in from those IP addresses and resets the affected users' passwords. Which of the following should the administrator implement to prevent this type of attack from succeeding in the future?

- A. Multifactor authentication
- B. Permissions assignment
- C. Access management
- D. Password complexity

**Answer:** A

**Explanation:**

The correct answer is A because multifactor authentication (MFA) is a method of verifying a user's identity by requiring more than one factor, such as something the user knows (e.g., password), something the user has (e.g., token), or something the user is (e.g., biometric). MFA can prevent unauthorized access even if the user's password is compromised, as the attacker would need to provide another factor to log in. The other options are incorrect because they do not address the root cause of the attack, which is weak authentication. Permissions assignment (B) is the process of granting or denying access to resources based on the user's role or identity. Access management is the process of controlling who can access what and under what conditions. Password complexity (D) is the requirement of using strong passwords that are hard to guess or crack, but it does not prevent an attacker from using a stolen password. References = You can learn more about multifactor authentication and other security concepts in the following resources:

? CompTIA Security+ SY0-701 Certification Study Guide, Chapter 1: General Security Concepts1

? Professor Messer's CompTIA SY0-701 Security+ Training Course, Section 1.2: Security Concepts2  
? Multi-factor Authentication – SY0-601 CompTIA Security+ : 2.43  
? TOTAL: CompTIA Security+ Cert (SY0-701) | Udemy, Section 3: Identity and Access Management, Lecture 15: Multifactor Authentication4  
? CompTIA Security+ Certification SY0-601: The Total Course [Video], Chapter 3: Identity and Account Management, Section 2: Enabling Multifactor Authentication5

#### NEW QUESTION 11

A hacker gained access to a system via a phishing attempt that was a direct result of a user clicking a suspicious link. The link laterally deployed ransomware, which laid dormant for multiple weeks, across the network. Which of the following would have mitigated the spread?

- A. IPS
- B. IDS
- C. WAF
- D. UAT

**Answer:** A

#### Explanation:

IPS stands for intrusion prevention system, which is a network security device that monitors and blocks malicious traffic in real time. IPS is different from IDS, which only detects and alerts on malicious traffic, but does not block it. IPS would have mitigated the spread of ransomware by preventing the hacker from accessing the system via the phishing link, or by stopping the ransomware from communicating with its command and control server or encrypting the files.

#### NEW QUESTION 13

Which of the following describes a security alerting and monitoring tool that collects system, application, and network logs from multiple sources in a centralized system?

- A. SIEM
- B. DLP
- C. IDS
- D. SNMP

**Answer:** A

#### Explanation:

SIEM stands for Security Information and Event Management. It is a security alerting and monitoring tool that collects system, application, and network logs from multiple sources in a centralized system. SIEM can analyze the collected data, correlate events, generate alerts, and provide reports and dashboards. SIEM can also integrate with other security tools and support compliance requirements. SIEM helps organizations to detect and respond to cyber threats, improve security posture, and reduce operational costs. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 10: Monitoring and Auditing, page 393. CompTIA Security+ Practice Tests: Exam SY0-701, 3rd Edition, Chapter 10: Monitoring and Auditing, page 397.

#### NEW QUESTION 14

A bank insists all of its vendors must prevent data loss on stolen laptops. Which of the following strategies is the bank requiring?

- A. Encryption at rest
- B. Masking
- C. Data classification
- D. Permission restrictions

**Answer:** A

#### Explanation:

Encryption at rest is a strategy that protects data stored on a device, such as a laptop, by converting it into an unreadable format that can only be accessed with a decryption key or password. Encryption at rest can prevent data loss on stolen laptops by preventing unauthorized access to the data, even if the device is physically compromised.

Encryption at rest can also help comply with data privacy regulations and standards that require data protection. Masking, data classification, and permission restrictions are other strategies that can help protect data, but they may not be sufficient or applicable for data stored on laptops. Masking is a technique that obscures sensitive data elements, such as credit card numbers, with random characters or symbols, but it is usually used for data in transit or in use, not at rest. Data classification is a process that assigns labels to data based on its sensitivity and business impact, but it does not protect the data itself. Permission restrictions are rules that define who can access, modify, or delete data, but they may not prevent unauthorized access if the laptop is stolen and the security controls are bypassed. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 17-18, 372-373

#### NEW QUESTION 19

Which of the following actions could a security engineer take to ensure workstations and servers are properly monitored for unauthorized changes and software?

- A. Configure all systems to log scheduled tasks.
- B. Collect and monitor all traffic exiting the network.
- C. Block traffic based on known malicious signatures.
- D. Install endpoint management software on all systems.

**Answer:** D

#### Explanation:

Endpoint management software is a tool that allows security engineers to monitor and control the configuration, security, and performance of workstations and servers from a central console. Endpoint management software can help detect and prevent unauthorized changes and software installations, enforce policies and compliance, and provide reports and alerts on the status of the endpoints. The other options are not as effective or comprehensive as endpoint management software for this

purpose. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page

137 1

**NEW QUESTION 20**

A security analyst is reviewing the following logs:

```
[10:00:00 AM] Login rejected - username administrator - password Spring2023
[10:00:01 AM] Login rejected - username jsmith - password Spring2023
[10:00:01 AM] Login rejected - username guest - password Spring2023
[10:00:02 AM] Login rejected - username cpolk - password Spring2023
[10:00:03 AM] Login rejected - username fmartin - password Spring2023
```

Which of the following attacks is most likely occurring?

- A. Password spraying
- B. Account forgery
- C. Pass-the-hash
- D. Brute-force

**Answer:** A

**Explanation:**

Password spraying is a type of brute force attack that tries common passwords across several accounts to find a match. It is a mass trial-and-error approach that can bypass account lockout protocols. It can give hackers access to personal or business accounts and information. It is not a targeted attack, but a high-volume attack tactic that uses a dictionary or a list of popular or weak passwords<sup>12</sup>.

The logs show that the attacker is using the same password ("password123") to attempt to log in to different accounts ("admin", "user1", "user2", etc.) on the same web server. This is a typical pattern of password spraying, as the attacker is hoping that at least one of the accounts has a weak password that matches the one they are trying. The attacker is also using a tool called Hydra, which is one of the most popular brute force tools, often used in cracking passwords for network authentication<sup>3</sup>.

Account forgery is not the correct answer, because it involves creating fake accounts or credentials to impersonate legitimate users or entities. There is no evidence of account forgery in the logs, as the attacker is not creating any new accounts or using forged credentials.

Pass-the-hash is not the correct answer, because it involves stealing a hashed user credential and using it to create a new authenticated session on the same network. Pass-the-hash does not require the attacker to know or crack the password, as they use the stored version of the password to initiate a new session<sup>4</sup>. The logs show that the attacker is using plain text passwords, not hashes, to try to log in to the web server.

Brute-force is not the correct answer, because it is a broader term that encompasses different types of attacks that involve trying different variations of symbols or words until the correct password is found. Password spraying is a specific type of brute force attack that uses a single common password against multiple accounts<sup>5</sup>. The logs show that the attacker is using password spraying, not brute force in general, to try to gain access to the web server. References = 1:

Password spraying: An overview of password spraying attacks ... - Norton, 2: Security: Credential Stuffing vs. Password Spraying -

Baeldung, 3: Brute Force Attack: A definition + 6 types to know | Norton, 4: What is a Pass-the-Hash Attack? - CrowdStrike, 5: What is a Brute Force Attack? | Definition, Types &

How It Works - Fortinet

**NEW QUESTION 25**

A company has begun labeling all laptops with asset inventory stickers and associating them with employee IDs. Which of the following security benefits do these actions provide? (Choose two.)

- A. If a security incident occurs on the device, the correct employee can be notified.
- B. The security team will be able to send user awareness training to the appropriate device.
- C. Users can be mapped to their devices when configuring software MFA tokens.
- D. User-based firewall policies can be correctly targeted to the appropriate laptops.
- E. When conducting penetration testing, the security team will be able to target the desired laptops.
- F. Company data can be accounted for when the employee leaves the organization.

**Answer:** AF

**Explanation:**

Labeling all laptops with asset inventory stickers and associating them with employee IDs can provide several security benefits for a company. Two of these benefits are:

? A. If a security incident occurs on the device, the correct employee can be notified.

An asset inventory sticker is a label that contains a unique identifier for a laptop, such as a serial number, a barcode, or a QR code. By associating this identifier with an employee ID, the security team can easily track and locate the owner of the laptop in case of a security incident, such as a malware infection, a data breach, or a theft. This way, the security team can notify the correct employee about the incident, and provide them with the necessary instructions or actions to take, such as changing passwords, scanning for viruses, or reporting the loss. This can help to contain the incident, minimize the damage, and prevent further escalation.

? F. Company data can be accounted for when the employee leaves the

organization. When an employee leaves the organization, the company needs to ensure that all the company data and assets are returned or deleted from the employee's laptop. By labeling the laptop with an asset inventory sticker and associating it with an employee ID, the company can easily identify and verify the laptop that belongs to the departing employee, and perform the appropriate data backup, wipe, or transfer procedures. This can help to protect the company data from unauthorized access, disclosure, or misuse by the former employee or any other party.

The other options are not correct because they are not related to the security benefits of labeling laptops with asset inventory stickers and associating them with employee IDs. B. The security team will be able to send user awareness training to the appropriate device. User awareness training is a type of security education that aims to improve the knowledge and behavior of users regarding security threats and best practices. The security team can send user awareness training to the appropriate device by using the email address, username, or IP address of the device, not the asset inventory sticker or the employee ID.

\* C. Users can be mapped to their devices when configuring software MFA tokens. Software MFA tokens are a type of multi-factor authentication that uses a software application to generate a one-time password or a push notification for verifying the identity of a user. Users can be mapped to their devices when configuring software MFA tokens by using the device ID, phone number, or email address of the device, not the asset inventory sticker or the employee ID. D. User-based firewall policies can be correctly targeted to the appropriate laptops. User-based firewall policies are a type of firewall rules that apply to specific users or groups of users, regardless of the device or location they use to access the network. User-based firewall policies can be correctly targeted to the appropriate laptops by using the username, domain, or certificate of the user, not the asset inventory sticker or the employee ID. E. When conducting penetration testing, the security team will be able to target the desired laptops. Penetration testing is a type of security assessment that simulates a real-world attack on a network or system to identify and exploit vulnerabilities. When conducting penetration testing, the security team will be able to target the desired laptops by using the IP address, hostname, or MAC address of the laptop, not

the asset inventory sticker or the employee ID. References = CompTIA Security+ Study Guide (SY0-701), Chapter 1: General Security Concepts, page 17.

Professor Messer's CompTIA SY0-701 Security+ Training Course, Section 1.4: Asset Management, video: Asset Inventory (6:12).

#### NEW QUESTION 27

A company's web filter is configured to scan the URL for strings and deny access when matches are found. Which of the following search strings should an analyst employ to prohibit access to non-encrypted websites?

- A. encryption=off\
- B. http://
- C. www.\*.com
- D. :443

**Answer: B**

#### Explanation:

A web filter is a device or software that can monitor, block, or allow web traffic based on predefined rules or policies. One of the common methods of web filtering is to scan the URL for strings and deny access when matches are found. For example, a web filter can block access to websites that contain the words "gambling", "porn", or "malware" in their URLs. A URL is a uniform resource locator that identifies the location and protocol of a web resource. A URL typically consists of the following components: protocol://domain:port/path?query#fragment. The protocol specifies the communication method used to access the web resource, such as HTTP, HTTPS, FTP, or SMTP. The domain is the name of the web server that hosts the web resource, such as www.google.com or www.bing.com. The port is an optional number that identifies the specific service or application running on the web server, such as 80 for HTTP or 443 for HTTPS. The path is the specific folder or file name of the web resource, such as /index.html or /images/logo.png. The query is an optional string that contains additional information or parameters for the web resource, such as ?q=security or ?lang=en. The fragment is an optional string that identifies a specific part or section of the web resource, such as #introduction or #summary.

To prohibit access to non-encrypted websites, an analyst should employ a search string that matches the protocol of non-encrypted web traffic, which is HTTP. HTTP stands for hypertext transfer protocol, and it is a standard protocol for transferring data between web servers and web browsers. However, HTTP does not provide any encryption or security for the data, which means that anyone who intercepts the web traffic can read or modify the data. Therefore, non-encrypted websites are vulnerable to eavesdropping, tampering, or spoofing attacks. To access a non-encrypted website, the URL usually starts with http://, followed by the domain name and optionally the port number. For example, http://www.example.com or http://www.example.com:80. By scanning the URL for the string http://, the web filter can identify and block non-encrypted websites.

The other options are not correct because they do not match the protocol of non-encrypted web traffic. Encryption=off is a possible query string that indicates the encryption status of the web resource, but it is not a standard or mandatory parameter. Https:// is the protocol of encrypted web traffic, which uses hypertext transfer protocol secure (HTTPS) to provide encryption and security for the data. Www.\*.com is a possible domain name that matches any website that starts with www and ends with .com, but it does not specify the protocol.

:443 is the port number of HTTPS, which is the protocol of encrypted web traffic. References = CompTIA Security+ Study Guide (SY0-701), Chapter 2: Securing Networks, page 69. Professor Messer's CompTIA SY0-701 Security+ Training Course, Section 2.1: Network Devices and Technologies, video: Web Filter (5:16).

#### NEW QUESTION 28

After a recent vulnerability scan, a security engineer needs to harden the routers within the corporate network. Which of the following is the most appropriate to disable?

- A. Console access
- B. Routing protocols
- C. VLANs
- D. Web-based administration

**Answer: D**

#### Explanation:

Web-based administration is a feature that allows users to configure and manage routers through a web browser interface. While this feature can provide convenience and ease of use, it can also pose a security risk, especially if the web interface is exposed to the internet or uses weak authentication or encryption methods. Web-based administration can be exploited by attackers to gain unauthorized access to the router's settings, firmware, or data, or to launch attacks such as cross-site scripting (XSS) or cross-site request forgery (CSRF). Therefore, disabling web-based administration is a good practice to harden the routers within the corporate network. Console access, routing protocols, and VLANs are other features that can be configured on routers, but they are not the most appropriate to disable for hardening purposes. Console access is a physical connection to the router that requires direct access to the device, which can be secured by locking the router in a cabinet or using a strong password. Routing protocols are essential for routers to exchange routing information and maintain network connectivity, and they can be secured by using authentication or encryption mechanisms. VLANs are logical segments of a network that can enhance network performance and security by isolating traffic and devices, and they can be secured by using VLAN access control lists (VACLs) or private VLANs (PVLANS). References: CCNA SEC: Router Hardening Your Router's Security Stinks: Here's How to Fix It

#### NEW QUESTION 31

A company is required to use certified hardware when building networks. Which of the following best addresses the risks associated with procuring counterfeit hardware?

- A. A thorough analysis of the supply chain
- B. A legally enforceable corporate acquisition policy
- C. A right to audit clause in vendor contracts and SOWs
- D. An in-depth penetration test of all suppliers and vendors

**Answer: A**

#### Explanation:

Counterfeit hardware is hardware that is built or modified without the authorization of the original equipment manufacturer (OEM). It can pose serious risks to network quality, performance, safety, and reliability<sup>12</sup>. Counterfeit hardware can also contain malicious components that can compromise the security of the network and the data that flows through it<sup>3</sup>. To address the risks associated with procuring counterfeit hardware, a company should conduct a thorough analysis of the supply chain, which is the network of entities involved in the production, distribution, and delivery of the hardware. By analyzing the supply chain, the company can verify the origin, authenticity, and integrity of the hardware, and identify any potential sources of counterfeit or tampered products. A thorough analysis of the supply chain can include the following steps:

- ? Establishing a trusted relationship with the OEM and authorized resellers
- ? Requesting documentation and certification of the hardware from the OEM or authorized resellers
- ? Inspecting the hardware for any signs of tampering, such as mismatched labels, serial numbers, or components

? Testing the hardware for functionality, performance, and security  
? Implementing a tracking system to monitor the hardware throughout its lifecycle  
? Reporting any suspicious or counterfeit hardware to the OEM and law enforcement agencies  
References = 1: Identify Counterfeit and Pirated Products - Cisco, 2: What Is Hardware Security? Definition, Threats, and Best Practices, 3: Beware of Counterfeit Network Equipment - TechNewsWorld, : Counterfeit Hardware: The Threat and How to Avoid It

#### NEW QUESTION 36

Which of the following factors are the most important to address when formulating a training curriculum plan for a security awareness program? (Select two).

- A. Channels by which the organization communicates with customers
- B. The reporting mechanisms for ethics violations
- C. Threat vectors based on the industry in which the organization operates
- D. Secure software development training for all personnel
- E. Cadence and duration of training events
- F. Retraining requirements for individuals who fail phishing simulations

**Answer:** CE

#### Explanation:

A training curriculum plan for a security awareness program should address the following factors:

? The threat vectors based on the industry in which the organization operates. This will help the employees to understand the specific risks and challenges that their organization faces, and how to protect themselves and the organization from cyberattacks. For example, a healthcare organization may face different threat vectors than a financial organization, such as ransomware, data breaches, or medical device hacking<sup>1</sup>.

? The cadence and duration of training events. This will help the employees to retain the information and skills they learn, and to keep up with the changing security landscape. The training events should be frequent enough to reinforce the key concepts and behaviors, but not too long or too short to lose the attention or interest of the employees. For example, a security awareness program may include monthly newsletters, quarterly webinars, annual workshops, or periodic quizzes<sup>2</sup>.

References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 2, page 34; CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 2, page 55.

#### NEW QUESTION 38

A U.S.-based cloud-hosting provider wants to expand its data centers to new international locations. Which of the following should the hosting provider consider first?

- A. Local data protection regulations
- B. Risks from hackers residing in other countries
- C. Impacts to existing contractual obligations
- D. Time zone differences in log correlation

**Answer:** A

#### Explanation:

Local data protection regulations are the first thing that a cloud-hosting provider should consider before expanding its data centers to new international locations. Data protection regulations are laws or standards that govern how personal or sensitive data is collected, stored, processed, and transferred across borders. Different countries or regions may have different data protection regulations, such as the General Data Protection Regulation (GDPR) in the European Union, the Personal Information Protection and Electronic Documents Act (PIPEDA) in Canada, or the California Consumer Privacy Act (CCPA) in the United States. A cloud-hosting provider must comply with the local data protection regulations of the countries or regions where it operates or serves customers, or else it may face legal penalties, fines, or reputational damage. Therefore, a cloud-hosting provider should research and understand the local data protection regulations of the new international locations before expanding its data centers there. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 7, page 269. CompTIA Security+ SY0-701 Exam Objectives, Domain 5.1, page 14.

#### NEW QUESTION 39

A company needs to provide administrative access to internal resources while minimizing the traffic allowed through the security boundary. Which of the following methods is most secure?

- A. Implementing a bastion host
- B. Deploying a perimeter network
- C. Installing a WAF
- D. Utilizing single sign-on

**Answer:** A

#### Explanation:

A bastion host is a special-purpose server that is designed to withstand attacks and provide secure access to internal resources. A bastion host is usually placed on the edge of a network, acting as a gateway or proxy to the internal network. A bastion host can be configured to allow only certain types of traffic, such as SSH or HTTP, and block all other traffic. A bastion host can also run security software such as firewalls, intrusion detection systems, and antivirus programs to monitor and filter incoming and outgoing traffic. A bastion host can provide administrative access to internal resources by requiring strong authentication and encryption, and by logging all activities for auditing purposes<sup>12</sup>.

A bastion host is the most secure method among the given options because it minimizes the traffic allowed through the security boundary and provides a single point of control and defense. A bastion host can also isolate the internal network from direct exposure to the internet or other untrusted networks, reducing the attack surface and the risk of compromise<sup>3</sup>.

Deploying a perimeter network is not the correct answer, because a perimeter network is a network segment that separates the internal network from the external network. A perimeter network usually hosts public-facing services such as web servers, email servers, or DNS servers that need to be accessible from the internet. A perimeter network does not provide administrative access to internal resources, but rather protects them from unauthorized access. A perimeter network can also increase the complexity and cost of network management and security<sup>4</sup>.

Installing a WAF is not the correct answer, because a WAF is a security tool that protects web applications from common web-based attacks by monitoring, filtering, and blocking HTTP traffic. A WAF can prevent attacks such as cross-site scripting, SQL injection, or file inclusion, among others. A WAF does not provide administrative access to internal resources, but rather protects them from web application vulnerabilities. A WAF is also not a comprehensive solution for network security, as it only operates at the application layer and does not protect against other types of attacks or threats<sup>5</sup>.

Utilizing single sign-on is not the correct answer, because single sign-on is a method of authentication that allows users to access multiple sites, services, or

applications with one username and password. Single sign-on can simplify the sign-in process for users and reduce the number of passwords they have to remember and manage. Single sign-on does not provide administrative access to internal resources, but rather enables access to various resources that the user is authorized to use. Single sign-on can also introduce security risks if the user's credentials are compromised or if the single sign-on provider is breached<sup>6</sup>. References = 1: Bastion host - Wikipedia, 2: 14 Best Practices to Secure SSH Bastion Host - goteleport.com, 3: The Importance Of Bastion Hosts In Network Security, 4: What is the network perimeter? | Cloudflare, 5: What is a WAF? | Web Application Firewall explained, 6: [What is single sign-on (SSO)? - Definition from WhatIs.com]

#### NEW QUESTION 42

Which of the following are cases in which an engineer should recommend the decommissioning of a network device? (Select two).

- A. The device has been moved from a production environment to a test environment.
- B. The device is configured to use cleartext passwords.
- C. The device is moved to an isolated segment on the enterprise network.
- D. The device is moved to a different location in the enterprise.
- E. The device's encryption level cannot meet organizational standards.
- F. The device is unable to receive authorized updates.

**Answer:** E

#### Explanation:

An engineer should recommend the decommissioning of a network device when the device poses a security risk or a compliance violation to the enterprise environment. A device that cannot meet the encryption standards or receive authorized updates is vulnerable to attacks and breaches, and may expose sensitive data or compromise network integrity. Therefore, such a device should be removed from the network and replaced with a more secure and updated one.

References

? CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 2, Section 2.2, page 671

? CompTIA Security+ Practice Tests: Exam SY0-701, 3rd Edition, Chapter 2, Question 16, page 512

#### NEW QUESTION 44

Which of the following involves an attempt to take advantage of database misconfigurations?

- A. Buffer overflow
- B. SQL injection
- C. VM escape
- D. Memory injection

**Answer:** B

#### Explanation:

SQL injection is a type of attack that exploits a database misconfiguration or a flaw in the application code that interacts with the database. An attacker can inject malicious SQL statements into the user input fields or the URL parameters that are sent to the database server. These statements can then execute unauthorized commands, such as reading, modifying, deleting, or creating data, or even taking over the database server. SQL injection can compromise the confidentiality, integrity, and availability of the data and the system. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 215 1

#### NEW QUESTION 46

A company requires hard drives to be securely wiped before sending decommissioned systems to recycling. Which of the following best describes this policy?

- A. Enumeration
- B. Sanitization
- C. Destruction
- D. Inventory

**Answer:** B

#### Explanation:

Sanitization is the process of removing sensitive data from a storage device or a system before it is disposed of or reused. Sanitization can be done by using software tools or hardware devices that overwrite the data with random patterns or zeros, making it unrecoverable. Sanitization is different from destruction, which is the physical damage of the storage device to render it unusable. Sanitization is also different from enumeration, which is the identification of network resources or devices, and inventory, which is the tracking of assets and their locations. The policy of securely wiping hard drives before sending decommissioned systems to recycling is an example of sanitization, as it ensures that no confidential data can be retrieved from the recycled devices. References = Secure Data Destruction – SY0-601 CompTIA Security+ : 2.7, video at 1:00; CompTIA Security+ SY0-701 Certification Study Guide, page 387.

#### NEW QUESTION 50

A newly appointed board member with cybersecurity knowledge wants the board of directors to receive a quarterly report detailing the number of incidents that impacted the organization. The systems administrator is creating a way to present the data to the board of directors. Which of the following should the systems administrator use?

- A. Packet captures
- B. Vulnerability scans
- C. Metadata
- D. Dashboard

**Answer:** D

#### Explanation:

A dashboard is a graphical user interface that provides a visual representation of key performance indicators, metrics, and trends related to security events and incidents. A dashboard can help the board of directors to understand the number and impact of incidents that affected the organization in a given period, as well as the status and effectiveness of the security controls and processes. A dashboard can also allow the board of directors to drill down into specific details or filter the

data by various criteria<sup>12</sup>.

A packet capture is a method of capturing and analyzing the network traffic that passes through a device or a network segment. A packet capture can provide detailed information about the source, destination, protocol, and content of each packet, but it is not a suitable way to present a summary of incidents to the board of directors<sup>13</sup>.

A vulnerability scan is a process of identifying and assessing the weaknesses and exposures in a system or a network that could be exploited by attackers. A vulnerability scan can help the organization to prioritize and remediate the risks and improve the security posture, but it is not a relevant way to report the number of incidents that occurred in a quarter<sup>14</sup>.

Metadata is data that describes other data, such as its format, origin, structure, or context. Metadata can provide useful information about the characteristics and properties of data, but it is not a meaningful way to communicate the impact and frequency of incidents to the board of directors. References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 3722: SIEM Dashboards – SY0-601 CompTIA Security+ : 4.3, video by Professor Messer3: CompTIA Security+ SY0-701 Certification Study Guide, page 3464: CompTIA Security+ SY0-701 Certification Study Guide, page 362. : CompTIA Security+ SY0-701 Certification Study Guide, page 97.

#### NEW QUESTION 52

After a company was compromised, customers initiated a lawsuit. The company's attorneys have requested that the security team initiate a legal hold in response to the lawsuit. Which of the following describes the action the security team will most likely be required to take?

- A. Retain the emails between the security team and affected customers for 30 days.
- B. Retain any communications related to the security breach until further notice.
- C. Retain any communications between security members during the breach response.
- D. Retain all emails from the company to affected customers for an indefinite period of time.

**Answer: B**

#### Explanation:

A legal hold (also known as a litigation hold) is a notification sent from an organization's legal team to employees instructing them not to delete electronically stored information (ESI) or discard paper documents that may be relevant to a new or imminent legal case. A legal hold is intended to preserve evidence and prevent spoliation, which is the intentional or negligent destruction of evidence that could harm a party's case. A legal hold can be triggered by various events, such as a lawsuit, a regulatory investigation, or a subpoena<sup>12</sup> In this scenario, the company's attorneys have requested that the security team initiate a legal hold in response to the lawsuit filed by the customers after the company was compromised. This means that the security team will most likely be required to retain any communications related to the security breach until further notice. This could include emails, instant messages, reports, logs, memos, or any other documents that could be relevant to the lawsuit. The security team should also inform the relevant custodians (the employees who have access to or control over the ESI) of their preservation obligations and monitor their compliance. The security team should also document the legal hold process and its scope, as well as take steps to protect the ESI from alteration, deletion, or loss<sup>34</sup>

References:

1: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 6: Risk Management, page 303 2: CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 6: Risk Management, page 305 3: Legal Hold (Litigation Hold) - The Basics of E-Discovery - Exterro 5 4: The Legal Implications and Consequences of a Data Breach 6

#### NEW QUESTION 56

A security analyst scans a company's public network and discovers a host is running a remote desktop that can be used to access the production network. Which of the following changes should the security analyst recommend?

- A. Changing the remote desktop port to a non-standard number
- B. Setting up a VPN and placing the jump server inside the firewall
- C. Using a proxy for web connections from the remote desktop server
- D. Connecting the remote server to the domain and increasing the password length

**Answer: B**

#### Explanation:

A VPN is a virtual private network that creates a secure tunnel between two or more devices over a public network. A VPN can encrypt and authenticate the data, as well as hide the IP addresses and locations of the devices. A jump server is a server that acts as an intermediary between a user and a target server, such as a production server. A jump server can provide an additional layer of security and access control, as well as logging and auditing capabilities. A firewall is a device or software that filters and blocks unwanted network traffic based on predefined rules. A firewall can protect the internal network from external threats and limit the exposure of sensitive services and ports. A security analyst should recommend setting up a VPN and placing the jump server inside the firewall to improve the security of the remote desktop access to the production network. This way, the remote desktop service will not be exposed to the public network, and only authorized users with VPN credentials can access the jump server and then the production server. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 8: Secure Protocols and Services, page 382-383 1; Chapter 9: Network Security, page 441-442 1

#### NEW QUESTION 59

During a security incident, the security operations team identified sustained network traffic from a malicious IP address: 10.1.4.9. A security analyst is creating an inbound firewall rule to block the IP address from accessing the organization's network. Which of the following fulfills this request?

- A. access-list inbound deny ig source 0.0.0.0/0 destination 10.1.4.9/32
- B. access-list inbound deny ig source 10.1.4.9/32 destination 0.0.0.0/0
- C. access-list inbound permit ig source 10.1.4.9/32 destination 0.0.0.0/0
- D. access-list inbound permit ig source 0.0.0.0/0 destination 10.1.4.9/32

**Answer: B**

#### Explanation:

A firewall rule is a set of criteria that determines whether to allow or deny a packet to pass through the firewall. A firewall rule consists of several elements, such as the action, the protocol, the source address, the destination address, and the port number. The syntax of a firewall rule may vary depending on the type and vendor of the firewall, but the basic logic is the same. In this question, the security analyst is creating an inbound firewall rule to block the IP address 10.1.4.9 from accessing the organization's network. This means that the action should be deny, the protocol should be any (or ig for IP), the source address should be 10.1.4.9/32 (which means a single IP address), the destination address should be 0.0.0.0/0 (which means any IP address), and the port number should be any. Therefore, the correct firewall rule is:  
access-list inbound deny ig source 10.1.4.9/32 destination 0.0.0.0/0

This rule will match any packet that has the source IP address of 10.1.4.9 and drop it. The other options are incorrect because they either have the wrong action, the wrong source address, or the wrong destination address. For example, option A has the source and destination addresses reversed, which means that it will block any packet that has the destination IP address of 10.1.4.9, which is not the intended goal. Option C has the wrong action, which is permit, which means that it will allow the packet to pass through the firewall, which is also not the intended goal. Option D has the same problem as option A, with the source and destination addresses reversed.

References = Firewall Rules – CompTIA Security+ SY0-401: 1.2, Firewalls – SY0-601 CompTIA Security+ : 3.3, Firewalls – CompTIA Security+ SY0-501, Understanding Firewall Rules – CompTIA Network+ N10-005: 5.5, Configuring Windows Firewall – CompTIA A+ 220-1102 – 1.6.

#### NEW QUESTION 60

An enterprise has been experiencing attacks focused on exploiting vulnerabilities in older browser versions with well-known exploits. Which of the following security solutions should be configured to best provide the ability to monitor and block these known signature-based attacks?

- A. ACL
- B. DLP
- C. IDS
- D. IPS

**Answer:** D

#### Explanation:

An intrusion prevention system (IPS) is a security device that monitors network traffic and blocks or modifies malicious packets based on predefined rules or signatures. An IPS can prevent attacks that exploit known vulnerabilities in older browser versions by detecting and dropping the malicious packets before they reach the target system. An IPS can also perform other functions, such as rate limiting, encryption, or redirection. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 3: Securing Networks, page 132.

#### NEW QUESTION 61

A client demands at least 99.99% uptime from a service provider's hosted security services. Which of the following documents includes the information the service provider should return to the client?

- A. MOA
- B. SOW
- C. MOU
- D. SLA

**Answer:** D

#### Explanation:

A service level agreement (SLA) is a document that defines the level of service expected by a customer from a service provider, indicating the metrics by which that service is measured, and the remedies or penalties, if any, should the agreed-upon levels not be achieved. An SLA can specify the minimum uptime or availability of a service, such as 99.99%, and the consequences for failing to meet that standard. A memorandum of agreement (MOA), a statement of work (SOW), and a memorandum of understanding (MOU) are other types of documents that can be used to establish a relationship between parties, but they do not typically include the details of service levels and performance metrics that an SLA does. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 16-17

#### NEW QUESTION 62

While troubleshooting a firewall configuration, a technician determines that a “deny any” policy should be added to the bottom of the ACL. The technician updates the policy, but the new policy causes several company servers to become unreachable. Which of the following actions would prevent this issue?

- A. Documenting the new policy in a change request and submitting the request to change management
- B. Testing the policy in a non-production environment before enabling the policy in the production network
- C. Disabling any intrusion prevention signatures on the 'deny any' policy prior to enabling the new policy
- D. Including an 'allow any' policy above the 'deny any' policy

**Answer:** B

#### Explanation:

A firewall policy is a set of rules that defines what traffic is allowed or denied on a network. A firewall policy should be carefully designed and tested before being implemented, as a misconfigured policy can cause network disruptions or security breaches. A common best practice is to test the policy in a non-production environment, such as a lab or a simulation, before enabling the policy in the production network. This way, the technician can verify the functionality and performance of the policy, and identify and resolve any issues or conflicts, without affecting the live network. Testing the policy in a non-production environment would prevent the issue of the ‘deny any’ policy causing several company servers to become unreachable, as the technician would be able to detect and correct the problem before applying the policy to the production network. Documenting the new policy in a change request and submitting the request to change management is a good practice, but it would not prevent the issue by itself. Change management is a process that ensures that any changes to the network are authorized, documented, and communicated, but it does not guarantee that the changes are error-free or functional. The technician still needs to test the policy before implementing it.

Disabling any intrusion prevention signatures on the ‘deny any’ policy prior to enabling the new policy would not prevent the issue, and it could reduce the security of the network. Intrusion prevention signatures are patterns that identify malicious or unwanted traffic, and allow the firewall to block or alert on such traffic. Disabling these signatures would make the firewall less effective in detecting and preventing attacks, and it would not affect the reachability of the company servers.

Including an ‘allow any’ policy above the ‘deny any’ policy would not prevent the issue, and it would render the ‘deny any’ policy useless. A firewall policy is processed from top to bottom, and the first matching rule is applied. An ‘allow any’ policy would match any traffic and allow it to pass through the firewall, regardless of the source, destination, or protocol. This would negate the purpose of the ‘deny any’ policy, which is to block any traffic that does not match any of the previous rules. Moreover, an ‘allow any’ policy would create a security risk, as it would allow any unauthorized or malicious traffic to enter or exit the network. References = CompTIA Security+ SY0-701 Certification Study Guide, page 204- 205; Professor Messer’s CompTIA SY0-701 Security+ Training Course, video 2.1 - Network Security Devices, 8:00 - 10:00.

#### NEW QUESTION 63

An attacker posing as the Chief Executive Officer calls an employee and instructs the employee to buy gift cards. Which of the following techniques is the attacker

using?

- A. Smishing
- B. Disinformation
- C. Impersonating
- D. Whaling

**Answer:** D

**Explanation:**

Whaling is a type of phishing attack that targets high-profile individuals, such as executives, celebrities, or politicians. The attacker impersonates someone with authority or influence and tries to trick the victim into performing an action, such as transferring money, revealing sensitive information, or clicking on a malicious link. Whaling is also called CEO fraud or business email compromise2.

References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 3, page 97.

**NEW QUESTION 68**

A Chief Information Security Officer (CISO) wants to explicitly raise awareness about the increase of ransomware-as-a-service in a report to the management team. Which of the following best describes the threat actor in the CISO's report?

- A. Insider threat
- B. Hacktivist
- C. Nation-state
- D. Organized crime

**Answer:** D

**Explanation:**

Ransomware-as-a-service is a type of cybercrime where hackers sell or rent ransomware tools or services to other criminals who use them to launch attacks and extort money from victims. This is a typical example of organized crime, which is a group of criminals who work together to conduct illegal activities for profit.

Organized crime is different from other types of threat actors, such as insider threats, hacktivists, or nation-states, who may have different motives, methods, or targets. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 17 1

**NEW QUESTION 70**

A company is planning to set up a SIEM system and assign an analyst to review the logs on a weekly basis. Which of the following types of controls is the company setting up?

- A. Corrective
- B. Preventive
- C. Detective
- D. Deterrent

**Answer:** C

**Explanation:**

A detective control is a type of control that monitors and analyzes the events and activities in a system or a network, and alerts or reports when an incident or a violation occurs. A SIEM (Security Information and Event Management) system is a tool that collects, correlates, and analyzes the logs from various sources, such as firewalls, routers, servers, or applications, and provides a centralized view of the security status and incidents. An analyst who reviews the logs on a weekly basis can identify and investigate any anomalies, trends, or patterns that indicate a potential threat or a breach. A detective control can help the company to respond quickly and effectively to the incidents, and to improve its security posture and resilience. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 1, page 23. CompTIA Security+ SY0-701 Exam Objectives, Domain 4.3, page 14.

**NEW QUESTION 75**

A systems administrator is creating a script that would save time and prevent human error when performing account creation for a large number of end users. Which of the following would be a good use case for this task?

- A. Off-the-shelf software
- B. Orchestration
- C. Baseline
- D. Policy enforcement

**Answer:** B

**Explanation:**

Orchestration is the process of automating multiple tasks across different systems and applications. It can help save time and reduce human error by executing predefined workflows and scripts. In this case, the systems administrator can use orchestration to create accounts for a large number of end users without having to manually enter their information and assign permissions. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 457 1

**NEW QUESTION 79**

Which of the following is used to validate a certificate when it is presented to a user?

- A. OCSP
- B. CSR
- C. CA
- D. CRC

**Answer:** A

**Explanation:**

OCSP stands for Online Certificate Status Protocol. It is a protocol that allows applications to check the revocation status of a certificate in real-time. It works by sending a query to an OCSP responder, which is a server that maintains a database of revoked certificates. The OCSP responder returns a response that indicates whether the certificate is valid, revoked, or unknown. OCSP is faster and more efficient than downloading and parsing Certificate Revocation Lists (CRLs), which are large files that contain the serial numbers of all revoked certificates issued by a Certificate Authority (CA). References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 337 1

#### NEW QUESTION 81

Which of the following automation use cases would best enhance the security posture of an organization by rapidly updating permissions when employees leave a company?

- A. Provisioning resources
- B. Disabling access
- C. Reviewing change approvals
- D. Escalating permission requests

**Answer: B**

#### Explanation:

Disabling access is an automation use case that would best enhance the security posture of an organization by rapidly updating permissions when employees leave a company. Disabling access is the process of revoking or suspending the access rights of a user account, such as login credentials, email, VPN, cloud services, etc. Disabling access can prevent unauthorized or malicious use of the account by former employees or attackers who may have compromised the account. Disabling access can also reduce the attack surface and the risk of data breaches or leaks. Disabling access can be automated by using scripts, tools, or workflows that can trigger the action based on predefined events, such as employee termination, resignation, or transfer. Automation can ensure that the access is disabled in a timely, consistent, and efficient manner, without relying on manual intervention or human error.

References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 5: Identity and Access Management, page 2131. CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 5: Identity and Access Management, page 2132.

#### NEW QUESTION 82

A security administrator would like to protect data on employees' laptops. Which of the following encryption techniques should the security administrator use?

- A. Partition
- B. Asymmetric
- C. Full disk
- D. Database

**Answer: C**

#### Explanation:

Full disk encryption (FDE) is a technique that encrypts all the data on a hard drive, including the operating system, applications, and files. FDE protects the data from unauthorized access in case the laptop is lost, stolen, or disposed of without proper sanitization. FDE requires the user to enter a password, a PIN, a smart card, or a biometric factor to unlock the drive and boot the system. FDE can be implemented by using software solutions, such as BitLocker, FileVault, or VeraCrypt, or by using hardware solutions, such as self-encrypting drives (SEDs) or Trusted Platform Modules (TPMs). FDE is a recommended encryption technique for laptops and other mobile devices that store sensitive data.

Partition encryption is a technique that encrypts only a specific partition or volume on a hard drive, leaving the rest of the drive unencrypted. Partition encryption is less secure than FDE, as it does not protect the entire drive and may leave traces of data on unencrypted areas. Partition encryption is also less convenient than FDE, as it requires the user to mount and unmount the encrypted partition manually.

Asymmetric encryption is a technique that uses a pair of keys, one public and one private, to encrypt and decrypt data. Asymmetric encryption is mainly used for securing communication, such as email, web, or VPN, rather than for encrypting data at rest. Asymmetric encryption is also slower and more computationally intensive than symmetric encryption, which is the type of encryption used by FDE and partition encryption.

Database encryption is a technique that encrypts data stored in a database, such as tables, columns, rows, or cells. Database encryption can be done at the application level, the database level, or the file system level. Database encryption is useful for protecting data from unauthorized access by database administrators, hackers, or malware, but it does not protect the data from physical theft or loss of the device that hosts the database. References = Data Encryption – CompTIA Security+ SY0-401: 4.4, CompTIA Security+Cheat Sheet and PDF | Zero To Mastery, CompTIA Security+ SY0-601 Certification Course - Cybr, Application Hardening – SY0-601 CompTIA Security+ : 3.2.

#### NEW QUESTION 87

The marketing department set up its own project management software without telling the appropriate departments. Which of the following describes this scenario?

- A. Shadow IT
- B. Insider threat
- C. Data exfiltration
- D. Service disruption

**Answer: A**

#### Explanation:

Shadow IT is the term used to describe the use of unauthorized or unapproved IT resources within an organization. The marketing department set up its own project management software without telling the appropriate departments, such as IT, security, or compliance. This could pose a risk to the organization's security posture, data integrity, and regulatory compliance1.

References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 2, page 35.

#### NEW QUESTION 90

After an audit, an administrator discovers all users have access to confidential data on a file server. Which of the following should the administrator use to restrict access to the data quickly?

- A. Group Policy
- B. Content filtering
- C. Data loss prevention
- D. Access control lists

**Answer:** D

**Explanation:**

Access control lists (ACLs) are rules that specify which users or groups can access which resources on a file server. They can help restrict access to confidential data by granting or denying permissions based on the identity or role of the user. In this case, the administrator can use ACLs to quickly modify the access rights of the users and prevent them from accessing the data they are not authorized to see. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 308 1

**NEW QUESTION 94**

A company's marketing department collects, modifies, and stores sensitive customer data. The infrastructure team is responsible for securing the data while in transit and at rest. Which of the following data roles describes the customer?

- A. Processor
- B. Custodian
- C. Subject
- D. Owner

**Answer:** C

**Explanation:**

According to the CompTIA Security+ SY0-701 Certification Study Guide, data subjects are the individuals whose personal data is collected, processed, or stored by an organization. Data subjects have certain rights and expectations regarding how their data is handled, such as the right to access, correct, delete, or restrict their data. Data subjects are different from data owners, who are the individuals or entities that have the authority and responsibility to determine how data is classified, protected, and used. Data subjects are also different from data processors, who are the individuals or entities that perform operations on data on behalf of the data owner, such as collecting, modifying, storing, or transmitting data. Data subjects are also different from data custodians, who are the individuals or entities that implement the security controls and procedures specified by the data owner to protect data while in transit and at rest. References: CompTIA Security+ SY0-701 Certification Study Guide, Chapter 2: Data Security, page 511

**NEW QUESTION 95**

Which of the following roles, according to the shared responsibility model, is responsible for securing the company's database in an IaaS model for a cloud environment?

- A. Client
- B. Third-party vendor
- C. Cloud provider
- D. DBA

**Answer:** A

**Explanation:**

According to the shared responsibility model, the client and the cloud provider have different roles and responsibilities for securing the cloud environment, depending on the service model. In an IaaS (Infrastructure as a Service) model, the cloud provider is responsible for securing the physical infrastructure, such as the servers, storage, and network devices, while the client is responsible for securing the operating systems, applications, and data that run on the cloud infrastructure. Therefore, the client is responsible for securing the company's database in an IaaS model for a cloud environment, as the database is an application that stores data. The client can use various security controls, such as encryption, access control, backup, and auditing, to protect the database from unauthorized access, modification, or loss. The third-party vendor and the DBA (Database Administrator) are not roles defined by the shared responsibility model, but they may be involved in the implementation or management of the database security. References = CompTIA Security+ SY0-701 Certification Study Guide, page 263- 264; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 3.1 - Cloud and Virtualization, 5:00 - 7:40.

**NEW QUESTION 100**

Which of the following is used to add extra complexity before using a one-way data transformation algorithm?

- A. Key stretching
- B. Data masking
- C. Steganography
- D. Salting

**Answer:** D

**Explanation:**

Salting is the process of adding extra random data to a password or other data before applying a one-way data transformation algorithm, such as a hash function. Salting increases the complexity and randomness of the input data, making it harder for attackers to guess or crack the original data using precomputed tables or brute force methods. Salting also helps prevent identical passwords from producing identical hash values, which could reveal the passwords to attackers who have access to the hashed data. Salting is commonly used to protect passwords stored in databases or transmitted over networks. References =  
? Passwords technical overview  
? Encryption, hashing, salting – what's the difference?  
? Salt (cryptography)

**NEW QUESTION 101**

A cyber operations team informs a security analyst about a new tactic malicious actors are using to compromise networks. SIEM alerts have not yet been configured. Which of the following best describes what the security analyst should do to identify this behavior?

- A. [Digital forensics
- B. E-discovery
- C. Incident response
- D. Threat hunting

**Answer:** D

**Explanation:**

Threat hunting is the process of proactively searching for signs of malicious activity or compromise in a network, rather than waiting for alerts or indicators of compromise (IOCs) to appear. Threat hunting can help identify new tactics, techniques, and procedures (TTPs) used by malicious actors, as well as uncover hidden or stealthy threats that may have evaded detection by security tools. Threat hunting requires a combination of skills, tools, and methodologies, such as hypothesis generation, data collection and analysis, threat intelligence, and incident response. Threat hunting can also help improve the security posture of an organization by providing feedback and recommendations for security improvements. References = CompTIA Security+ Certification Exam Objectives, Domain 4.1: Given a scenario, analyze potential indicators of malicious activity. CompTIA Security+ Study Guide (SY0-701), Chapter 4: Threat Detection and Response, page 153. Threat Hunting – SY0-701 CompTIA Security+ : 4.1, Video 3:18. CompTIA Security+ Certification Exam SY0-701 Practice Test 1, Question 3.

**NEW QUESTION 102**

Which of the following is the best way to consistently determine on a daily basis whether security settings on servers have been modified?

- A. Automation
- B. Compliance checklist
- C. Attestation
- D. Manual audit

**Answer:** A

**Explanation:**

Automation is the best way to consistently determine on a daily basis whether security settings on servers have been modified. Automation is the process of using software, hardware, or other tools to perform tasks that would otherwise require human intervention or manual effort. Automation can help to improve the efficiency, accuracy, and consistency of security operations, as well as reduce human errors and costs. Automation can be used to monitor, audit, and enforce security settings on servers, such as firewall rules, encryption keys, access controls, patch levels, and configuration files. Automation can also alert security personnel of any changes or anomalies that may indicate a security breach or compromise<sup>12</sup>.

The other options are not the best ways to consistently determine on a daily basis whether security settings on servers have been modified:

? Compliance checklist: This is a document that lists the security requirements, standards, or best practices that an organization must follow or adhere to. A compliance checklist can help to ensure that the security settings on servers are aligned with the organizational policies and regulations, but it does not automatically detect or report any changes or modifications that may occur on a daily basis<sup>3</sup>.

? Attestation: This is a process of verifying or confirming the validity or accuracy of a statement, claim, or fact. Attestation can be used to provide assurance or evidence that the security settings on servers are correct and authorized, but it does not continuously monitor or audit any changes or modifications that may occur on a daily basis<sup>4</sup>.

? Manual audit: This is a process of examining or reviewing the security settings on servers by human inspectors or auditors. A manual audit can help to identify and correct any security issues or discrepancies on servers, but it is time-consuming, labor-intensive, and prone to human errors. A manual audit may not be feasible or practical to perform on a daily basis.

References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 1022: Automation and Scripting – CompTIA Security+ SY0-701 – 5.1, video by Professor Messer<sup>3</sup>: CompTIA Security+ SY0-701 Certification Study Guide, page 974: CompTIA Security+ SY0-701 Certification Study Guide, page 98. : CompTIA Security+ SY0-701 Certification Study Guide, page 99.

**NEW QUESTION 105**

An IT manager informs the entire help desk staff that only the IT manager and the help desk lead will have access to the administrator console of the help desk software. Which of the following security techniques is the IT manager setting up?

- A. Hardening
- B. Employee monitoring
- C. Configuration enforcement
- D. Least privilege

**Answer:** D

**Explanation:**

The principle of least privilege is a security concept that limits access to resources to the minimum level needed for a user, a program, or a device to perform a legitimate function. It is a cybersecurity best practice that protects high-value data and assets from compromise or insider threat. Least privilege can be applied to different abstraction layers of a computing environment, such as processes, systems, or connected devices. However, it is rarely implemented in practice. In this scenario, the IT manager is setting up the principle of least privilege by restricting access to the administrator console of the help desk software to only two authorized users: the IT manager and the help desk lead. This way, the IT manager can prevent unauthorized or accidental changes to the software configuration, data, or functionality by other help desk staff. The other help desk staff will only have access to the normal user interface of the software, which is sufficient for them to perform their job functions.

The other options are not correct. Hardening is the process of securing a system by reducing its surface of vulnerability, such as by removing unnecessary software, changing default passwords, or disabling unnecessary services. Employee monitoring is the surveillance of workers' activity, such as by tracking web browsing, application use, keystrokes, or screenshots. Configuration enforcement is the process of ensuring that a system adheres to a predefined set of security settings, such as by applying a patch, a policy, or a template.

References = [https://en.wikipedia.org/wiki/Principle\\_of\\_least\\_privilege](https://en.wikipedia.org/wiki/Principle_of_least_privilege) [https://en.wikipedia.org/wiki/Principle\\_of\\_least\\_privilege](https://en.wikipedia.org/wiki/Principle_of_least_privilege)

**NEW QUESTION 108**

A company's end users are reporting that they are unable to reach external websites. After reviewing the performance data for the DNS servers, the analyst discovers that the CPU, disk, and memory usage are minimal, but the network interface is flooded with inbound traffic. Network logs show only a small number of DNS queries sent to this server. Which of the following best describes what the security analyst is seeing?

- A. Concurrent session usage
- B. Secure DNS cryptographic downgrade
- C. On-path resource consumption
- D. Reflected denial of service

**Answer:** D

**Explanation:**

A reflected denial of service (RDoS) attack is a type of DDoS attack that uses spoofed source IP addresses to send requests to a third-party server, which then sends responses to the victim server. The attacker exploits the difference in size between the request and the response, which can amplify the amount of traffic

sent to the victim server. The attacker also hides their identity by using the victim's IP address as the source. A RDoS attack can target DNS servers by sending forged DNS queries that generate large DNS responses. This can flood the network interface of the DNS server and prevent it from serving legitimate requests from end users. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 215-216 1

#### NEW QUESTION 113

An organization would like to store customer data on a separate part of the network that is not accessible to users on the main corporate network. Which of the following should the administrator use to accomplish this goal?

- A. Segmentation
- B. Isolation
- C. Patching
- D. Encryption

**Answer:** A

#### Explanation:

Segmentation is a network design technique that divides the network into smaller and isolated segments based on logical or physical boundaries. Segmentation can help improve network security by limiting the scope of an attack, reducing the attack surface, and enforcing access control policies. Segmentation can also enhance network performance, scalability, and manageability. To accomplish the goal of storing customer data on a separate part of the network, the administrator can use segmentation technologies such as subnetting, VLANs, firewalls, routers, or switches. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 308-309 1

#### NEW QUESTION 114

A penetration tester begins an engagement by performing port and service scans against the client environment according to the rules of engagement. Which of the following reconnaissance types is the tester performing?

- A. Active
- B. Passive
- C. Defensive
- D. Offensive

**Answer:** A

#### Explanation:

Active reconnaissance is a type of reconnaissance that involves sending packets or requests to a target and analyzing the responses. Active reconnaissance can reveal information such as open ports, services, operating systems, and vulnerabilities. However, active reconnaissance is also more likely to be detected by the target or its security devices, such as firewalls or intrusion detection systems. Port and service scans are examples of active reconnaissance techniques, as they involve probing the target for specific information. References = CompTIA Security+ Certification Exam Objectives, Domain 1.1: Given a scenario, conduct reconnaissance using appropriate techniques and tools. CompTIA Security+ Study Guide (SY0-701), Chapter 2: Reconnaissance and Intelligence Gathering, page 47. CompTIA Security+ Certification Exam SY0-701 Practice Test 1, Question 1.

#### NEW QUESTION 119

A user is attempting to patch a critical system, but the patch fails to transfer. Which of the following access controls is most likely inhibiting the transfer?

- A. Attribute-based
- B. Time of day
- C. Role-based
- D. Least privilege

**Answer:** D

#### Explanation:

The least privilege principle states that users and processes should only have the minimum level of access required to perform their tasks. This helps to prevent unauthorized or unnecessary actions that could compromise security. In this case, the patch transfer might be failing because the user or process does not have the appropriate permissions to access the critical system or the network resources needed for the transfer. Applying the least privilege principle can help to avoid this issue by granting the user or process the necessary access rights for the patching activity. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 931

#### NEW QUESTION 124

A network manager wants to protect the company's VPN by implementing multifactor authentication that uses:

- . Something you know
- . Something you have
- . Something you are

Which of the following would accomplish the manager's goal?

- A. Domain name, PKI, GeoIP lookup
- B. VPN IP address, company ID, facial structure
- C. Password, authentication token, thumbprint
- D. Company URL, TLS certificate, home address

**Answer:** C

#### Explanation:

The correct answer is C. Password, authentication token, thumbprint. This combination of authentication factors satisfies the manager's goal of implementing multifactor authentication that uses something you know, something you have, and something you are.

? Something you know is a type of authentication factor that relies on the user's knowledge of a secret or personal information, such as a password, a PIN, or a security question. A password is a common example of something you know that can be used to access a VPN12

? Something you have is a type of authentication factor that relies on the user's possession of a physical object or device, such as a smart card, a token, or a smartphone. An authentication token is a common example of something you have that can be used to generate a one-time password (OTP) or a code that can be

used to access a VPN12

? Something you are is a type of authentication factor that relies on the user's biometric characteristics, such as a fingerprint, a face, or an iris. A thumbprint is a common example of something you are that can be used to scan and verify the user's identity to access a VPN12

References:

1: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 4: Identity and Access Management, page 177 2: CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 4: Identity and Access Management, page 179

#### NEW QUESTION 126

.....

## THANKS FOR TRYING THE DEMO OF OUR PRODUCT

Visit Our Site to Purchase the Full Set of Actual SY0-701 Exam Questions With Answers.

We Also Provide Practice Exam Software That Simulates Real Exam Environment And Has Many Self-Assessment Features. Order the SY0-701 Product From:

<https://www.2passeasy.com/dumps/SY0-701/>

## Money Back Guarantee

### **SY0-701 Practice Exam Features:**

- \* SY0-701 Questions and Answers Updated Frequently
- \* SY0-701 Practice Questions Verified by Expert Senior Certified Staff
- \* SY0-701 Most Realistic Questions that Guarantee you a Pass on Your FirstTry
- \* SY0-701 Practice Test Questions in Multiple Choice Formats and Updatesfor 1 Year