

# Exam Questions SY0-701

CompTIA Security+ Exam

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#### NEW QUESTION 1

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

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#### NEW QUESTION 2

Which of the following must be considered when designing a high-availability network? (Choose two).

- A. Ease of recovery
- B. Ability to patch
- C. Physical isolation
- D. Responsiveness
- E. Attack surface
- F. Extensible authentication

**Answer:** AE

#### Explanation:

A high-availability network is a network that is designed to minimize downtime and ensure continuous operation even in the event of a failure or disruption. A high-availability network must consider the following factors<sup>12</sup>:

? Ease of recovery: This refers to the ability of the network to restore normal functionality quickly and efficiently after a failure or disruption. Ease of recovery can be achieved by implementing backup and restore procedures, redundancy and failover mechanisms, fault tolerance and resilience, and disaster recovery plans.

? Attack surface: This refers to the amount of exposure and vulnerability of the network to potential threats and attacks. Attack surface can be reduced by implementing security controls such as firewalls, encryption, authentication, access control, segmentation, and hardening.

The other options are not directly related to high-availability network design:

? Ability to patch: This refers to the process of updating and fixing software components to address security issues, bugs, or performance improvements. Ability to patch is important for maintaining the security and functionality of the network, but it is not a specific factor for high-availability network design.

? Physical isolation: This refers to the separation of network components or devices from other networks or physical environments. Physical isolation can enhance the security and performance of the network, but it can also reduce the availability and accessibility of the network resources.

? Responsiveness: This refers to the speed and quality of the network's performance and service delivery. Responsiveness can be measured by metrics such as latency, throughput, jitter, and packet loss. Responsiveness is important for ensuring customer satisfaction and user experience, but it is not a specific factor for high-availability network design.

? Extensible authentication: This refers to the ability of the network to support multiple and flexible authentication methods and protocols. Extensible authentication can improve the security and convenience of the network, but it is not a specific factor for high-availability network design.

References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 972: High Availability – CompTIA Security+ SY0-701 – 3.4, video by Professor Messer.

#### NEW QUESTION 3

Which of the following methods to secure credit card data is best to use when a requirement is to see only the last four numbers on a credit card?

- A. Encryption
- B. Hashing
- C. Masking
- D. Tokenization

**Answer:** C

#### Explanation:

Masking is a method to secure credit card data that involves replacing some or all of the digits with symbols, such as asterisks, dashes, or Xs, while leaving some of the original digits visible. Masking is best to use when a requirement is to see only the last four numbers on a credit card, as it can prevent unauthorized access to the full card number, while still allowing identification and verification of the cardholder. Masking does not alter the original data, unlike encryption, hashing, or tokenization, which use algorithms to transform the data into different formats.

References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 2: Compliance and Operational Security, page 721. CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 2: Compliance and Operational Security, page 722.

#### NEW QUESTION 4

An engineer needs to find a solution that creates an added layer of security by preventing unauthorized access to internal company resources. Which of the following would be the best solution?

- A. RDP server
- B. Jump server
- C. Proxy server
- D. Hypervisor

**Answer:** B

**Explanation:**

= A jump server is a server that acts as an intermediary between a user and a target system. A jump server can provide an added layer of security by preventing unauthorized access to internal company resources. A user can connect to the jump server using a secure protocol, such as SSH, and then access the target system from the jump server. This way, the target system is isolated from the external network and only accessible through the jump server. A jump server can also enforce security policies, such as authentication, authorization, logging, and auditing, on the user's connection. A jump server is also known as a bastion host or a jump box. References = CompTIA Security+ Certification Exam Objectives, Domain 3.3: Given a scenario, implement secure network architecture concepts. CompTIA Security+ Study Guide (SY0-701), Chapter 3: Network Architecture and Design, page 101. Other Network Appliances – SY0-601 CompTIA Security+ : 3.3, Video 3:03. CompTIA Security+ Certification Exam SY0-701 Practice Test 1, Question 2.

**NEW QUESTION 5**

An administrator assists the legal and compliance team with ensuring information about customer transactions is archived for the proper time period. Which of the following data policies is the administrator carrying out?

- A. Compromise
- B. Retention
- C. Analysis
- D. Transfer
- E. Inventory

**Answer: B**

**Explanation:**

A data retention policy is a set of rules that defines how long data should be stored and when it should be deleted or archived. An administrator assists the legal and compliance team with ensuring information about customer transactions is archived for the proper time period by following the data retention policy of the organization. This policy helps the organization to comply with legal and regulatory requirements, optimize storage space, and protect data privacy and security.

References

? CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 3, Section 3.4, page 1211

? CompTIA Security+ Practice Tests: Exam SY0-701, 3rd Edition, Chapter 3, Question 15, page 832

**NEW QUESTION 6**

A data administrator is configuring authentication for a SaaS application and would like to reduce the number of credentials employees need to maintain. The company prefers to use domain credentials to access new SaaS applications. Which of the following methods would allow this functionality?

- A. SSO
- B. LEAP
- C. MFA
- D. PEAP

**Answer: A**

**Explanation:**

SSO stands for single sign-on, which is a method of authentication that allows users to access multiple applications or services with one set of credentials. SSO reduces the number of credentials employees need to maintain and simplifies the login process. SSO can also improve security by reducing the risk of password reuse, phishing, and credential theft. SSO can be implemented using various protocols, such as SAML, OAuth, OpenID Connect, and Kerberos, that enable the exchange of authentication information between different domains or systems. SSO is commonly used for accessing SaaS applications, such as Office 365, Google Workspace, Salesforce, and others, using domain credentials<sup>123</sup>.

\* B. LEAP stands for Lightweight Extensible Authentication Protocol, which is a Cisco proprietary protocol that provides authentication for wireless networks. LEAP is not related to SaaS applications or domain credentials<sup>4</sup>.

\* C. MFA stands for multi-factor authentication, which is a method of authentication that requires users to provide two or more pieces of evidence to prove their identity. MFA can enhance security by adding an extra layer of protection beyond passwords, such as tokens, biometrics, or codes. MFA is not related to SaaS applications or domain credentials, but it can be used in conjunction with SSO.

\* D. PEAP stands for Protected Extensible Authentication Protocol, which is a protocol that provides secure authentication for wireless networks. PEAP uses TLS to create an encrypted tunnel between the client and the server, and then uses another authentication method, such as MS-CHAPv2 or EAP-GTC, to verify the user's identity. PEAP is not related to SaaS applications or domain credentials.

References = 1: Security+ (SY0-701) Certification Study Guide | CompTIA IT Certifications 2: What is Single Sign-On (SSO)? - Definition from WhatIs.com 3:

Single sign-on - Wikipedia 4: Lightweight Extensible Authentication Protocol - Wikipedia : What is Multi-Factor Authentication (MFA)? - Definition from WhatIs.com :

Protected Extensible Authentication Protocol - Wikipedia

**NEW QUESTION 7**

An enterprise is trying to limit outbound DNS traffic originating from its internal network. Outbound DNS requests will only be allowed from one device with the IP address 10.50.10.25. Which of the following firewall ACLs will accomplish this goal?

- A. Access list outbound permit 0.0.0.0/0 0.0.0.0/0 port 53 Access list outbound deny 10.50.10.25/32 0.0.0.0/0 port 53
- B. Access list outbound permit 0.0.0.0/0 10.50.10.25/32 port 53 Access list outbound deny 0.0.0.0/0 0.0.0.0/0 port 53
- C. Access list outbound permit 0.0.0.0/0 0.0.0.0/0 port 53 Access list outbound deny 0.0.0.0/0 10.50.10.25/32 port 53
- D. Access list outbound permit 10.50.10.25/32 0.0.0.0/0 port 53 Access list outbound deny 0.0.0.0/0 0.0.0.0/0 port 53

**Answer: D**

**Explanation:**

A firewall ACL (access control list) is a set of rules that determines which traffic is allowed or denied by the firewall. The rules are processed in order, from top to bottom, until a match is found. The syntax of a firewall ACL rule is:

Access list <direction> <action> <source address> <destination address> <protocol>  
<port>

To limit outbound DNS traffic originating from the internal network, the firewall ACL should allow only the device with the IP address 10.50.10.25 to send DNS requests to any destination on port 53, and deny all other outbound traffic on port 53. The correct firewall ACL is:

Access list outbound permit 10.50.10.25/32 0.0.0.0/0 port 53 Access list outbound deny 0.0.0.0/0 0.0.0.0/0 port 53

The first rule permits outbound traffic from the source address 10.50.10.25/32 (a single host) to any destination address (0.0.0.0/0) on port 53 (DNS). The second rule denies all other outbound traffic on port 53.

References: CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 4, page 175.

#### NEW QUESTION 8

Which of the following is the most likely to be used to document risks, responsible parties, and thresholds?

- A. Risk tolerance
- B. Risk transfer
- C. Risk register
- D. Risk analysis

**Answer:** C

#### Explanation:

A risk register is a document that records and tracks the risks associated with a project, system, or organization. A risk register typically includes information such as the risk description, the risk owner, the risk probability, the risk impact, the risk level, the risk response strategy, and the risk status. A risk register can help identify, assess, prioritize, monitor, and control risks, as well as communicate them to relevant stakeholders. A risk register can also help document the risk tolerance and thresholds of an organization, which are the acceptable levels of risk exposure and the criteria for escalating or mitigating risks. References = CompTIA Security+ Certification Exam Objectives, Domain 5.1: Explain the importance of policies, plans, and procedures related to organizational security. CompTIA Security+ Study Guide (SY0-701), Chapter 5: Governance, Risk, and Compliance, page 211. CompTIA Security+ Certification Guide, Chapter 2: Risk Management, page 33. CompTIA Security+ Certification Exam SY0-701 Practice Test 1, Question 4.

#### NEW QUESTION 9

Which of the following provides the details about the terms of a test with a third-party penetration tester?

- A. Rules of engagement
- B. Supply chain analysis
- C. Right to audit clause
- D. Due diligence

**Answer:** A

#### Explanation:

Rules of engagement are the detailed guidelines and constraints regarding the execution of information security testing, such as penetration testing. They define the scope, objectives, methods, and boundaries of the test, as well as the roles and responsibilities of the testers and the clients. Rules of engagement help to ensure that the test is conducted in a legal, ethical, and professional manner, and that the results are accurate and reliable. Rules of engagement typically include the following elements:

- ? The type and scope of the test, such as black box, white box, or gray box, and the target systems, networks, applications, or data.
- ? The client contact details and the communication channels for reporting issues, incidents, or emergencies during the test.
- ? The testing team credentials and the authorized tools and techniques that they can use.
- ? The sensitive data handling and encryption requirements, such as how to store, transmit, or dispose of any data obtained during the test.
- ? The status meeting and report schedules, formats, and recipients, as well as the confidentiality and non-disclosure agreements for the test results.
- ? The timeline and duration of the test, and the hours of operation and testing windows.
- ? The professional and ethical behavior expectations for the testers, such as avoiding unnecessary damage, disruption, or disclosure of information.

Supply chain analysis, right to audit clause, and due diligence are not related to the terms of a test with a third-party penetration tester. Supply chain analysis is the process of evaluating the security and risk posture of the suppliers and partners in a business network. Right to audit clause is a provision in a contract that gives one party the right to audit another party to verify their compliance with the contract terms and conditions. Due diligence is the process of identifying and addressing the cyber risks that a potential vendor or partner brings to an organization.

References = <https://www.yeahhub.com/every-penetration-tester-you-should-know-about-this-rules-of-engagement/>  
<https://bing.com/search?q=rules+of+engagement+penetration+testing>

#### NEW QUESTION 10

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

A company is adding a clause to its AUP that states employees are not allowed to modify the operating system on mobile devices. Which of the following vulnerabilities is the organization addressing?

- A. Cross-site scripting



- B. Buffer overflow
- C. Jailbreaking
- D. Side loading

**Answer:** C

**Explanation:**

Jailbreaking is the process of removing the restrictions imposed by the manufacturer or carrier on a mobile device, such as an iPhone or iPad. Jailbreaking allows users to install unauthorized applications, modify system settings, and access root privileges. However, jailbreaking also exposes the device to potential security risks, such as malware, spyware, unauthorized access, data loss, and voided warranty. Therefore, an organization may prohibit employees from jailbreaking their mobile devices to prevent these vulnerabilities and protect the corporate data and network. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 10: Mobile Device Security, page 507 2

**NEW QUESTION 15**

Which of the following is a primary security concern for a company setting up a BYOD program?

- A. End of life
- B. Buffer overflow
- C. VM escape
- D. Jailbreaking

**Answer:** D

**Explanation:**

Jailbreaking is a primary security concern for a company setting up a BYOD (Bring Your Own Device) program. Jailbreaking is the process of removing the manufacturer's or the carrier's restrictions on a device, such as a smartphone or a tablet, to gain root access and install unauthorized or custom software. Jailbreaking can compromise the security of the device and the data stored on it, as well as expose it to malware, viruses, or hacking. Jailbreaking can also violate the warranty and the terms of service of the device, and make it incompatible with the company's security policies and standards. Therefore, a company setting up a BYOD program should prohibit jailbreaking and enforce device compliance and encryption. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 2, page 76. CompTIA Security+ SY0-701 Exam Objectives, Domain 2.4, page 11.

**NEW QUESTION 16**

A company is concerned about weather events causing damage to the server room and downtime. Which of the following should the company consider?

- A. Clustering servers
- B. Geographic dispersion
- C. Load balancers
- D. Off-site backups

**Answer:** B

**Explanation:**

Geographic dispersion is a strategy that involves distributing the servers or data centers across different geographic locations. Geographic dispersion can help the company to mitigate the risk of weather events causing damage to the server room and downtime, as well as improve the availability, performance, and resilience of the network. Geographic dispersion can also enhance the disaster recovery and business continuity capabilities of the company, as it can provide backup and failover options in case of a regional outage or disruption<sup>12</sup>.

The other options are not the best ways to address the company's concern:

? Clustering servers: This is a technique that involves grouping multiple servers together to act as a single system. Clustering servers can help to improve the performance, scalability, and fault tolerance of the network, but it does not protect the servers from physical damage or downtime caused by weather events, especially if the servers are located in the same room or building<sup>3</sup>.

? Load balancers: These are devices or software that distribute the network traffic or workload among multiple servers or resources. Load balancers can help to optimize the utilization, efficiency, and reliability of the network, but they do not prevent the servers from being damaged or disrupted by weather events, especially if the servers are located in the same room or building<sup>4</sup>.

? Off-site backups: These are copies of data or files that are stored in a different location than the original source. Off-site backups can help to protect the data from being lost or corrupted by weather events, but they do not prevent the servers from being damaged or disrupted by weather events, nor do they ensure the availability or continuity of the network services.

References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 972: High Availability – CompTIA Security+ SY0-701 – 3.4, video by Professor

Messer<sup>3</sup>: CompTIA Security+ SY0-701 Certification Study Guide, page 984: CompTIA Security+ SY0-701 Certification Study Guide, page 99. : CompTIA Security+ SY0-701 Certification Study Guide, page 100.

**NEW QUESTION 20**

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 23

A security consultant needs secure, remote access to a client environment. Which of the following should the security consultant most likely use to gain access?

- A. EAP
- B. DHCP
- C. IPSec
- D. NAT

**Answer: C**

#### Explanation:

IPSec is a protocol suite that provides secure communication over IP networks. IPSec can be used to create virtual private networks (VPNs) that encrypt and authenticate the data exchanged between two or more parties. IPSec can also provide data integrity, confidentiality, replay protection, and access control. A security consultant can use IPSec to gain secure, remote access to a client environment by establishing a VPN tunnel with the client's network. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 8: Secure Protocols and Services, page 385 1

### NEW QUESTION 28

A systems administrator works for a local hospital and needs to ensure patient data is protected and secure. Which of the following data classifications should be used to secure patient data?

- A. Private
- B. Critical
- C. Sensitive
- D. Public

**Answer: C**

#### Explanation:

Data classification is a process of categorizing data based on its level of sensitivity, value, and impact to the organization if compromised. Data classification helps to determine the appropriate security controls and policies to protect the data from unauthorized access, disclosure, or modification. Different organizations may use different data classification schemes, but a common one is the four-tier model, which consists of the following categories: public, private, sensitive, and critical. Public data is data that is intended for public access and disclosure, and has no impact to the organization if compromised. Examples of public data include marketing materials, press releases, and public web pages.

Private data is data that is intended for internal use only, and has a low to moderate impact to the organization if compromised. Examples of private data include employee records, financial reports, and internal policies.

Sensitive data is data that is intended for authorized use only, and has a high impact to the organization if compromised. Examples of sensitive data include personal information, health records, and intellectual property.

Critical data is data that is essential for the organization's operations and survival, and has a severe impact to the organization if compromised. Examples of critical data include encryption keys, disaster recovery plans, and system backups.

Patient data is a type of sensitive data, as it contains personal and health information that is protected by law and ethical standards. Patient data should be used only by authorized personnel for legitimate purposes, and should be secured from unauthorized access, disclosure, or modification. Therefore, the systems administrator should use the sensitive data classification to secure patient data.

References = CompTIA Security+ SY0-701 Certification Study Guide, page 90-91; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 5.5 - Data Classifications, 0:00 - 4:30.

### NEW QUESTION 29

After a security awareness training session, a user called the IT help desk and reported a suspicious call. The suspicious caller stated that the Chief Financial Officer wanted credit card information in order to close an invoice. Which of the following topics did the user recognize from the training?

- A. Insider threat
- B. Email phishing
- C. Social engineering
- D. Executive whaling

**Answer: C**

#### Explanation:

Social engineering is the practice of manipulating people into performing actions or divulging confidential information, often by impersonating someone else or creating a sense of urgency or trust. The suspicious caller in this scenario was trying to use social engineering to trick the user into giving away credit card information by pretending to be the CFO and asking for a payment. The user recognized this as a potential scam and reported it to the IT help desk. The other topics are not relevant to this

situation. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 19 1

### NEW QUESTION 31

A security analyst reviews domain activity logs and notices the following:

```
UserID jsmith, password authentication: succeeded, MFA: failed (invalid code)
UserID jsmith, password authentication: succeeded, MFA: failed (invalid code)
UserID jsmith, password authentication: succeeded, MFA: failed (invalid code)
UserID jsmith, password authentication: succeeded, MFA: failed (invalid code)
```

Which of the following is the best explanation for what the security analyst has discovered?

- A. The user jsmith's account has been locked out.
- B. A keylogger is installed on jsmith's workstation
- C. An attacker is attempting to brute force jsmith's account.
- D. Ransomware has been deployed in the domain.

**Answer: C**

**Explanation:**

Brute force is a type of attack that tries to guess the password or other credentials of a user account by using a large number of possible combinations. An attacker can use automated tools or scripts to perform a brute force attack and gain unauthorized access to the account. The domain activity logs show that the user ismith has failed to log in 10 times in a row within a short period of time, which is a strong indicator of a brute force attack. The logs also show that the source IP address of the failed logins is different from the usual IP address of ismith, which suggests that the attacker is using a different device or location to launch the attack. The security analyst should take immediate action to block the attacker's IP address, reset ismith's password, and notify ismith of the incident. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 1, page 14. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 1.1, page 2. Threat Actors and Attributes – SY0-601 CompTIA Security+ : 1.1

**NEW QUESTION 36**

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 41**

A company decided to reduce the cost of its annual cyber insurance policy by removing the coverage for ransomware attacks.

Which of the following analysis elements did the company most likely use in making this decision?

- A. IMTTR
- B. RTO
- C. ARO
- D. MTBF

**Answer:** C

**Explanation:**

ARO (Annualized Rate of Occurrence) is an analysis element that measures the frequency or likelihood of an event happening in a given year. ARO is often used in risk assessment and management, as it helps to estimate the potential loss or impact of an event. A company can use ARO to calculate the annualized loss expectancy (ALE) of an event, which is the product of ARO and the single loss expectancy (SLE). ALE represents the expected cost of an event per year, and can be used to compare with the cost of implementing a security control or purchasing an insurance policy.

The company most likely used ARO in making the decision to remove the coverage for ransomware attacks from its cyber insurance policy. The company may have estimated the ARO of ransomware attacks based on historical data, industry trends, or threat intelligence, and found that the ARO was low or negligible. The company may have also calculated the ALE of ransomware attacks, and found that the ALE was lower than the cost of the insurance policy. Therefore, the company decided to reduce the cost of its annual cyber insurance policy by removing the coverage for ransomware attacks, as it deemed the risk to be acceptable or manageable.

IMTTR (Incident Management Team Training and Readiness), RTO (Recovery Time Objective), and MTBF (Mean Time Between Failures) are not analysis elements that the company most likely used in making the decision to remove the coverage for ransomware attacks from its cyber insurance policy. IMTTR is a process of preparing and training the incident management team to respond effectively to security incidents. IMTTR does not measure the frequency or impact of an event, but rather the capability and readiness of the team. RTO is a metric that defines the maximum acceptable time for restoring a system or service after a disruption. RTO does not measure the frequency or impact of an event, but rather the availability and continuity of the system or service. MTBF is a metric that measures the average time between failures of a system or component. MTBF does not measure the frequency or impact of an event, but rather the reliability and performance of the system or component.



References = CompTIA Security+ SY0-701 Certification Study Guide, page 97-98; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 5.2 - Risk Management, 0:00 - 3:00.

#### NEW QUESTION 44

Users at a company are reporting they are unable to access the URL for a new retail website because it is flagged as gambling and is being blocked. Which of the following changes would allow users to access the site?

- A. Creating a firewall rule to allow HTTPS traffic
- B. Configuring the IPS to allow shopping
- C. Tuning the DLP rule that detects credit card data
- D. Updating the categorization in the content filter

**Answer:** D

#### Explanation:

A content filter is a device or software that blocks or allows access to web content based on predefined rules or categories. In this case, the new retail website is mistakenly categorized as gambling by the content filter, which prevents users from accessing it. To resolve this issue, the content filter's categorization needs to be updated to reflect the correct category of the website, such as shopping or retail. This will allow the content filter to allow access to the website instead of blocking it.

References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 3: Technologies and Tools, page 1221. CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 3: Technologies and Tools, page 1222.

#### NEW QUESTION 49

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 52

A systems administrator is working on a solution with the following requirements:

- Provide a secure zone.
- Enforce a company-wide access control policy.
- Reduce the scope of threats.

Which of the following is the systems administrator setting up?

- A. Zero Trust
- B. AAA
- C. Non-repudiation
- D. CIA

**Answer:** A

#### Explanation:

Zero Trust is a security model that assumes no trust for any entity inside or outside the network perimeter and requires continuous verification of identity and permissions. Zero Trust can provide a secure zone by isolating and protecting sensitive data and resources from unauthorized access. Zero Trust can also enforce a company-wide access control policy by applying the principle of least privilege and granular segmentation for users, devices, and applications. Zero Trust can reduce the scope of threats by preventing lateral movement and minimizing the attack surface.

References:

? 5: This source explains the concept and benefits of Zero Trust security and how it differs from traditional security models.

? 8: This source provides an overview of Zero Trust identity security and how it can help verify the identity and integrity of users and devices.

#### NEW QUESTION 56

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 61

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 64

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 69

After a security incident, a systems administrator asks the company to buy a NAC platform. Which of the following attack surfaces is the systems administrator trying to protect?

- A. Bluetooth
- B. Wired
- C. NFC
- D. SCADA

**Answer:** B

#### Explanation:

A NAC (network access control) platform is a technology that enforces security policies on devices that attempt to access a network. A NAC platform can verify the identity, role, and compliance of the devices, and grant or deny access based on predefined rules. A NAC platform can protect both wired and wireless networks, but in this scenario, the systems administrator is trying to protect the wired attack surface, which is the set of vulnerabilities that can be exploited through a physical connection to the network<sup>12</sup>.

References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 5, page 189; CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 5, page 237.

#### NEW QUESTION 72

A systems administrator receives the following alert from a file integrity monitoring tool: The hash of the cmd.exe file has changed. The systems administrator checks the OS logs and notices that no patches were applied in the last two months. Which of the following most likely occurred?

- A. The end user changed the file permissions.
- B. A cryptographic collision was detected.
- C. A snapshot of the file system was taken.
- D. A rootkit was deployed.

**Answer: D**

#### Explanation:

A rootkit is a type of malware that modifies or replaces system files or processes to hide its presence and activity. A rootkit can change the hash of the cmd.exe file, which is a command-line interpreter for Windows systems, to avoid detection by antivirus or file integrity monitoring tools. A rootkit can also grant the attacker remote access and control over the infected system, as well as perform malicious actions such as stealing data, installing backdoors, or launching attacks on other systems. A rootkit is one of the most difficult types of malware to remove, as it can persist even after rebooting or reinstalling the OS. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 4, page 147. CompTIA Security+ SY0-701 Exam Objectives, Domain 1.2, page 9.

#### NEW QUESTION 76

Which of the following scenarios describes a possible business email compromise attack?

- A. An employee receives a gift card request in an email that has an executive's name in the display field of the email.
- B. Employees who open an email attachment receive messages demanding payment in order to access files.
- C. A service desk employee receives an email from the HR director asking for log-in credentials to a cloud administrator account.
- D. An employee receives an email with a link to a phishing site that is designed to look like the company's email portal.

**Answer: A**

#### Explanation:

A business email compromise (BEC) attack is a type of phishing attack that targets employees who have access to company funds or sensitive information. The attacker impersonates a trusted person, such as an executive, a vendor, or a client, and requests a fraudulent payment, a wire transfer, or confidential data. The attacker often uses social engineering techniques, such as urgency, pressure, or familiarity, to convince the victim to comply with the request<sup>12</sup>. In this scenario, option A describes a possible BEC attack, where an employee receives a gift card request in an email that has an executive's name in the display field of the email. The email may look like it is coming from the executive, but the actual email address may be spoofed or compromised. The attacker may claim that the gift cards are needed for a business purpose, such as rewarding employees or clients, and ask the employee to purchase them and send the codes. This is a common tactic used by BEC attackers to steal money from unsuspecting victims<sup>34</sup>. Option B describes a possible ransomware attack, where malicious software encrypts the files on a device and demands a ransom for the decryption key. Option C describes a possible credential harvesting attack, where an attacker tries to obtain the login information of a privileged account by posing as a legitimate authority. Option D describes a possible phishing attack, where an attacker tries to lure the victim to a fake website that mimics the company's email portal and capture their credentials. These are all types of cyberattacks, but they are not examples of BEC attacks. References = 1: Business Email Compromise - CompTIA Security+ SY0-701 - 2.2 2: CompTIA Security+ SY0-701 Certification Study Guide 3: Business Email Compromise: The 12 Billion Dollar Scam 4: TOTAL: CompTIA Security+ Cert (SY0-701) | Udemy

#### NEW QUESTION 78

Which of the following would be the best way to block unknown programs from executing?

- A. Access control list
- B. Application allow list.
- C. Host-based firewall
- D. DLP solution

**Answer: B**

#### Explanation:

An application allow list is a security technique that specifies which applications are permitted to run on a system or a network. An application allow list can block unknown programs from executing by only allowing the execution of programs that are explicitly authorized and verified. An application allow list can prevent malware, unauthorized software, or unwanted applications from running and compromising the security of the system or the network<sup>12</sup>.

The other options are not the best ways to block unknown programs from executing:

? Access control list: This is a security technique that specifies which users or groups are granted or denied access to a resource or an object. An access control list can control the permissions and privileges of users or groups, but it does not directly block unknown programs from executing<sup>13</sup>.

? Host-based firewall: This is a security device that monitors and filters the incoming and outgoing network traffic on a single host or system. A host-based firewall can block or allow network connections based on predefined rules, but it does not directly block unknown programs from executing<sup>1</sup>.

? DLP solution: This is a security system that detects and prevents the unauthorized transmission or leakage of sensitive data. A DLP solution can protect the confidentiality and integrity of data, but it does not directly block unknown programs from executing<sup>1</sup>.

References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 972: Application Whitelisting – CompTIA Security+ SY0-701 – 3.5, video by Professor Messer<sup>3</sup>: CompTIA Security+ SY0-701 Certification Study Guide, page 98. : CompTIA Security+ SY0-701 Certification Study Guide, page 99. : CompTIA Security+ SY0-701 Certification Study Guide, page 100.

#### NEW QUESTION 80

Which of the following is used to protect a computer from viruses, malware, and Trojans being installed and moving laterally across the network?

- A. IDS
- B. ACL
- C. EDR
- D. NAC

**Answer: C**

**Explanation:**

Endpoint detection and response (EDR) is a technology that monitors and analyzes the activity and behavior of endpoints, such as computers, laptops, mobile devices, and servers. EDR can help to detect and prevent malicious software, such as viruses, malware, and Trojans, from infecting the endpoints and spreading across the network. EDR can also provide visibility and response capabilities to contain and remediate threats. EDR is different from IDS, which is a network-based technology that monitors and alerts on network traffic anomalies. EDR is also different from ACL, which is a list of rules that control the access to network resources. EDR is also different from NAC, which is a technology that enforces policies on the network access of devices based on their identity and compliance status. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 2561

**NEW QUESTION 83**

A Chief Information Security Officer wants to monitor the company's servers for SQLi attacks and allow for comprehensive investigations if an attack occurs. The company uses SSL decryption to allow traffic monitoring. Which of the following strategies would best accomplish this goal?

- A. Logging all NetFlow traffic into a SIEM
- B. Deploying network traffic sensors on the same subnet as the servers
- C. Logging endpoint and OS-specific security logs
- D. Enabling full packet capture for traffic entering and exiting the servers

**Answer:** D

**Explanation:**

Full packet capture is a technique that records all network traffic passing through a device, such as a router or firewall. It allows for detailed analysis and investigation of network events, such as SQLi attacks, by providing the complete content and context of the packets. Full packet capture can help identify the source, destination, payload, and timing of an SQLi attack, as well as the impact on the server and database. Logging NetFlow traffic, network traffic sensors, and endpoint and OS-specific security logs can provide some information about network activity, but they do not capture the full content of the packets, which may limit the scope and depth of the investigation. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 372-373

**NEW QUESTION 86**

An organization is building a new backup data center with cost-benefit as the primary requirement and RTO and RPO values around two days. Which of the following types of sites is the best for this scenario?

- A. Real-time recovery
- B. Hot
- C. Cold
- D. Warm

**Answer:** C

**Explanation:**

A cold site is a type of backup data center that has the necessary infrastructure to support IT operations, but does not have any pre-configured hardware or software. A cold site is the cheapest option among the backup data center types, but it also has the longest recovery time objective (RTO) and recovery point objective (RPO) values. A cold site is suitable for scenarios where the cost-benefit is the primary requirement and the RTO and RPO values are not very stringent. A cold site can take up to two days or more to restore the normal operations after a disaster. References = CompTIA Security+ SY0-701 Certification Study Guide, page 387; Backup Types – SY0-601 CompTIA Security+ : 2.5, video at 4:50.

**NEW QUESTION 87**

Which of the following is the most likely outcome if a large bank fails an internal PCI DSS compliance assessment?

- A. Fines
- B. Audit findings
- C. Sanctions
- D. Reputation damage

**Answer:** A

**Explanation:**

PCI DSS is the Payment Card Industry Data Security Standard, which is a set of security requirements for organizations that store, process, or transmit cardholder data. PCI DSS aims to protect the confidentiality, integrity, and availability of cardholder data and prevent fraud, identity theft, and data breaches. PCI DSS is enforced by the payment card brands, such as Visa, Mastercard, American Express, Discover, and JCB, and applies to all entities involved in the payment card ecosystem, such as merchants, acquirers, issuers, processors, service providers, and payment applications.

If a large bank fails an internal PCI DSS compliance assessment, the most likely outcome is that the bank will face fines from the payment card brands. An internal PCI DSS compliance assessment is a self-assessment that the bank performs to evaluate its own compliance with the PCI DSS requirements. The bank must submit the results of the internal assessment to the payment card brands or their designated agents, such as acquirers or qualified security assessors (QSAs). If the internal assessment reveals that the bank is not compliant with the PCI DSS requirements, the payment card brands may impose fines on the bank as a penalty for violating the PCI DSS contract. The amount and frequency of the fines may vary depending on the severity and duration of the non-compliance, the number and type of cardholder data compromised, and the level of cooperation and remediation from the bank. The fines can range from thousands to millions of dollars per month, and can increase over time if the non-compliance is not resolved.

The other options are not correct because they are not the most likely outcomes if a large bank fails an internal PCI DSS compliance assessment. B. Audit findings. Audit findings are the results of an external PCI DSS compliance assessment that is performed by a QSA or an approved scanning vendor (ASV). An external assessment is required for certain entities that handle a large volume of cardholder data or have a history of non-compliance. An external assessment may also be triggered by a security incident or a request from the payment card brands. Audit findings may reveal the gaps and weaknesses in the bank's security controls and recommend corrective actions to achieve compliance. However, audit findings are not the outcome of an internal assessment, which is performed by the bank itself. C. Sanctions. Sanctions are the measures that the payment card brands may take against the bank if the bank fails to pay the fines or comply with the PCI DSS requirements. Sanctions may include increasing the fines, suspending or terminating the bank's ability to accept or process payment cards, or revoking the bank's PCI DSS certification. Sanctions are not the immediate outcome of an internal assessment, but rather the possible consequence of prolonged or repeated non-compliance. D. Reputation damage. Reputation damage is the loss of trust and credibility that the bank may suffer from its customers, partners, regulators, and the public if the bank fails an internal PCI DSS compliance assessment. Reputation damage may affect the bank's brand image, customer loyalty, market share, and profitability. Reputation damage is not a direct outcome of an internal assessment, but rather a potential risk that the bank may face if the non-compliance is exposed or exploited by malicious actors. References = CompTIA Security+ Study Guide (SY0-701), Chapter 8: Governance, Risk, and Compliance, page 388. Professor Messer's CompTIA SY0-701 Security+ Training Course, Section 8.2: Compliance and Controls, video: PCI DSS (5:12). PCI Security Standards Council, PCI DSS Quick Reference Guide, page 4. PCI Security Standards Council, PCI DSS FAQs, question 8. PCI



Security Standards Council, PCI DSS FAQs, question 9. [PCI Security Standards Council], PCI DSS FAQs, question 10. [PCI Security Standards Council], PCI DSS FAQs, question 11. [PCI Security Standards Council], PCI DSS FAQs, question 12. [PCI Security Standards Council], PCI DSS FAQs, question 13. [PCI Security Standards Council], PCI DSS FAQs, question 14. [PCI Security Standards Council], PCI DSS FAQs, question 15. [PCI Security Standards Council], PCI DSS FAQs, question 16. [PCI Security Standards Council], PCI DSS FAQs, question 17. [PCI Security Standards Council], PCI DSS FAQs, question 18. [PCI Security Standards Council], PCI DSS FAQs, question 19. [PCI Security Standards Council], PCI DSS FAQs, question 20. [PCI Security Standards Council], PCI DSS FAQs, question 21. [PCI Security Standards Council], PCI DSS FAQs, question 22. [PCI Security Standards Council], PCI DSS FAQs, question 23. [PCI Security Standards Council], PCI DSS FAQs, question 24. [PCI Security Standards Council], PCI DSS FAQs, question 25. [PCI Security Standards Council], PCI DSS FAQs, question 26. [PCI Security Standards Council], PCI DSS FAQs, question 27. [PCI Security Standards Council], PCI DSS FAQs, question 28. [PCI Security Standards Council], PCI DSS FAQs, question 29. [PCI Security Standards Council], PCI DSS FAQs, question 30. [PCI Security Standards Council]

#### NEW QUESTION 92

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 95

Which of the following tools can assist with detecting an employee who has accidentally emailed a file containing a customer's PII?

- A. SCAP
- B. Net Flow
- C. Antivirus
- D. DLP

**Answer:** D

#### Explanation:

DLP stands for Data Loss Prevention, which is a tool that can assist with detecting and preventing the unauthorized transmission or leakage of sensitive data, such as a customer's PII (Personally Identifiable Information). DLP can monitor, filter, and block data in motion (such as emails), data at rest (such as files), and data in use (such as applications). DLP can also alert the sender, the recipient, or the administrator of the data breach, and apply remediation actions, such as encryption, quarantine, or deletion. DLP can help an organization comply with data protection regulations, such as GDPR, HIPAA, or PCI DSS, and protect its reputation and assets. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 2, page 78. CompTIA Security+ SY0-701 Exam Objectives, Domain 2.5, page 11.

#### NEW QUESTION 99

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 103

During an investigation, an incident response team attempts to understand the source of an incident. Which of the following incident response activities describes this process?

- A. Analysis
- B. Lessons learned
- C. Detection
- D. Containment

**Answer:** A

#### Explanation:

Analysis is the incident response activity that describes the process of understanding the source of an incident. Analysis involves collecting and examining evidence, identifying the root cause, determining the scope and impact, and assessing the threat actor's motives and capabilities. Analysis helps the incident response team to formulate an appropriate response strategy, as well as to prevent or mitigate future incidents. Analysis is usually performed after detection and before containment, eradication, recovery, and lessons learned. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 6, page 223. CompTIA Security+ SY0-701 Exam Objectives, Domain 4.2, page 13.



#### NEW QUESTION 105

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

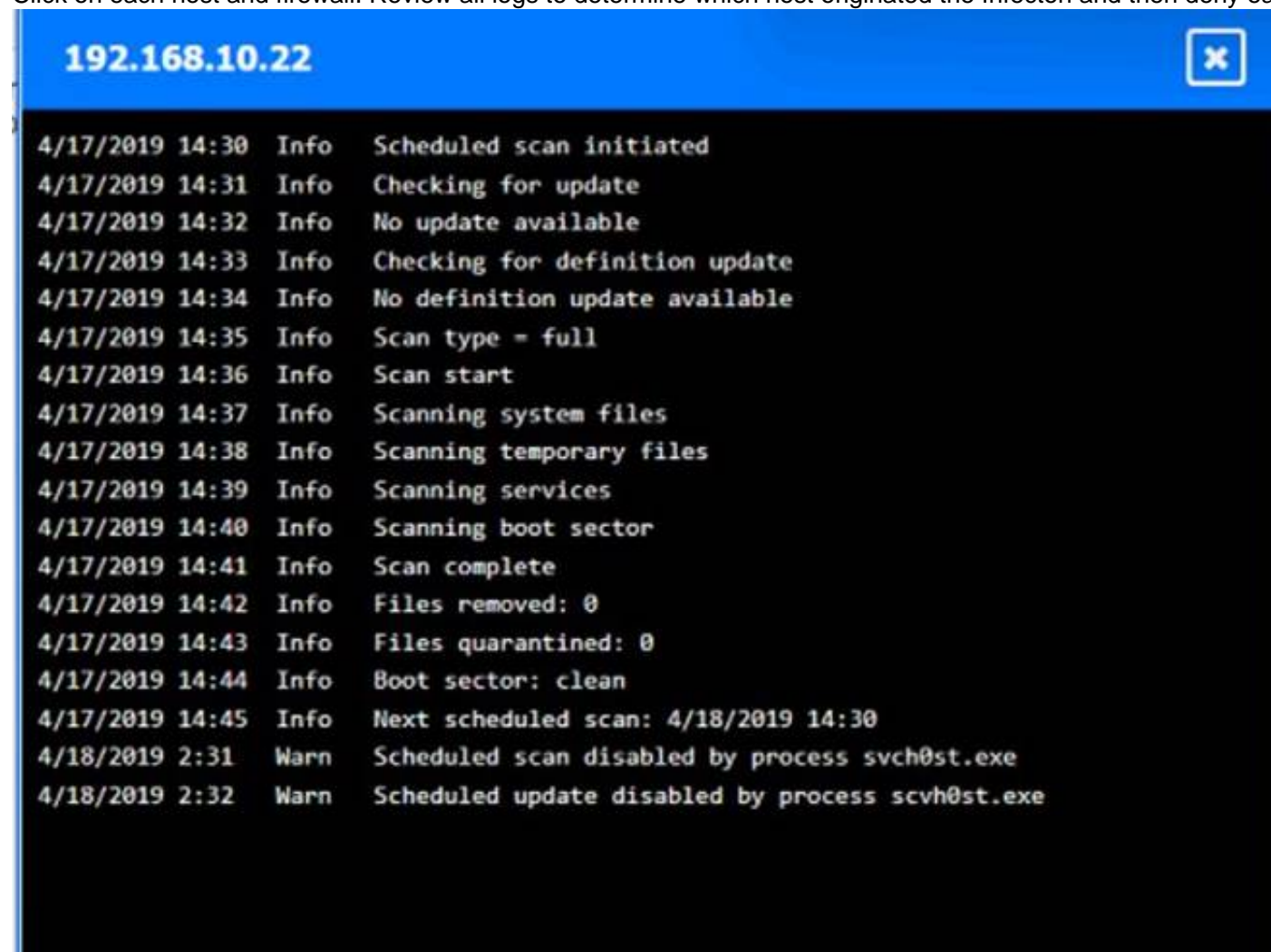
- Cybr, Application Hardening – SY0-601 CompTIA Security+ : 3.2.

#### NEW QUESTION 107

##### HOTSPOT

You are security administrator investigating a potential infection on a network.

Click on each host and firewall. Review all logs to determine which host originated the Infecton and then deny each remaining hosts clean or infected.



192.168.10.37

```

4/17/2019 14:30 Info Scheduled scan initiated
4/17/2019 14:31 Info Checking for update
4/17/2019 14:32 Info No update available
4/17/2019 14:33 Info Checking for definition update
4/17/2019 14:34 Info No definition update available
4/17/2019 14:35 Info Scan type = full
4/17/2019 14:36 Info Scan start
4/17/2019 14:37 Info Scanning system files
4/17/2019 14:38 Info Scanning temporary files
4/17/2019 14:39 Info Scanning services
4/17/2019 14:40 Info Scanning boot sector
4/17/2019 14:41 Info Scan complete
4/17/2019 14:42 Info Files removed: 0
4/17/2019 14:43 Info Files quarantined: 0
4/17/2019 14:44 Info Boot sector: clean
4/17/2019 14:45 Info Next scheduled scan: 4/18/2019 14:30
4/18/2019 14:30 Info Scheduled scan initiated
4/18/2019 14:31 Info Checking for update
4/18/2019 14:32 Info No update available
4/18/2019 14:33 Info Checking for definition update
4/18/2019 14:34 Info Update available v10.2.3.4440
4/18/2019 14:33 Info Downloading update
4/18/2019 14:35 Info Definition update complete
4/18/2019 14:35 Info Scan type = full
4/18/2019 14:36 Info Scan start
4/18/2019 14:37 Info Scanning system files
4/18/2019 14:37 Warn File found svch0st.exe match definition v10.2.3.4440
4/18/2019 14:37 Warn File quarantined svch0st.exe
4/18/2019 14:38 Info Scanning temporary files
4/18/2019 14:39 Info Scanning services
4/18/2019 14:40 Info Scanning boot sector
4/18/2019 14:41 Info Scan complete
4/18/2019 14:42 Info Files removed: 0
4/18/2019 14:43 Info Files quarantined: 0
4/18/2019 14:44 Info Boot sector: clean
4/18/2019 14:45 Info Next scheduled scan: 4/19/2019 14:30

```

192.168.10.41

```

4/17/2019 14:30 Info Scan start
4/17/2019 14:37 Info Scanning system files
4/17/2019 14:38 Info Scanning temporary files
4/17/2019 14:39 Info Scanning services
4/17/2019 14:40 Info Scanning boot sector
4/17/2019 14:41 Info Scan complete
4/17/2019 14:42 Info Files removed: 0
4/17/2019 14:43 Info Files quarantined: 0
4/17/2019 14:44 Info Boot sector: clean
4/17/2019 14:45 Info Next scheduled scan: 4/18/2019 14:30
4/18/2019 14:30 Info Scheduled scan initiated
4/18/2019 14:31 Info Checking for update
4/18/2019 14:32 Info No update available
4/18/2019 14:33 Info Checking for definition update
4/18/2019 14:34 Error Unable to reach update server
4/18/2019 14:35 Info Scan type = full
4/18/2019 14:36 Info Scan start
4/18/2019 14:37 Info Scanning system files
4/18/2019 14:37 Warn File svch0st.exe match heuristic pattern 0c09488c08d0f3k
4/18/2019 14:37 Error Unable to quarantine file svch0st.exe
4/18/2019 14:38 Info Scanning temporary files
4/18/2019 14:39 Info Scanning services
4/18/2019 14:40 Info Scanning boot sector
4/18/2019 14:41 Info Scan complete
4/18/2019 14:42 Info Files removed: 0
4/18/2019 14:43 Info Files quarantined: 0
4/18/2019 14:43 Warn File quarantine file
4/18/2019 14:44 Info Boot sector: clean
4/18/2019 14:45 Info Next scheduled scan: 4/19/2019 14:30

```

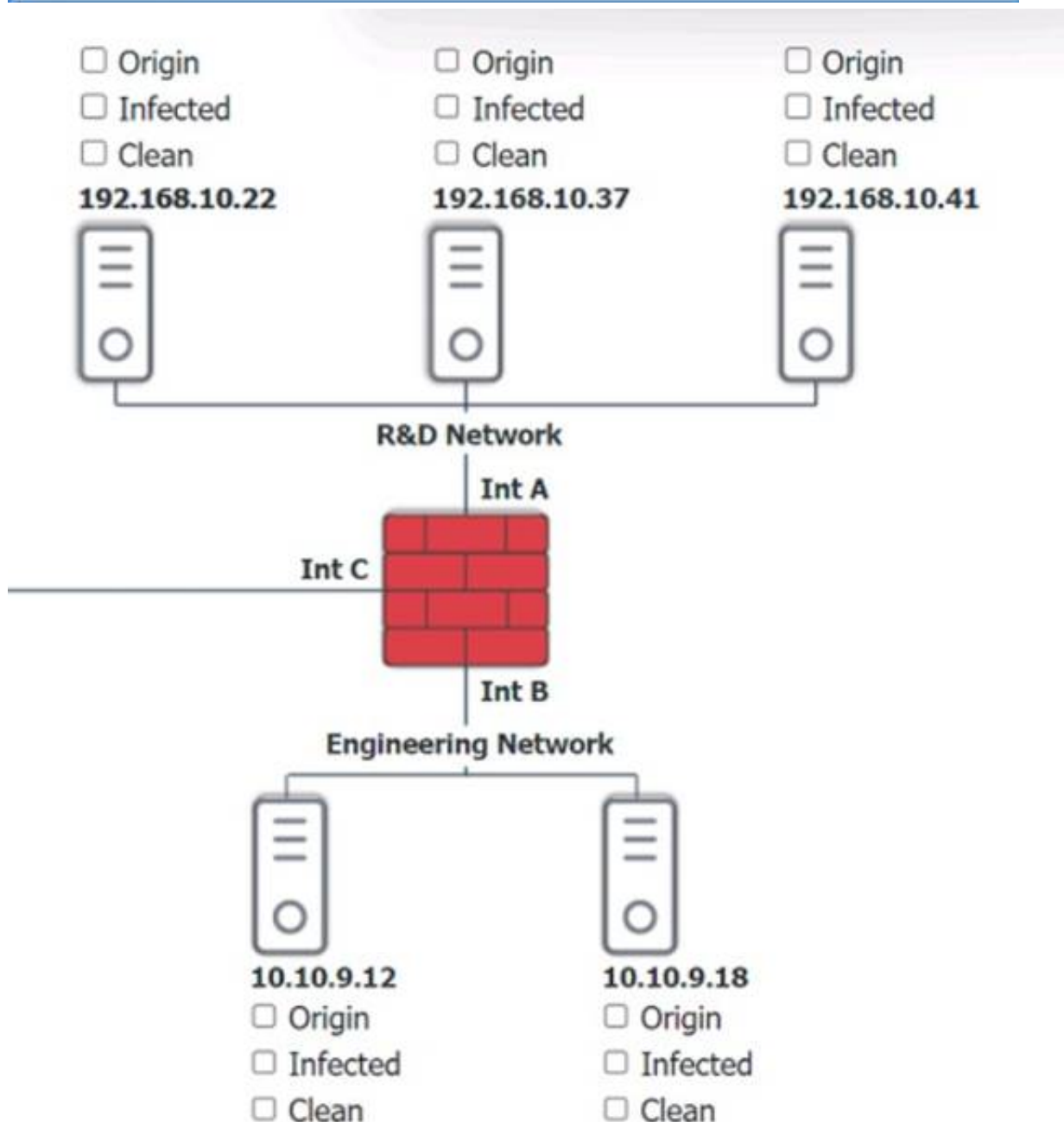


Firewall								
Timestamp	Source	Destination	Destination Port	Application	Action	Client Bytes	Server Bytes	
4/17/2019 16:01:44	10.10.9.18	57.203.54.183	443	ssl	Permit	6953	99427	
4/17/2019 16:01:58	192.168.10.37	57.203.54.221	443	ssl	Permit	9301	199386	
4/17/2019 16:17:06	192.168.10.22	10.10.9.12	135	rpc	Permit	175	1504	
4/17/2019 16:27:36	192.168.10.41	10.10.9.12	445	smbv1	Permit	345	34757	
4/17/2019 16:28:06	10.10.9.12	192.168.10.41	135	rpc	Permit	754	4771	
4/17/2019 16:33:31	10.10.9.18	192.168.10.22	135	rpc	Permit	643	2355	
4/17/2019 16:35:36	192.168.10.37	10.10.9.12	135	smbv2	Permit	649	5644	
4/17/2019 23:58:36	10.10.9.12	192.168.10.41		icmp	Permit	128	128	
4/17/2019 23:58:43	10.10.9.12	192.168.10.22		icmp	Permit	128	128	
4/17/2019 23:58:45	10.10.9.12	192.168.10.37		icmp	Permit	128	128	
4/18/2019 2:31:36	10.10.9.18	192.168.10.41	445	smbv2	Permit	1874	23874	
4/18/2019 2:31:45	192.168.10.22	57.203.55.29	8080	http	Permit	7203	75997	
4/18/2019 2:31:51	10.10.9.18	57.203.56.201	443	ssl	Permit	9953	199730	
4/18/2019 2:31:02	192.168.10.22	57.203.55.234	443	http	Permit	4937	84937	
4/18/2019 2:39:11	192.168.10.41	57.203.53.89	8080	http	Permit	8201	133183	
4/18/2019 2:39:12	10.10.9.18	57.203.55.19	8080	ssl	Permit	1284	9102854	
4/18/2019 2:39:32	192.168.10.37	57.203.56.113	443	ssl	Permit	9341	9938	
4/18/2019 13:37:36	192.168.10.22	10.10.9.18	445	smbv3	Permit	1874	23874	
4/18/2019 13:39:43	192.168.10.22	10.10.9.18	135	rpc	Permit	673	41358	
4/18/2019 13:45:04	10.10.9.18	192.168.10.37	135	rpc	Permit	693	1952	
4/18/2019 13:47:44	10.10.9.12	192.168.10.41	445	smbv3	Permit	482	3505	
4/18/2019 13:52:57	10.10.9.18	192.168.10.22	135	rpc	Permit	545	9063	
4/18/2019 13:53:01	192.168.10.37	10.10.9.12	335	smbv3	Permit	876	8068	
4/18/2019 14:30:04	10.10.9.12	57.203.56.231	443	ssl	Permit	9901	199730	
4/18/2019 14:30:04	192.168.10.37	57.203.56.143	443	ssl	Permit	10092	209938	

10.10.9.12			
4/17/2019 14:30	Info	Scheduled scan initiated	
4/17/2019 14:31	Info	Checking for update	
4/17/2019 14:32	Info	No update available	
4/17/2019 14:33	Info	Checking for definition update	
4/17/2019 14:34	Info	No definition update available	
4/17/2019 14:35	Info	Scan type = full	
4/17/2019 14:36	Info	Scan start	
4/17/2019 14:37	Info	Scanning system files	
4/17/2019 14:38	Info	Scanning temporary files	
4/17/2019 14:39	Info	Scanning services	
4/17/2019 14:40	Info	Scanning boot sector	
4/17/2019 14:41	Info	Scan complete	
4/17/2019 14:42	Info	Files removed: 0	
4/17/2019 14:43	Info	Files quarantined: 0	
4/17/2019 14:44	Info	Boot sector: clean	
4/17/2019 14:45	Info	Next scheduled scan: 4/18/2019 14:30	
4/18/2019 14:30	Info	Scheduled scan initiated	
4/18/2019 14:31	Info	Checking for update	
4/18/2019 14:32	Info	No update available	
4/18/2019 14:33	Info	Checking for definition update	
4/18/2019 14:34	Info	Update available v10.2.3.4440	
4/18/2019 14:33	Info	Downloading update	
4/18/2019 14:35	Info	Definition update complete	
4/18/2019 14:35	Info	Scan type = full	
4/18/2019 14:36	Info	Scan start	
4/18/2019 14:37	Info	Scanning system files	
4/18/2019 14:37	Warn	File found svchost.exe match definition v10.2.3.4440	
4/18/2019 14:37	Warn	File quarantined svchost.exe	
4/18/2019 14:38	Info	Scanning temporary files	
4/18/2019 14:38	Info	Scanning services	

```

10.10.9.18
4/17/2019 14:30 Info Scheduled scan initiated
4/17/2019 14:31 Info Checking for update
4/17/2019 14:32 Info No update available
4/17/2019 14:33 Info Checking for definition update
4/17/2019 14:34 Info No definition update available
4/17/2019 14:35 Info Scan type = full
4/17/2019 14:36 Info Scan start
4/17/2019 14:37 Info Scanning system files
4/17/2019 14:38 Info Scanning temporary files
4/17/2019 14:39 Info Scanning services
4/17/2019 14:40 Info Scanning boot sector
4/17/2019 14:41 Info Scan complete
4/17/2019 14:42 Info Files removed: 0
4/17/2019 14:43 Info Files quarantined: 0
4/17/2019 14:44 Info Boot sector: clean
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4/18/2019 14:31 Info Checking for update
4/18/2019 14:32 Info No update available
4/18/2019 14:33 Info Checking for definition update
4/18/2019 14:34 Error Unable to reach update server
4/18/2019 14:35 Info Scan type = full
4/18/2019 14:36 Info Scan start
4/18/2019 14:37 Info Scanning system files
4/18/2019 14:37 Warn File svchost.exe match heuristic pattern 0c09488c08d0f3k
4/18/2019 14:37 Error Unable to quarantine file svchost.exe
4/18/2019 14:38 Info Scanning temporary files
4/18/2019 14:39 Info Scanning services
4/18/2019 14:40 Info Scanning boot sector
4/18/2019 14:41 Info Scan complete
  
```



- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Based on the logs, it seems that the host that originated the infection is 192.168.10.22. This host has a suspicious process named svchost.exe running on port 443, which is unusual for a Windows service. It also has a large number of outbound connections to different IP addresses on port 443, indicating that it is part of a



botnet.

The firewall log shows that this host has been communicating with 10.10.9.18, which is another infected host on the engineering network. This host also has a suspicious process named svchost.exe running on port 443, and a large number of outbound connections to different IP addresses on port 443.

The other hosts on the R&D network (192.168.10.37 and 192.168.10.41) are clean, as they do not have any suspicious processes or connections.

#### NEW QUESTION 109

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 113

A security manager created new documentation to use in response to various types of security incidents. Which of the following is the next step the manager should take?

- A. Set the maximum data retention policy.
- B. Securely store the documents on an air-gapped network.
- C. Review the documents' data classification policy.
- D. Conduct a tabletop exercise with the team.

**Answer: D**

#### Explanation:

A tabletop exercise is a simulated scenario that tests the effectiveness of a security incident response plan. It involves gathering the relevant stakeholders and walking through the steps of the plan, identifying any gaps or issues that need to be addressed. A tabletop exercise is a good way to validate the documentation created by the security manager and ensure that the team is prepared for various types of security incidents. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 6: Risk Management, page 2841. CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 6: Risk Management, page 2842.

#### NEW QUESTION 116

An organization's internet-facing website was compromised when an attacker exploited a buffer overflow. Which of the following should the organization deploy to best protect against similar attacks in the future?

- A. NGFW
- B. WAF
- C. TLS
- D. SD-WAN

**Answer: B**

#### Explanation:

A buffer overflow is a type of software vulnerability that occurs when an application writes more data to a memory buffer than it can hold, causing the excess data to overwrite adjacent memory locations. This can lead to unexpected behavior, such as crashes, errors, or code execution. A buffer overflow can be exploited by an attacker to inject malicious code or commands into the application, which can compromise the security and functionality of the system. An organization's internet-facing website was compromised when an attacker exploited a buffer overflow. To best protect against similar attacks in the future, the organization should deploy a web application firewall (WAF). A WAF is a type of firewall that monitors and filters the traffic between a web application and the internet. A WAF can detect and block common web attacks, such as buffer overflows, SQL injections, cross-site scripting (XSS), and more. A WAF can also enforce security policies and rules, such as input validation, output encoding, and encryption. A WAF can provide a layer of protection for the web application, preventing attackers from exploiting its vulnerabilities and compromising its data. References = Buffer Overflows – CompTIA Security+ SY0-701 – 2.3, Web Application Firewalls – CompTIA Security+ SY0-701 – 2.4, [CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition]

#### NEW QUESTION 118

A security administrator is deploying a DLP solution to prevent the exfiltration of sensitive customer data. Which of the following should the administrator do first?

- A. Block access to cloud storage websites.
- B. Create a rule to block outgoing email attachments.
- C. Apply classifications to the data.
- D. Remove all user permissions from shares on the file server.

**Answer: C**

#### Explanation:

Data classification is the process of assigning labels or tags to data based on its sensitivity, value, and risk. Data classification is the first step in a data loss prevention (DLP) solution, as it helps to identify what data needs to be protected and how. By applying classifications to the data, the security administrator can

define appropriate policies and rules for the DLP solution to prevent the exfiltration of sensitive customer data. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 8: Data Protection, page 323. CompTIA Security+ Practice Tests: Exam SY0-701, 3rd Edition, Chapter 8: Data Protection, page 327.

#### NEW QUESTION 120

Which of the following would be the best way to handle a critical business application that is running on a legacy server?

- A. Segmentation
- B. Isolation
- C. Hardening
- D. Decommissioning

**Answer: C**

#### Explanation:

A legacy server is a server that is running outdated or unsupported software or hardware, which may pose security risks and compatibility issues. A critical business application is an application that is essential for the operation and continuity of the business, such as accounting, payroll, or inventory management. A legacy server running a critical business application may be difficult to replace or upgrade, but it should not be left unsecured or exposed to potential threats. One of the best ways to handle a legacy server running a critical business application is to harden it. Hardening is the process of applying security measures and configurations to a system to reduce its attack surface and vulnerability. Hardening a legacy server may involve steps such as:

? Applying patches and updates to the operating system and the application, if available

? Removing or disabling unnecessary services, features, or accounts

? Configuring firewall rules and network access control lists to restrict inbound and outbound traffic

? Enabling encryption and authentication for data transmission and storage

? Implementing logging and monitoring tools to detect and respond to anomalous or malicious activity

? Performing regular backups and testing of the system and the application Hardening a legacy server can help protect the critical business application from unauthorized access, modification, or disruption, while maintaining its functionality and availability. However, hardening a legacy server is not a permanent solution, and it may not be sufficient to address all the security issues and challenges posed by the outdated or unsupported system. Therefore, it is advisable to plan for the eventual decommissioning or migration of the legacy server to a more secure and modern platform, as soon as possible. References: CompTIA Security+ SY0-701 Certification Study Guide, Chapter 3: Architecture and Design, Section 3.2: Secure System Design, Page 133 1; CompTIA Security+ Certification Exam Objectives, Domain 3: Architecture and Design, Objective 3.2: Explain the importance of secure system design, Subobjective: Legacy systems 2

#### NEW QUESTION 121

A technician needs to apply a high-priority patch to a production system. Which of the following steps should be taken first?

- A. Air gap the system.
- B. Move the system to a different network segment.
- C. Create a change control request.
- D. Apply the patch to the system.

**Answer: C**

#### Explanation:

= A change control request is a document that describes the proposed change to a system, the reason for the change, the expected impact, the approval process, the testing plan, the implementation plan, the rollback plan, and the communication plan. A change control request is a best practice for applying any patch to a production system, especially a high-priority one, as it ensures that the change is authorized, documented, tested, and communicated. A change control request also minimizes the risk of unintended consequences, such as system downtime, data loss, or security breaches. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 6, page 235. CompTIA Security+ SY0-701 Exam Objectives, Domain 4.1, page 13.

#### NEW QUESTION 122

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 127

Which of the following is the most likely to be included as an element of communication in a security awareness program?

- A. Reporting phishing attempts or other suspicious activities
- B. Detecting insider threats using anomalous behavior recognition
- C. Verifying information when modifying wire transfer data
- D. Performing social engineering as part of third-party penetration testing

**Answer:** A

**Explanation:**

A security awareness program is a set of activities and initiatives that aim to educate and inform the users and employees of an organization about the security policies, procedures, and best practices. A security awareness program can help to reduce the human factor in security risks, such as social engineering, phishing, malware, data breaches, and insider threats. A security awareness program should include various elements of communication, such as newsletters, posters, videos, webinars, quizzes, games, simulations, and feedback mechanisms, to deliver the security messages and reinforce the security culture. One of the most likely elements of communication to be included in a security awareness program is reporting phishing attempts or other suspicious activities, as this can help to raise the awareness of the users and employees about the common types of cyberattacks and how to respond to them. Reporting phishing attempts or other suspicious activities can also help to alert the security team and enable them to take appropriate actions to prevent or mitigate the impact of the attacks. Therefore, this is the best answer among the given options.

The other options are not as likely to be included as elements of communication in a security awareness program, because they are either technical or operational tasks that are not directly related to the security awareness of the users and employees. Detecting insider threats using anomalous behavior recognition is a technical task that involves using security tools or systems to monitor and analyze the activities and behaviors of the users and employees and identify any deviations or anomalies that may indicate malicious or unauthorized actions. This task is usually performed by the security team or the security operations center, and it does not require the communication or participation of the users and employees. Verifying information when modifying wire transfer data is an operational task that involves using verification methods, such as phone calls, emails, or digital signatures, to confirm the authenticity and accuracy of the information related to wire transfers, such as the account number, the amount, or the recipient. This task is usually performed by the financial or accounting department, and it does not involve the security awareness of the users and employees. Performing social engineering as part of third-party penetration testing is a technical task that involves using deception or manipulation techniques, such as phishing, vishing, or impersonation, to test the security posture and the vulnerability of the users and employees to social engineering attacks. This task is usually performed by external security professionals or consultants, and it does not require the communication or consent of the users and employees. Therefore, these options are not the best answer for this question. References = Security Awareness and Training –

CompTIA Security+ SY0-701: 5.2, video at 0:00; CompTIA Security+ SY0-701 Certification Study Guide, page 263.

**NEW QUESTION 129**

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 134**

Which of the following threat actors is the most likely to use large financial resources to attack critical systems located in other countries?

- A. Insider
- B. Unskilled attacker
- C. Nation-state
- D. Hacktivist

**Answer:** C

**Explanation:**

A nation-state is a threat actor that is sponsored by a government or a political entity to conduct cyberattacks against other countries or organizations. Nation-states have large financial resources, advanced technical skills, and strategic objectives that may target critical systems such as military, energy, or infrastructure. Nation-states are often motivated by espionage, sabotage, or warfare<sup>12</sup>. References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 542: Threat Actors – CompTIA Security+ SY0-701 – 2.1, video by Professor Messer.

**NEW QUESTION 139**

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 144

Which of the following security control types does an acceptable use policy best represent?

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

**Answer: D**

#### Explanation:

An acceptable use policy (AUP) is a set of rules that govern how users can access and use a corporate network or the internet. The AUP helps companies minimize their exposure to cyber security threats and limit other risks. The AUP also serves as a notice to users about what they are not allowed to do and protects the company against misuse of their network. Users usually have to acknowledge that they understand and agree to the rules before accessing the network<sup>1</sup>.

An AUP best represents a preventive security control type, because it aims to deter or stop potential security incidents from occurring in the first place. A preventive control is proactive and anticipates possible threats and vulnerabilities, and implements measures to prevent them from exploiting or harming the system or the data. A preventive control can be physical, technical, or administrative in nature<sup>2</sup>.

Some examples of preventive controls are:

- ? Locks, fences, or guards that prevent unauthorized physical access to a facility or a device
- ? Firewalls, antivirus software, or encryption that prevent unauthorized logical access to a network or a system
- ? Policies, procedures, or training that prevent unauthorized or inappropriate actions or behaviors by users or employees

An AUP is an example of an administrative preventive control, because it defines the policies and procedures that users must follow to ensure the security and proper use of the network and the IT resources. An AUP can prevent users from engaging in activities that could compromise the security, performance, or availability of the network or the system, such as:

- ? Downloading or installing unauthorized or malicious software
- ? Accessing or sharing sensitive or confidential information without authorization or encryption
- ? Using the network or the system for personal, illegal, or unethical purposes
- ? Bypassing or disabling security controls or mechanisms
- ? Connecting unsecured or unapproved devices to the network

By enforcing an AUP, a company can prevent or reduce the likelihood of security breaches, data loss, legal liability, or reputational damage caused by user actions or inactions<sup>3</sup>.

References = 1: How to Create an Acceptable Use Policy - CoreTech, 2: [Security Control Types: Preventive, Detective, Corrective, and Compensating], 3: Why You Need A

Corporate Acceptable Use Policy - CompTIA

#### NEW QUESTION 148

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 153

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 155

Which of the following is required for an organization to properly manage its restore process in the event of system failure?

- A. IRP
- B. DRP
- C. RPO
- D. SDLC



**Answer:** B

**Explanation:**

A disaster recovery plan (DRP) is a set of policies and procedures that aim to restore the normal operations of an organization in the event of a system failure, natural disaster, or other emergency. A DRP typically includes the following elements:

? A risk assessment that identifies the potential threats and impacts to the organization's critical assets and processes.

? A business impact analysis that prioritizes the recovery of the most essential functions and data.

? A recovery strategy that defines the roles and responsibilities of the recovery team, the resources and tools needed, and the steps to follow to restore the system.

? A testing and maintenance plan that ensures the DRP is updated and validated regularly. A DRP is required for an organization to properly manage its restore process in the event of system failure, as it provides a clear and structured framework for recovering from a disaster and minimizing the downtime and data loss.

References = CompTIA Security+ Study Guide (SY0-701), Chapter 7: Resilience and Recovery, page 325.

**NEW QUESTION 156**

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:** A

**Explanation:**

Secured zones are a key component of the Zero Trust data plane, which is the layer where data is stored, processed, and transmitted. Secured zones are logical or physical segments of the network that isolate data and resources based on their sensitivity and risk. Secured zones enforce granular policies and controls to prevent unauthorized access and lateral movement within the network<sup>1</sup>.

References: CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 5, page 255.

**NEW QUESTION 159**

A company is developing a critical system for the government and storing project information on a fileshare. Which of the following describes how this data will most likely be classified? (Select two).

- A. Private
- B. Confidential
- C. Public
- D. Operational
- E. Urgent
- F. Restricted

**Answer:** BF

**Explanation:**

Data classification is the process of assigning labels to data based on its sensitivity and business impact. Different organizations and sectors may have different data classification schemes, but a common one is the following<sup>1</sup>:

? Public: Data that can be freely disclosed to anyone without any harm or risk.

? Private: Data that is intended for internal use only and may cause some harm or risk if disclosed.

? Confidential: Data that is intended for authorized use only and may cause significant harm or risk if disclosed.

? Restricted: Data that is intended for very limited use only and may cause severe harm or risk if disclosed.

In this scenario, the company is developing a critical system for the government and storing project information on a fileshare. This data is likely to be classified as confidential and restricted, because it is not meant for public or private use, and it may cause serious damage to national security or public safety if disclosed. The government may also have specific requirements or regulations for handling such data, such as encryption, access control, and auditing<sup>2</sup>. References: 1:

CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 16-17 2: Data Classification Practices: Final Project Description Released

**NEW QUESTION 160**

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