

CompTIA

Exam Questions SY0-701

CompTIA Security+ Exam



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

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:

? 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

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

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

Answer: A

Explanation:

A honey pot is a system or a network that is designed to mimic a real production server and attract potential attackers. A honey pot can be used to identify the attacker's methods, techniques, and objectives without affecting the actual production servers. A honey pot can also divert the attacker's attention from the real targets and waste their time and resources¹².

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

? Video surveillance: This is a physical security technique that uses cameras and monitors to record and observe the activities in a certain area. Video surveillance can help to deter, detect, and investigate physical intrusions, but it does not directly identify the attacker's activities on the network or the servers³.

? Zero Trust: This is a security strategy that assumes that no user, device, or network is trustworthy by default and requires strict verification and validation for every request and transaction. Zero Trust can help to improve the security posture and reduce the attack surface of an organization, but it does not directly identify the attacker's activities on the network or the servers⁴.

? Geofencing: This is a security technique that uses geographic location as a criterion to restrict or allow access to data or resources. Geofencing can help to protect the data sovereignty and compliance of an organization, but it does not directly identify the attacker's activities on the network or the servers⁵.

References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 542: Honey pots and Deception – SY0-601 CompTIA Security+ : 2.1, video by Professor Messer³: CompTIA Security+ SY0-701 Certification Study Guide, page 974: CompTIA Security+ SY0-701 Certification Study Guide, page 985: CompTIA Security+ SY0-701 Certification Study Guide, page 99.

NEW QUESTION 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

Security controls in a data center are being reviewed to ensure data is properly protected and that human life considerations are included. Which of the following best describes how the controls should be set up?

- A. Remote access points should fail closed.
- B. Logging controls should fail open.
- C. Safety controls should fail open.
- D. Logical security controls should fail closed.

Answer: C

Explanation:

Safety controls are security controls that are designed to protect human life and physical assets from harm or damage. Examples of safety controls include fire alarms, sprinklers, emergency exits, backup generators, and surge protectors. Safety controls should fail open, which means that they should remain operational or allow access when a failure or error occurs. Failing open can prevent or minimize the impact of a disaster, such as a fire, flood, earthquake, or power outage, on human life and physical assets. For example, if a fire alarm fails, it should still trigger the sprinklers and unlock the emergency exits, rather than remain silent and locked. Failing open can also ensure that essential services, such as healthcare, transportation, or communication, are available during a crisis. Remote access points, logging controls, and logical security controls are other types of security controls, but they should not fail open in a data center. Remote access points are security controls that allow users or systems to access a network or a system from a remote location, such as a VPN, a web portal, or a wireless access point. Remote access points should fail closed, which means that they should deny access when a failure or error occurs. Failing closed can prevent unauthorized or malicious access to the data center's network or systems, such as by hackers, malware, or rogue devices. Logging controls are security controls that record and monitor the activities and events that occur on a network or a system, such as user actions, system errors, security incidents, or performance metrics. Logging controls should also fail closed, which means that they should stop or suspend the activities or events when a failure or error occurs. Failing closed can prevent data loss, corruption, or tampering, as well as ensure compliance with regulations and standards. Logical security controls are security controls that use software or code to protect data and systems from unauthorized or malicious access, modification, or destruction, such as encryption, authentication, authorization, or firewall. Logical security controls should also fail closed, which means that they should block or restrict access when a failure or error occurs. Failing closed can prevent data breaches, cyberattacks, or logical flaws, as well as ensure confidentiality, integrity, and availability of data and systems. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 142-143, 372-373, 376-377

NEW QUESTION 7

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

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

Answer: C

Explanation:

A watering-hole attack is a type of cyberattack that targets groups of users by infecting websites that they commonly visit. The attackers exploit vulnerabilities to deliver a malicious payload to the organization's network. The attack aims to infect users' computers and gain access to a connected corporate network. The attackers target websites known to be popular among members of a particular organization or demographic. The attack differs from phishing and spear-phishing attacks, which typically attempt to steal data or install malware onto users' devices¹

In this scenario, the compromised industry blog is the watering hole that the attackers used to spread malware across the company's network. The attackers likely

chose this blog because they knew that the employees of the company were interested in its content and visited it frequently. The attackers may have injected malicious code into the blog or redirected the visitors to a spoofed website that hosted the malware. The malware then infected the employees' computers and propagated to the network.

References1: Watering Hole Attacks: Stages, Examples, Risk Factors & Defense ...

NEW QUESTION 8

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 9

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

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

Answer: D

Explanation:

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

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

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

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

NEW QUESTION 10

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 10

An organization disabled unneeded services and placed a firewall in front of a business- critical legacy system. Which of the following best describes the actions taken by the organization?

- A. Exception
- B. Segmentation
- C. Risk transfer
- D. Compensating controls

Answer: D

Explanation:

Compensating controls are alternative security measures that are implemented when the primary controls are not feasible, cost-effective, or sufficient to mitigate the risk. In this case, the organization used compensating controls to protect the legacy system from potential attacks by disabling unneeded services and placing a firewall in front of it. This reduced the attack surface and the likelihood of exploitation.

References:

- ? Official CompTIA Security+ Study Guide (SY0-701), page 29
- ? Security Controls - CompTIA Security+ SY0-701 - 1.1 1

NEW QUESTION 12

Which of the following exercises should an organization use to improve its incident response process?

- A. Tabletop
- B. Replication
- C. Failover
- D. Recovery

Answer: A

Explanation:

A tabletop exercise is a simulated scenario that tests the organization's incident response plan and procedures. It involves key stakeholders and decision-makers who discuss their roles and actions in response to a hypothetical incident. It can help identify gaps, weaknesses, and improvement areas in the incident response process. It can also enhance communication, coordination, and collaboration among the participants. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 525 1

NEW QUESTION 14

Which of the following threat actors is the most likely to be hired by a foreign government to attack critical systems located in other countries?

- A. Hactivist
- B. Whistleblower
- C. Organized crime
- D. Unskilled attacker

Answer: C

Explanation:

Organized crime is a type of threat actor that is motivated by financial gain and often operates across national borders. Organized crime groups may be hired by foreign governments to conduct cyberattacks on critical systems located in other countries, such as power grids, military networks, or financial institutions. Organized crime groups have the resources, skills, and connections to carry out sophisticated and persistent attacks that can cause significant damage and disruption. References = 1: Threat Actors - CompTIA Security+ SY0-701 - 2.1 2: CompTIA Security+ SY0-701 Certification Study Guide

NEW QUESTION 19

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

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

Answer: A

Explanation:

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

NEW QUESTION 23

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 26

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 27

An administrator was notified that a user logged in remotely after hours and copied large amounts of data to a personal device. Which of the following best describes the user's activity?

- A. Penetration testing
- B. Phishing campaign
- C. External audit
- D. Insider threat

Answer: D

Explanation:

An insider threat is a security risk that originates from within the organization, such as an employee, contractor, or business partner, who has authorized access to the organization's data and systems. An insider threat can be malicious, such as stealing, leaking, or sabotaging sensitive data, or unintentional, such as falling victim to phishing or social engineering. An insider threat can cause significant damage to the organization's reputation, finances, operations, and legal compliance. The user's activity of logging in remotely after hours and copying large amounts of data to a personal device is an example of a malicious insider threat, as it violates the organization's security policies and compromises the confidentiality and integrity of the data. References = Insider Threats – CompTIA Security+ SY0-701: 3.2, video at 0:00; CompTIA Security+ SY0-701 Certification Study Guide, page 133.

NEW QUESTION 32

Which of the following must be considered when designing a high-availability network? (Select 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 of critical services and applications. To achieve this goal, a high-availability network must consider two important factors: ease of recovery and attack surface.

Ease of recovery refers to the ability of a network to quickly restore normal functionality after a failure, disruption, or disaster. A high-availability network should have mechanisms such as redundancy, failover, backup, and restore to ensure that any single point of failure does not cause a complete network outage. A high-availability network should also have procedures and policies for incident response, disaster recovery, and business continuity to minimize the impact of any network issue on the organization's operations and reputation. Attack surface refers to the exposure of a network to potential threats and vulnerabilities. A high-availability network should have measures such as encryption, authentication, authorization, firewall, intrusion detection and prevention, and patch management to protect the network from unauthorized access, data breaches, malware, denial-of-service attacks, and other cyberattacks. A high-availability network should also have processes and tools for risk assessment, threat intelligence, vulnerability scanning, and penetration testing to identify and mitigate any weaknesses or gaps in the network security. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 4:

Architecture and Design, pages 164-1651. CompTIA Security+ Certification Kit: Exam SY0- 701, 7th Edition, Chapter 4: Architecture and Design, pages 164-1652.

NEW QUESTION 36

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 38

One of a company's vendors sent an analyst a security bulletin that recommends a BIOS update. Which of the following vulnerability types is being addressed by the patch?

- A. Virtualization
- B. Firmware
- C. Application
- D. Operating system

Answer: B

Explanation:

Firmware is a type of software that is embedded in hardware devices, such as BIOS, routers, printers, or cameras. Firmware controls the basic functions and operations of the device, and can be updated or patched to fix bugs, improve performance, or enhance security. Firmware vulnerabilities are flaws or weaknesses in the firmware code that can be exploited by attackers to gain unauthorized access, modify settings, or cause damage to the device or the network. A BIOS update is a patch that addresses a firmware vulnerability in the basic input/output system of a computer, which is responsible for booting the operating system and managing the communication between the hardware and the software. The other options are not types of vulnerabilities, but rather categories of software or technology.

NEW QUESTION 40

Which of the following would be the best ways to ensure only authorized personnel can access a secure facility? (Select two).

- A. Fencing
- B. Video surveillance
- C. Badge access
- D. Access control vestibule
- E. Sign-in sheet
- F. Sensor

Answer: CD

Explanation:

Badge access and access control vestibule are two of the best ways to ensure only authorized personnel can access a secure facility. Badge access requires the personnel to present a valid and authenticated badge to a reader or scanner that grants or denies access based on predefined rules and permissions. Access control vestibule is a physical security measure that consists of a small room or chamber with two doors, one leading to the outside and one leading to the secure area. The personnel must enter the vestibule and wait for the first door to close and lock before the second door can be opened. This prevents tailgating or piggybacking by unauthorized individuals. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 4, pages 197-1981

NEW QUESTION 45

A company purchased cyber insurance to address items listed on the risk register. Which of the following strategies does this represent?

- A. Accept
- B. Transfer
- C. Mitigate
- D. Avoid

Answer: B

Explanation:

Cyber insurance is a type of insurance that covers the financial losses and liabilities that result from cyberattacks, such as data breaches, ransomware, denial-of-service, phishing, or malware. Cyber insurance can help a company recover from the costs of restoring data, repairing systems, paying ransoms, compensating customers, or facing legal actions. Cyber insurance is one of the possible strategies that a company can use to address the items listed on the risk register. A risk register is a document that records the identified risks, their probability, impact, and mitigation strategies for a project or an organization. The four common risk mitigation strategies are:

- ? Accept: The company acknowledges the risk and decides to accept the consequences without taking any action to reduce or eliminate the risk. This strategy is usually chosen when the risk is low or the cost of mitigation is too high.
- ? Transfer: The company transfers the risk to a third party, such as an insurance company, a vendor, or a partner. This strategy is usually chosen when the risk is high or the company lacks the resources or expertise to handle the risk.
- ? Mitigate: The company implements controls or measures to reduce the likelihood or impact of the risk. This strategy is usually chosen when the risk is moderate or the cost of mitigation is reasonable.
- ? Avoid: The company eliminates the risk by changing the scope, plan, or design of the project or the organization. This strategy is usually chosen when the risk is unacceptable or the cost of mitigation is too high.

By purchasing cyber insurance, the company is transferring the risk to the insurance company, which will cover the financial losses and liabilities in case of a cyberattack. Therefore, the correct answer is B. Transfer. References = CompTIA Security+ Study Guide (SY0-701), Chapter 8: Governance, Risk, and Compliance, page 377. Professor Messer's CompTIA SY0-701 Security+ Training Course, Section 8.1: Risk Management, video: Risk Mitigation Strategies (5:37).

NEW QUESTION 50

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

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

Answer: A

Explanation:

Counterfeit hardware is hardware that is built or modified without the authorization of the original equipment manufacturer (OEM). It can pose serious risks to network quality, performance, safety, and reliability¹². Counterfeit hardware can also contain malicious components that can compromise the security of the network and the data that flows through it³. To address the risks associated with procuring counterfeit hardware, a company should conduct a thorough analysis of the supply chain, which is the network of entities involved in the production, distribution, and delivery of the hardware. By analyzing the supply chain, the company can verify the origin, authenticity, and integrity of the hardware, and identify any potential sources of counterfeit or tampered products. A thorough analysis of the supply chain can include the following steps:

- ? Establishing a trusted relationship with the OEM and authorized resellers
 - ? Requesting documentation and certification of the hardware from the OEM or authorized resellers
 - ? Inspecting the hardware for any signs of tampering, such as mismatched labels, serial numbers, or components
 - ? Testing the hardware for functionality, performance, and security
 - ? Implementing a tracking system to monitor the hardware throughout its lifecycle
 - ? Reporting any suspicious or counterfeit hardware to the OEM and law enforcement agencies
- References = 1: Identify Counterfeit and Pirated Products - Cisco, 2: What Is Hardware Security? Definition, Threats, and Best Practices, 3: Beware of Counterfeit Network Equipment - TechNewsWorld, : Counterfeit Hardware: The Threat and How to Avoid It

NEW QUESTION 51

A newly identified network access vulnerability has been found in the OS of legacy IoT devices. Which of the following would best mitigate this vulnerability quickly?

- A. Insurance
- B. Patching
- C. Segmentation
- D. Replacement

Answer: C

Explanation:

Segmentation is a technique that divides a network into smaller subnetworks or segments, each with its own security policies and controls. Segmentation can help mitigate network access vulnerabilities in legacy IoT devices by isolating them from other devices and systems, reducing their attack surface and limiting the potential impact of a breach. Segmentation can also improve network performance and efficiency by reducing congestion and traffic. Patching, insurance, and replacement are other possible strategies to deal with network access vulnerabilities, but they may not be feasible or effective in the short term. Patching may not be available or compatible for legacy IoT devices, insurance may not cover the costs or damages of a cyberattack, and replacement may be expensive and time-consuming. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 142-143

NEW QUESTION 55

A healthcare organization wants to provide a web application that allows individuals to digitally report health emergencies. Which of the following is the most important consideration during development?

- A. Scalability
- B. Availability
- C. Cost
- D. Ease of deployment

Answer: B

Explanation:

Availability is the ability of a system or service to be accessible and usable when needed. For a web application that allows individuals to digitally report health emergencies, availability is the most important consideration during development, because any downtime or delay could have serious consequences for the health and safety of the users. The web application should be designed to handle high traffic, prevent denial-of-service attacks, and have backup and recovery plans in case of failures².

References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 2, page 41.

NEW QUESTION 57

An employee receives a text message that appears to have been sent by the payroll department and is asking for credential verification. Which of the following social engineering techniques are being attempted? (Choose two.)

- A. Typosquatting
- B. Phishing
- C. Impersonation
- D. Vishing
- E. Smishing
- F. Misinformation

Answer: BE

Explanation:

Smishing is a type of social engineering technique that uses text messages (SMS) to trick victims into revealing sensitive information, clicking malicious links, or downloading malware. Smishing messages often appear to come from legitimate sources, such as banks, government agencies, or service providers, and use urgent or threatening language to persuade the recipients to take action¹². In this scenario, the text message that claims to be from the payroll department is an example of smishing.

Impersonation is a type of social engineering technique that involves pretending to be someone else, such as an authority figure, a trusted person, or a colleague, to gain the trust or cooperation of the target. Impersonation can be done through various channels, such as phone calls, emails, text messages, or in-person visits, and can be used to obtain information, access, or money from the victim³⁴. In this scenario, the text message that pretends to be from the payroll department is an example of impersonation.

* A. Typosquatting is a type of cyberattack that involves registering domain names that are similar to popular or well-known websites, but with intentional spelling errors or different extensions. Typosquatting aims to exploit the common mistakes that users make when typing web addresses, and redirect them to malicious or fraudulent sites that may steal their information, install malware, or display ads⁵⁶. Typosquatting is not related to text messages or credential verification.

* B. Phishing is a type of social engineering technique that uses fraudulent emails to trick recipients into revealing sensitive information, clicking malicious links, or downloading malware. Phishing emails often mimic the appearance and tone of legitimate organizations, such as banks, retailers, or service providers, and use deceptive or urgent language to persuade the recipients to take action⁷⁸. Phishing is not related to text messages or credential verification.

* D. Vishing is a type of social engineering technique that uses voice calls to trick victims into revealing sensitive information, such as passwords, credit card numbers, or bank account details. Vishing calls often appear to come from legitimate sources, such as law enforcement, government agencies, or technical support, and use scare tactics or false promises to persuade the recipients to comply⁹. Vishing is not related to text messages or credential verification.

* F. Misinformation is a type of social engineering technique that involves spreading false or misleading information to influence the beliefs, opinions, or actions of the target. Misinformation can be used to manipulate public perception, create confusion, damage reputation, or promote an agenda. Misinformation is not related to text messages or credential verification.

References = 1: What is Smishing? | Definition and Examples | Kaspersky 2: Smishing - Wikipedia 3: Impersonation Attacks: What Are They and How Do You Protect Against

Them? 4: Impersonation - Wikipedia 5: What is Typosquatting? | Definition and Examples | Kaspersky 6: Typosquatting - Wikipedia 7: What is Phishing? | Definition and Examples | Kaspersky 8: Phishing - Wikipedia 9: What is Vishing? | Definition and Examples | Kaspersky : Vishing - Wikipedia : What is Misinformation? | Definition and Examples | Britannica : Misinformation - Wikipedia

NEW QUESTION 58

A software development manager wants to ensure the authenticity of the code created by the company. Which of the following options is the most appropriate?

- A. Testing input validation on the user input fields
- B. Performing code signing on company-developed software
- C. Performing static code analysis on the software
- D. Ensuring secure cookies are use

Answer: B

Explanation:

Code signing is a technique that uses cryptography to verify the authenticity and integrity of the code created by the company. Code signing involves applying a digital signature to the code using a private key that only the company possesses. The digital signature can be verified by anyone who has the corresponding public key, which can be distributed through a trusted certificate authority. Code signing can prevent unauthorized modifications, tampering, or malware injection into the code, and it can also assure the users that the code is from a legitimate source. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 2, page 74. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 3.2, page 11. Application Security – SY0-601 CompTIA Security+ : 3.2

NEW QUESTION 61

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

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

Answer: B

Explanation:

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

NEW QUESTION 64

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 network¹².

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 67

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

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

Answer: B

Explanation:

A legal hold (also known as a litigation hold) is a notification sent from an organization's legal team to employees instructing them not to delete electronically stored information (ESI) or discard paper documents that may be relevant to a new or imminent legal case. A legal hold is intended to preserve evidence and prevent spoliation, which is the intentional or negligent destruction of evidence that could harm a party's case. A legal hold can be triggered by various events, such as a lawsuit, a regulatory investigation, or a subpoena¹² In this scenario, the company's attorneys have requested that the security team initiate a legal hold in response to the lawsuit filed by the customers after the company was compromised. This means that the security team will most likely be required to retain any communications related to the security breach until further notice. This could include emails, instant messages, reports, logs, memos, or any other documents that could be relevant to the lawsuit. The security team should also inform the relevant custodians (the employees who have access to or control over the ESI) of their preservation obligations and monitor their compliance. The security team should also document the legal hold process and its scope, as well as take steps to protect the ESI from alteration, deletion, or loss³⁴

References:

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

NEW QUESTION 72

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

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

Answer: B

Explanation:

A VPN is a virtual private network that creates a secure tunnel between two or more devices over a public network. A VPN can encrypt and authenticate the data, as well as hide the IP addresses and locations of the devices. A jump server is a server that acts as an intermediary between a user and a target server, such as a production server. A jump server can provide an additional layer of security and access control, as well as logging and auditing capabilities. A firewall is a device or software that filters and blocks unwanted network traffic based on predefined rules. A firewall can protect the internal network from external threats and limit the exposure of sensitive services and ports. A security analyst should recommend setting up a VPN and placing the jump server inside the firewall to improve the security of the remote desktop access to the production network. This way, the remote desktop service will not be exposed to the public network, and only authorized users with VPN credentials can access the jump server and then the production

server. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 8: Secure Protocols and Services, page 382-383 1; Chapter 9: Network Security, page 441-442 1

NEW QUESTION 75

Which of the following is used to quantitatively measure the criticality of a vulnerability?

- A. CVE
- B. CVSS
- C. CIA
- D. CERT

Answer: B

Explanation:

CVSS stands for Common Vulnerability Scoring System, which is a framework that provides a standardized way to assess and communicate the severity and risk of vulnerabilities. CVSS uses a set of metrics and formulas to calculate a numerical score ranging from 0 to 10, where higher scores indicate higher criticality. CVSS can help organizations prioritize remediation efforts and compare vulnerabilities across different systems and vendors. The other options are not used to measure the criticality of a

vulnerability, but rather to identify, classify, or report them. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 39

NEW QUESTION 79

A company's legal department drafted sensitive documents in a SaaS application and wants to ensure the documents cannot be accessed by individuals in high-risk countries. Which of the following is the most effective way to limit this access?

- A. Data masking
- B. Encryption
- C. Geolocation policy
- D. Data sovereignty regulation

Answer: C

Explanation:

A geolocation policy is a policy that restricts or allows access to data or resources based on the geographic location of the user or device. A geolocation policy can be implemented using various methods, such as IP address filtering, GPS tracking, or geofencing. A geolocation policy can help the company's legal department to prevent unauthorized access to sensitive documents from individuals in high-risk countries¹².

The other options are not effective ways to limit access based on location:

? Data masking: This is a technique of obscuring or replacing sensitive data with fictitious or anonymized data. Data masking can protect the privacy and confidentiality of data, but it does not prevent access to data based on location³.

? Encryption: This is a process of transforming data into an unreadable format using a secret key or algorithm. Encryption can protect the integrity and confidentiality of data, but it does not prevent access to data based on location. Encryption can also be bypassed by attackers who have the decryption key or method⁴.

? Data sovereignty regulation: This is a set of laws or rules that govern the storage, processing, and transfer of data within a specific jurisdiction or country. Data sovereignty regulation can affect the availability and compliance of data, but it does not prevent access to data based on location. Data sovereignty regulation can also vary depending on the country or region.

References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 972: Account Policies – SY0-601 CompTIA Security+ : 3.7, video by Professor Messer³: CompTIA Security+ SY0-701 Certification Study Guide, page 1004: CompTIA Security+ SY0-701 Certification Study Guide, page 101. : CompTIA Security+ SY0-701 Certification Study Guide, page 102.

NEW QUESTION 80

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 83

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

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

Answer: D

Explanation:

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

NEW QUESTION 85

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 86

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

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

Answer: D

Explanation:

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

NEW QUESTION 91

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 95

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 99

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

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

Answer: D

Explanation:

Ransomware-as-a-service is a type of cybercrime where hackers sell or rent ransomware tools or services to other criminals who use them to launch attacks and extort money from victims. This is a typical example of organized crime, which is a group of criminals who work together to conduct illegal activities for profit. Organized crime is different from other types of threat actors, such as insider threats, hacktivists, or nation-states, who may have different motives, methods, or targets. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 17 1

NEW QUESTION 100

Which of the following is a hardware-specific vulnerability?

- A. Firmware version
- B. Buffer overflow
- C. SQL injection
- D. Cross-site scripting

Answer: A

Explanation:

Firmware is a type of software that is embedded in a hardware device, such as a router, a printer, or a BIOS chip. Firmware controls the basic functions and operations of the device, and it can be updated or modified by the manufacturer or the user. Firmware version is a hardware-specific vulnerability, as it can expose the device to security risks if it is outdated, corrupted, or tampered with. An attacker can exploit firmware vulnerabilities to gain unauthorized access, modify device settings, install malware, or cause damage to the device or the network. Therefore, it is important to keep firmware updated and verify its integrity and authenticity. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 2, page 67. CompTIA Security+ SY0-701 Exam Objectives, Domain 2.1, page 10.

NEW QUESTION 103

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

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

Answer: C

Explanation:

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

NEW QUESTION 104

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 108

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 113

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 116

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.

192.168.10.22
✕

```

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 2:31 Warn Scheduled scan disabled by process svch0st.exe
4/18/2019 2:32 Warn Scheduled update disabled by process scvh0st.exe

```

```

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

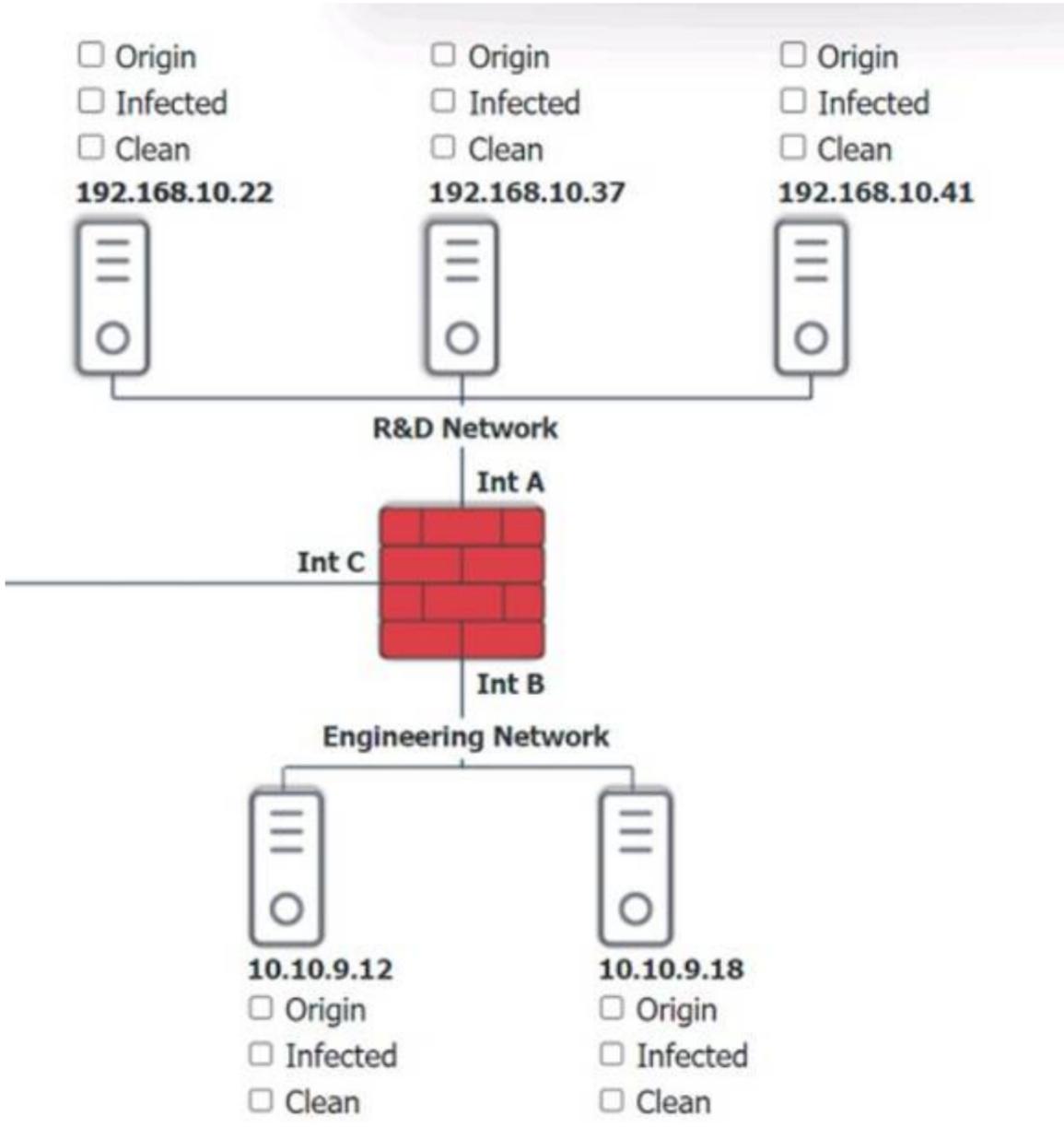
```

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 14:39 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
4/17/2019 14:45 Info Next scheduled scan: 4/18/2019 14:30
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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 117

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 118

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 121

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 123

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 124

A security team is reviewing the findings in a report that was delivered after a third party performed a penetration test. One of the findings indicated that a web application form field is vulnerable to cross-site scripting. Which of the following application security techniques should the security analyst recommend the developer implement to prevent this vulnerability?

- A. Secure cookies
- B. Version control
- C. Input validation
- D. Code signing

Answer: C

Explanation:

Input validation is a technique that checks the user input for any malicious or unexpected data before processing it by the web application. Input validation can prevent cross-site scripting (XSS) attacks, which exploit the vulnerability of a web application to execute malicious scripts in the browser of a victim. XSS attacks can compromise the confidentiality, integrity, and availability of the web application and its users. Input validation can be implemented on both the client-side and the server-side, but server-side validation is more reliable and secure. Input validation can use various methods, such as whitelisting, blacklisting, filtering, escaping, encoding, and sanitizing the input data. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 2, page 70. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 3.2, page 11. Application Security – SY0-601 CompTIA Security+ : 3.2

NEW QUESTION 129

A company is discarding a classified storage array and hires an outside vendor to complete the disposal. Which of the following should the company request from the vendor?

- A. Certification
- B. Inventory list
- C. Classification
- D. Proof of ownership

Answer: A

Explanation:

The company should request a certification from the vendor that confirms the storage array has been disposed of securely and in compliance with the company's policies and standards. A certification provides evidence that the vendor has followed the proper procedures and methods to destroy the classified data and prevent unauthorized access or recovery. A certification may also include details such as the date, time, location, and method of disposal, as well as the names and signatures of the personnel involved. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 3, page 1441

NEW QUESTION 133

An organization is leveraging a VPN between its headquarters and a branch location. Which of the following is the VPN protecting?

- A. Data in use
- B. Data in transit
- C. Geographic restrictions
- D. Data sovereignty

Answer: B

Explanation:

Data in transit is data that is moving from one location to another, such as over a network or through the air. Data in transit is vulnerable to interception, modification, or theft by malicious actors. A VPN (virtual private network) is a technology that protects data in transit by creating a secure tunnel between two endpoints and encrypting the data that passes through it. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 4, page 145.

NEW QUESTION 137

An administrator discovers that some files on a database server were recently encrypted. The administrator sees from the security logs that the data was last accessed by a domain user. Which of the following best describes the type of attack that occurred?

- A. Insider threat
- B. Social engineering
- C. Watering-hole
- D. Unauthorized attacker

Answer: A

Explanation:

An insider threat is a type of attack that originates from someone who has legitimate access to an organization's network, systems, or data. In this case, the domain user who encrypted the files on the database server is an example of an insider threat, as they abused their access privileges to cause harm to the organization. Insider threats can be motivated by various factors, such as financial gain, revenge, espionage, or sabotage. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 1: General Security Concepts, page 251. CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 1: General Security Concepts, page 252.

NEW QUESTION 138

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

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

Answer: D

Explanation:

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

NEW QUESTION 139

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 140

Which of the following describes the reason root cause analysis should be conducted as part of incident response?

- A. To gather IOCs for the investigation
- B. To discover which systems have been affected
- C. To eradicate any trace of malware on the network
- D. To prevent future incidents of the same nature

Answer: D

Explanation:

Root cause analysis is a process of identifying and resolving the underlying factors that led to an incident. By conducting root cause analysis as part of incident response, security professionals can learn from the incident and implement corrective actions to prevent future incidents of the same nature. For example, if the root cause of a data breach was a weak password policy, the security team can enforce a stronger password policy and educate users on the importance of password security. Root cause analysis can also help to improve security processes, policies, and procedures, and to enhance security awareness and culture within the organization. Root cause analysis is not meant to gather IOCs (indicators of compromise) for the investigation, as this is a task performed during the identification and analysis phases of incident response. Root cause analysis is also not meant to discover which systems have been affected or to eradicate any trace of malware on the network, as these are tasks performed during the containment and eradication phases of incident response. References = CompTIA Security+ SY0-701 Certification Study Guide, page 424-425; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 5.1 - Incident Response, 9:55 - 11:18.

NEW QUESTION 144

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

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

Answer: D

Explanation:

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

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

References = https://en.wikipedia.org/wiki/Principle_of_least_privilege https://en.wikipedia.org/wiki/Principle_of_least_privilege

NEW QUESTION 147

Which of the following vulnerabilities is associated with installing software outside of a manufacturer's approved software repository?

- A. Jailbreaking
- B. Memory injection
- C. Resource reuse
- D. Side loading

Answer: D

Explanation:

Side loading is the process of installing software outside of a manufacturer's approved software repository. This can expose the device to potential vulnerabilities, such as malware, spyware, or unauthorized access. Side loading can also bypass security controls and policies that are enforced by the manufacturer or the organization. Side loading is often done by users who want to access applications or features that are not available or allowed on their devices. References = Sideloaded - CompTIA Security + Video Training | Interface Technical Training, Security+ (Plus) Certification | CompTIA IT Certifications, Load Balancers – CompTIA Security+ SY0-501 – 2.1, CompTIA Security+ SY0-601 Certification Study Guide.

NEW QUESTION 150

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

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

Answer: D

Explanation:

A reflected denial of service (RDoS) attack is a type of DDoS attack that uses spoofed source IP addresses to send requests to a third-party server, which then sends responses to the victim server. The attacker exploits the difference in size between the request and the response, which can amplify the amount of traffic sent to the victim server. The attacker also hides their identity by using the victim's IP address as the source. A RDoS attack can target DNS servers by sending forged DNS queries that generate large DNS responses. This can flood the network interface of the DNS server and prevent it from serving legitimate requests from end users. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 215-216 1

NEW QUESTION 155

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 warfare¹². 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 159

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 161

After reviewing the following vulnerability scanning report:

Server:192.168.14.6

Service: Telnet

Port: 23 Protocol: TCP Status: Open Severity: High

Vulnerability: Use of an insecure network protocol

A security analyst performs the following test: nmap -p 23 192.168.14.6 --script telnet-encryption PORT STATE SERVICE REASON

23/tcp open telnet syn-ack | telnet encryption:

|_ Telnet server supports encryption

Which of the following would the security analyst conclude for this reported vulnerability?

- A. It is a false positive.
- B. A rescan is required.
- C. It is considered noise.
- D. Compensating controls exist.

Answer: A

Explanation:

A false positive is a result that indicates a vulnerability or a problem when there is none. In this case, the vulnerability scanning report shows that the telnet service on port 23 is open and uses an insecure network protocol. However, the security analyst performs a test using nmap and a script that checks for telnet encryption support. The result shows that the telnet server supports encryption, which means that the data transmitted between the client and the server can be protected from eavesdropping. Therefore, the reported vulnerability is a false positive and does not reflect the actual security posture of the server. The security analyst should verify the encryption settings of the telnet server and client and ensure that they are configured properly³. References: 3: Telnet Protocol - Can You Encrypt Telnet?

NEW QUESTION 164

An administrator finds that all user workstations and servers are displaying a message that is associated with files containing an extension of .ryk. Which of the following types of infections is present on the systems?

- A. Virus
- B. Trojan
- C. Spyware
- D. Ransomware

Answer: D

Explanation:

Ransomware is a type of malware that encrypts the victim's files and demands a ransom for the decryption key. The ransomware usually displays a message on the infected system with instructions on how to pay the ransom and recover the files. The .ryk extension is associated with a ransomware variant called Ryuk, which targets large organizations and demands high ransoms¹.

References: CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 1, page 17.

NEW QUESTION 168

The management team notices that new accounts that are set up manually do not always have correct access or permissions.

Which of the following automation techniques should a systems administrator use to streamline account creation?

- A. Guard rail script
- B. Ticketing workflow
- C. Escalation script
- D. User provisioning script

Answer: D

Explanation:

A user provisioning script is an automation technique that uses a predefined set of instructions or commands to create, modify, or delete user accounts and assign appropriate access or permissions. A user provisioning script can help to streamline account creation by reducing manual errors, ensuring consistency and compliance, and saving time and resources¹².

The other options are not automation techniques that can streamline account creation:

? Guard rail script: This is a script that monitors and enforces the security policies and rules on a system or a network. A guard rail script can help to prevent unauthorized or malicious actions, such as changing security settings, accessing restricted resources, or installing unwanted software³.

? Ticketing workflow: This is a process that tracks and manages the requests, issues, or incidents that are reported by users or customers. A ticketing workflow can help to improve the communication, collaboration, and resolution of problems, but it does not automate the account creation process⁴.

? Escalation script: This is a script that triggers an alert or a notification when a certain condition or threshold is met or exceeded. An escalation script can help to inform the relevant parties or authorities of a critical situation, such as a security breach, a performance degradation, or a service outage.

References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 1022: User Provisioning – CompTIA Security+ SY0-701 – 5.1, video by Professor Messer³: CompTIA Security+ SY0-701 Certification Study Guide, page 1034: CompTIA Security+ SY0-701 Certification Study Guide, page 104. : CompTIA Security+ SY0-701 Certification Study Guide, page 105.

NEW QUESTION 170

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 173

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 178

HOTSPOT

Select the appropriate attack and remediation from each drop-down list to label the corresponding attack with its remediation.

INSTRUCTIONS

Not all attacks and remediation actions will be used.

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

Attack Description	Target	Attack Identified	BEST Preventative or Remediation Action
An attacker sends multiple SYN packets from multiple sources.	Web server	Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing	Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services
The attack establishes a connection, which allows remote commands to be executed.	User	Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing	Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services
The attack is self propagating and compromises a SQL database using well-known credentials as it moves through the network.	Database server	Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing	Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services
The attacker uses hardware to remotely monitor a user's input activity to harvest credentials.	Executive	Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing	Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services
The attacker embeds hidden access in an internally developed application that bypasses account login.	Application	Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing	Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Web server Botnet Enable DDoS protection User RAT Implement a host-based IPS Database server Worm Change the default application password Executive Keylogger Disable vulnerable services Application Backdoor Implement 2FA using push notification

Attack Description	Target	Attack Identified	BEST Preventative or Remediation Action
An attacker sends multiple SYN packets from multiple sources.	Web server	Botnet	Enable DDoS protection
The attack establishes a connection, which allows remote commands to be executed.	User	RAT	Implement a host-based IPS
The attack is self propagating and compromises a SQL database using well-known credentials as it moves through the network.	Database server	Worm	Change the default application password
The attacker uses hardware to remotely monitor a user's input activity to harvest credentials.	Executive	Keylogger	Disable vulnerable services
The attacker embeds hidden access in an internally developed application that bypasses account login.	Application	Backdoor	Implement 2FA using push notification

A screenshot of a computer program
Description automatically generated with low confidence

NEW QUESTION 183

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

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

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

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

Answer: C

Explanation:

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

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

? Something you have is a type of authentication factor that relies on the user's possession of a physical object or device, such as a smart card, a token, or a smartphone. An authentication token is a common example of something you have that can be used to generate a one-time password (OTP) or a code that can be used to access a VPN12

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

References:

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

NEW QUESTION 187

A systems administrator set up a perimeter firewall but continues to notice suspicious connections between internal endpoints. Which of the following should be set up in order to mitigate the threat posed by the suspicious activity?

- A. Host-based firewall
- B. Web application firewall
- C. Access control list
- D. Application allow list

Answer: A

Explanation:

A host-based firewall is a software application that runs on an individual endpoint and filters the incoming and outgoing network traffic based on a set of rules. A host-based firewall can help to mitigate the threat posed by suspicious connections between internal endpoints by blocking or allowing the traffic based on the source, destination, port, protocol, or application. A host-based firewall is different from a web application firewall, which is a type of firewall that protects web applications from common web-based attacks, such as SQL injection, cross-site scripting, and session hijacking. A host-based firewall is also different from an access control list, which is a list of rules that control the access to network resources, such as files, folders, printers, or routers. A host-based firewall is also different from an application allow list, which is a list of applications that are authorized to run on an endpoint, preventing unauthorized or malicious applications from executing. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 254

NEW QUESTION 192

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