

Exam Questions SY0-701

CompTIA Security+ Exam

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NEW QUESTION 1

- (Exam Topic 1)

A software company is analyzing a process that detects software vulnerabilities at the earliest stage possible. The goal is to scan the source looking for unsecure practices and weaknesses before the application is deployed in a runtime environment. Which of the following would BEST assist the company with this objective?

- A. Use fuzzing testing
- B. Use a web vulnerability scanner
- C. Use static code analysis
- D. Use a penetration-testing OS

Answer: C

Explanation:

Using static code analysis would be the best approach to scan the source code looking for unsecure practices and weaknesses before the application is deployed in a runtime environment. This method involves analyzing the source code without actually running the software, which can identify security vulnerabilities that may not be detected by other testing methods. References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 6: Risk Management, pp. 292-295

NEW QUESTION 2

- (Exam Topic 1)

A company is planning to install a guest wireless network so visitors will be able to access the Internet. The stakeholders want the network to be easy to connect to so time is not wasted during meetings. The WAPs are configured so that power levels and antennas cover only the conference rooms where visitors will attend meetings. Which of the following would BEST protect the company's internal wireless network against visitors accessing company resources?

- A. Configure the guest wireless network to be on a separate VLAN from the company's internal wireless network
- B. Change the password for the guest wireless network every month.
- C. Decrease the power levels of the access points for the guest wireless network.
- D. Enable WPA2 using 802.1X for logging on to the guest wireless network.

Answer: A

Explanation:

Configuring the guest wireless network on a separate VLAN from the company's internal wireless network will prevent visitors from accessing company resources. References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 4

NEW QUESTION 3

- (Exam Topic 1)

An organization is moving away from the use of client-side and server-side certificates for EAP. The company would like for the new EAP solution to have the ability to detect rogue access points. Which of the following would accomplish these requirements?

- A. PEAP
- B. EAP-FAST
- C. EAP-TLS
- D. EAP-TTLS

Answer: B

Explanation:

EAP-FAST (Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling) supports mutual authentication and is designed to simplify the deployment of strong, password-based authentication. EAP-FAST includes a mechanism for detecting rogue access points. References:

➤ CompTIA Security+ Study Guide Exam SY0-601, Chapter 4

NEW QUESTION 4

- (Exam Topic 1)

As part of annual audit requirements, the security team performed a review of exceptions to the company policy that allows specific users the ability to use USB storage devices on their laptops. The review yielded the following results.

- The exception process and policy have been correctly followed by the majority of users
- A small number of users did not create tickets for the requests but were granted access
- All access had been approved by supervisors.
- Valid requests for the access sporadically occurred across multiple departments.
- Access, in most cases, had not been removed when it was no longer needed

Which of the following should the company do to ensure that appropriate access is not disrupted but unneeded access is removed in a reasonable time frame?

- A. Create an automated, monthly attestation process that removes access if an employee's supervisor denies the approval
- B. Remove access for all employees and only allow new access to be granted if the employee's supervisor approves the request
- C. Perform a quarterly audit of all user accounts that have been granted access and verify the exceptions with the management team
- D. Implement a ticketing system that tracks each request and generates reports listing which employees actively use USB storage devices

Answer: A

Explanation:

According to the CompTIA Security+ SY0-601 documents, the correct answer option is A. Create an automated, monthly attestation process that removes access if an employee's supervisor denies the approval.

This option ensures that appropriate access is not disrupted but unneeded access is removed in a reasonable time frame by requiring supervisors to approve or deny the exceptions on a regular basis. It also reduces the manual workload of the security team and improves the compliance with the company policy.

NEW QUESTION 5

- (Exam Topic 1)

A retail company that is launching @ new website to showcase the company's product line and other information for online shoppers registered the following URLs:

* www.companysite.com

* shop.companysite.com

* about-us.companysite.com contact-us.companysite.com secure-logon.company.site.com

Which of the following should the company use to secure its website if the company is concerned with convenience and cost?

A. A self-signed certificate

B. A root certificate

C. A code-signing certificate

D. A wildcard certificate

E. An extended validation certificate

Answer: D

Explanation:

The company can use a wildcard certificate to secure its website if it is concerned with convenience and cost. A wildcard certificate can secure multiple subdomains, which makes it cost-effective and convenient for securing the various registered domains.

The retail company should use a wildcard certificate if it is concerned with convenience and cost. A wildcard SSL certificate is a single SSL/TLS certificate that can provide significant time and cost savings, particularly for small businesses. The certificate includes a wildcard character (*) in the domain name field, and can secure multiple subdomains of the primary domain.

NEW QUESTION 6

- (Exam Topic 1)

Which of the following environments would MOST likely be used to assess the execution of component parts of a system at both the hardware and software levels and to measure performance characteristics?

A. Test

B. Staging

C. Development

D. Production

Answer: A

Explanation:

The test environment is used to assess the execution of component parts of a system at both the hardware and software levels and to measure performance characteristics. References: CompTIA Security+ Study Guide 601, Chapter 2

NEW QUESTION 7

- (Exam Topic 1)

A Chief Information Officer is concerned about employees using company-issued laptops to steal data when accessing network shares. Which of the following should the company implement?

A. DLP

B. CASB

C. HIDS

D. EDR

E. UEFI

Answer: A

Explanation:

The company should implement Data Loss Prevention (DLP) to prevent employees from stealing data when accessing network shares. References:

➤ CompTIA Security+ Study Guide Exam SY0-601, Chapter 8

NEW QUESTION 8

- (Exam Topic 1)

The Chief Executive Officer announced a new partnership with a strategic vendor and asked the Chief Information Security Officer to federate user digital identities using SAML-based protocols. Which of the following will this enable?

A. SSO

B. MFA

C. PKI

D. OLP

Answer: A

Explanation:

Federating user digital identities using SAML-based protocols enables Single Sign-On (SSO), which allows users to log in once and access multiple applications without having to enter their credentials for each one. References:

➤ CompTIA Security+ Certification Exam Objectives 1.3: Explain authentication and access controls.

➤ CompTIA Security+ Study Guide, Sixth Edition, pages 41-42

NEW QUESTION 9

- (Exam Topic 1)

A security assessment found that several embedded systems are running unsecure protocols. These systems were purchased two years ago and the company that developed them is no longer in business. Which of the following constraints BEST describes the reason the findings cannot be remediated?

- A. inability to authenticate
- B. Implied trust
- C. Lack of computing power
- D. Unavailable patch

Answer: D

Explanation:

If the systems are running unsecure protocols and the company that developed them is no longer in business, it is likely that there are no patches available to remediate the issue. References:

➤ CompTIA Security+ Study Guide, Sixth Edition, pages 35-36

NEW QUESTION 10

- (Exam Topic 1)

A help desk technician receives an email from the Chief Information Officer (C/O) asking for documents. The technician knows the CIO is on vacation for a few weeks. Which of the following should the technician do to validate the authenticity of the email?

- A. Check the metadata in the email header of the received path in reverse order to follow the email's path.
- B. Hover the mouse over the CIO's email address to verify the email address.
- C. Look at the metadata in the email header and verify the "From." line matches the CIO's email address.
- D. Forward the email to the CIO and ask if the CIO sent the email requesting the documents.

Answer: B

Explanation:

The "From" line in the email header can be easily spoofed or manipulated by an attacker to make it look like the email is coming from the CIO's email address. However, this does not mean that the email address is actually valid or that the email is actually sent by the CIO. A better way to check the email address is to hover over it and see if it matches the CIO's email address exactly. This can help to spot any discrepancies or typos that might indicate a phishing attempt. For example, if the CIO's email address is cio@company.com, but when you hover over it, it shows cio@compnay.com, then you know that the email is not authentic and likely a phishing attempt.

NEW QUESTION 10

- (Exam Topic 1)

Which of the following is a physical security control that ensures only the authorized user is present when gaining access to a secured area?

- A. A biometric scanner
- B. A smart card reader
- C. APKItoken
- D. A PIN pad

Answer: A

Explanation:

A biometric scanner uses physical characteristics such as fingerprints to identify an individual user. It is used to ensure that only the authorized user is present when gaining access to a secured area.

NEW QUESTION 13

- (Exam Topic 1)

A security analyst was deploying a new website and found a connection attempting to authenticate on the site's portal. While Investigating The incident, the analyst identified the following Input in the username field:

```
admin' or 1=1--
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Which of the following BEST explains this type of attack?

- A. DLL injection to hijack administrator services
- B. SQLi on the field to bypass authentication
- C. Execution of a stored XSS on the website
- D. Code to execute a race condition on the server

Answer: B

Explanation:

The input "admin' or 1=1--" in the username field is an example of SQL injection (SQLi) attack. In this case, the attacker is attempting to bypass authentication by injecting SQL code into the username field that will cause the authentication check to always return true. References: CompTIA Security+ SY0-601 Exam Objectives: 3.1 Given a scenario, use appropriate software tools to assess the security posture of an organization.

NEW QUESTION 14

- (Exam Topic 1)

Which of the following is the MOST secure but LEAST expensive data destruction method for data that is stored on hard drives?

- A. Pulverizing
- B. Shredding
- C. Incinerating
- D. Degaussing

Answer: B

Explanation:

Shredding may be the most secure and cost-effective way to destroy electronic data in any media that contain hard drives or solid-state drives and have reached their end-of-life¹. Shredding reduces electronic devices to pieces no larger than 2 millimeters². Therefore, shredding is the most secure but least expensive data destruction method for data that is stored on hard drives.

NEW QUESTION 15

- (Exam Topic 1)

As part of the building process for a web application, the compliance team requires that all PKI certificates are rotated annually and can only contain wildcards at the secondary subdomain level. Which of the following certificate properties will meet these requirements?

- A. HTTPS://.comptia.org, Valid from April 10 00:00:00 2021 - April 8 12:00:00 2022
- B. HTTPS://app1.comptia.org, Valid from April 10 00:00:00 2021-April 8 12:00:00 2022
- C. HTTPS:// app1.comptia.org, Valid from April 10 00:00:00 2021-April 8 12:00:00 2022
- D. HTTPS://.comptia.org, Valid from April 10 00:00:00 2021 - April 8 12:00:00

Answer: A

Explanation:

PKI certificates are digital certificates that use public key infrastructure (PKI) to verify the identity and authenticity of a sender and a receiver of data¹. PKI certificates can be used to secure web applications with HTTPS, which is a protocol that encrypts and protects the data transmitted over the internet¹.

One of the properties of PKI certificates is the domain name, which is the name of the website or web application that the certificate is issued for². The domain name can be either a specific name, such as app1.comptia.org, or a wildcard name, such as *.comptia.org². A wildcard name means that the certificate can be used with multiple subdomains of a domain, such as payment.comptia.org or contact.comptia.org².

Another property of PKI certificates is the validity period, which is the time span during which the certificate is valid and can be used³. The validity period is determined by the certificate authority (CA) that issues the certificate, and it usually ranges from one to three years³. The validity period can be checked by looking at the valid from and valid to dates on the certificate³.

Based on these properties, the certificate that will meet the requirements of rotating annually and only containing wildcards at the secondary subdomain level is A. HTTPS://*.comptia.org, Valid from April 10 00:00:00 2021 - April 8 12:00:00 2022. This certificate has a wildcard character (*) at the secondary subdomain level, which means it can be used with any subdomain of comptia.org². It also has a validity period of one year, which means it needs to be rotated annually³.

NEW QUESTION 16

- (Exam Topic 1)

A company acquired several other small companies The company that acquired the others is transitioning network services to the cloud The company wants to make sure that performance and security remain intact Which of the following BEST meets both requirements?

- A. High availability
- B. Application security
- C. Segmentation
- D. Integration and auditing

Answer: A

Explanation:

High availability refers to the ability of a system or service to remain operational and available to users with minimal downtime. By ensuring high availability, the company can maintain good performance and ensure that users have access to the network services they need. High availability can also improve security, as it helps to prevent disruptions that could potentially be caused by security incidents or other issues.

NEW QUESTION 19

- (Exam Topic 1)

Which of the following authentication methods is considered to be the LEAST secure?

- A. TOTP
- B. SMS
- C. HOTP
- D. Token key

Answer: B

Explanation:

SMS-based authentication is considered to be the least secure among the given options. This is because SMS messages can be intercepted or redirected by attackers through techniques such as SIM swapping,

man-in-the-middle attacks, or exploiting weaknesses in the SS7 protocol used by mobile networks. Additionally, SMS messages can be compromised if a user's phone is lost, stolen, or infected with malware. In contrast, TOTP (Time-based One-Time Password), HOTP (HMAC-based One-Time Password), and token keys are more secure as they rely on cryptographic algorithms or physical devices to generate one-time use codes, which are less susceptible to interception or unauthorized access. Reference: 1. National Institute of Standards and Technology (NIST). (2017). Digital Identity Guidelines: Authentication and Lifecycle Management (NIST SP 800-63B). <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-63b.pdf>

NEW QUESTION 22

- (Exam Topic 1)

An organization's Chief Information Security Officer is creating a position that will be responsible for implementing technical controls to protect data, including ensuring backups are properly maintained. Which of the following roles would MOST likely include these responsibilities?

- A. Data protection officer
- B. Data owner
- C. Backup administrator
- D. Data custodian
- E. Internal auditor

Answer: D

Explanation:

The responsibilities of ensuring backups are properly maintained and implementing technical controls to protect data are the responsibilities of the data custodian role. References: CompTIA Security+ Study Guide by Emmett Dulaney, Chapter 7: Securing Hosts and Data, Data Custodian

NEW QUESTION 26

- (Exam Topic 1)

Which of the following BEST describes data streams that are compiled through artificial intelligence that provides insight on current cyberintrusions, phishing, and other malicious cyberactivity?

- A. Intelligence fusion
- B. Review reports
- C. Log reviews
- D. Threat feeds

Answer: A

Explanation:

Intelligence fusion is a process that involves aggregating and analyzing data from multiple sources, including artificial intelligence, to provide insight on current cyberintrusions, phishing, and other malicious cyberactivity.

References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Glossary, p. 767.

NEW QUESTION 31

- (Exam Topic 1)

A security engineer needs to build @ solution to satisfy regulatory requirements that state certain critical servers must be accessed using MFA. However, the critical servers are older and are unable to support the addition of MFA. Which of the following will the engineer MOST likely use to achieve this objective?

- A. A forward proxy
- B. A stateful firewall
- C. A jump server
- D. A port tap

Answer: C

Explanation:

A jump server is a secure host that allows users to access other servers within a network. The jump server acts as an intermediary, and users can access other servers via the jump server after authenticating with MFA.

NEW QUESTION 32

- (Exam Topic 1)

After a hardware incident, an unplanned emergency maintenance activity was conducted to rectify the issue. Multiple alerts were generated on the SIEM during this period of time. Which of the following BEST explains what happened?

- A. The unexpected traffic correlated against multiple rules, generating multiple alerts.
- B. Multiple alerts were generated due to an attack occurring at the same time.
- C. An error in the correlation rules triggered multiple alerts.
- D. The SIEM was unable to correlate the rules, triggering the alert

Answer: A

Explanation:

Multiple alerts were generated on the SIEM during the emergency maintenance activity due to unexpected traffic correlated against multiple rules. The SIEM generates alerts when it detects an event that matches a rule in its rulebase. If the event matches multiple rules, the SIEM will generate multiple alerts.

Reference: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 3: Architecture and Design

NEW QUESTION 34

- (Exam Topic 1)

Ann, a customer, received a notification from her mortgage company stating her PII may be shared with partners, affiliates, and associates to maintain day-to-day business operations.

Which of the following documents did Ann receive?

- A. An annual privacy notice
- B. A non-disclosure agreement
- C. A privileged-user agreement
- D. A memorandum of understanding

Answer: A

Explanation:

Ann received an annual privacy notice from her mortgage company. An annual privacy notice is a statement from a financial institution or creditor that outlines the institution's privacy policy and explains how the institution collects, uses, and shares customers' personal information. It informs the customer about their rights under the Gramm-Leach-Bliley Act (GLBA) and the institution's practices for protecting their personal information. References:

➤ CompTIA Security+ Certification Exam Objectives - Exam SY0-601

NEW QUESTION 36

- (Exam Topic 1)

A security researcher is using an adversary's infrastructure and TTPs and creating a named group to track those targeted. Which of the following is the researcher MOST likely using?

- A. The Cyber Kill Chain
- B. The incident response process
- C. The Diamond Model of Intrusion Analysis
- D. MITRE ATT&CK

Answer: D

Explanation:

The researcher is most likely using the MITRE ATT&CK framework. MITRE ATT&CK is a globally accessible knowledge base of adversary tactics, techniques, and procedures (TTPs) based on real-world observations. It helps security teams better understand and track adversaries by creating a named group, which aligns with the scenario described in the question. The framework is widely recognized and referenced in the cybersecurity industry, including in CompTIA Security+ study materials. References: 1. CompTIA Security+ Certification Exam Objectives (SY0-601):

<https://www.comptia.jp/pdf/Security%2B%20SY0-601%20Exam%20Objectives.pdf> 2. MITRE ATT&CK: <https://attack.mitre.org/>

MITRE ATT&CK is a knowledge base of adversary tactics, techniques, and procedures (TTPs) that are observed in real-world cyberattacks. MITRE ATT&CK provides a common framework and language for describing and analyzing cyber threats and their behaviors. MITRE ATT&CK also allows security researchers to create named groups that track specific adversaries based on their TTPs.

The other options are not correct because:

➤ A. The Cyber Kill Chain is a model that describes the stages of a cyberattack from reconnaissance to exfiltration. The Cyber Kill Chain does not provide a way to create named groups based on adversary TTPs.

➤ B. The incident response process is a set of procedures and guidelines that defines how an organization should respond to a security incident. The incident response process does not provide a way to create named groups based on adversary TTPs.

➤ C. The Diamond Model of Intrusion Analysis is a framework that describes the four core features of any intrusion: adversary, capability, infrastructure, and victim. The Diamond Model of Intrusion Analysis does not provide a way to create named groups based on adversary TTPs.

According to CompTIA Security+ SY0-601 Exam Objectives 1.1 Compare and contrast different types of social engineering techniques:

“MITRE ATT&CK is a knowledge base of adversary tactics, techniques, and procedures (TTPs) that are observed in real-world cyberattacks. MITRE ATT&CK provides a common framework and language for describing and analyzing cyber threats and their behaviors.”

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://attack.mitre.org/>

NEW QUESTION 41

- (Exam Topic 1)

A security engineer is hardening existing solutions to reduce application vulnerabilities. Which of the following solutions should the engineer implement FIRST? (Select TWO)

- A. Auto-update
- B. HTTP headers
- C. Secure cookies
- D. Third-party updates
- E. Full disk encryption
- F. Sandboxing
- G. Hardware encryption

Answer: AF

Explanation:

Auto-update can help keep the app up-to-date with the latest security fixes and enhancements, and reduce the risk of exploitation by attackers who target outdated or vulnerable versions of the app.

Sandboxing can help isolate the app from other processes and resources on the system, and limit its access and permissions to only what is necessary.

Sandboxing can help prevent the app from being affected by or affecting other applications or system components, and contain any potential damage in case of a breach.

NEW QUESTION 45

- (Exam Topic 1)

A financial institution would like to store its customer data in a cloud but still allow the data to be accessed and manipulated while encrypted. Doing so would prevent the cloud service provider from being able to decipher the data due to its sensitivity. The financial institution is not concerned about computational overheads and slow speeds. Which of the following cryptographic techniques would BEST meet the requirement?

- A. Asymmetric
- B. Symmetric
- C. Homomorphic
- D. Ephemeral

Answer: B

Explanation:

Symmetric encryption allows data to be encrypted and decrypted using the same key. This is useful when the data needs to be accessed and manipulated while still encrypted. References: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 6

NEW QUESTION 46

- (Exam Topic 1)

An organization wants to enable built-in FDE on all laptops Which of the following should the organization ensure is Installed on all laptops?

- A. TPM
- B. CA
- C. SAML
- D. CRL

Answer: A

Explanation:

The organization should ensure that a Trusted Platform Module (TPM) is installed on all laptops in order to enable built-in Full Disk Encryption (FDE). TPM is a hardware-based security chip that stores encryption keys and helps to protect data from malicious attacks. It is important to ensure that the TPM is properly configured and enabled in order to get the most out of FDE.

NEW QUESTION 48

- (Exam Topic 1)

A company recently experienced a major breach. An investigation concludes that customer credit card data was stolen and exfiltrated through a dedicated business partner connection to a vendor, who is not held to the same security control standards. Which of the following is the MOST likely source of the breach?

- A. Side channel
- B. Supply chain
- C. Cryptographic downgrade
- D. Malware

Answer: B

Explanation:

A supply chain attack occurs when a third-party supplier or business partner is compromised, leading to an attacker gaining unauthorized access to the targeted organization's network. In this scenario, the dedicated business partner connection to a vendor was used to exfiltrate customer credit card data, indicating that the vendor's network was breached and used as a supply chain attack vector.

NEW QUESTION 53

- (Exam Topic 1)

A desktop support technician recently installed a new document-scanning software program on a computer. However, when the end user tried to launch the program, it did not respond. Which of the following is MOST likely the cause?

- A. A new firewall rule is needed to access the application.
- B. The system was quarantined for missing software updates.
- C. The software was not added to the application whitelist.
- D. The system was isolated from the network due to infected software

Answer: C

Explanation:

The most likely cause of the document-scanning software program not responding when launched by the end user is that the software was not added to the application whitelist. An application whitelist is a list of approved software applications that are allowed to run on a system. If the software is not on the whitelist, it may be blocked from running by the system's security policies. Adding the software to the whitelist should resolve the issue and allow the program to run.

References: <https://www.techopedia.com/definition/31541/application-whitelisting>

NEW QUESTION 56

- (Exam Topic 1)

A security analyst is investigating multiple hosts that are communicating to external IP addresses during the hours of 2:00 a.m - 4:00 a.m. The malware has evaded detection by traditional antivirus software. Which of the following types of malware is MOST likely infecting the hosts?

- A. A RAT
- B. Ransomware
- C. Polymorphic
- D. A worm

Answer: A

Explanation:

Based on the given information, the most likely type of malware infecting the hosts is a RAT (Remote Access Trojan). RATs are often used for stealthy unauthorized access to a victim's computer, and they can evade traditional antivirus software through various sophisticated techniques. In particular, the fact that the malware is communicating with external IP addresses during specific hours suggests that it may be under the control of an attacker who is issuing commands from a remote location. Ransomware, polymorphic malware, and worms are also possible culprits, but the context of the question suggests that a RAT is the most likely answer.

NEW QUESTION 57

- (Exam Topic 1)

A security researcher is tracking an adversary by noting its attacks and techniques based on its capabilities, infrastructure, and victims. Which of the following is the researcher MOST likely using?

- A. The Diamond Model of Intrusion Analysis
- B. The Cyber Kill Chain
- C. The MITRE CVE database
- D. The incident response process

Answer: A

Explanation:

The Diamond Model is a framework for analyzing cyber threats that focuses on four key elements: adversary, capability, infrastructure, and victim. By analyzing these elements, security researchers can gain a better understanding of the threat landscape and develop more effective security strategies.

NEW QUESTION 59

- (Exam Topic 1)

Which of the following incident response steps occurs before containment?

- A. Eradication
- B. Recovery
- C. Lessons learned
- D. Identification

Answer: D

Explanation:

Identification is the first step in the incident response process, which involves recognizing that an incident has occurred. Containment is the second step, followed by eradication, recovery, and lessons learned.

References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 10: Incident Response and Recovery, pp. 437-441.

NEW QUESTION 64

- (Exam Topic 1)

A customer has reported that an organization's website displayed an image of a smiley (ace rather than the expected web page for a short time two days earlier. A security analyst reviews log tries and sees the following around the lime of the incident:

Website	Time	Name server	A record
CompTIA.org	8:10	names.comptia.org	192.168.1.10
CompTIA.org	9:00	names.comptia.org	192.168.1.10
CompTIA.org	9:30	ns.attacker.org	10.10.50.5
CompTIA.org	10:00	names.comptia.org	192.168.1.10

Which of the following is MOST likely occurring?

- A. Invalid trust chain
- B. Domain hijacking
- C. DNS poisoning
- D. URL redirection

Answer: C

Explanation:

The log entry shows the IP address for "www.example.com" being changed to a different IP address, which is likely the result of DNS poisoning. DNS poisoning occurs when an attacker is able to change the IP address associated with a domain name in a DNS server's cache, causing clients to connect to the attacker's server instead of the legitimate server. References: CompTIA Security+ SY0-601 Exam Objectives: 3.2 Given a scenario, implement secure network architecture concepts.

NEW QUESTION 65

- (Exam Topic 1)

During a Chief Information Security Officer (CISO) convention to discuss security awareness, the attendees are provided with a network connection to use as a resource. As the convention progresses, one of the attendees starts to notice delays in the connection, and the HIIPS site requests are reverting to HTTP Which of the following BEST describes what is happening?

- A. Birthday collision on the certificate key
- B. DNS hijacking to reroute traffic
- C. Brute force to the access point
- D. ASSLILS downgrade

Answer: B

Explanation:

The attendee is experiencing delays in the connection, and the HIIPS site requests are reverting to HTTP, indicating that the DNS resolution is redirecting the connection to another server. DNS hijacking is a technique that involves redirecting a user's requests for a domain name to a different IP address. Attackers use DNS hijacking to redirect users to malicious websites and steal sensitive information, such as login credentials and credit card details.

Reference: <https://www.cloudflare.com/learning/dns/dns-hijacking/>

NEW QUESTION 67

- (Exam Topic 1)

An organization is concerned about hackers potentially entering a facility and plugging in a remotely accessible Kali Linux box. Which of the following should be the first lines of defense against such an attack? (Select TWO)

- A. MAC filtering
- B. Zero trust segmentation
- C. Network access control
- D. Access control vestibules
- E. Guards
- F. Bollards

Answer: CE

Explanation:

Network access control (NAC) is a technique that restricts access to a network based on the identity, role, device, location, or other criteria of the users or devices. NAC can prevent unauthorized or malicious devices from connecting to a network and accessing sensitive data or resources.

Guards are physical security personnel who monitor and control access to a facility. Guards can prevent unauthorized or malicious individuals from entering a facility and plugging in a remotely accessible device.

NEW QUESTION 71

- (Exam Topic 1)

A third party asked a user to share a public key for secure communication. Which of the following file formats should the user choose to share the key?

- A. .pfx
- B. .csr
- C. .pvk
- D. .cer

Answer: D

Explanation:

A user should choose the .cer file format to share a public key for secure communication. A .cer file is a public key certificate that can be shared with third parties to enable secure communication.

References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 6: Cryptography, pp. 301-302.

A public key is a cryptographic key that can be used to encrypt or verify data. A public key file is a file that contains one or more public keys in a specific format. There are different formats for public key files, depending on the application and the algorithm used. Some of the common formats are:

- > .pfx: This is a file format that stores a certificate and its private and public keys. It is also known as PKCS#12 or Personal Information Exchange. It is used by some applications such as Microsoft Internet Explorer and Outlook to import and export certificates and keys.¹
- > .csr: This is a file format that stores a Certificate Signing Request, which is a message sent to a Certificate Authority (CA) to request a digital certificate. It contains the public key and some information about the identity of the requester. It is also known as PKCS#10 or Certification Request Syntax.²
- > .pvk: This is a file format that stores a private key for Microsoft Authenticode code signing. It is used with a .spc file that contains the certificate and public key.³
- > .cer: This is a file format that stores a certificate, which is a document that binds a public key to an identity. It is also known as DER or Distinguished Encoding Rules. It is used by some applications such as OpenSSL and Java to read and write certificates.⁴

NEW QUESTION 72

- (Exam Topic 1)

After a phishing scam for a user's credentials, the red team was able to craft a payload to deploy on a server. The attack allowed the installation of malicious software that initiates a new remote session.

Which of the following types of attacks has occurred?

- A. Privilege escalation
- B. Session replay
- C. Application programming interface
- D. Directory traversal

Answer: A

Explanation:

"Privilege escalation is the act of exploiting a bug, design flaw, or configuration oversight in an operating system or software application to gain elevated access to resources that are normally protected from an application or user." In this scenario, the red team was able to install malicious software, which would require elevated privileges to access and install. Therefore, the type of attack that occurred is privilege escalation. References: CompTIA Security+ Study Guide, pages 111-112.

NEW QUESTION 74

- (Exam Topic 1)

Which of the following is required in order for an IDS and a WAF to be effective on HTTPS traffic?

- A. Hashing
- B. DNS sinkhole
- C. TLS inspection
- D. Data masking

Answer: C

Explanation:

an IDS (Intrusion Detection System) and a WAF (Web Application Firewall) are both used to monitor and protect web applications from common attacks such as cross-site scripting and SQL injection¹². However, these attacks can also be hidden in encrypted HTTPS traffic, which uses the TLS (Transport Layer Security) protocol to provide cryptography and authentication between two communicating applications³⁴. Therefore, in order for an IDS and a WAF to be effective on HTTPS traffic, they need to be able to decrypt and inspect the data that flows in the TLS tunnel. This is achieved by using a feature called TLS inspection³ⁿ⁴⁵, which creates two dedicated TLS connections: one with the web server and another with the client. The firewall then uses a customer-provided CA (Certificate Authority) certificate to generate an on-the-fly certificate that replaces the web server certificate and shares it with the client. This way, the firewall can see the content of the HTTPS traffic and apply the IDS and WAF rules accordingly³⁴.

NEW QUESTION 78

- (Exam Topic 1)

The security team received a report of copyright infringement from the IP space of the corporate network. The report provided a precise time stamp for the incident as well as the name of the copyrighted files. The analyst has been tasked with determining the infringing source machine and instructed to implement measures to prevent such incidents from occurring again. Which of the following is MOST capable of accomplishing both tasks?

- A. HIDS
- B. Allow list
- C. TPM
- D. NGFW

Answer: D

Explanation:

Next-Generation Firewalls (NGFWs) are designed to provide advanced threat protection by combining traditional firewall capabilities with intrusion prevention, application control, and other security features. NGFWs can detect and block unauthorized access attempts, malware infections, and other suspicious activity.

They can also be used to monitor file access and detect unauthorized copying or distribution of copyrighted material.

A next-generation firewall (NGFW) can be used to detect and prevent copyright infringement by analyzing network traffic and blocking unauthorized transfers of copyrighted material. Additionally, NGFWs can be configured to enforce access control policies that prevent unauthorized access to sensitive resources.

References:

➤ CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 6

NEW QUESTION 79

- (Exam Topic 1)

During a security assessment, a security finds a file with overly permissive permissions. Which of the following tools will allow the analyst to reduce the permission for the existing users and groups and remove the set-user-ID from the file?

- A. 1s
- B. chflags
- C. chmod
- D. lsof
- E. setuid

Answer: C

Explanation:

The chmod command is used to change the permissions of a file or directory. The analyst can use chmod to reduce the permissions for existing users and groups and remove the set-user-ID bit from the file. References:

➤ CompTIA Security+ Study Guide Exam SY0-601, Chapter 6

NEW QUESTION 80

- (Exam Topic 1)

A global company is experiencing unauthorized logging due to credential theft and account lockouts caused by brute-force attacks. The company is considering implementing a third-party identity provider to help mitigate these attacks. Which of the following would be the BEST control for the company to require from prospective vendors?

- A. IP restrictions
- B. Multifactor authentication
- C. A banned password list
- D. A complex password policy

Answer: B

Explanation:

Multifactor authentication (MFA) would be the best control to require from a third-party identity provider to help mitigate attacks such as credential theft and brute-force attacks. References: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 2

NEW QUESTION 85

- (Exam Topic 1)

An employee received multiple messages on a mobile device. The messages instructing the employee to pair the device to an unknown device. Which of the following BEST describes What a malicious person might be doing to cause this issue to occur?

- A. Jamming
- B. Bluesnarfing
- C. Evil twin
- D. Rogue access point

Answer: B

Explanation:

Bluesnarfing is a hacking technique that exploits Bluetooth connections to snatch data from a wireless device. An attacker can perform bluesnarfing when the Bluetooth function is on and your device is discoverable by other devices within range. In some cases, attackers can even make calls from their victim's phone.

NEW QUESTION 87

- (Exam Topic 1)

A company is required to continue using legacy software to support a critical service. Which of the following BEST explains a risk of this practice?

- A. Default system configuration
- B. Unsecure protocols
- C. Lack of vendor support
- D. Weak encryption

Answer: C

Explanation:

Using legacy software to support a critical service poses a risk due to lack of vendor support. Legacy software is often outdated and unsupported, which means that security patches and upgrades are no longer available. This can leave the system vulnerable to exploitation by attackers who may exploit known vulnerabilities in the software to gain unauthorized access to the system.

Reference: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 1: Attacks, Threats, and Vulnerabilities

NEW QUESTION 91

- (Exam Topic 1)

A security team suspects that the cause of recent power consumption overloads is the unauthorized use of empty power outlets in the network rack Which of the

following options will mitigate this issue without compromising the number of outlets available?

- A. Adding a new UPS dedicated to the rack
- B. Installing a managed PDU
- C. Using only a dual power supplies unit
- D. Increasing power generator capacity

Answer: B

Explanation:

A managed Power Distribution Unit (PDU) allows you to monitor and control power outlets on the rack. This will allow the security team to identify which devices are drawing power and from which outlets, which can help to identify any unauthorized devices. Moreover, with a managed PDU, you can also control the power to outlets, turn off outlets that are not in use, and set up alerts if an outlet is overloaded. This will help to mitigate the issue of power consumption overloads without compromising the number of outlets available.

Reference: CompTIA Security+ Study Guide (SY0-601) 7th Edition by Emmett Dulaney, Chuck Easttom

NEW QUESTION 94

- (Exam Topic 1)

A company is required to continue using legacy software to support a critical service. Which of the following BEST explains a risk of this practice?

- A. Default system configuration
- B. Unsecure protocols
- C. Lack of vendor support
- D. Weak encryption

Answer: C

Explanation:

One of the risks of using legacy software is the lack of vendor support. This means that the vendor may no longer provide security patches, software updates, or technical support for the software. This leaves the software vulnerable to new security threats and vulnerabilities that could be exploited by attackers.

NEW QUESTION 97

- (Exam Topic 1)

An organization wants seamless authentication to its applications. Which of the following should the organization employ to meet this requirement?

- A. SOAP
- B. SAML
- C. SSO
- D. Kerberos

Answer: C

Explanation:

Single Sign-On (SSO) is a mechanism that allows users to access multiple applications with a single set of login credentials. References: CompTIA Security+ Study Guide 601, Chapter 6

NEW QUESTION 102

- (Exam Topic 1)

After a WiFi scan of a local office was conducted, an unknown wireless signal was identified. Upon investigation, an unknown Raspberry Pi device was found connected to an Ethernet port using a single connection. Which of the following BEST describes the purpose of this device?

- A. IoT sensor
- B. Evil twin
- C. Rogue access point
- D. On-path attack

Answer: C

Explanation:

A Raspberry Pi device connected to an Ethernet port could be configured as a rogue access point, allowing an attacker to intercept and analyze network traffic or perform other malicious activities. References: CompTIA Security+ SY0-601 Exam Objectives: 3.2 Given a scenario, implement secure network architecture concepts.

NEW QUESTION 107

- (Exam Topic 1)

A large enterprise has moved all its data to the cloud behind strong authentication and encryption. A sales director recently had a laptop stolen, and later, enterprise data was found to have been compromised from a local database. Which of the following was the MOST likely cause?

- A. Shadow IT
- B. Credential stuffing
- C. SQL injection
- D. Man in the browser
- E. Bluejacking

Answer: A

Explanation:

The most likely cause of the enterprise data being compromised from a local database is Shadow IT. Shadow IT is the use of unauthorized applications or devices

by employees to access company resources. In this case, the sales director's laptop was stolen, and the attacker was able to use it to access the local database, which was not secured properly, allowing unauthorized access to sensitive data. References:

➤ [CompTIA Security+ Certification Exam Objectives - Exam SY0-601](#)

NEW QUESTION 109

- (Exam Topic 1)

A Chief Information Officer receives an email stating a database will be encrypted within 24 hours unless a payment of \$20,000 is credited to the account mentioned in the email. This BEST describes a scenario related to:

- A. whaling.
- B. smishing.
- C. spear phishing
- D. vishing

Answer: C

Explanation:

The scenario of receiving an email stating a database will be encrypted unless a payment is made is an example of spear phishing. References: CompTIA Security+ Study Guide by Emmett Dulaney, Chapter 2: Threats, Attacks, and Vulnerabilities, Social Engineering

NEW QUESTION 112

- (Exam Topic 1)

A security analyst has been tasked with creating a new WiFi network for the company. The requirements received by the analyst are as follows:

- Must be able to differentiate between users connected to WiFi
- The encryption keys need to change routinely without interrupting the users or forcing reauthentication
- Must be able to integrate with RADIUS
- Must not have any open SSIDs

Which of the following options BEST accommodates these requirements?

- A. WPA2-Enterprise
- B. WPA3-PSK
- C. 802.11n
- D. WPS

Answer: A

Explanation:

Detailed

WPA2-Enterprise can accommodate all of the requirements listed. WPA2-Enterprise uses 802.1X authentication to differentiate between users, supports the use of RADIUS for authentication, and allows for the use of dynamic encryption keys that can be changed without disrupting the users or requiring reauthentication. Additionally, WPA2-Enterprise does not allow for open SSIDs.

References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 7: Securing Networks, p. 317

NEW QUESTION 113

- (Exam Topic 1)

Which of the following involves the inclusion of code in the main codebase as soon as it is written?

- A. Continuous monitoring
- B. Continuous deployment
- C. Continuous Validation
- D. Continuous integration

Answer: D

Explanation:

Detailed

Continuous Integration (CI) is a practice where developers integrate code into a shared repository frequently, preferably several times a day. Each integration is verified by an automated build and automated tests. CI allows for the detection of errors early in the development cycle, thereby reducing overall development costs.

NEW QUESTION 114

- (Exam Topic 1)

Which of the following conditions impacts data sovereignty?

- A. Rights management
- B. Criminal investigations
- C. Healthcare data
- D. International operations

Answer: D

Explanation:

Data sovereignty refers to the legal concept that data is subject to the laws and regulations of the country in which it is located. International operations can impact data sovereignty as companies operating in multiple countries may need to comply with different laws and regulations. References:

➤ [CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 5](#)

NEW QUESTION 117

- (Exam Topic 1)

A developer is building a new portal to deliver single-pane-of-glass management capabilities to customers with multiple firewalls. To improve the user experience, the developer wants to implement an authentication and authorization standard that uses security tokens that contain assertions to pass user information between nodes. Which of the following roles should the developer configure to meet these requirements? (Select TWO).

- A. Identity processor
- B. Service requestor
- C. Identity provider
- D. Service provider
- E. Tokenized resource
- F. Notarized referral

Answer: CD

Explanation:

An identity provider (IdP) is responsible for authenticating users and generating security tokens containing user information. A service provider (SP) is responsible for accepting security tokens and granting access to resources based on the user's identity.

NEW QUESTION 118

- (Exam Topic 1)

The Chief Information Security Officer (CISO) has decided to reorganize security staff to concentrate on incident response and to outsource outbound Internet URL categorization and filtering to an outside company. Additionally, the CISO would like this solution to provide the same protections even when a company laptop or mobile device is away from a home office. Which of the following should the CISO choose?

- A. CASB
- B. Next-generation SWG
- C. NGFW
- D. Web-application firewall

Answer: B

Explanation:

The solution that the CISO should choose is Next-generation Secure Web Gateway (SWG), which provides URL filtering and categorization to prevent users from accessing malicious sites, even when they are away from the office. NGFWs are typically cloud-based and offer multiple security layers, including malware detection, intrusion prevention, and data loss prevention. References:

➤ [CompTIA Security+ Study Guide Exam SY0-601, Chapter 4](#)

NEW QUESTION 119

- (Exam Topic 1)

A security analyst is responding to an alert from the SIEM. The alert states that malware was discovered on a host and was not automatically deleted. Which of the following would be BEST for the analyst to perform?

- A. Add a deny-all rule to that host in the network ACL
- B. Implement a network-wide scan for other instances of the malware.
- C. Quarantine the host from other parts of the network
- D. Revoke the client's network access certificates

Answer: C

Explanation:

When malware is discovered on a host, the best course of action is to quarantine the host from other parts of the network. This prevents the malware from spreading and potentially infecting other hosts. Adding a

deny-all rule to the host in the network ACL may prevent legitimate traffic from being processed, implementing a network-wide scan is time-consuming and may not be necessary, and revoking the client's network access certificates is an extreme measure that may not be warranted. References: [CompTIA Security+ Study Guide, pages 113-114](#)

NEW QUESTION 121

- (Exam Topic 1)

During an investigation, the incident response team discovers that multiple administrator accounts were suspected of being compromised. The host audit logs indicate a repeated brute-force attack on a single administrator account followed by suspicious logins from unfamiliar geographic locations. Which of the following data sources would be BEST to use to assess the accounts impacted by this attack?

- A. User behavior analytics
- B. Dump files
- C. Bandwidth monitors
- D. Protocol analyzer output

Answer: A

Explanation:

User behavior analytics (UBA) would be the best data source to assess the accounts impacted by the attack, as it can identify abnormal activity, such as repeated brute-force attacks and logins from unfamiliar geographic locations, and provide insights into the behavior of the impacted accounts. References: [CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 7: Incident Response, pp. 338-341](#)

NEW QUESTION 122

- (Exam Topic 1)

Hackers recently attacked a company's network and obtained several unfavorable pictures from the Chief Executive Officer's workstation. The hackers are threatening to send the images to the press if a ransom is not paid. Which of the following is impacted the MOST?

- A. Identify theft
- B. Data loss
- C. Data exfiltration
- D. Reputation

Answer: D

Explanation:

The best option that describes what is impacted the most by the hackers' attack and threat would be D. Reputation. Reputation is the perception or opinion that others have about a person or an organization. Reputation can affect the trust, credibility, and success of a person or an organization. In this scenario, if the hackers send the unfavorable pictures to the press, it can damage the reputation of the Chief Executive Officer and the company, and cause negative consequences such as loss of customers, partners, investors, or employees.

NEW QUESTION 125

- (Exam Topic 1)

A company recently experienced an attack during which 5 main website was directed to the attack-er's web server, allowing the attacker to harvest credentials from unsuspecting customers. Which of the following should the company Implement to prevent this type of attack from occurring in the future?

- A. IPSec
- B. SSL/TLS
- C. DNSSEC
- D. S/MIME

Answer: C

Explanation:

The attack described in the question is known as a DNS hijacking attack. In this type of attack, an attacker modifies the DNS records of a domain name to redirect traffic to their own server. This allows them to intercept traffic and steal sensitive information such as user credentials.

To prevent this type of attack from occurring in the future, the company should implement C. DNSSEC.

DNSSEC (Domain Name System Security Extensions) is a security protocol that adds digital signatures to DNS records. This ensures that DNS records are not modified during transit and prevents DNS hijacking attacks.

NEW QUESTION 127

- (Exam Topic 1)

An organization would like to remediate the risk associated with its cloud service provider not meeting its advertised 99.999% availability metrics. Which of the following should the organization consult for the exact requirements for the cloud provider?

- A. SLA
- B. BPA
- C. NDA
- D. MOU

Answer: A

Explanation:

The Service Level Agreement (SLA) is a contract between the cloud service provider and the organization that stipulates the exact requirements for the cloud provider. It outlines the level of service that the provider must deliver, including the minimum uptime percentage, support response times, and the remedies and penalties for failing to meet the agreed-upon service levels.

NEW QUESTION 132

- (Exam Topic 1)

one of the attendees starts to notice delays in the connection. and the HTTPS site requests are reverting to HTTP. Which of the following BEST describes what is happening?

- A. Birthday collision on the certificate key
- B. DNS hacking to reroute traffic
- C. Brute force to the access point
- D. A SSL/TLS downgrade

Answer: D

Explanation:

The scenario describes a Man-in-the-Middle (MitM) attack where the attacker intercepts traffic and downgrades the secure SSL/TLS connection to an insecure HTTP connection. This type of attack is commonly known as SSL/TLS downgrade attack or a stripping attack. The attacker is able to see and modify the communication between the client and server.

NEW QUESTION 133

- (Exam Topic 1)

Which of the following controls would provide the BEST protection against tailgating?

- A. Access control vestibule
- B. Closed-circuit television
- C. Proximity card reader
- D. Faraday cage

Answer: A

Explanation:

Access control vestibules, also known as mantraps or airlocks, are physical security features that require individuals to pass through two or more doors to enter a secure area. They are effective at preventing tailgating, as only one person can pass through each door at a time.

References:

- <https://www.comptia.org/content/guides/what-is-a-mantrap>
- CompTIA Security+ Study Guide, Sixth Edition (SY0-601), page 222

NEW QUESTION 135

- (Exam Topic 1)

An employee's company account was used in a data breach Interviews with the employee revealed:

- The employee was able to avoid changing passwords by using a previous password again.
- The account was accessed from a hostile, foreign nation, but the employee has never traveled to any other countries.

Which of the following can be implemented to prevent these issues from reoccurring? (Select TWO)

- A. Geographic dispersal
- B. Password complexity
- C. Password history
- D. Geotagging
- E. Password lockout
- F. Geofencing

Answer: CF

Explanation:

two possible solutions that can be implemented to prevent these issues from reoccurring are password history and geofencing. Password history is a feature that prevents users from reusing their previous passwords. This can enhance password security by forcing users to create new and unique passwords periodically. Password history can be configured by setting a policy that specifies how many previous passwords are remembered and how often users must change their passwords.

Geofencing is a feature that restricts access to a system or network based on the geographic location of the user or device. This can enhance security by preventing unauthorized access from hostile or foreign regions. Geofencing can be implemented by using GPS, IP address, or other methods to determine the location of the user or device and compare it with a predefined set of boundaries.

NEW QUESTION 137

- (Exam Topic 1)

The Chief Technology Officer of a local college would like visitors to utilize the school's WiFi but must be able to associate potential malicious activity to a specific person. Which of the following would BEST allow this objective to be met?

- A. Requiring all new, on-site visitors to configure their devices to use WPS
- B. Implementing a new SSID for every event hosted by the college that has visitors
- C. Creating a unique PSK for every visitor when they arrive at the reception area
- D. Deploying a captive portal to capture visitors' MAC addresses and names

Answer: D

Explanation:

A captive portal is a web page that requires visitors to authenticate or agree to an acceptable use policy before allowing access to the network. By capturing visitors' MAC addresses and names, potential malicious activity can be traced back to a specific person.

NEW QUESTION 142

- (Exam Topic 1)

A network analyst is setting up a wireless access point for a home office in a remote, rural location. The requirement is that users need to connect to the access point securely but do not want to have to remember passwords. Which of the following should the network analyst enable to meet the requirement?

- A. MAC address filtering
- B. 802.1X
- C. Captive portal
- D. WPS

Answer: D

Explanation:

The network analyst should enable Wi-Fi Protected Setup (WPS) to allow users to connect to the wireless access point securely without having to remember passwords. WPS allows users to connect to a wireless network by pressing a button or entering a PIN instead of entering a password.

Reference: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 4: Identity and Access Management

NEW QUESTION 144

- (Exam Topic 1)

A security administrator is working on a solution to protect passwords stored in a database against rainbow table attacks. Which of the following should the administrator consider?

- A. Hashing
- B. Salting
- C. Lightweight cryptography
- D. Steganography

Answer: B

Explanation:

Salting is a technique that adds random data to a password before hashing it. This makes the hash output more unique and unpredictable, and prevents attackers

from using precomputed tables (such as rainbow tables) to crack the password hash. Salting also reduces the risk of collisions, which occur when different passwords produce the same hash.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://auth0.com/blog/adding-salt-to-hashing-a-better-way-to-store-passwords/>

NEW QUESTION 145

- (Exam Topic 2)

Multiple beaconing activities to a malicious domain have been observed. The malicious domain is hosting malware from various endpoints on the network. Which of the following technologies would be best to correlate the activities between the different endpoints?

- A. Firewall
- B. SIEM
- C. IPS
- D. Protocol analyzer

Answer: B

Explanation:

SIEM stands for Security Information and Event Management, which is a technology that collects, analyzes, and correlates data from multiple sources, such as firewall logs, IDS/IPS alerts, network devices, applications, and endpoints. SIEM provides real-time monitoring and alerting of security events, as well as historical analysis and reporting for compliance and forensic purposes.

A SIEM technology would be best to correlate the activities between the different endpoints that are beaconing to a malicious domain. A SIEM can detect the malicious domain by comparing it with threat intelligence feeds or known indicators of compromise (IOCs). A SIEM can also identify the endpoints that are communicating with the malicious domain by analyzing the firewall logs and other network traffic data. A SIEM can alert the security team of the potential compromise and provide them with relevant information for investigation and remediation.

NEW QUESTION 149

- (Exam Topic 2)

Sales team members have been receiving threatening voicemail messages and have reported these incidents to the IT security team. Which of the following would be MOST appropriate for the IT security team to analyze?

- A. Access control
- B. Syslog
- C. Session Initiation Protocol traffic logs
- D. Application logs

Answer: B

Explanation:

Syslogs are log files that are generated by devices on the network and contain information about network activity, including user logins, device connections, and other events. By analyzing these logs, the IT security team can identify the source of the threatening voicemail messages and take the necessary steps to address the issue

NEW QUESTION 150

- (Exam Topic 2)

An attack has occurred against a company.

INSTRUCTIONS

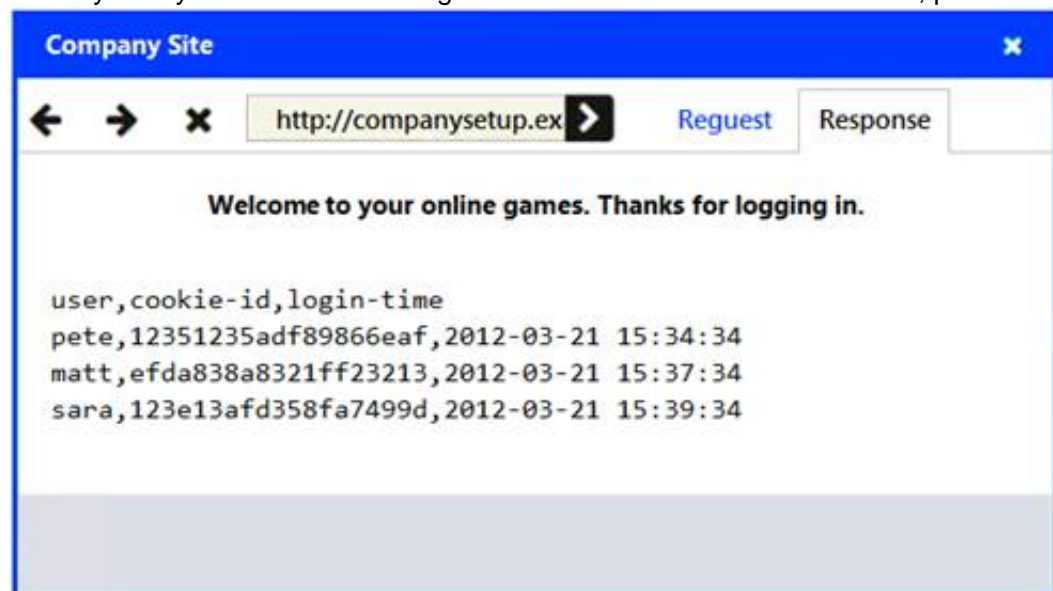
You have been tasked to do the following:

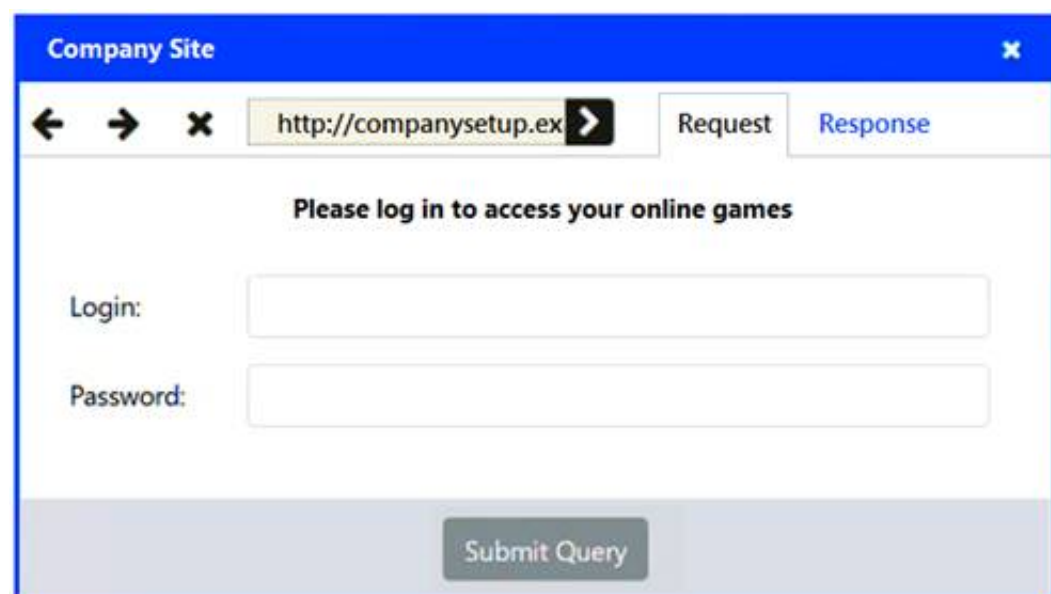
Identify the type of attack that is occurring on the network by clicking on the attacker's tablet and reviewing the output. (Answer Area 1).

Identify which compensating controls should be implemented on the assets, in order to reduce the effectiveness of future attacks by dragging them to the correct server.

(Answer area 2) All objects will be used, but not all placeholders may be filled. Objects may only be used once.

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





Select and Place:

Answer Area 1

SQL Injection

Cross Site Scripting

XML Injection

Session Hijacking

Type of attack:

?

Answer Area 2

Input Validation

Code Review

WAF

URL Filtering

Record level access control

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A computer screen shot of a computer Description automatically generated with low confidence

NEW QUESTION 155

- (Exam Topic 2)

A company wants to deploy decoy systems alongside production systems in order to entice threat actors and to learn more about attackers. Which of the following best describes these systems?

- A. DNS sinkholes
- B. Honey pots
- C. Virtual machines
- D. Neural networks

Answer: B

Explanation:

Honey pots are decoy systems or resources that are designed to attract and deceive threat actors and to learn more about their motives, techniques, etc. They can be deployed alongside production systems to create an illusion of a vulnerable target and divert attacks away from the real systems. They can also collect valuable information and evidence about the attackers and their activities for further analysis or prosecution.

NEW QUESTION 160

- (Exam Topic 2)

Which of the following describes software on network hardware that needs to be updated on a routine basis to help address possible vulnerabilities?

- A. Vendor management
- B. Application programming interface
- C. Vanishing
- D. Encryption strength
- E. Firmware

Answer: E

Explanation:

Firmware is software that allows your computer to communicate with hardware devices, such as network routers, switches, or firewalls. Firmware updates can fix bugs, improve performance, and enhance security features. Without firmware updates, the devices you connect to your network might not work properly or might be vulnerable to attacks¹. You can have Windows automatically download recommended drivers and firmware updates for your hardware devices¹, or you can use a network monitoring software to keep track of the firmware status of your devices². You should also follow the best practices for keeping devices and software up to date, such as enforcing automatic updates, monitoring update status, and testing updates before deploying them

NEW QUESTION 161

- (Exam Topic 2)

An organization recently released a software assurance policy that requires developers to run code scans each night on the repository. After the first night, the security team alerted the developers that more than 2,000 findings were reported and need to be addressed. Which of the following is the MOST likely cause for the high number of findings?

- A. The vulnerability scanner was not properly configured and generated a high number of false positives
- B. Third-party libraries have been loaded into the repository and should be removed from the codebase.
- C. The vulnerability scanner found several memory leaks during runtime, causing duplicate reports for the same issue.
- D. The vulnerability scanner was not loaded with the correct benchmarks and needs to be updated.

Answer: A

Explanation:

The most likely cause for the high number of findings is that the vulnerability scanner was not properly configured and generated a high number of false positives. False positive results occur when a vulnerability scanner incorrectly identifies a non-vulnerable system or application as being vulnerable. This can happen due to incorrect configuration, over-sensitive rule sets, or outdated scan databases.

<https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/sy0-601-comptia-security-plus-course/>

NEW QUESTION 163

- (Exam Topic 2)

An organization wants to quickly assess how effectively the IT team hardened new laptops Which of the following would be the best solution to perform this assessment?

- A. Install a SIEM tool and properly configure it to read the OS configuration files.
- B. Load current baselines into the existing vulnerability scanner.
- C. Maintain a risk register with each security control marked as compliant or non-compliant.
- D. Manually review the secure configuration guide checklists.

Answer: B

Explanation:

A vulnerability scanner is a tool that can scan devices and systems for known vulnerabilities, misconfigurations, and compliance issues. By loading the current baselines into the scanner, the organization can compare the actual state of the new laptops with the desired state and identify any deviations or weaknesses. This is a quick and automated way to assess the hardening of the new laptops.

NEW QUESTION 166

- (Exam Topic 2)

A technician is setting up a new firewall on a network segment to allow web traffic to the internet while hardening the network. After the firewall is configured, users receive errors stating the website could not be located. Which of the following would best correct the issue?

- A. Setting an explicit deny to all traffic using port 80 instead of 443
- B. Moving the implicit deny from the bottom of the rule set to the top
- C. Configuring the first line in the rule set to allow all traffic
- D. Ensuring that port 53 has been explicitly allowed in the rule set

Answer: D

Explanation:

Port 53 is the default port for DNS traffic. If the firewall is blocking port 53, then users will not be able to resolve domain names and will receive errors stating that the website could not be located.

The other options would not correct the issue. Setting an explicit deny to all traffic using port 80 instead of 443 would block all HTTP traffic, not just web traffic.

Moving the implicit deny from the bottom of the rule set to the top would make the deny rule more restrictive, which would not solve the issue. Configuring the first line in the rule set to allow all traffic would allow all traffic, including malicious traffic, which is not a good security practice.

Therefore, the best way to correct the issue is to ensure that port 53 has been explicitly allowed in the rule set. Here are some additional information about DNS traffic:

- DNS traffic is used to resolve domain names to IP addresses.
- DNS traffic is typically unencrypted, which makes it vulnerable to eavesdropping.
- There are a number of ways to secure DNS traffic, such as using DNS over HTTPS (DoH) or DNS over TLS (DoT).

NEW QUESTION 171

- (Exam Topic 2)

A security analyst is reviewing the output of a web server log and notices a particular account is attempting to transfer large amounts of money:

GET

[http://yourbank.com/transfer.do?acctnum=087646959](http://yourbank.com/transfer.do?acctnum=087646959&amount=500000)

&amount=500000 HTTP/1.1

GET

[http://yourbank.com/transfer.do?acctnum=087646958](http://yourbank.com/transfer.do?acctnum=087646958&amount=5000000)

&amount=5000000 HTTP/1.1

GET
[http://yourbank.com/transfer.do?acctnum=-087646958](http://yourbank.com/transfer.do?acctnum=-087646958&amount=1000000)
&amount=1000000 HTTP/1.1

GET
[http://yourbank.com/transfer.do?acctnum=087646953](http://yourbank.com/transfer.do?acctnum=087646953&amount=500)
&amount=500 HTTP/1.1

Which of the following types of attacks is most likely being conducted?

- A. SQLi
- B. CSRF
- C. Spear phishing
- D. API

Answer: B

Explanation:

CSRF stands for Cross-Site Request Forgery, which is an attack that forces an end user to execute unwanted actions on a web application in which they are currently authenticated¹. In this case, the attacker may have tricked the user into clicking a malicious link or visiting a malicious website that sends forged requests to the web server of the bank, using the user's session cookie or other credentials. The web server then performs the money transfer requests as if they were initiated by the user, without verifying the origin or validity of the requests.

* A. SQLi. This is not the correct answer, because SQLi stands for SQL Injection, which is an attack that exploits a vulnerability in a web application's database layer, where malicious SQL statements are inserted into an entry field for execution². The output of the web server log does not show any SQL statements or commands.

* B. CSRF. This is the correct answer, because CSRF is an attack that exploits the trust a web server has in a user's browser, where malicious requests are sent to the web server using the user's credentials¹. The output of the web server log shows multiple GET requests with different account numbers and amounts, which may indicate a CSRF attack.

* C. Spear phishing. This is not the correct answer, because spear phishing is an attack that targets a specific individual or organization with a personalized email or message that contains a malicious link or attachment³. The output of the web server log does not show any email or message content or headers.

* D. API. This is not the correct answer, because API stands for Application Programming Interface, which is a set of rules and specifications that allow software components to communicate and exchange data. API is not an attack method, but rather a way of designing and developing software applications.

NEW QUESTION 174

- (Exam Topic 2)

A web server has been compromised due to a ransomware attack. Further Investigation reveals the ransomware has been in the server for the past 72 hours. The systems administrator needs to get the services back up as soon as possible. Which of the following should the administrator use to restore services to a secure state?

- A. The last incremental backup that was conducted 72 hours ago
- B. The last known-good configuration stored by the operating system
- C. The last full backup that was conducted seven days ago
- D. The baseline OS configuration

Answer: A

Explanation:

The last incremental backup that was conducted 72 hours ago would be the best option to restore the services to a secure state, as it would contain the most recent data before the ransomware infection. Incremental backups only store the changes made since the last backup, so they are faster and use less storage space than full backups. Restoring from an incremental backup would also minimize the data loss and downtime caused by the ransomware attack. References:

> <https://www.comptia.org/blog/mature-cybersecurity-response-to-ransomware>

> <https://www.youtube.com/watch?v=HszU4nEAlFc>

NEW QUESTION 177

- (Exam Topic 2)

A security team is conducting a security review of a hosted data provider. The management team has asked the hosted data provider to share proof that customer data is being appropriately protected.

Which of the following would provide the best proof that customer data is being protected?

- A. SOC2
- B. CSA
- C. CSF
- D. ISO 31000

Answer: A

Explanation:

SOC2 is a type of audit report that provides assurance on the security, availability, processing integrity, confidentiality, and privacy of a service organization's systems. It is based on the Trust Services Criteria developed by the American Institute of Certified Public Accountants (AICPA). A SOC2 report can provide proof that customer data is being appropriately protected by the hosted data provider¹

<https://www.csagroup.org/store/product/50072454/> 3: <https://www.csagroup.org/store/product/50072454os/> 1: <https://cloudsecurityalliance.org/blog/2021/08/20/star-testimonial-csa-star-soc2-from-readiness-to-attestation/>

NEW QUESTION 181

- (Exam Topic 2)

A small, local company experienced a ransomware attack. The company has one web-facing server and a few workstations. Everything is behind an ISP firewall. A single web-facing server is set up on the router to forward all ports so that the server is viewable from the internet. The company uses an older version of third-party software to manage the website. The assets were never patched. Which of the following should be done to prevent an attack like this from happening again? (Select three).

- A. Install DLP software to prevent data loss.

- B. Use the latest version of software.
- C. Install a SIEM device.
- D. Implement MDM.
- E. Implement a screened subnet for the web server.
- F. Install an endpoint security solution.
- G. Update the website certificate and revoke the existing ones.
- H. Deploy additional network sensors.

Answer: BEF

NEW QUESTION 184

- (Exam Topic 2)

A report delivered to the Chief Information Security Officer (CISO) shows that some user credentials could be exfiltrated. The report also indicates that users tend to choose the same credentials on different systems and applications. Which of the following policies should the CISO use to prevent someone from using the exfiltrated credentials?

- A. MFA
- B. Lockout
- C. Time-based logins
- D. Password history

Answer: A

Explanation:

MFA stands for multi-factor authentication, which is a method of verifying a user's identity using two or more factors, such as something you know (e.g., password), something you have (e.g., token), or something you are (e.g., biometrics). MFA can prevent someone from using the exfiltrated credentials, as they would need to provide another factor besides the username and password to access the system or application. MFA can also alert the legitimate user of an unauthorized login attempt, allowing them to change their credentials or report the incident. References:

- > <https://www.comptia.org/certifications/security>
- > <https://www.youtube.com/watch?v=yCJyPPvM-xg>
- > <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/multi-factor-authentication-5/>

NEW QUESTION 188

- (Exam Topic 2)

Which Of the following best ensures minimal downtime for organizations vÃh crit-ical computing equipment located in earthquake-prone areas?

- A. Generators and UPS
- B. Off-site replication
- C. Additional warm site
- D. Local

Answer: B

Explanation:

Off-site replication is a process of copying and storing data in a remote location that is geographically separate from the primary site. It can ensure minimal downtime for organizations with critical computing equipment located in earthquake-prone areas by providing a backup copy of data that can be accessed and restored in case of a disaster or disruption at the primary site.

NEW QUESTION 191

- (Exam Topic 2)

Security analysts notice a server login from a user who has been on vacation for two weeks, The an-alysts confirm that the user did not log in to the system while on vacation After reviewing packet capture the analysts notice the following:

Which of the following occurred?

- A. A buffer overflow was exploited to gain unauthorized access.
- B. The user's account was con-promised, and an attacker changed the login credentials.
- C. An attacker used a pass-the-hash attack to gain access.
- D. An insider threat with username logged in to the account.

Answer: C

Explanation:

A pass-the-hash attack is a type of replay attack that captures and uses the hash of a password. The attacker then attempts to log on as the user with the stolen hash. This type of attack is possible be-cause some authentication protocols send hashes over the network instead of plain text passwords. The packet capture shows that the attacker used NTLM authentication, which is vulnerable to pass-the-hash attacks

NEW QUESTION 195

- (Exam Topic 2)

An attacker is using a method to hide data inside of benign files in order to exfiltrate confidential data. Which of the following is the attacker most likely using?

- A. Base64 encoding
- B. Steganography
- C. Data encryption
- D. Perfect forward secrecy

Answer: B

Explanation:

Steganography is a technique for hiding data inside of benign files such as images, audio, or video. This can be used to exfiltrate confidential data without raising suspicion or detection.

References: How to Hide Files Inside Files [Images, Folder] - Raymond.CC Blog; How to Hide Data in a Secret Text File Compartment - How-To Geek; How to Hide Data Within an Image - Medium

NEW QUESTION 199

- (Exam Topic 2)

A user is trying unsuccessfully to send images via SMS. The user downloaded the images from a corporate email account on a work phone. Which of the following policies is preventing the user from completing this action?

- A. Application management
- B. Content management
- C. Containerization
- D. Full disk encryption

Answer: B

Explanation:

Content management is a policy that controls what types of data can be accessed, modified, shared, or transferred by users or applications. Content management can prevent data leakage or exfiltration by blocking or restricting certain actions, such as copying, printing, emailing, or sending data via SMS. If the user downloaded the images from a corporate email account on a work phone, the content management policy may prevent the user from sending the images via SMS to protect the confidentiality and integrity of the data.

References: 1

CompTIA Security+ Certification Exam Objectives, page 10, Domain 2.0: Architecture and Design, Objective 2.4: Explain the importance of embedded and specialized systems security 2
CompTIA

Security+ Certification Exam Objectives, page 12, Domain 3.0: Implementation, Objective 3.1: Implement secure network architecture concepts 3 <https://www.comptia.org/blog/what-is-data-loss-prevention>

NEW QUESTION 201

- (Exam Topic 2)

An air traffic controller receives a change in flight plan for an morning aircraft over the phone. The air traffic controller compares the change to what appears on radar and determines the information to be false. As a result, the air traffic controller is able to prevent an incident from occurring. Which of the following is this scenario an example of?

- A. Mobile hijacking
- B. Vishing
- C. Unsecure VoIP protocols
- D. SPIM attack

Answer: B

Explanation:

Vishing is a form of phishing that uses voice calls or voice messages to trick victims into revealing personal information, such as credit card numbers, bank details, or passwords. Vishing often uses spoofed phone numbers, voice-altering software, or social engineering techniques to impersonate legitimate organizations or authorities. In this scenario, the caller pretended to be someone who could change the flight plan of an aircraft, which could have caused a serious incident.

NEW QUESTION 202

- (Exam Topic 2)

Server administrators want to configure a cloud solution so that computing memory and processor usage are maximized most efficiently across a number of virtual servers. They also need to avoid potential denial-of-service situations caused by availability. Which of the following should administrators configure to maximize system availability while efficiently utilizing available computing power?

- A. Dynamic resource allocation
- B. High availability
- C. Segmentation
- D. Container security

Answer: A

Explanation:

Dynamic resource allocation is a technique that allows cloud providers to adjust the amount and distribution of computing resources according to the changing demand and capacity of the cloud environment¹. Dynamic resource allocation can improve the efficiency and utilization of available computing power, as well as reduce the cost and energy consumption of the cloud infrastructure¹. Dynamic resource allocation can also enhance the system availability and reliability by avoiding potential denial-of-service situations caused by overloading or under-provisioning of resources¹.

NEW QUESTION 205

- (Exam Topic 2)

The management team has requested that the security team implement 802.1X into the existing wireless network setup. The following requirements must be met:

- Minimal interruption to the end user
- Mutual certificate validation

Which of the following authentication protocols would meet these requirements?

- A. EAP-FAST
- B. PSK
- C. EAP-TTLS
- D. EAP-TLS

Answer: D

Explanation:

EAP-TLS (Extensible Authentication Protocol - Transport Layer Security) is an authentication protocol that uses certificates to provide mutual authentication between the client and the authentication server. It also allows for the encryption of user credentials, making EAP-TLS a secure and reliable authentication protocol. According to the CompTIA Security+ SY0-601 Official Text Book, EAP-TLS is well-suited for wireless networks due to its mutual authentication capabilities and its ability to securely store credentials. It is also the preferred authentication protocol for 802.1X wireless networks.

NEW QUESTION 208

- (Exam Topic 2)

To reduce and limit software and infrastructure costs the Chief Information Officer has requested to move email services to the cloud. The cloud provider and the organization must have security controls to protect sensitive data Which of the following cloud services would best accommodate the request?

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

Answer: D

Explanation:

SaaS (Software as a Service) is a cloud model that provides clients with applications and software that are hosted and managed by a cloud provider over the internet. It can move email services to the cloud by allowing clients to access and use email applications without installing or maintaining them on their own devices or servers

NEW QUESTION 209

- (Exam Topic 2)

A company's help desk has received calls about the wireless network being down and users being unable to connect to it The network administrator says all access points are up and running One of the help desk technicians notices the affected users are working in a building near the parking lot. Which of the following is the most likely reason for the outage?

- A. Someone near the building is jamming the signal
- B. A user has set up a rogue access point near the building
- C. Someone set up an evil twin access point in the affected area.
- D. The APs in the affected area have been unplugged from the network

Answer: A

Explanation:

Jamming is a type of denial-of-service attack that involves interfering with or blocking the wireless signal using a device that emits radio waves at the same frequency as the wireless network. It can cause the wireless network to be down and users to be unable to connect to it, especially if they are working in a building near the parking lot where someone could easily place a jamming device.

NEW QUESTION 213

- (Exam Topic 2)

A company is moving to new location. The systems administrator has provided the following server room requirements to the facilities staff:

- > Consistent power levels in case of brownouts or voltage spikes
- > A minimum of 30 minutes runtime following a power outage
- > Ability to trigger graceful shutdowns of critical systems

Which of the following would BEST meet the requirements?

- A. Maintaining a standby, gas-powered generator
- B. Using large surge suppressors on computer equipment
- C. Configuring managed PDUs to monitor power levels
- D. Deploying an appropriately sized, network-connected UPS device

Answer: D

Explanation:

A UPS (uninterruptible power supply) device is a battery backup system that can provide consistent power levels in case of brownouts or voltage spikes. It can also provide a minimum of 30 minutes runtime following a power outage, depending on the size and load of the device. A network-connected UPS device can also communicate with critical systems and trigger graceful shutdowns if the battery level is low or the power is not restored.

NEW QUESTION 218

- (Exam Topic 2)

A security administrator examines the ARP table of an access switch and sees the following output:

VLAN	MAC Address	Type	Ports
All	012b1283f77b	STATIC	CPU
All	c656da1009f1	STATIC	CPU
1	f9de6ed7d38f	DYNAMIC	Fa0/1
2	fb8d0ae3850b	DYNAMIC	Fa0/2
2	7f403b7cf59a	DYNAMIC	Fa0/2
2	f4182c262c61	DYNAMIC	Fa0/2

Which of the following is a potential threat that is occurring on this access switch?

- A. DDoS on Fa0/2 port
- B. MAC flooding on Fa0/2 port
- C. ARP poisoning on Fa0/1 port
- D. DNS poisoning on port Fa0/1

Answer: C

Explanation:

ARP poisoning is a type of attack that exploits the ARP protocol to associate a malicious MAC address with a legitimate IP address on a network¹. This allows the attacker to intercept, modify or drop traffic between the victim and other hosts on the same network. In this case, the ARP table of the access switch shows that the same MAC address (00-0c-29-58-35-3b) is associated with two different IP addresses (192.168.1.100 and 192.168.1.101) on port Fa0/12. This indicates that an attacker has poisoned the ARP table to redirect traffic intended for 192.168.1.100 to their own device with MAC address 00-0c-29-58-35-3b. The other options are not related to this scenario. DDoS is a type of attack that overwhelms a target with excessive traffic from multiple sources³. MAC flooding is a type of attack that floods a switch with fake MAC addresses to exhaust its MAC table and force it to operate as a hub⁴. DNS poisoning is a type of attack that corrupts the DNS cache with fake entries to redirect users to malicious websites.

References: 1: <https://www.imperva.com/learn/application-security/arp-spoofing/> 2:

<https://community.cisco.com/t5/networking-knowledge-base/network-tables-mac-routing-arp/ta-p/4184148> 3:

<https://www.imperva.com/learn/application-security/ddos-attack/> 4: <https://www.imperva.com/learn/application-security/mac-flooding/> :

<https://www.imperva.com/learn/application-security/dns-spoofing-poisoning/>

NEW QUESTION 220

- (Exam Topic 2)

Developers are writing code and merging it into shared repositories several times a day, where it is tested automatically. Which of the following concepts does this best represent?

- A. Functional testing
- B. Stored procedures
- C. Elasticity
- D. Continuous Integration

Answer: D

Explanation:

Continuous Integration is the concept that best represents developers writing code and merging it into shared repositories several times a day, where it is tested automatically. Continuous Integration is a software development practice that involves integrating code changes from multiple developers into a shared repository frequently and running automated tests to ensure quality and functionality. Continuous Integration can help to detect and fix errors early, improve collaboration, reduce rework, and accelerate delivery. References: <https://www.comptia.org/blog/what-is-devops>

<https://www.certblaster.com/wp-content/uploads/2020/11/CompTIA-Security-SY0-601-Exam-Objectives-1.0.pdf>

NEW QUESTION 223

- (Exam Topic 2)

Security analysts have noticed the network becomes flooded with malicious packets at specific times of the day. Which of the following should the analysts use to investigate this issue?

- A. Web metadata
- B. Bandwidth monitors
- C. System files
- D. Correlation dashboards

Answer: D

Explanation:

Correlation dashboards are tools that allow security analysts to monitor and analyze multiple sources of data and events in real time. They can help identify patterns, trends, anomalies, and threats by correlating different types of data and events, such as network traffic, logs, alerts, and incidents. Correlation dashboards can help investigate network flooding by showing the source, destination, volume, and type of malicious packets and their impact on the network performance and availability. References:

<https://www.comptia.org/blog/what-is-a-correlation-dashboard>

NEW QUESTION 228

- (Exam Topic 2)

An audit identified PII being utilized in the development environment of a critical application. The Chief Privacy Officer (CPO) is adamant that this data must be removed; however, the developers are concerned that without real data they cannot perform functionality tests and search for specific data. Which of the following should a security professional implement to best satisfy both the CPOs and the development team's requirements?

- A. Data purge
- B. Data encryption
- C. Data masking
- D. Data tokenization

Answer: D

Explanation:

Data tokenization is a technique of replacing sensitive data with non-sensitive substitutes called tokens that have no intrinsic value or meaning. It can satisfy both the CPO's and the development team's requirements by removing personally identifiable information (PII) from the development environment of a critical application while preserving the functionality and format of the data for testing purposes.

NEW QUESTION 233

- (Exam Topic 2)

Which of the following processes would most likely help an organization that has conducted an incident response exercise to improve performance and identify

challenges?

- A. Lessons learned
- B. Identification
- C. Simulation
- D. Containment

Answer: A

Explanation:

Lessons learned is a process that would most likely help an organization that has conducted an incident response exercise to improve performance and identify challenges. Lessons learned is a process that involves reviewing and evaluating the incident response exercise to identify what went well, what went wrong, and what can be improved. Lessons learned can help an organization enhance its incident response capabilities, address any gaps or weaknesses, and update its incident response plan accordingly.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.sans.org/reading-room/whitepapers/incident/incident-handlers-handbook-33901>

NEW QUESTION 235

- (Exam Topic 2)

A network engineer receives a call regarding multiple LAN-connected devices that are on the same switch. The devices have suddenly been experiencing speed and latency issues while connecting to network resources. The engineer enters the command show mac address-table and reviews the following output

VLAN	MAC	PORT
1	00-04-18-EB-14-30	Fa0/1
1	88-CD-34-19-E8-98	Fa0/2
1	40-11-08-87-10-13	Fa0/3
1	00-04-18-EB-14-30	Fa0/4
1	88-CD-34-00-15-F3	Fa0/5
1	FA-13-02-04-27-64	Fa0/6

Which of the following best describes the attack that is currently in progress?

- A. MAC flooding
- B. Evil twin
- C. ARP poisoning
- D. DHCP spoofing

Answer: C

Explanation:

This is an attempt to redirect traffic to an attacking host by sending an ARP packet that contains the forged address of the next hop router. The attacker tricks the victim into believing that it is the legitimate router by sending a spoofed ARP reply with its own MAC address. This causes the victim to send all its traffic to the attacker instead of the router. The attacker can then intercept, modify, or drop the packets as they please.

NEW QUESTION 240

- (Exam Topic 2)

Unauthorized devices have been detected on the internal network. The devices' locations were traced to Ether ports located in conference rooms. Which of the following would be the best technical controls to implement to prevent these devices from accessing the internal network?

- A. NAC
- B. DLP
- C. IDS
- D. MFA

Answer: A

Explanation:

NAC stands for network access control, which is a security solution that enforces policies and controls on devices that attempt to access a network. NAC can help prevent unauthorized devices from accessing the internal network by verifying their identity, compliance, and security posture before granting them access. NAC can also monitor and restrict the activities of authorized devices based on predefined rules and roles.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.cisco.com/c/en/us/products/security/what-is-network-access-control-nac.html>

NEW QUESTION 245

- (Exam Topic 2)

Which of the following is most likely to contain ranked and ordered information on the likelihood and potential impact of catastrophic events that may affect business processes and systems, while also highlighting the residual risks that need to be managed after mitigating controls have been implemented?

- A. An RTO report
- B. A risk register
- C. A business impact analysis
- D. An asset value register
- E. A disaster recovery plan

Answer: B

Explanation:

A risk register is a document or a tool that records and tracks information about the identified risks and their analysis, such as likelihood, impact, priority, mitigation strategies, residual risks, etc. It can contain ranked and ordered information on the likelihood and potential impact of catastrophic events that may affect business

processes and systems, while also highlighting the residual risks that need to be managed after mitigating controls have been implemented.

NEW QUESTION 250

- (Exam Topic 2)

A security architect is designing the new outbound internet for a small company. The company would like all 50 users to share the same single Internet connection. In addition, users will not be permitted to use social media sites or external email services while at work. Which of the following should be included in this design to satisfy these requirements? (Select TWO).

- A. DLP
- B. MAC filtering
- C. NAT
- D. VPN
- E. Content filter
- F. WAF

Answer: CD

Explanation:

NAT (Network Address Translation) is a technology that allows multiple devices to share a single IP address, allowing them to access the internet while still maintaining security and privacy. VPN (Virtual Private Network) is a technology that creates a secure, encrypted tunnel between two or more devices, allowing users to access the internet and other network resources securely and privately. Additionally, VPNs can also be used to restrict access to certain websites and services, such as social media sites and external email services.

NEW QUESTION 252

- (Exam Topic 2)

A security analyst discovers that a company's username and password database were posted on an internet forum. The usernames and passwords are stored in plaintext. Which of the following would mitigate the damage done by this type of data exfiltration in the future?

- A. Create DLP controls that prevent documents from leaving the network.
- B. Implement salting and hashing.
- C. Configure the web content filter to block access to the forum.
- D. Increase password complexity requirements.

Answer: B

Explanation:

Salting and hashing are techniques that can improve the security of passwords stored in a database by making them harder to crack or reverse-engineer by hackers who might access the database¹².

Salting is the process of adding a unique, random string of characters known only to the site to each password before it is hashed². Hashing is the process of converting a password into a fixed-length string of characters, which cannot be reversed³. Salting and hashing ensure that the encryption process results in a different hash value, even when two passwords are the same¹. This makes it more difficult for an attacker to use pre-computed tables or dictionaries to guess the passwords, or to exploit duplicate hashes in the database⁴.

NEW QUESTION 256

- (Exam Topic 2)

An employee's company email is configured with conditional access and requires that MFA is enabled and used. An example of MFA is a phone call and:

- A. a push notification
- B. a password.
- C. an SMS message.
- D. an authentication application.

Answer: D

Explanation:

An authentication application can generate one-time passwords or QR codes that are time-based and unique to each user and device. It does not rely on network connectivity or SMS delivery, which can be intercepted or delayed. It also does not require the user to respond to a push notification, which can be accidentally approved or ignored.

NEW QUESTION 261

- (Exam Topic 2)

Which of the following secure application development concepts aims to block verbose error messages from being shown in a user's interface?

- A. OWASP
- B. Obfuscation/camouflage
- C. Test environment
- D. Prevent of information exposure

Answer: D

Explanation:

Preventing information exposure is a secure application development concept that aims to block verbose error messages from being shown in a user's interface. Verbose error messages are detailed messages that provide information about errors or exceptions that occur in an application. Verbose error messages may reveal sensitive information about the application's structure, configuration, logic, or data that could be exploited by attackers. Therefore, preventing information exposure involves implementing proper error handling mechanisms that display generic or user-friendly messages instead of verbose error messages.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
https://owasp.org/www-project-top-ten/2017/A6_2017-Security_Misconfiguration

NEW QUESTION 262

- (Exam Topic 2)

Which of the following allow access to remote computing resources, a operating system. and centrdized configuration and data

- A. Containers
- B. Edge computing
- C. Thin client
- D. Infrastructure as a service

Answer: C

Explanation:

Thin clients are devices that have minimal hardware and software components and rely on a remote server to provide access to computing resources, an operating system, and centralized configuration and data. Thin clients can reduce the cost, complexity, and security risks of managing multiple devices.

NEW QUESTION 266

- (Exam Topic 2)

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:

Online Certificate Status Protocol (OCSP) is used to validate a certificate when it is presented to a user. OCSP is a protocol that allows a client or browser to query the status of a certificate from an OCSP responder, which is a server that maintains and provides the revocation status of certificates issued by a certificate authority (CA). OCSP can help to verify the authenticity and validity of a certificate and prevent the use of revoked or expired certificates. References:

<https://www.comptia.org/blog/what-is-ocsp>

<https://www.certblaster.com/wp-content/uploads/2020/11/CompTIA-Security-SY0-601-Exam-Objectives-1.0.pdf>

NEW QUESTION 271

- (Exam Topic 2)

Which of the following terms should be included in a contract to help a company monitor the ongoing security maturity Of a new vendor?

- A. A right-to-audit clause allowing for annual security audits
- B. Requirements for event logs to kept for a minimum of 30 days
- C. Integration of threat intelligence in the companys AV
- D. A data-breach clause requiring disclosure of significant data loss

Answer: A

Explanation:

A right-to-audit clause is a contractual provision that allows one party to audit the records and activities of another party to ensure compliance with security policies and standards. It can help a company monitor the ongoing security maturity of a new vendor by conducting annual security audits and identifying any gaps or issues that need to be addressed.

NEW QUESTION 276

- (Exam Topic 2)

An organization is concerned that ils hosted web servers are not running the most updated version of the software. Which of the following would work best to help identify potential vulnerabilities?

- A. hping3 -S compcia.org -p 80
- B. nc -1 -v comptia.crg -p 80
- C. nmap comptia.org -p 80 -sv
- D. nslookup -port«80 comptia.org

Answer: C

Explanation:

nmap is a network scanning tool that can perform various tasks such as port scanning, service detection, version detection, OS detection, vulnerability scanning, etc... nmap comptia.org -p 80 -sv is a command that scans port 80 (the default port for HTTP) on comptia.org domain name and tries to identify the service name and version running on that port. This can help identify potential vulnerabilities in the web server software by comparing the version with known exploits or patches.

NEW QUESTION 277

- (Exam Topic 2)

Several users have been violating corporate security policy by accessing inappropriate Sites on corporate-issued mobile devices while off campus. The senior leadership team wants all mobile devices to be hardened with controls that:

- > Limit the sites that can be accessed
 - > Only allow access to internal resources while physically on campus.
 - > Restrict employees from downloading images from company email
- Whip of the following controls would best address this situation? (Select two).

- A. MFA
- B. GPS tagging
- C. Biometric authentication

- D. Content management
- E. Geofencing
- F. Screen lock and PIN requirements

Answer: DE

Explanation:

Content management is a security control that can limit the sites that can be accessed by corporate-issued mobile devices. It can also restrict employees from downloading images from company email by filtering or blocking certain types of content¹. Geofencing is a security control that can only allow access to internal resources while physically on campus. It can use GPS or other location services to define a virtual boundary around a physical area and enforce policies based on the device's location².

References:

- 1: <https://www.cyber.gov.au/resources-business-and-government/maintaining-devices-and-systems/system-hardening>
2: <https://www.makeuseof.com/how-to-secure-your-content-management-system/>

NEW QUESTION 280

- (Exam Topic 2)

Which of the following threat actors is most likely to be motivated by ideology?

- A. Business competitor
- B. Hacktivist
- C. Criminal syndicate
- D. Script kiddie
- E. Disgruntled employee

Answer: B

Explanation:

A hacktivist is a threat actor who is most likely to be motivated by ideology. A hacktivist is a person or group who uses hacking skills and techniques to promote a political or social cause. Hacktivists may target government, corporate, or religious entities that they disagree with or oppose. Hacktivists may use various methods to achieve their goals, such as defacing websites, leaking sensitive data, launching denial-of-service attacks, or spreading propaganda. Hacktivists are not motivated by financial gain or personal benefit, but rather by their beliefs and values. References:

- > <https://www.uscybersecurity.net/hacktivist/>
> <https://www.fortinet.com/resources/cyberglossary/what-is-hacktivism>

NEW QUESTION 281

- (Exam Topic 2)

A security administrator is evaluating remote access solutions for employees who are geographically dispersed. Which of the following would provide the MOST secure remote access? (Select TWO).

- A. IPSec
- B. SFTP
- C. SRTP
- D. LDAPS
- E. S/MIME
- F. SSL VPN

Answer: AF

Explanation:

IPSec (Internet Protocol Security) is a technology that provides secure communication over the internet by encrypting traffic and authenticating it at both the sender and receiver. It can be used to create secure tunnels between two or more devices, allowing users to access resources securely and privately.

SSL VPN (Secure Sockets Layer Virtual Private Network) is a type of VPN that uses an SSL/TLS connection to encrypt traffic between two or more devices. It is a secure and reliable solution for providing remote access, as all traffic is encrypted and authenticated. Additionally, SSL VPNs can also be used to restrict access to certain websites and services, making them a secure and robust solution for remote access.

NEW QUESTION 285

- (Exam Topic 2)

Which of the following security controls is used to isolate a section of the network and its externally available resources from the internal corporate network in order to reduce the number of possible attacks?

- A. Faraday cages
- B. Air gap
- C. Vaulting
- D. Proximity readers

Answer: B

Explanation:

An air gap is a security measure that physically isolates a section of the network from any other network or device that could compromise its security. An air gap prevents any unauthorized access, data leakage, or malware infection through network connections, such as Ethernet cables, wireless signals, or Bluetooth devices. An air gap can be used to protect sensitive or critical systems and data from external threats, such as hackers, spies, or cyberattacks.

NEW QUESTION 289

- (Exam Topic 2)

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

a company Or change job roles inter-nally?

- A. Provisioning resources
- B. Disabling access
- C. APIs
- D. Escalating permission requests

Answer: B

Explanation:

Disabling access is an automation use case that can enhance the security posture of an organization by rapidly updating permissions when employees leave a company or change job roles internally. It can prevent unauthorized access and data leakage by revoking or modifying the access rights of employees based on their current status and role.

NEW QUESTION 291

- (Exam Topic 2)

A security engineer is setting up passwordless authentication for the first time. INSTRUCTIONS

Use the minimum set of commands to set this up and verify that it works. Commands cannot be reused.

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



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A screenshot of a computer Description automatically generated with medium confidence

NEW QUESTION 296

- (Exam Topic 2)

An organization is repairing damage after an incident. Which Of the following controls is being implemented?

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

Answer: C

Explanation:

Corrective controls are security measures that are implemented after an incident to repair the damage and restore normal operations. They can include actions such as patching systems, restoring backups, removing malware, etc. An organization that is repairing damage after an incident is implementing corrective controls.

NEW QUESTION 301

- (Exam Topic 2)

An organization wants to secure a LAN/WLAN so users can authenticate and transport data securely. The solution needs to prevent on-path attacks and evil twin attacks. Which of the following will best meet the organization's need?

- A. MFA
- B. 802.1X
- C. WPA2
- D. TACACS

Answer: B

Explanation:

* 802.1X is a standard for network access control that provides authentication and encryption for devices that connect to a LAN/WLAN. 802.1X uses the Extensible Authentication Protocol (EAP) to exchange authentication messages between a supplicant (the device requesting access), an authenticator (the device granting access), and an authentication server (the device verifying credentials). 802.1X can prevent on-path attacks and evil twin attacks by requiring users to provide valid credentials before accessing the network and encrypting the data transmitted over the network. On-path attacks are attacks that involve intercepting or modifying network traffic between two endpoints. An on-path attacker can eavesdrop on sensitive information, alter or inject malicious data, or redirect traffic to malicious destinations. On-path attacks are frequently perpetrated over WiFi networks. Evil twin attacks are attacks that involve setting up a fake WiFi access point that mimics a legitimate one. An evil twin attacker can trick users into connecting to the fake network and then monitor or manipulate their online activity. Evil twin attacks are more common on public WiFi networks that are unsecured and leave personal data vulnerable.

NEW QUESTION 303

- (Exam Topic 2)

A corporate security team needs to secure the wireless perimeter of its physical facilities to ensure only authorized users can access corporate resources. Which of the following should the security team do? (Refer the answer from CompTIA SY0-601 Security+ documents or guide at [comptia.org](https://www.comptia.org))

- A. Identify rogue access points.
- B. Check for channel overlaps.
- C. Create heat maps.
- D. Implement domain hijacking.

Answer: A

Explanation:

Based on CompTIA SY0-601 Security+ guide, the answer to the question is A. Identify rogue access points. To secure the wireless perimeter of its physical facilities, the corporate security team should focus on identifying rogue access points, which are unauthorized access points that have been set up by employees or outsiders to bypass security controls. By identifying and removing these rogue access points, the team can ensure that only authorized users can access corporate resources through the wireless network.
<https://www.comptia.org/training/books/security-sy0-601-study-guide>

NEW QUESTION 306

- (Exam Topic 2)

An organization with a low tolerance for user inconvenience wants to protect laptop hard drives against loss or data theft. Which of the following would be the most acceptable?

- A. SED
- B. HSM
- C. DLP
- D. TPM

Answer: A

Explanation:

SED stands for Self-Encrypting Drive, which is a type of hard drive that automatically encrypts and decrypts data using a built-in hardware encryption engine. SEDs do not require any additional software or configuration, and they do not affect the performance or usability of the laptop. SEDs also have a feature called Instant Secure Erase, which allows the user to quickly and securely wipe the data on the drive by deleting the encryption key.

NEW QUESTION 307

- (Exam Topic 2)

Employees in the research and development business unit receive extensive training to ensure they understand how to best protect company data. Which of the following is the type of data these employees are most likely to use in day-to-day work activities?

- A. Encrypted
- B. Intellectual property
- C. Critical
- D. Data in transit

Answer: B

Explanation:

Intellectual property is a type of data that is proprietary and unique to an organization. It includes trade secrets and other information that the organization does not want to share with third parties or competitors. Employees in the research and development business unit are most likely to use intellectual property in their day-to-day work activities, as they are involved in creating new products, services, or processes for the organization. Intellectual property data requires a high level of security and protection, as it can provide a competitive advantage or disadvantage if leaked or stolen.

Encrypted data is not a type of data, but a state of data. Encryption is a method of transforming data into an unreadable format using a key, so that only authorized parties can access it. Encryption can be applied to any type of data, such as intellectual property, critical data, or data in transit.

Critical data is a type of data that is essential for the operation and continuity of an organization. It includes information such as customer records, financial transactions, employee details, and so on. Critical data may or may not be intellectual property, depending on the nature and source of the data. Critical data also requires a high level of security and protection, as it can affect the reputation, performance, or legal compliance of the organization.

Data in transit is not a type of data, but a state of data. Data in transit refers to data that is moving from one location to another over a network, such as the internet, a LAN, or a WAN. Data in transit can be vulnerable to interception, modification, or theft by malicious actors. Data in transit can also be any type of data, such as intellectual property, critical data, or PII.

NEW QUESTION 312

- (Exam Topic 2)

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

- A. SCAP
- B. NetFlow

- C. Antivirus
- D. DLP

Answer: D

Explanation:

DLP stands for Data Loss Prevention, which is a technology that can monitor, detect and prevent the unauthorized transmission of sensitive data, such as PII (Personally Identifiable Information). DLP can be implemented on endpoints, networks, servers or cloud services to protect data in motion, in use or at rest. DLP can also block or alert on data transfers that violate predefined policies or rules. DLP is the best tool to assist with detecting an employee who has accidentally emailed a file containing a customer's PII, as it can scan the email content and attachments for any data that matches the criteria of PII and prevent the email from being sent or notify the administrator of the incident. Verified References:

- > Data Loss Prevention Guide to Blocking Leaks - CompTIA <https://www.comptia.org/content/guides/data-loss-prevention-a-step-by-step-guide-to-blocking-leaks>
- > Data Loss Prevention – SY0-601 CompTIA Security+ : 2.1 <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/data-loss-prevention-4/>
- > Data Loss Prevention – CompTIA Security+ SY0-501 – 2.1 <https://www.professormesser.com/security-plus/sy0-501/data-loss-prevention-3/>

NEW QUESTION 316

- (Exam Topic 2)

A security analyst reviews web server logs and notices the following line: 104.35. 45.53 [22/May/2020:07 : 00:58 +0100] "GET . UNION ALL SELECT user login, user _ pass, user email from wp users—— HTTP/I.I" 200 1072

<http://www.example.com/wordpress/wp—admin/>

Which of the following vulnerabilities is the attacker trying to exploit?

- A. SSRF
- B. CSRF
- C. xss
- D. SQLi

Answer: D

Explanation:

SQLi stands for SQL injection, which is a type of web security vulnerability that allows an attacker to execute malicious SQL statements on a database server. SQLi can result in data theft, data corruption, denial of service, or remote code execution.

The attacker in the web server log is trying to exploit a SQLi vulnerability by sending a malicious GET request that contains a UNION ALL SELECT statement. This statement is used to combine the results of two or more SELECT queries into a single result set. The attacker is attempting to retrieve user login, user pass, and user email from the wp users table, which is a WordPress database table that stores user information. The attacker may use this information to compromise the WordPress site or the users' accounts.

NEW QUESTION 318

- (Exam Topic 2)

A security administrator is compiling information from all devices on the local network in order to gain better visibility into user activities. Which of the following is the best solution to meet this objective?

- A. SIEM
- B. HIDS
- C. CASB
- D. EDR

Answer: A

Explanation:

SIEM stands for Security Information and Event Management, which is a solution that can collect, correlate, and analyze security logs and events from various devices on a network. SIEM can provide better visibility into user activities by generating reports, alerts, dashboards, and metrics. SIEM can also help detect and respond to security incidents, comply with regulations, and improve security posture.

NEW QUESTION 320

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