



CompTIA

Exam Questions CS0-003

CompTIA CySA+ Certification Beta Exam

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NEW QUESTION 1

The Chief Information Security Officer is directing a new program to reduce attack surface risks and threats as part of a zero trust approach. The IT security team is required to come up with priorities for the program. Which of the following is the best priority based on common attack frameworks?

- A. Reduce the administrator and privileged access accounts
- B. Employ a network-based IDS
- C. Conduct thorough incident response
- D. Enable SSO to enterprise applications

Answer: A

Explanation:

The best priority based on common attack frameworks for a new program to reduce attack surface risks and threats as part of a zero trust approach is to reduce the administrator and privileged access accounts. Administrator and privileged access accounts are accounts that have elevated permissions or capabilities to perform sensitive or critical tasks on systems or networks, such as installing software, changing configurations, accessing data, or granting access. Reducing the administrator and privileged access accounts can help minimize the attack surface, as it can limit the number of potential targets or entry points for attackers, as well as reduce the impact or damage of an attack if an account is compromised.

NEW QUESTION 2

A security analyst needs to mitigate a known, exploited vulnerability related not tack vector that embeds software through the USB interface. Which of the following should the analyst do first?

- A. Conduct security awareness training on the risks of using unknown and unencrypted USBs.
- B. Write a removable media policy that explains that USBs cannot be connected to a company asset.
- C. Check configurations to determine whether USB ports are enabled on company assets.
- D. Review logs to see whether this exploitable vulnerability has already impacted the company.

Answer: C

Explanation:

USB ports are a common attack vector that can be used to deliver malware, steal data, or compromise systems. The first step to mitigate this vulnerability is to check the configurations of the company assets and disable or restrict the USB ports if possible. This will prevent unauthorized devices from being connected and reduce the attack surface. The other options are also important, but they are not the first priority in this scenario.

References:

? CompTIA CySA+ CS0-003 Certification Study Guide, page 247

? What are Attack Vectors: Definition & Vulnerabilities, section "How to secure attack vectors"

? Are there any attack vectors for a printer connected through USB in a Windows environment?, answer by user "schroeder"

NEW QUESTION 3

A security analyst at a company called ACME Commercial notices there is outbound traffic to a host IP that resolves to <https://office365password.acme.co>. The site's standard VPN logon page is www.acme.com/logon. Which of the following is most likely true?

- A. This is a normal password change URL.
- B. The security operations center is performing a routine password audit.
- C. A new VPN gateway has been deployed
- D. A social engineering attack is underway

Answer: D

Explanation:

A social engineering attack is underway is the most likely explanation for the outbound traffic to a host IP that resolves to <https://office365password.acme.co>, while the site's standard VPN logon page is www.acme.com/logon. A social engineering attack is a technique that exploits human psychology and behavior to manipulate people into performing actions or divulging information that benefit the attackers. A common type of social engineering attack is phishing, which involves sending fraudulent emails or other messages that appear to come from a legitimate source, such as a company or a colleague, and lure the recipients into clicking on malicious links or attachments, or entering their credentials or other sensitive information on fake websites. In this case, the attackers may have registered a domain name that looks similar to the company's domain name, but with a typo (office365 instead of office365), and set up a fake website that mimics the company's VPN logon page. The attackers may have also sent phishing emails to the company's employees, asking them to reset their passwords or log in to their VPN accounts using the malicious link. The security analyst should investigate the source and content of the phishing emails, and alert the employees not to click on any suspicious links or enter their credentials on any untrusted websites. Official References:

? <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>

? <https://www.comptia.org/certifications/cybersecurity-analyst>

? <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>

NEW QUESTION 4

The Chief Executive Officer (CEO) has notified that a confidential trade secret has been compromised. Which of the following communication plans should the CEO initiate?

- A. Alert department managers to speak privately with affected staff.
- B. Schedule a press release to inform other service provider customers of the compromise.
- C. Disclose to all affected parties in the Chief Operating Officer for discussion and resolution.
- D. Verify legal notification requirements of PII and SPII in the legal and human resource departments.

Answer: A

Explanation:

The CEO should initiate an alert to department managers to speak privately with affected staff. This is because the trade secret is confidential and should not be disclosed to the public. Additionally, the CEO should verify legal notification requirements of PII and SPII in the legal and human resource departments to ensure

compliance with data protection laws.

References: CompTIA CySA+ Study Guide: Exam CS0-002, 2nd Edition, Chapter 4, "Data Protection and Privacy Practices", page 194; CompTIA CySA+ Certification Exam Objectives Version 4.0, Domain 4.0 "Compliance and Assessment", Objective 4.1 "Given a scenario, analyze data as part of a security incident", Sub-objective "Data classification levels", page 23

NEW QUESTION 5

An organization has tracked several incidents that are listed in the following table:

| Start time | Detection time | Time elapsed in minutes |
|------------|----------------|-------------------------|
| 7:20 a.m. | 10:30 a.m. | 180 |
| 12:00 a.m. | 2:30 a.m. | 150 |
| 9:25 a.m. | 12:15 p.m. | 170 |
| 3:25 p.m. | 5:45 p.m. | 140 |

Which of the following is the organization's MTTD?

- A. 140
- B. 150
- C. 160
- D. 180

Answer: C

Explanation:

The MTTD (Mean Time To Detect) is calculated by averaging the time elapsed in detecting incidents. From the given data: $(180+150+170+140)/4 = 160$ minutes. This is the correct answer according to the CompTIA CySA+ CS0-003 Certification Study Guide1, Chapter 4, page 161. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 4, page 153; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 4, page 161.

NEW QUESTION 6

An older CVE with a vulnerability score of 7.1 was elevated to a score of 9.8 due to a widely available exploit being used to deliver ransomware. Which of the following factors would an analyst most likely communicate as the reason for this escalation?

- A. Scope
- B. Weaponization
- C. CVSS
- D. Asset value

Answer: B

Explanation:

Weaponization is a factor that describes how an adversary develops or acquires an exploit or payload that can take advantage of a vulnerability and deliver a malicious effect. Weaponization can increase the severity or impact of a vulnerability, as it makes it easier or more likely for an attacker to exploit it successfully and cause damage or harm. Weaponization can also indicate the level of sophistication or motivation of an attacker, as well as the availability or popularity of an exploit or payload in the cyber threat landscape. In this case, an older CVE with a vulnerability score of 7.1 was elevated to a score of 9.8 due to a widely available exploit being used to deliver ransomware. This indicates that weaponization was the reason for this escalation.

NEW QUESTION 7

Which of the following is described as a method of enforcing a security policy between cloud customers and cloud services?

- A. CASB
- B. DMARC
- C. SIEM
- D. PAM

Answer: A

Explanation:

A CASB (Cloud Access Security Broker) is a security solution that acts as an intermediary between cloud users and cloud providers, and monitors and enforces security policies for cloud access and usage. A CASB can help organizations protect their data and applications in the cloud from unauthorized or malicious access, as well as comply with regulatory standards and best practices. A CASB can also provide visibility, control, and analytics for cloud activity, and identify and mitigate potential threats¹²

The other options are not correct. DMARC (Domain-based Message Authentication, Reporting and Conformance) is an email authentication protocol that helps email domain owners prevent spoofing and phishing attacks by verifying the sender's identity and instructing the receiver how to handle unauthenticated messages³⁴ SIEM (Security Information and Event Management) is a security solution that collects, aggregates, and analyzes log data from various sources across an organization's network, such as applications, devices, servers, and users, and provides real-time alerts, dashboards, reports, and incident response capabilities to help security teams identify and mitigate cyberattacks⁵⁶ PAM (Privileged Access Management) is a security solution that helps organizations manage and protect the access and permissions of users, accounts, processes, and systems that have elevated or administrative privileges. PAM can help prevent credential theft, data breaches, insider threats, and compliance violations by monitoring, detecting, and preventing unauthorized privileged access to critical resources⁷⁸

NEW QUESTION 8

An analyst is designing a message system for a bank. The analyst wants to include a feature that allows the recipient of a message to prove to a third party that the message came from the sender Which of the following information security goals is the analyst most likely trying to achieve?

- A. Non-repudiation
- B. Authentication
- C. Authorization
- D. Integrity

Answer: A

Explanation:

Non-repudiation ensures that a message sender cannot deny the authenticity of their sent message. This is crucial in banking communications for legal and security reasons.

The goal of allowing a message recipient to prove the message's origin is non-repudiation. This ensures that the sender cannot deny the authenticity of their message. Non-repudiation is a fundamental aspect of secure messaging systems, especially in banking and financial communications.

NEW QUESTION 9

A Chief Information Security Officer wants to implement security by design, starting vulnerabilities, including SQL injection, FRI, XSS, etc. Which of the following would most likely meet the requirement?

- A. Reverse engineering
- B. Known environment testing
- C. Dynamic application security testing
- D. Code debugging

Answer: C

Explanation:

Dynamic Application Security Testing (DAST) is used to detect vulnerabilities in running applications, including common issues like SQL injection, FRI, XSS, etc. It aligns with the goal of implementing security by design.

NEW QUESTION 10

A Chief Information Security Officer (CISO) is concerned that a specific threat actor who is known to target the company's business type may be able to breach the network and remain inside of it for an extended period of time.

Which of the following techniques should be performed to meet the CISO's goals?

- A. Vulnerability scanning
- B. Adversary emulation
- C. Passive discovery
- D. Bug bounty

Answer: B

Explanation:

The correct answer is B. Adversary emulation.

Adversary emulation is a technique that involves mimicking the tactics, techniques, and procedures (TTPs) of a specific threat actor or group to test the effectiveness of the security controls and incident response capabilities of an organization¹. Adversary emulation can help identify and address the gaps and weaknesses in the security posture of an organization, as well as improve the readiness and skills of the security team. Adversary emulation can also help measure the dwell time, which is the duration that a threat actor remains undetected inside the network².

The other options are not the best techniques to meet the CISO's goals. Vulnerability scanning (A) is a technique that involves scanning the network and systems for known vulnerabilities, but it does not simulate a real attack or test the incident response capabilities. Passive discovery © is a technique that involves collecting information about the network and systems without sending any packets or probes, but it does not identify or exploit any vulnerabilities or test the security controls. Bug bounty (D) is a program that involves rewarding external researchers or hackers for finding and reporting vulnerabilities in an organization's systems or applications, but it does not focus on a specific threat actor or group.

NEW QUESTION 10

A security analyst is writing a shell script to identify IP addresses from the same country. Which of the following functions would help the analyst achieve the objective?

- A. `function w() { info=$(ping -c 1 $1 | awk -F "/" 'END{print $1}') && echo "$1 | $info" }`
- B. `function x() { info=$(geoipllookup $1) && echo "$1 | $info" }`
- C. `function y() { info=$(dig -x $1 | grep PTR | tail -n 1) && echo "$1 | $info" }`
- D. `function z() { info=$(traceroute -m 40 $1 | awk 'END{print $1}') && echo "$1 | $info" }`

Answer: B

Explanation:

The function that would help the analyst identify IP addresses from the same country is:

```
function x() { info=$(geoipllookup $1) && echo "$1 | $info" }
```

This function takes an IP address as an argument and uses the geoipllookup command to get the geographic location information associated with the IP address, such as the country name, country code, region, city, or latitude and longitude. The function then prints the IP address and the geographic location information, which can help identify any IP addresses that belong to the same country.

NEW QUESTION 11

A security analyst is trying to identify possible network addresses from different source networks belonging to the same company and region. Which of the following shell script functions could help achieve the goal?

- A. `function w() { a=$(ping -c 1 $1 | awk -F "/" 'END{print $1}') && echo "$1 | $a" }`
- B. `function x() { b=$(traceroute -m 40 $1 | awk 'END{print $1}') && echo "$1 | $b" }`
- C. `function y() { dig $(dig -x $1 | grep PTR | tail -n 1 | awk -F "." 'in-addr' '{print $1}').origin.asn.cymru.com TXT +short }`
- D. `function z() { c=$(geoipllookup$1) && echo "$1 | $c" }`

Answer: C

Explanation:

The shell script function that could help identify possible network addresses from different source networks belonging to the same company and region is:
`function y() { dig $(dig -x $1 | grep PTR | tail -n 1 | awk -F "." {print $1}') .origin.asn.cymru.com TXT +short }`
 This function takes an IP address as an argument and performs two DNS lookups using the dig command. The first lookup uses the -x option to perform a reverse DNS lookup and get the hostname associated with the IP address. The second lookup uses the origin.asn.cymru.com domain to get the autonomous system number (ASN) and other information related to the IP address, such as the country code, registry, or allocation date. The function then prints the IP address and the ASN information, which can help identify any network addresses that belong to the same ASN or region

NEW QUESTION 13

A security analyst received an alert regarding multiple successful MFA log-ins for a particular user. When reviewing the authentication logs, the analyst sees the following:

| Time | Username | Application | Access device | MFA device |
|-----------|----------|---------------------|-------------------------|-------------------------|
| 16:07 UTC | jdoe | Productivity Portal | 1.2.3.4 (United States) | 1.2.3.4 (United States) |
| 16:11 UTC | jdoe | HR Portal | 1.2.3.4 (United States) | 1.2.3.4 (United States) |
| 17:28 UTC | jdoe | Productivity Portal | 3.4.5.6 (Russia) | 1.2.3.4 (United States) |
| 17:30 UTC | jdoe | Productivity Portal | 1.2.3.4 (United States) | 1.2.3.4 (United States) |
| 17:31 UTC | jdoe | HR Portal | 3.4.5.6 (Russia) | 3.4.5.6 (Russia) |

Which of the following are most likely occurring, based on the MFA logs? (Select two).

- A. Dictionary attack
- B. Push phishing
- C. impossible geo-velocity
- D. Subscriber identity module swapping
- E. Rogue access point
- F. Password spray

Answer: BC

Explanation:

C. Impossible geo-velocity: This is an event where a single user's account is accessed from different geographical locations within a timeframe that is impossible for normal human travel. In the log, we can see that the user "jdoe" is accessing from the United States and then within a few minutes from Russia, which is practically impossible to achieve without the use of some form of automated system or if the account credentials are being used by different individuals in different locations.

* B. Push phishing: This could also be an indication of push phishing, where the user is tricked into approving a multi-factor authentication request that they did not initiate. This is less clear from the logs directly, but it could be inferred if the user is receiving MFA requests that they are not initiating and are being approved without their genuine desire to access the resources.

NEW QUESTION 18

Which of the following is the best way to begin preparation for a report titled "What We Learned" regarding a recent incident involving a cybersecurity breach?

- A. Determine the sophistication of the audience that the report is meant for
- B. Include references and sources of information on the first page
- C. Include a table of contents outlining the entire report
- D. Decide on the color scheme that will effectively communicate the metrics

Answer: A

Explanation:

The best way to begin preparation for a report titled "What We Learned" regarding a recent incident involving a cybersecurity breach is to determine the sophistication of the audience that the report is meant for. The sophistication of the audience refers to their level of technical knowledge, understanding, or interest in cybersecurity topics. Determining the sophistication of the audience can help tailor the report content, language, tone, and format to suit their needs and expectations. For example, a report for executive management may be more concise, high-level, and business-oriented than a report for technical staff or peers.

NEW QUESTION 22

An attacker recently gained unauthorized access to a financial institution's database, which contains confidential information. The attacker exfiltrated a large amount of data before being detected and blocked. A security analyst needs to complete a root cause analysis to determine how the attacker was able to gain access. Which of the following should the analyst perform first?

- A. Document the incident and any findings related to the attack for future reference.
- B. Interview employees responsible for managing the affected systems.
- C. Review the log files that record all events related to client applications and user access.
- D. Identify the immediate actions that need to be taken to contain the incident and minimize damage.

Answer: C

Explanation:

In a root cause analysis following unauthorized access, the initial step is usually to review relevant log files. These logs can provide critical information about how

and when the attacker gained access.

The first step in a root cause analysis after a data breach is typically to review the logs. This helps the analyst understand how the attacker gained access by providing a detailed record of all events, including unauthorized or abnormal activities. Documenting the incident, interviewing employees, and identifying immediate containment actions are important steps, but they usually follow the initial log review.

NEW QUESTION 24

A security analyst is reviewing the logs of a web server and notices that an attacker has attempted to exploit a SQL injection vulnerability. Which of the following tools can the analyst use to analyze the attack and prevent future attacks?

- A. A web application firewall
- B. A network intrusion detection system
- C. A vulnerability scanner
- D. A web proxy

Answer: A

Explanation:

A web application firewall (WAF) is a tool that can protect web servers from attacks such as SQL injection, cross-site scripting, and other web-based threats. A WAF can filter, monitor, and block malicious HTTP traffic before it reaches the web server. A WAF can also be configured with rules and policies to detect and prevent specific types of attacks.

References: CompTIA CySA+ Study Guide: Exam CS0-002, 2nd Edition, Chapter 3, "Security Architecture and Tool Sets", page 91; CompTIA CySA+ Certification Exam Objectives Version 4.0, Domain 1.0 "Threat and Vulnerability Management", Objective 1.2 "Given a scenario, analyze the results of a network reconnaissance", Sub-objective "Web application attacks", page 9

CompTIA CySA+ Study Guide: Exam CS0-002, 2nd Edition : CompTIA CySA+ Certification Exam Objectives Version 4.0.pdf)

NEW QUESTION 28

A malicious actor has gained access to an internal network by means of social engineering. The actor does not want to lose access in order to continue the attack. Which of the following best describes the current stage of the Cyber Kill Chain that the threat actor is currently operating in?

- A. Weaponization
- B. Reconnaissance
- C. Delivery
- D. Exploitation

Answer: D

Explanation:

The Cyber Kill Chain is a framework that describes the stages of a cyberattack from reconnaissance to actions on objectives. The exploitation stage is where attackers take advantage of the vulnerabilities they have discovered in previous stages to further infiltrate a target's network and achieve their objectives. In this case, the malicious actor has gained access to an internal network by means of social engineering and does not want to lose access in order to continue the attack. This indicates that the actor is in the exploitation stage of the Cyber Kill Chain. Official References: <https://www.lockheedmartin.com/en-us/capabilities/cyber/cyber-kill-chain.html>

NEW QUESTION 29

Which of the following best describes the key elements of a successful information security program?

- A. Business impact analysis, asset and change management, and security communication plan
- B. Security policy implementation, assignment of roles and responsibilities, and information asset classification
- C. Disaster recovery and business continuity planning, and the definition of access control requirements and human resource policies
- D. Senior management organizational structure, message distribution standards, and procedures for the operation of security management systems

Answer: B

Explanation:

A successful information security program consists of several key elements that align with the organization's goals and objectives, and address the risks and threats to its information assets.

? Security policy implementation: This is the process of developing, documenting, and enforcing the rules and standards that govern the security of the organization's information assets. Security policies define the scope, objectives, roles, and responsibilities of the security program, as well as the acceptable use, access control, incident response, and compliance requirements for the information assets.

? Assignment of roles and responsibilities: This is the process of identifying and assigning the specific tasks and duties related to the security program to the appropriate individuals or groups within the organization. Roles and responsibilities define who is accountable, responsible, consulted, and informed for each security activity, such as risk assessment, vulnerability management, threat detection, incident response, auditing, and reporting.

? Information asset classification: This is the process of categorizing the information assets based on their value, sensitivity, and criticality to the organization. Information asset classification helps to determine the appropriate level of protection and controls for each asset, as well as the impact and likelihood of a security breach or loss. Information asset classification also facilitates the prioritization of security resources and efforts based on the risk level of each asset.

NEW QUESTION 30

An analyst is becoming overwhelmed with the number of events that need to be investigated for a timeline. Which of the following should the analyst focus on in order to move the incident forward?

- A. Impact
- B. Vulnerability score
- C. Mean time to detect
- D. Isolation

Answer: A

Explanation:

The analyst should focus on the impact of the events in order to move the incident forward. Impact is the measure of the potential or actual damage caused by an

incident, such as data loss, financial loss, reputational damage, or regulatory penalties. Impact can help the analyst prioritize the events that need to be investigated based on their severity and urgency, and allocate the appropriate resources and actions to contain and remediate them. Impact can also help the analyst communicate the status and progress of the incident to the stakeholders and customers, and justify the decisions and recommendations made during the incident response¹². Vulnerability score, mean time to detect, and isolation are all important metrics or actions for incident response, but they are not the main focus for moving the incident forward. Vulnerability score is the rating of the likelihood and severity of a vulnerability being exploited by a threat actor. Mean time to detect is the average time it takes to discover an incident. Isolation is the process of disconnecting an affected system from the network to prevent further damage or spread of the incident³⁴. References: Incident Response: Processes, Best Practices & Tools - Atlassian, Incident Response Metrics: What You Should Be Measuring, Vulnerability Scanning Best Practices, How to Track Mean Time to Detect (MTTD) and Mean Time to Respond (MTTR) to Cybersecurity Incidents, [Isolation and Quarantine for Incident Response]

NEW QUESTION 33

Which of the following is a useful tool for mapping, tracking, and mitigating identified threats and vulnerabilities with the likelihood and impact of occurrence?

- A. Risk register
- B. Vulnerability assessment
- C. Penetration test
- D. Compliance report

Answer: A

Explanation:

A risk register is a useful tool for mapping, tracking, and mitigating identified threats and vulnerabilities with the likelihood and impact of occurrence. A risk register is a document that records the details of all the risks identified in a project or an organization, such as their sources, causes, consequences, probabilities, impacts, and mitigation strategies. A risk register can help the security team to prioritize the risks based on their severity and urgency, and to monitor and control them throughout the project or the organization's lifecycle¹². A vulnerability assessment, a penetration test, and a compliance report are all methods or outputs of identifying and evaluating the threats and vulnerabilities, but they are not tools for mapping, tracking, and mitigating them³⁴⁵. References: What is a Risk Register? | Smartsheet, Risk Register: Definition & Example, Vulnerability Assessment vs. Penetration Testing: What's the Difference?, What is a Penetration Test and How Does It Work?, What is a Compliance Report? | Definition, Types, and Examples

NEW QUESTION 35

A systems analyst is limiting user access to system configuration keys and values in a Windows environment. Which of the following describes where the analyst can find these configuration items?

- A. confi
- B. ini
- C. ntds.dit
- D. Master boot record
- E. Registry

Answer: D

Explanation:

The correct answer is D. Registry.

The registry is a database that stores system configuration keys and values in a Windows environment. The registry contains information about the hardware, software, users, and preferences of the system. The registry can be accessed and modified using the Registry Editor tool (regedit.exe) or the command-line tool (reg.exe). The registry is organized into five main sections, called hives, which are further divided into subkeys and values.

The other options are not the best descriptions of where the analyst can find system configuration keys and values in a Windows environment. config.ini (A) is a file that stores configuration settings for some applications, but it is not a database that stores system configuration keys and values. ntds.dit (B) is a file that stores the Active Directory data for a domain controller, but it is not a database that stores system configuration keys and values. Master boot record (C) is a section of the hard disk that contains information about the partitions and the boot loader, but it is not a database that stores system configuration keys and values.

NEW QUESTION 40

Each time a vulnerability assessment team shares the regular report with other teams, inconsistencies regarding versions and patches in the existing infrastructure are discovered. Which of the following is the best solution to decrease the inconsistencies?

- A. Implementing credentialed scanning
- B. Changing from a passive to an active scanning approach
- C. Implementing a central place to manage IT assets
- D. Performing agentless scanning

Answer: C

Explanation:

Implementing a central place to manage IT assets is the best solution to decrease the inconsistencies regarding versions and patches in the existing infrastructure. A central place to manage IT assets, such as a configuration management database (CMDB), can help the vulnerability assessment team to have an accurate and up-to-date inventory of all the hardware and software components in the network, as well as their relationships and dependencies. A CMDB can also track the changes and updates made to the IT assets, and provide a single source of truth for the vulnerability assessment team and other teams to compare and verify the versions and patches of the infrastructure¹². Implementing credentialed scanning, changing from a passive to an active scanning approach, and performing agentless scanning are all methods to improve the vulnerability scanning process, but they do not address the root cause of the inconsistencies, which is the lack of a central place to manage IT assets³. References: What is a Configuration Management Database (CMDB)?, How to Use a CMDB to Improve Vulnerability Management, Vulnerability Scanning Best Practices

NEW QUESTION 43

A disgruntled open-source developer has decided to sabotage a code repository with a logic bomb that will act as a wiper. Which of the following parts of the Cyber Kill Chain does this act exhibit?

- A. Reconnaissance
- B. Weaponization
- C. Exploitation

D. Installation

Answer: B

Explanation:

Weaponization is the stage of the Cyber Kill Chain where the attacker creates or modifies a malicious payload to use against a target. In this case, the disgruntled open-source developer has created a logic bomb that will act as a wiper, which is a type of malware that destroys data on a system. This is an example of weaponization, as the developer has prepared a cyberweapon to sabotage the code repository.

References: The answer was based on the web search results from Bing, especially the following sources:

- ? Cyber Kill Chain® | Lockheed Martin, which states: "In the weaponization step, the adversary creates remote access malware weapon, such as a virus or worm, tailored to one or more vulnerabilities."
- ? The Cyber Kill Chain: The Seven Steps of a Cyberattack - EC-Council, which states: "In the weaponization stage, all of the attacker's preparatory work culminates in the creation of malware to be used against an identified target."
- ? What is the Cyber Kill Chain? Introduction Guide - CrowdStrike, which states: "Weaponization: The attacker creates a malicious payload that will be delivered to the target."

NEW QUESTION 48

A SOC analyst identifies the following content while examining the output of a debugger command over a client-server application: `getconnection (database01, "alpha ", "AXTV. 127GdCx94GTd")`; Which of the following is the most likely vulnerability in this system?

- A. Lack of input validation
- B. SQL injection
- C. Hard-coded credential
- D. Buffer overflow attacks

Answer: C

Explanation:

The most likely vulnerability in this system is hard-coded credential. Hard-coded credential is a practice of embedding or storing a username, password, or other sensitive information in the source code or configuration file of a system or application. Hard-coded credential can pose a serious security risk, as it can expose the system or application to unauthorized access, data theft, or compromise if the credential is discovered or leaked by an attacker. Hard-coded credential can also make it difficult to change or update the credential if needed, as it may require modifying the code or file and redeploying the system or application.

NEW QUESTION 52

During security scanning, a security analyst regularly finds the same vulnerabilities in a critical application. Which of the following recommendations would best mitigate this problem if applied along the SDLC phase?

- A. Conduct regular red team exercises over the application in production
- B. Ensure that all implemented coding libraries are regularly checked
- C. Use application security scanning as part of the pipeline for the CI/CDflow
- D. Implement proper input validation for any data entry form

Answer: C

Explanation:

Application security scanning is a process that involves testing and analyzing applications for security vulnerabilities, such as injection flaws, broken authentication, cross-site scripting, and insecure configuration. Application security scanning can help identify and fix security issues before they become exploitable by attackers. Using application security scanning as part of the pipeline for the continuous integration/continuous delivery (CI/CD) flow can help mitigate the problem of finding the same vulnerabilities in a critical application during security scanning. This is because application security scanning can be integrated into the development lifecycle and performed automatically and frequently as part of the CI/CD process.

NEW QUESTION 56

A security analyst receives an alert for suspicious activity on a company laptop An excerpt of the log is shown below:

| Event # | Process | Parent process |
|---------|------------------------------------|---------------------------------|
| 1 | Console Windows Host (conhost.exe) | System (-) |
| 2 | Console Windows Host (conhost.exe) | Command Prompt (cmd.exe) |
| 3 | Windows Explorer (Explorer.exe) | Microsoft Outlook (outlook.exe) |
| 4 | Microsoft Outlook (outlook.exe) | Microsoft Word (winword.exe) |
| 5 | Microsoft Word (winword.exe) | PowerShell (powershell.exe) |
| 6 | Windows Explorer (Explorer.exe) | Google Chrome (chrome.exe) |

Which of the following has most likely occurred?

- A. An Office document with a malicious macro was opened.
- B. A credential-stealing website was visited.
- C. A phishing link in an email was clicked

D. A web browser vulnerability was exploited.

Answer: A

Explanation:

An Office document with a malicious macro was opened is the most likely explanation for the suspicious activity on the company laptop, as it reflects the common technique of using macros to execute PowerShell commands that download and run malware. A macro is a piece of code that can automate tasks or perform actions in an Office document, such as a Word file or an Excel spreadsheet. Macros can be useful and legitimate, but they can also be abused by threat actors to deliver malware or perform malicious actions on the system. A malicious macro can be embedded in an Office document that is sent as an attachment in a phishing email or hosted on a compromised website. When the user opens the document, they may be prompted to enable macros or content, which will trigger the execution of the malicious code. The malicious macro can then use PowerShell, which is a scripting language and command-line shell that is built into Windows, to perform various tasks, such as downloading and running malware from a remote URL, bypassing security controls, or establishing persistence on the system. The log excerpt shows that PowerShell was used to download a string from a URL using the WebClient.DownloadString method, which is a common way to fetch and execute malicious code from the internet. The log also shows that PowerShell was used to invoke an expression (iex) that contains obfuscated code, which is another common way to evade detection and analysis. The other options are not as likely as an Office document with a malicious macro was opened, as they do not match the evidence in the log excerpt. A credential-stealing website was visited is possible, but it does not explain why PowerShell was used to download and execute code from a URL. A phishing link in an email was clicked is also possible, but it does not explain what happened after the link was clicked or how PowerShell was involved. A web browser vulnerability was exploited is unlikely, as it does not explain why PowerShell was used to download and execute code from a URL.

NEW QUESTION 57

An incident response team is working with law enforcement to investigate an active web server compromise. The decision has been made to keep the server running and to implement compensating controls for a period of time. The web service must be accessible from the internet via the reverse proxy and must connect to a database server. Which of the following compensating controls will help contain the adversary while meeting the other requirements? (Select two).

- A. Drop the tables on the database server to prevent data exfiltration.
- B. Deploy EDR on the web server and the database server to reduce the adversaries capabilities.
- C. Stop the httpd service on the web server so that the adversary can not use web exploits
- D. use micro segmentation to restrict connectivity to/from the web and database servers.
- E. Comment out the HTTP account in the / etc/passwd file of the web server
- F. Move the database from the database server to the web server.

Answer: BD

Explanation:

Deploying EDR on the web server and the database server to reduce the adversaries capabilities and using micro segmentation to restrict connectivity to/from the web and database servers are two compensating controls that will help contain the adversary while meeting the other requirements. A compensating control is a security measure that is implemented to mitigate the risk of a vulnerability or an attack when the primary control is not feasible or effective. EDR stands for Endpoint Detection and Response, which is a tool that monitors endpoints for malicious activity and provides automated or manual response capabilities. EDR can help contain the adversary by detecting and blocking their actions, such as data exfiltration, lateral movement, privilege escalation, or command execution. Micro segmentation is a technique that divides a network into smaller segments based on policies and rules, and applies granular access controls to each segment. Micro segmentation can help contain the adversary by isolating the web and database servers from other parts of the network, and limiting the traffic that can flow between them. Official References:

? <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>

? <https://www.comptia.org/certifications/cybersecurity-analyst>

? <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>

NEW QUESTION 60

A security analyst needs to provide evidence of regular vulnerability scanning on the company's network for an auditing process. Which of the following is an example of a tool that can produce such evidence?

- A. OpenVAS
- B. Burp Suite
- C. Nmap
- D. Wireshark

Answer: A

Explanation:

OpenVAS is an open-source tool that performs comprehensive vulnerability scanning and assessment on the network. It can generate reports and evidence of the scan results, which can be used for auditing purposes. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 5, page 199; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 5, page 207.

NEW QUESTION 63

Which of the following is a benefit of the Diamond Model of Intrusion Analysis?

- A. It provides analytical pivoting and identifies knowledge gaps.
- B. It guarantees that the discovered vulnerability will not be exploited again in the future.
- C. It provides concise evidence that can be used in court
- D. It allows for proactive detection and analysis of attack events

Answer: A

Explanation:

The Diamond Model of Intrusion Analysis is a framework that helps analysts to understand the relationships between the adversary, the victim, the infrastructure, and the capability involved in an attack. It also enables analytical pivoting, which is the process of moving from one piece of information to another related one, and identifies knowledge gaps that need further investigation.

NEW QUESTION 65

There are several reports of sensitive information being disclosed via file sharing services. The company would like to improve its security posture against this threat. Which of the following security controls would best support the company in this scenario?

- A. Implement step-up authentication for administrators
- B. Improve employee training and awareness
- C. Increase password complexity standards
- D. Deploy mobile device management

Answer: B

Explanation:

The best security control to implement against sensitive information being disclosed via file sharing services is to improve employee training and awareness. Employee training and awareness can help educate employees on the risks and consequences of using file sharing services for sensitive information, as well as the policies and procedures for handling such information securely and appropriately. Employee training and awareness can also help foster a security culture and encourage employees to report any incidents or violations of information security.

NEW QUESTION 66

A systems administrator receives reports of an internet-accessible Linux server that is running very sluggishly. The administrator examines the server, sees a high amount of memory utilization, and suspects a DoS attack related to half-open TCP sessions consuming memory. Which of the following tools would best help to prove whether this server was experiencing this behavior?

- A. Nmap
- B. TCPDump
- C. SIEM
- D. EDR

Answer: B

Explanation:

TCPDump is the best tool to prove whether the server was experiencing a DoS attack related to half-open TCP sessions consuming memory. TCPDump is a command-line tool that can capture and analyze network traffic, such as TCP, UDP, and ICMP packets. TCPDump can help the administrator to identify the source and destination of the traffic, the TCP flags and sequence numbers, the packet size and frequency, and other information that can indicate a DoS attack. A DoS attack related to half-open TCP sessions is also known as a SYN flood attack, which is a type of volumetric attack that aims to exhaust the network bandwidth or resources of the target server by sending a large amount of TCP SYN requests and ignoring the TCP SYN-ACK responses. This creates a backlog of half-open connections on the server, which consume memory and CPU resources, and prevent legitimate connections from being established¹². TCPDump can help the administrator to detect a SYN flood attack by looking for a high number of TCP SYN packets with different source IP addresses, a low number of TCP SYN-ACK packets, and a very low number of TCP ACK packets³⁴. References: SYN flood DDoS attack | Cloudflare, What is a SYN flood attack and how to prevent it? | NETSCOUT, TCPDump - A Powerful Tool for Network Analysis and Security, How to Detect a SYN Flood Attack with TCPDump

NEW QUESTION 69

A vulnerability analyst received a list of system vulnerabilities and needs to evaluate the relevant impact of the exploits on the business. Given the constraints of the current sprint, only three can be remediated. Which of the following represents the least impactful risk, given the CVSS3.1 base scores?

- A. AV:N/AC:H/PR:H/UI:R/S:U/C:H/I:H/A:L - Base Score 6.0
- B. AV:N/AC:H/PR:H/UI:N/S:C/C:H/I:L/A:L - Base Score 7.2
- C. AV:N/AC:H/PR:H/UI:R/S:U/C:H/I:H/A:H - Base Score 6.4
- D. AV:N/AC:H/PR:N/UI:N/S:C/C:L/I:L/A:L - Base Score 6.5

Answer: A

Explanation:

This option represents the least impactful risk because it has the lowest base score among the four options, and it also requires high privileges, user interaction, and high attack complexity to exploit, which reduces the likelihood of a successful attack.

References: The base scores were calculated using the Common Vulnerability Scoring System Version 3.1 Calculator from FIRST. The explanation was based on the CVSS standards guide from NVD and the CVSS 3.1 Calculator Online from Calculators Hub.

NEW QUESTION 71

Which of the following does "federation" most likely refer to within the context of identity and access management?

- A. Facilitating groups of users in a similar function or profile to system access that requires elevated or conditional access
- B. An authentication mechanism that allows a user to utilize one set of credentials to access multiple domains
- C. Utilizing a combination of what you know, who you are, and what you have to grant authentication to a user
- D. Correlating one's identity with the attributes and associated applications the user has access to

Answer: B

Explanation:

Federation is a system of trust between two parties for the purpose of authenticating users and conveying information needed to authorize their access to resources. By using federation, a user can use one set of credentials to access multiple domains that trust each other.

NEW QUESTION 72

An organization enabled a SIEM rule to send an alert to a security analyst distribution list when ten failed logins occur within one minute. However, the control was unable to detect an attack with nine failed logins. Which of the following best represents what occurred?

- A. False positive
- B. True negative
- C. False negative
- D. True positive

Answer: C

Explanation:

The correct answer is C. False negative.

A false negative is a situation where an attack or a threat is not detected by a security control, even though it should have been. In this case, the SIEM rule was unable to detect an attack with nine failed logins, which is below the threshold of ten failed logins that triggers an alert. This means that the SIEM rule missed a potential attack and failed to alert the security analysts, resulting in a false negative.

A false positive is a situation where a benign or normal activity is detected as an attack or a threat by a security control, even though it is not. A true negative is a situation where a benign or normal activity is not detected as an attack or a threat by a security control, as expected. A true positive is a situation where an attack or a threat is detected by a security control, as expected. These are not the correct answers for this question.

NEW QUESTION 74

Which of the following phases of the Cyber Kill Chain involves the adversary attempting to establish communication with a successfully exploited target?

- A. Command and control
- B. Actions on objectives
- C. Exploitation
- D. Delivery

Answer: A

Explanation:

Command and control (C2) is a phase of the Cyber Kill Chain that involves the adversary attempting to establish communication with a successfully exploited target. C2 enables the adversary to remotely control or manipulate the target system or network using various methods, such as malware callbacks, backdoors, botnets, or covert channels. C2 allows the adversary to maintain persistence, exfiltrate data, execute commands, deliver payloads, or spread to other systems or networks.

NEW QUESTION 78

A Chief Information Security Officer (CISO) wants to disable a functionality on a business-critical web application that is vulnerable to RCE in order to maintain the minimum risk level with minimal increased cost.

Which of the following risk treatments best describes what the CISO is looking for?

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

Answer: B

NEW QUESTION 80

Due to an incident involving company devices, an incident responder needs to take a mobile phone to the lab for further investigation. Which of the following tools should be used to maintain the integrity of the mobile phone while it is transported? (Select two).

- A. Signal-shielded bag
- B. Tamper-evident seal
- C. Thumb drive
- D. Crime scene tape
- E. Write blocker
- F. Drive duplicator

Answer: AB

Explanation:

A signal-shielded bag and a tamper-evident seal are tools that can be used to maintain the integrity of the mobile phone while it is transported. A signal-shielded bag prevents the phone from receiving or sending any signals that could compromise the data or evidence on the device. A tamper-evident seal ensures that the phone has not been opened or altered during the transportation. References: Mobile device forensics, Section: Acquisition

NEW QUESTION 85

A technician is analyzing output from a popular network mapping tool for a PCI audit:

```

PORT STATE SERVICE VERSION
22/tcp open  ssh Cisco SSH 1.25 (protocol 2.0)
443/tcp open  ssl/http OpenResty web app server
|_ http-server-header: openresty
|_ ssl-enum-ciphers:
|_ TLSv1.1:
|_ ciphers:
|_ TLS_RSA_WITH_AES_128_CBC_SHA (rsa 2048) - F
|_ TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (secp256r1) - F
|_ compressors:
|_ NULL
|_ cipher preference: server
|_ warnings:
|_ Insecure certificate signature (SHA1), score capped at F
|_ TLSv1.2:
|_ ciphers:
|_ TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 (secp256r1) - F
|_ TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 (secp256r1) - F
|_ TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 (secp256r1) - F
|_ TLS_RSA_WITH_AES_256_CBC_SHA256 (rsa 2048) - F
|_ TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 (secp256r1) - F
|_ TLS_RSA_WITH_AES_256_GCM_SHA384 (rsa 2048) - F
|_ TLS_RSA_WITH_AES_128_GCM_SHA256 (rsa 2048) - F
|_ TLS_RSA_WITH_AES_128_CBC_SHA256 (rsa 2048) - F
|_ TLS_RSA_WITH_AES_128_CBC_SHA (rsa 2048) - F
|_ TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (secp256r1) - F
|_ compressors:
|_ NULL
|_ cipher preference: server
|_ warnings:
|_ Insecure certificate signature (SHA1), score capped at F
|_ least strength: F

```

Which of the following best describes the output?

- A. The host is not up or responding.
- B. The host is running excessive cipher suites.
- C. The host is allowing insecure cipher suites.
- D. The Secure Shell port on this host is closed

Answer: C

Explanation:

The output shows the result of running the `ssl-enum-ciphers` script with Nmap, which is a tool that can scan web servers for supported SSL/TLS cipher suites. Cipher suites are combinations of cryptographic algorithms that are used to establish secure communication between a client and a server. The output shows the cipher suites that are supported by the server, along with a letter grade (A through F) indicating the strength of the connection. The output also shows the least strength, which is the strength of the weakest cipher offered by the server. In this case, the least strength is F, which means that the server is allowing insecure cipher suites that are vulnerable to attacks or have been deprecated. For example, the output shows that the server supports SSLv3, which is an outdated and insecure protocol that is susceptible to the POODLE attack. The output also shows that the server supports RC4, which is a weak and broken stream cipher that should not be used. Therefore, the best description of the output is that the host is allowing insecure cipher suites. The other descriptions are not accurate, as they do not reflect what the output shows. The host is not up or responding is incorrect, as the output clearly shows that the host is up and responding to the scan. The host is running excessive cipher suites is incorrect, as the output does not indicate how many cipher suites the host is running, only which ones it supports. The Secure Shell port on this host is closed is incorrect, as the output does not show anything about port 22, which is the default port for Secure Shell (SSH). The output only shows information about port 443, which is the default port for HTTPS.

NEW QUESTION 86

A SOC manager is establishing a reporting process to manage vulnerabilities. Which of the following would be the best solution to identify potential loss incurred by an issue?

- A. Trends
- B. Risk score
- C. Mitigation
- D. Prioritization

Answer: B

Explanation:

A risk score is a numerical value that represents the potential impact and likelihood of a vulnerability being exploited. It can help to identify the potential loss incurred by an issue and prioritize remediation efforts accordingly. <https://www.comptia.org/training/books/cysa-cs0-003-study-guide>

NEW QUESTION 88

A software developer has been deploying web applications with common security risks to include insufficient logging capabilities. Which of the following actions would be most effective to reduce risks associated with the application development?

- A. Perform static analyses using an integrated development environment.

- B. Deploy compensating controls into the environment.
- C. Implement server-side logging and automatic updates.
- D. Conduct regular code reviews using OWASP best practices.

Answer: D

Explanation:

Conducting regular code reviews using OWASP best practices is the most effective action to reduce risks associated with the application development. Code reviews are a systematic examination of the source code of an application to detect and fix errors, vulnerabilities, and weaknesses that may compromise the security, functionality, or performance of the application. Code reviews can help to improve the quality and security of the code, as well as to identify and remediate common security risks, such as insufficient logging capabilities. OWASP (Open Web Application Security Project) is a global nonprofit organization that provides free and open resources, tools, standards, and best practices for web application security. OWASP best practices for logging include following a common logging format and approach, logging relevant security events and data, protecting log data from unauthorized access or modification, and using log analysis and monitoring tools to detect and respond to security incidents. By following OWASP best practices for logging, developers can ensure that their web applications have sufficient and effective logging capabilities that can help to prevent, detect, and mitigate security threats.

References: OWASP Logging Cheat Sheet, OWASP Logging Guide, C9: Implement Security Logging and Monitoring - OWASP Foundation

NEW QUESTION 90

During a recent site survey, an analyst discovered a rogue wireless access point on the network. Which of the following actions should be taken first to protect the network while preserving evidence?

- A. Run a packet sniffer to monitor traffic to and from the access point.
- B. Connect to the access point and examine its log files.
- C. Identify who is connected to the access point and attempt to find the attacker.
- D. Disconnect the access point from the network

Answer: D

Explanation:

The correct answer is D. Disconnect the access point from the network.

A rogue access point is a wireless access point that has been installed on a network without the authorization or knowledge of the network administrator. A rogue access point can pose a serious security risk, as it can allow unauthorized users to access the network, intercept network traffic, or launch attacks against the network or its devices¹²³⁴.

The first action that should be taken to protect the network while preserving evidence is to disconnect the rogue access point from the network. This will prevent any further damage or compromise of the network by blocking the access point from communicating with other devices or users. Disconnecting the rogue access point will also preserve its state and configuration, which can be useful for forensic analysis and investigation. Disconnecting the rogue access point can be done physically by unplugging it from the network port or wirelessly by disabling its radio frequency⁵.

The other options are not the best actions to take first, as they may not protect the network or preserve evidence effectively.

Option A is not the best action to take first, as running a packet sniffer to monitor traffic to and from the access point may not stop the rogue access point from causing harm to the network. A packet sniffer is a tool that captures and analyzes network packets, which are units of data that travel across a network. A packet sniffer can be useful for identifying and troubleshooting network problems, but it may not be able to prevent or block malicious traffic from a rogue access point. Moreover, running a packet sniffer may require additional time and resources, which could delay the response and mitigation of the incident⁵.

Option B is not the best action to take first, as connecting to the access point and examining its log files may not protect the network or preserve evidence. Connecting to the access point may expose the analyst's device or credentials to potential attacks or compromise by the rogue access point. Examining its log files may provide some information about the origin and activity of the rogue access point, but it may also alter or delete some evidence that could be useful for forensic analysis and investigation. Furthermore, connecting to the access point and examining its log files may not prevent or stop the rogue access point from continuing to harm the network⁵.

Option C is not the best action to take first, as identifying who is connected to the access point and attempting to find the attacker may not protect the network or preserve evidence. Identifying who is connected to the access point may require additional tools or techniques, such as scanning for wireless devices or analyzing network traffic, which could take time and resources away from responding and mitigating the incident. Attempting to find the attacker may also be difficult or impossible, as the attacker may use various methods to hide their identity or location, such as encryption, spoofing, or proxy servers. Moreover, identifying who is connected to the access point and attempting to find the attacker may not prevent or stop the rogue access point from causing further damage or compromise to the network⁵.

References:

- ? 1 CompTIA Cybersecurity Analyst (CySA+) Certification Exam Objectives
- ? 2 Cybersecurity Analyst+ - CompTIA
- ? 3 CompTIA CySA+ CS0-002 Certification Study Guide
- ? 4 CertMaster Learn for CySA+ Training - CompTIA
- ? 5 How to Protect Against Rogue Access Points on Wi-Fi - Byos
- ? 6 Wireless Access Point Protection: 5 Steps to Find Rogue Wi-Fi Networks ...
- ? 7 Rogue Access Point - Techopedia
- ? 8 Rogue access point - Wikipedia
- ? 9 What is a Rogue Access Point (Rogue AP)? - Contextual Security

NEW QUESTION 92

A cryptocurrency service company is primarily concerned with ensuring the accuracy of the data on one of its systems. A security analyst has been tasked with prioritizing vulnerabilities for remediation for the system. The analyst will use the following CVSSv3.1 impact metrics for prioritization:

| Vulnerability | CVSSv3.1 impact metrics |
|---------------|-------------------------|
| 1 | C:L/I:L/A:L |
| 2 | C:N/I:L/A:H |
| 3 | C:H/I:N/A:N |
| 4 | C:L/I:H/A:L |

Which of the following vulnerabilities should be prioritized for remediation?

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

Answer: B

Explanation:

Vulnerability 2 has the highest impact metrics, specifically the highest attack vector (AV) and attack complexity (AC) values. This means that the vulnerability is more likely to be exploited and more difficult to remediate.

References:

- ? CVSS v3.1 Specification Document, section 2.1.1 and 2.1.2
- ? The CVSS v3 Vulnerability Scoring System, section 3.1 and 3.2

NEW QUESTION 96

A security analyst detects an email server that had been compromised in the internal network. Users have been reporting strange messages in their email inboxes and unusual network traffic. Which of the following incident response steps should be performed next?

- A. Preparation
- B. Validation
- C. Containment
- D. Eradication

Answer: C

Explanation:

After detecting a compromised email server and unusual network traffic, the next step in incident response is containment, to prevent further damage or spread of the compromise. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 5: Incident Response, page 197.

NEW QUESTION 100

A company is in the process of implementing a vulnerability management program, and there are concerns about granting the security team access to sensitive data. Which of the following scanning methods can be implemented to reduce the access to systems while providing the most accurate vulnerability scan results?

- A. Credentialed network scanning
- B. Passive scanning
- C. Agent-based scanning
- D. Dynamic scanning

Answer: C

Explanation:

Agent-based scanning is a method that involves installing software agents on the target systems or networks that can perform local scans and report the results to a central server or console. Agent-based scanning can reduce the access to systems, as the agents do not require any credentials or permissions to scan the local system or network. Agent-based scanning can also provide the most accurate vulnerability scan results, as the agents can scan continuously or on-demand, regardless of the system or network status or location.

NEW QUESTION 104

A security analyst is reviewing events that occurred during a possible compromise. The analyst obtains the following log:

| Time stamp | Message |
|------------|--|
| 20:06:05 | LDAP: A read operation was performed on an object: Domain Admins |
| 20:06:05 | LDAP: A read operation was performed on an object: Domain Servers |
| 20:06:09 | EDR: A local group was enumerated: Administrators |
| 20:06:23 | EDR: SMB connection attempts to multiple hosts from single host: PC021 |

Which of the following is most likely occurring, based on the events in the log?

- A. An adversary is attempting to find the shortest path of compromise.
- B. An adversary is performing a vulnerability scan.
- C. An adversary is escalating privileges.
- D. An adversary is performing a password stuffing attack..

Answer: B

Explanation:

Based on the events in the log, the most likely occurrence is that an adversary is performing a vulnerability scan. The log shows LDAP read operations and EDR enumerating local groups, which are indicative of an adversary scanning the system to find vulnerabilities or sensitive information. The final entry shows SMB connection attempts to multiple hosts from a single host, which could be a sign of network discovery or lateral movement. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 4: Security Operations and Monitoring, page 161; Monitor logs from vulnerability scanners, Section: Reports on Nessus vulnerability data.

NEW QUESTION 105

Which of the following describes a contract that is used to define the various levels of maintenance to be provided by an external business vendor in a secure environment?

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

Answer: D

Explanation:

SLA stands for Service Level Agreement, which is a contract that defines the various levels of maintenance to be provided by an external business vendor in a secure environment. An SLA specifies the expectations, responsibilities, and obligations of both parties, such as the scope, quality, availability, and performance of the service, as well as the metrics and methods for measuring and reporting the service level. An SLA also outlines the penalties or remedies for any breach or failure of the service level. An SLA can help ensure that the external business vendor delivers the service in a timely, consistent, and secure manner, and that the customer receives the service that meets their needs and requirements. Official References:

? <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>

? <https://www.comptia.org/certifications/cybersecurity-analyst>

? <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>

NEW QUESTION 109

While reviewing the web server logs a security analyst notices the following snippet

```
..\..\..\boot.ini
```

Which of the following is being attempted?

- A. Directory traversal
- B. Remote file inclusion
- C. Cross-site scripting
- D. Remote code execution
- E. Enumeration of/etc/pasawd

Answer: A

Explanation:

The log entry ".....\boot.ini" is indicative of a directory traversal attack, where an attacker attempts to access files and directories that are stored outside the web root folder.

The log snippet ".....\boot.ini" is indicative of a directory traversal attack. This type of attack aims to access files and directories that are stored outside the web root folder. By manipulating variables that reference files with ".." (dot-dot-slash), the attacker may be able to access arbitrary files and directories stored on the file system.

NEW QUESTION 112

A cloud team received an alert that unauthorized resources were being auto-provisioned. After investigating, the team suspects that crypto mining is occurring.

Which of the following indicators would most likely lead the team to this conclusion?

- A. High GPU utilization
- B. Bandwidth consumption
- C. Unauthorized changes
- D. Unusual traffic spikes

Answer: A

Explanation:

High GPU utilization is the most likely indicator that cryptomining is occurring, as it reflects the intensive computational work that is required to solve the complex mathematical problems involved in mining cryptocurrencies. Cryptomining is the process of generating new units of a cryptocurrency by using computing power to verify transactions and create new blocks on the blockchain. Cryptomining can be done legitimately by individuals or groups who participate in a mining pool and share the rewards, or illegitimately by threat actors who use malware or scripts to hijack the computing resources of unsuspecting victims and use them for their own benefit. This practice is called cryptojacking, and it can cause performance degradation, increased power consumption, and security risks for the affected systems. Cryptomining typically relies on the GPU (graphics processing unit) rather than the CPU (central processing unit), as the GPU is better suited for parallel processing and can handle more calculations per second. Therefore, a high GPU utilization rate can be a sign that cryptomining is taking place on a system, especially if there is no other explanation for the increased workload. The other options are not as indicative of cryptomining as high GPU utilization, as they can have other causes or explanations. Bandwidth consumption can be affected by many factors, such as network traffic, streaming services, downloads, or updates. It is not directly related to cryptomining, which does not require a lot of bandwidth to communicate with the mining pool or the blockchain network. Unauthorized changes can be a result of many types of malware or cyberattacks, such as ransomware, spyware, or trojans. They are not specific to cryptomining, which does not necessarily alter any files or settings on the system, but rather uses its processing power. Unusual traffic spikes can also be caused by various factors, such as legitimate surges in demand, distributed denial-of-service attacks, or botnets. They are not indicative of cryptomining, which does not generate a lot of traffic or requests to or from the system.

NEW QUESTION 115

The vulnerability analyst reviews threat intelligence regarding emerging vulnerabilities affecting workstations that are used within the company:

| Vulnerability title | Attack vector | Attack complexity | Authentication required | User interaction required |
|---------------------|---------------|-------------------|-------------------------|---------------------------|
| Vulnerability A | Network | Low | No | Yes |
| Vulnerability B | Local | Low | Yes | Yes |
| Vulnerability C | Network | High | Yes | Yes |
| Vulnerability D | Local | Low | No | No |

Which of the following vulnerabilities should the analyst be most concerned about, knowing that end users frequently click on malicious links sent via email?

- A. Vulnerability A
- B. Vulnerability B
- C. Vulnerability C
- D. Vulnerability D

Answer: B

Explanation:

Vulnerability B is the vulnerability that the analyst should be most concerned about, knowing that end users frequently click on malicious links sent via email. Vulnerability B is a remote code execution vulnerability in Microsoft Outlook that allows an attacker to run arbitrary code on the target system by sending a specially crafted email message. This vulnerability is very dangerous, as it does not require any user interaction or attachment opening to trigger the exploit. The attacker only needs to send an email to the victim's Outlook account, and the code will execute automatically when Outlook connects to the Exchange server. This vulnerability has a high severity rating of 9.8 out of 10, and it affects all supported versions of Outlook. Therefore, the analyst should prioritize patching this vulnerability as soon as possible to prevent potential compromise of the workstations.

NEW QUESTION 120

While reviewing web server logs, an analyst notices several entries with the same time stamps, but all contain odd characters in the request line. Which of the following steps should be taken next?

- A. Shut the network down immediately and call the next person in the chain of command.
- B. Determine what attack the odd characters are indicative of
- C. Utilize the correct attack framework and determine what the incident response will consist of.
- D. Notify the local law enforcement for incident response

Answer: B

Explanation:

Determining what attack the odd characters are indicative of is the next step that should be taken after reviewing web server logs and noticing several entries with the same time stamps, but all contain odd characters in the request line. This step can help the analyst identify the type and severity of the attack, as well as the possible source and motive of the attacker. The odd characters in the request line may indicate that the attacker is trying to exploit a vulnerability or inject malicious code into the web server or application, such as SQL injection, cross-site scripting, buffer overflow, or command injection. The analyst can use tools and techniques such as log analysis, pattern matching, signature detection, or threat intelligence to determine what attack the odd characters are indicative of, and then proceed to the next steps of incident response, such as containment, eradication, recovery, and lessons learned. Official References:

? <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>

? <https://www.comptia.org/certifications/cybersecurity-analyst>

? <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>

NEW QUESTION 124

When starting an investigation, which of the following must be done first?

- A. Notify law enforcement
- B. Secure the scene
- C. Seize all related evidence
- D. Interview the witnesses

Answer: B

Explanation:

The first thing that must be done when starting an investigation is to secure the scene. Securing the scene involves isolating and protecting the area where the incident occurred, as well as any potential evidence or witnesses. Securing the scene can help prevent any tampering, contamination, or destruction of evidence, as well as any interference or obstruction of the investigation.

NEW QUESTION 125

A security analyst recently used Arachni to perform a vulnerability assessment of a newly developed web application. The analyst is concerned about the following output:

[+] XSS: In form input 'txtSearch' with action https://localhost/search.aspx [-] XSS: Analyzing response #1...

[-] XSS: Analyzing response #2... [-] XSS: Analyzing response #3...

[+] XSS: Response is tainted. Looking for proof of the vulnerability. Which of the following is the most likely reason for this vulnerability?

- A. The developer set input validation protection on the specific field of search.aspx.
- B. The developer did not set proper cross-site scripting protections in the header.
- C. The developer did not implement default protections in the web application build.
- D. The developer did not set proper cross-site request forgery protections.

Answer: B

Explanation:

The most likely reason for this vulnerability is B. The developer did not set proper cross-site scripting protections in the header. Cross-site scripting (XSS) is a type of web application vulnerability that allows an attacker to inject malicious code into a web page that is viewed by other users. XSS can be used to steal cookies, session tokens, credentials, or other sensitive information, or to perform actions on behalf of the victim1.

One of the common ways to prevent XSS attacks is to set proper HTTP response headers that instruct the browser how to handle the content of the web page. For example, the

Content-Type header can specify the MIME type and character encoding of the web page, which can help the browser avoid interpreting data as code. The X-XSS-Protection header can enable or disable the browser's built-in XSS filter, which can block or sanitize suspicious scripts. The Content-Security-Policy header can define a whitelist of sources and directives that control what resources and scripts can be loaded or executed on the web page2.

According to the output of Arachni, a web application security scanner framework3, it detected an XSS vulnerability in the form input 'txtSearch' with action <https://localhost/search.aspx>. This means that Arachni was able to inject a malicious script into the input field and observe its execution in the response. This indicates that the developer did not set proper cross-site scripting protections in the header of search.aspx, which allowed Arachni to bypass the browser's default security mechanisms and execute arbitrary code on the web page.

NEW QUESTION 128

An organization conducted a web application vulnerability assessment against the corporate website, and the following output was observed:



Which of the following tuning recommendations should the security analyst share?

- A. Set an Http Only flag to force communication by HTTPS.
- B. Block requests without an X-Frame-Options header.
- C. Configure an Access-Control-Allow-Origin header to authorized domains.
- D. Disable the cross-origin resource sharing header.

Answer: C

Explanation:

The output shows that the web application has a cross-origin resource sharing (CORS) header that allows any origin to access its resources. This is a security misconfiguration that could allow malicious websites to make requests to the web application on behalf of the user and access sensitive data or perform unauthorized actions. The tuning recommendation is to configure the Access-Control-Allow-Origin header to only allow authorized domains that need to access the web application's resources. This would prevent unauthorized cross-origin requests and reduce the risk of cross-site request forgery (CSRF) attacks.

Reference: OWASP Top Ten | OWASP Foundation

NEW QUESTION 130

A virtual web server in a server pool was infected with malware after an analyst used the internet to research a system issue. After the server was rebuilt and added back into the server pool, users reported issues with the website, indicating the site could not be trusted. Which of the following is the most likely cause of the server issue?

- A. The server was configured to use SSI- to securely transmit data
- B. The server was supporting weak TLS protocols for client connections.
- C. The malware infected all the web servers in the pool.
- D. The digital certificate on the web server was self-signed

Answer: D

Explanation:

A digital certificate is a document that contains the public key and identity information of a web server, and is signed by a trusted third-party authority called a certificate authority (CA). A digital certificate allows the web server to establish a secure connection with the clients using the HTTPS protocol, and also verifies the authenticity of the web server. A self-signed certificate is a digital certificate that is not signed by a CA, but by the web server itself. A self-signed certificate can cause issues with the website, as it may not be trusted by the clients or their browsers. Clients may receive warnings or errors when trying to access the website, indicating that the site could not be trusted or that the connection is not secure. Official References:

- ? <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>
- ? <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>
- ? <https://www.techtarget.com/searchsecurity/quiz/Sample-CompTIA-CySA-test-questions-with-answers>

NEW QUESTION 132

A security analyst is performing an investigation involving multiple targeted Windows malware binaries. The analyst wants to gather intelligence without disclosing

information to the attackers. Which of the following actions would allow the analyst to achieve the objective?

- A. Upload the binary to an air gapped sandbox for analysis
- B. Send the binaries to the antivirus vendor
- C. Execute the binaries on an environment with internet connectivity
- D. Query the file hashes using VirusTotal

Answer: A

Explanation:

The best action that would allow the analyst to gather intelligence without disclosing information to the attackers is to upload the binary to an air gapped sandbox for analysis. An air gapped sandbox is an isolated environment that has no connection to any external network or system. Uploading the binary to an air gapped sandbox can prevent any communication or interaction between the binary and the attackers, as well as any potential harm or infection to other systems or networks. An air gapped sandbox can also allow the analyst to safely analyze and observe the behavior, functionality, or characteristics of the binary.

NEW QUESTION 137

A systems administrator is reviewing after-hours traffic flows from data-center servers and sees regular outgoing HTTPS connections from one of the servers to a public IP address. The server should not be making outgoing connections after hours. Looking closer, the administrator sees this traffic pattern around the clock during work hours as well. Which of the following is the most likely explanation?

- A. C2 beaconing activity
- B. Data exfiltration
- C. Anomalous activity on unexpected ports
- D. Network host IP address scanning
- E. A rogue network device

Answer: A

Explanation:

The most likely explanation for this traffic pattern is C2 beaconing activity. C2 stands for command and control, which is a phase of the Cyber Kill Chain that involves the adversary attempting to establish communication with a successfully exploited target. C2 beaconing activity is a type of network traffic that indicates a compromised system is sending periodic messages or signals to an attacker's system using various protocols, such as HTTP(S), DNS, ICMP, or UDP. C2 beaconing activity can enable the attacker to remotely control or manipulate the target system or network using various methods, such as malware callbacks, backdoors, botnets, or covert channels.

NEW QUESTION 138

A zero-day command injection vulnerability was published. A security administrator is analyzing the following logs for evidence of adversaries attempting to exploit the vulnerability:

| Log entry # | Message |
|-------------|---|
| Log entry 1 | comptia.org/S{@java.lang.Runtime@getRuntime().exec("nslookup example.com")}/ |
| Log entry 2 | <script type="text/javascript">var test='../index.php?cookie_data='+escape(document.cookie);</script> |
| Log entry 3 | example.com/butler.php?id=1 and nullif (1337,1337) |
| Log entry 4 | requestObj = ... {scopes: ["Mail.ReadWrite", "Mail.send", "Files.ReadWrite.All"] } |

Which of the following log entries provides evidence of the attempted exploit?

- A. Log entry 1
- B. Log entry 2
- C. Log entry 3
- D. Log entry 4

Answer: D

Explanation:

Log entry 4 shows an attempt to exploit the zero-day command injection vulnerability by appending a malicious command (;cat /etc/passwd) to the end of a legitimate request (/cgi-bin/index.cgi?name=John). This command would try to read the contents of the /etc/passwd file, which contains user account information, and could lead to further compromise of the system. The other log entries do not show any signs of command injection, as they do not contain any special characters or commands that could alter the intended behavior of the application. Official References:

- ? <https://www.imperva.com/learn/application-security/command-injection/>
- ? <https://www.zerodayinitiative.com/advisories/published/>

NEW QUESTION 141

An incident response team receives an alert to start an investigation of an internet outage. The outage is preventing all users in multiple locations from accessing external SaaS resources. The team determines the organization was impacted by a DDoS attack. Which of the following logs should the team review first?

- A. CDN
- B. Vulnerability scanner
- C. DNS
- D. Web server

Answer: C

Explanation:

A distributed denial-of-service (DDoS) attack is a type of cyberattack that aims to overwhelm a target's network or server with a large volume of traffic from multiple sources. A common technique for launching a DDoS attack is to compromise DNS servers, which are responsible for resolving domain names into IP addresses. By flooding DNS servers with malicious requests, attackers can disrupt the normal functioning of the internet and prevent users from accessing external SaaS resources. Official References: <https://www.eccouncil.org/cybersecurity-exchange/threat-intelligence/cyber-kill-chain-seven-steps-cyberattack/>

NEW QUESTION 146

A company receives a penetration test report summary from a third party. The report summary indicates a proxy has some patches that need to be applied. The proxy is sitting in a rack and is not being used, as the company has replaced it with a new one. The CVE score of the vulnerability on the proxy is a 9.8. Which of the following best practices should the company follow with this proxy?

- A. Leave the proxy as is.
- B. Decommission the proxy.
- C. Migrate the proxy to the cloud.
- D. Patch the proxy

Answer: B

Explanation:

The best practice that the company should follow with this proxy is to decommission the proxy. Decommissioning the proxy involves removing or disposing of the proxy from the rack and the network, as well as deleting or wiping any data or configuration on the proxy. Decommissioning the proxy can help eliminate the vulnerability on the proxy, as well as reduce the attack surface, complexity, or cost of maintaining the network. Decommissioning the proxy can also free up space or resources for other devices or systems that are in use or needed by the company.

NEW QUESTION 148

An incident response analyst notices multiple emails traversing the network that target only the administrators of the company. The email contains a concealed URL that leads to an unknown website in another country. Which of the following best describes what is happening? (Choose two.)

- A. Beaconing
- B. Domain Name System hijacking
- C. Social engineering attack
- D. On-path attack
- E. Obfuscated links
- F. Address Resolution Protocol poisoning

Answer: CE

Explanation:

A social engineering attack is a type of cyberattack that relies on manipulating human psychology rather than exploiting technical vulnerabilities. A social engineering attack may involve deceiving, persuading, or coercing users into performing actions that benefit the attacker, such as clicking on malicious links, divulging sensitive information, or granting access to restricted resources. An obfuscated link is a link that has been disguised or altered to hide its true destination or purpose. Obfuscated links are often used by attackers to trick users into visiting malicious websites or downloading malware. In this case, an incident response analyst notices multiple emails traversing the network that target only the administrators of the company. The email contains a concealed URL that leads to an unknown website in another country. This indicates that the analyst is witnessing a social engineering attack using obfuscated links.

NEW QUESTION 149

Joe, a leading sales person at an organization, has announced on social media that he is leaving his current role to start a new company that will compete with his current employer. Joe is soliciting his current employer's customers. However, Joe has not resigned or discussed this with his current supervisor yet. Which of the following would be the best action for the incident response team to recommend?

- A. Isolate Joe's PC from the network
- B. Reimage the PC based on standard operating procedures
- C. Initiate a remote wipe of Joe's PC using mobile device management
- D. Perform no action until HR or legal counsel advises on next steps

Answer: D

Explanation:

The best action for the incident response team to recommend in this scenario is to perform no action until HR or legal counsel advises on next steps. This action can help avoid any potential legal or ethical issues, such as violating employee privacy rights, contractual obligations, or organizational policies. This action can also help ensure that any evidence or information collected from the employee's system or network is admissible and valid in case of any legal action or dispute. The incident response team should consult with HR or legal counsel before taking any action that may affect the employee's system or network.

NEW QUESTION 152

A company is concerned with finding sensitive file storage locations that are open to the public. The current internal cloud network is flat. Which of the following is the best solution to secure the network?

- A. Implement segmentation with ACLs.
- B. Configure logging and monitoring to the SIEM.
- C. Deploy MFA to cloud storage locations.
- D. Roll out an IDS.

Answer: A

Explanation:

Implementing segmentation with ACLs is the best solution to secure the network. Segmentation is the process of dividing a network into smaller subnetworks, or segments, based on criteria such as function, location, or security level. Segmentation can help improve the network performance, scalability, and manageability, as well as enhance the network security by isolating the sensitive or critical data and systems from the rest of the network. ACLs are Access Control Lists, which

are rules or policies that specify which users, devices, or applications can access a network segment or resource, and which actions they can perform. ACLs can help enforce the principle of least privilege, and prevent unauthorized or malicious access to the network segments or resources¹². Configuring logging and monitoring to the SIEM, deploying MFA to cloud storage locations, and rolling out an IDS are all good security practices, but they are not the best solution to secure the network. Logging and monitoring to the SIEM can help detect and analyze the network events and incidents, but they do not prevent them. MFA can help authenticate the users who access the cloud storage locations, but it does not protect the network from attacks or breaches. IDS can help identify and alert the network intrusions, but it does not block them³⁴. References: Network Segmentation: What It Is and How to Do It Right, What is an Access Control List (ACL)? | IBM, What is SIEM? | Microsoft Security, What is Multifactor Authentication (MFA)? | Duo Security, [What is an Intrusion Detection System (IDS)? | IBM]

NEW QUESTION 157

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Relate Links

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