



CompTIA

Exam Questions CS0-003

CompTIA CySA+ Certification Beta Exam

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NEW QUESTION 1

An end-of-life date was announced for a widely used OS. A business-critical function is performed by some machinery that is controlled by a PC, which is utilizing the OS that is approaching the end-of- life date. Which of the following best describes a security analyst's concern?

- A. Any discovered vulnerabilities will not be remediated.
- B. An outage of machinery would cost the organization money.
- C. Support will not be available for the critical machinery
- D. There are no compensating controls in place for the OS.

Answer: A

Explanation:

A security analyst's concern is that any discovered vulnerabilities in the OS that is approaching the end-of-life date will not be remediated by the vendor, leaving the system exposed to potential attacks. The other options are not directly related to the security analyst's role or responsibility. Verified References: CompTIA Cybersecurity Analyst (CySA+) Certification Exam Objectives, page 9, section 2.21

NEW QUESTION 2

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:

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 3

A security analyst discovers an LFI vulnerability that can be exploited to extract credentials from the underlying host. Which of the following patterns can the security analyst use to search the web server logs for evidence of exploitation of that particular vulnerability?

- A. /etc/ shadow
- B. curl localhost
- C. ; printenv
- D. cat /proc/self/

Answer: A

Explanation:

/etc/shadow is the pattern that the security analyst can use to search the web server logs for evidence of exploitation of the LFI vulnerability that can be exploited to extract credentials from the underlying host. LFI stands for Local File Inclusion, which is a vulnerability that allows an attacker to include local files on the web server into the output of a web application. LFI can be exploited to extract sensitive information from the web server, such as configuration files, passwords, or source code. The /etc/shadow file is a file that stores the encrypted passwords of all users on a Linux system. If an attacker can exploit the LFI vulnerability to include this file into the web application output, they can obtain the credentials of the users on the web server. Therefore, the security analyst can look for /etc/shadow in the request line of the web server logs to see if any attacker has attempted or succeeded in exploiting the LFI vulnerability. 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

While reviewing web server logs, a security analyst found the following line:

```
<IMG SRC='vbscript:msgbox("test")'>
```

Which of the following malicious activities was attempted?

- A. Command injection
- B. XML injection
- C. Server-side request forgery
- D. Cross-site scripting

Answer: D

Explanation:

XSS is a type of web application attack that exploits the vulnerability of a web server or browser to execute malicious scripts or commands on the client-side. XSS attackers inject malicious code, such as JavaScript, VBScript, HTML, or CSS, into a web page or application that is viewed by other users. The malicious code can then access or manipulate the user's session, cookies, browser history, or personal information, or perform actions on behalf of the user, such as stealing credentials, redirecting to phishing sites, or installing malware¹²

The line in the web server log shows an example of an XSS attack using VBScript. The attacker tried to insert an tag with a malicious SRC attribute that contains a VBScript code. The VBScript code is intended to display a message box with the text "test" when the user views the web page or application. This is a simple and harmless example of XSS, but it could be used to test the vulnerability of the web server or browser, or to launch more sophisticated and harmful attacks³

NEW QUESTION 5

Which of the following best describes the document that defines the expectation to network customers that patching will only occur between 2:00 a.m. and 4:00 a.m.?

- A. SLA
- B. LOI
- C. MOU
- D. KPI

Answer: A

Explanation:

SLA (Service Level Agreement) is the best term to describe the document that defines the expectation to network customers that patching will only occur between 2:00 a.m. and 4:00 a.m., as it reflects the agreement between a service provider and a customer that specifies the services, quality, availability, and responsibilities that are agreed upon. An SLA is a common type of document that is used in various industries and contexts, such as IT, telecom, cloud computing, or outsourcing. An SLA typically includes metrics and indicators to measure the performance and quality of the service, such as uptime, response time, or resolution time. An SLA also defines the consequences or remedies for any breaches or failures of the service, such as penalties, refunds, or credits. An SLA can help to manage customer expectations, formalize communication, improve productivity, and strengthen relationships. The other terms are not as accurate as SLA, as they describe different types of documents or concepts. LOI (Letter of Intent) is a document that outlines the main terms and conditions of a proposed agreement between two or more parties, before a formal contract is signed. An LOI is usually non-binding and expresses the intention or interest of the parties to enter into a future agreement. An LOI can help to clarify the key points of a deal, facilitate negotiations, or demonstrate commitment. MOU (Memorandum of Understanding) is a document that describes a mutual agreement or cooperation between two or more parties, without creating any legal obligations or commitments. An MOU is usually more formal than an LOI, but less formal than a contract. An MOU can help to establish a common ground, define roles and responsibilities, or outline expectations and goals. KPI (Key Performance Indicator) is a concept that refers to a measurable value that demonstrates how effectively an organization or individual is achieving its key objectives or goals. A KPI is usually quantifiable and specific, such as revenue growth, customer satisfaction, or employee retention. A KPI can help to track progress, evaluate performance, or identify areas for improvement.

NEW QUESTION 6

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 7

During an incident, an analyst needs to acquire evidence for later investigation. Which of the following must be collected first in a computer system, related to its volatility level?

- A. Disk contents
- B. Backup data
- C. Temporary files
- D. Running processes

Answer: D

Explanation:

The most volatile type of evidence that must be collected first in a computer system is running processes. Running processes are programs or applications that are currently executing on a computer system and using its resources, such as memory, CPU, disk space, or network bandwidth. Running processes are very volatile because they can change rapidly or disappear completely when the system is shut down, rebooted, logged off, or crashed. Running processes can also be affected by other processes or users that may modify or terminate them. Therefore, running processes must be collected first before any other type of evidence in a computer system

NEW QUESTION 8

The analyst reviews the following endpoint log entry:

```
invoke-command -ComputerName clientcomputer1 -Credential xyzcompany\administrator -ScriptBlock {HOSTNAME}
clientcomputer1

invoke-command -ComputerName clientcomputer1 -Credential xyzcompany\administrator -ScriptBlock {net user /add invoke_ul}
The command completed successfully.
```

Which of the following has occurred?

- A. Registry change
- B. Rename computer
- C. New account introduced
- D. Privilege escalation

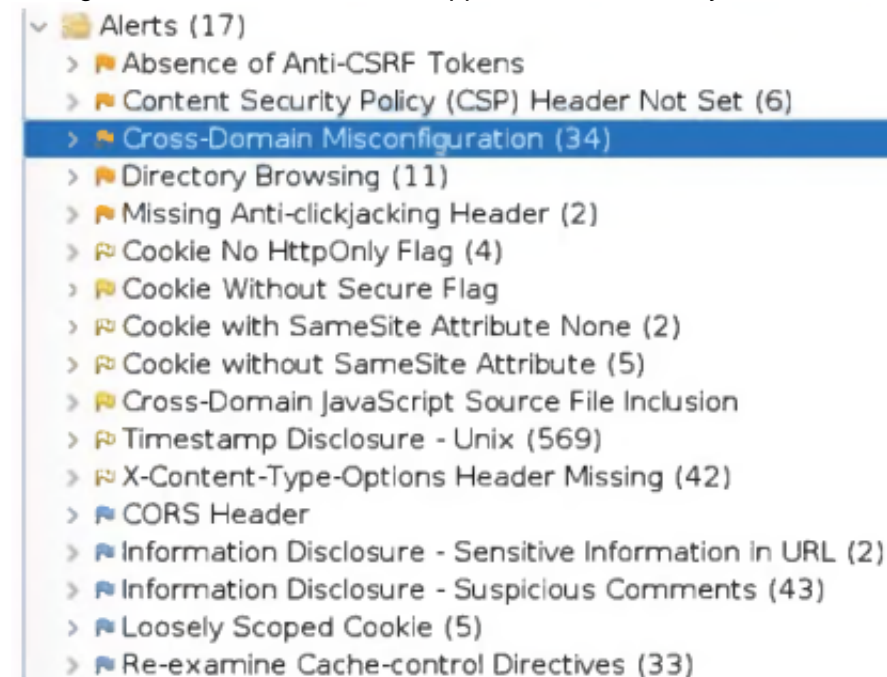
Answer: C

Explanation:

The endpoint log entry shows that a new account named “admin” has been created on a Windows system with a local group membership of “Administrators”. This indicates that a new account has been introduced on the system with administrative privileges. This could be a sign of malicious activity, such as privilege escalation or backdoor creation, by an attacker who has compromised the system.

NEW QUESTION 9

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 HttpOnly 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: B

Explanation:

The output shows that the web application is vulnerable to clickjacking attacks, which allow an attacker to overlay a hidden frame on top of a legitimate page and trick users into clicking on malicious links. Blocking requests without an X-Frame-Options header can prevent this attack by instructing the browser to not display the page within a frame.

NEW QUESTION 10

The developers recently deployed new code to three web servers. A daffy automated external device scan report shows server vulnerabilities that are failure items according to PCI DSS.

If the vulnerability is not valid, the analyst must take the proper steps to get the scan clean.

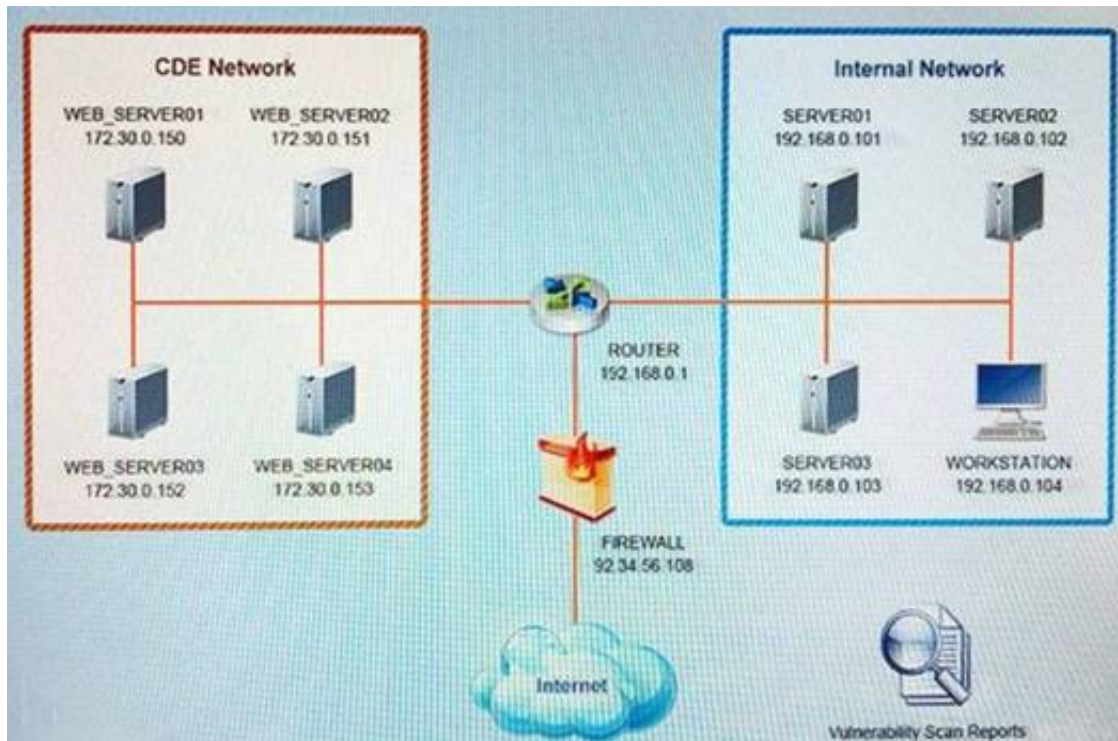
If the vulnerability is valid, the analyst must remediate the finding.

After reviewing the information provided in the network diagram, select the STEP 2 tab to complete the simulation by selecting the correct Validation Result and Remediation Action for each server listed using the drop-down options.

INSTRUCTIONS:

The simulation includes 2 steps.

Step1: Review the information provided in the network diagram and then move to the STEP 2 tab.



Vulnerability Scan Report

HIGH SEVERITY

Title: Cleartext Transmission of Sensitive Information
Description: The software transmits sensitive or securitycritical data in Cleartext in a communication channel that can be sniffed by authorized users.
Affected Asset: 172.30.0.15
Risk: Anyone can read the information by gaining access to the channel being used for communication.
Reference: CVE-2002-1949

MEDIUM SEVERITY

Title: Sensitive Cookie in HTTPS session without 'Secure' Attribute
Description: The Secure attribute for sensitive cookies in HTTPS sessions is not set, which could cause the use agent to send those cookies in plaintext over HTTP session.
Affected Asset: 172.30.0.152
Risk: Session Sidejacking
Reference: CVE-2004-0462

LOW SEVERITY

Title: Untrusted SSL/TLS Server X.509 Certificate
Description: The server's TLS/SSL certificate is signed by a Certification Authority that is untrusted or unknown.
Affected Asset: 172.30.0.153
Risk: May allow man-in-the-middle attackers to insert a spoofed certificate for any Distinguished Name (DN).
Reference: CVE-2005-1234

STEP 2: Given the Scenario, determine which remediation action is required to address the vulnerability.

Network Diagram

INSTRUCTIONS

STEP 2: Given the scenario, determine which remediation action is required to address the vulnerability.

System	Validate Result	Remediation Action
WEB_SERVER01	<div>False Positive</div> <div>False Negative</div> <div>True Positive</div> <div>True Negative</div>	<div>Encrypt Entire Session</div> <div>Encrypt All Session Cookies</div> <div>Implement Input Validation</div> <div>Submit as Non-Issue</div> <div>Employ Unique Token in Hidden Field</div> <div>Avoid Using Redirects and Forwards</div> <div>Disable HTTP</div> <div>Request Certificate from a Public CA</div> <div>Renew the Current Certificate</div>
WEB_SERVER02	<div>False Positive</div> <div>False Negative</div> <div>True Positive</div> <div>True Negative</div>	<div>Encrypt Entire Session</div> <div>Encrypt All Session Cookies</div> <div>Implement Input Validation</div> <div>Submit as Non-Issue</div> <div>Employ Unique Token in Hidden Field</div> <div>Avoid Using Redirects and Forwards</div> <div>Disable HTTP</div> <div>Request Certificate from a Public CA</div> <div>Renew the Current Certificate</div>
WEB_SERVER03	<div>False Positive</div> <div>False Negative</div> <div>True Positive</div> <div>True Negative</div>	<div>Encrypt Entire Session</div> <div>Encrypt All Session Cookies</div> <div>Implement Input Validation</div> <div>Submit as Non-Issue</div> <div>Employ Unique Token in Hidden Field</div> <div>Avoid Using Redirects and Forwards</div> <div>Disable HTTP</div> <div>Request Certificate from a Public CA</div> <div>Renew the Current Certificate</div>

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

INSTRUCTIONS

STEP 2: Given the scenario, determine which remediation action is required to address the vulnerability.

System	Validate Result	Remediation Action
WEB_SERVER01	<div>True Positive</div>	<div>Encrypt Entire Session</div>
WEB_SERVER02	<div>True Positive</div>	<div>Encrypt All Session Cookies</div>
WEB_SERVER03	<div>True Positive</div>	<div>Request Certificate from a Public CA</div>

NEW QUESTION 10

Which of the following is the best metric for an organization to focus on given recent investments in SIEM, SOAR, and a ticketing system?

- A. Mean time to detect
- B. Number of exploits by tactic
- C. Alert volume
- D. Quantity of intrusion attempts

Answer: A

Explanation:

Mean time to detect (MTTD) is the best metric for an organization to focus on given recent investments in SIEM, SOAR, and a ticketing system. MTTD is a metric that measures how long it takes to detect a security incident or threat from the time it occurs. MTTD can be improved by using tools and processes that can collect, correlate, analyze, and alert on security data from various sources. SIEM, SOAR, and ticketing systems are examples of such tools and processes that can help reduce MTTD and enhance security operations. Official References:
<https://www.eccouncil.org/cybersecurity-exchange/threat-intelligence/cyber-kill-chain-seven-steps-cyberattack>

NEW QUESTION 15

A security analyst performs a vulnerability scan. Based on the metrics from the scan results, the analyst must prioritize which hosts to patch. The analyst runs the tool and receives the following output:

```
Host      CVE: (Vulnerability Name)  Metrics
----      -
host01 CVE-2003-99992: (TransAtl) DDS:NOA:HVT
host02 CVE-2004-99993: (TjBeP)  DDS:AEX:NOA
host03  CVE-2007-99996:
      (NarrowStairs)          RCE:AEX:HVT
host04  CVE-2009-99998:
      (Topendoor)             UDD:NOA

--- metrics ---
DDS: Denial of service vulnerability
RCE: Remote code execution vulnerability
UDD: Unauthorized disclosure of data vulnerability
AEX: Vulnerability is being exploited actively exploited
NOA: No authentication required
HVT: Host is a high value target
HEX: Host is externally available to public Internet
```

Which of the following hosts should be patched first, based on the metrics?

- A. host01
- B. host02
- C. host03
- D. host04

Answer: C

Explanation:

Host03 should be patched first, based on the metrics, as it has the highest risk score and the highest number of critical vulnerabilities. The risk score is calculated by multiplying the CVSS score by the exposure factor, which is the percentage of systems that are vulnerable to the exploit. Host03 has a risk score of 10 x 0.9 = 9, which is higher than any other host. Host03 also has 5 critical vulnerabilities, which are the most severe and urgent to fix, as they can allow remote code execution, privilege escalation, or data loss. The other hosts have lower risk scores and lower numbers of critical vulnerabilities, so they can be patched later.

NEW QUESTION 18

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 22

Which of the following would a security analyst most likely use to compare TTPs between different known adversaries of an organization?

- A. MITRE ATTACK
- B. Cyber Kill Cham
- C. OWASP
- D. STIXTAXII

Answer: A

Explanation:

MITRE ATT&CK is a framework and knowledge base that describes the tactics, techniques, and procedures (TTPs) used by various adversaries in cyberattacks. MITRE ATT&CK can help security analysts compare TTPs between different known adversaries of an organization, as well as identify patterns, gaps, or trends in adversary behavior. MITRE ATT&CK can also help security analysts improve threat detection, analysis, and response capabilities, as well as share threat intelligence with other organizations or communities

NEW QUESTION 27

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 31

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 35

An employee is suspected of misusing a company-issued laptop. The employee has been suspended pending an investigation by human resources. Which of the following is the best step to preserve evidence?

- A. Disable the user's network account and access to web resources
- B. Make a copy of the files as a backup on the server.
- C. Place a legal hold on the device and the user's network share.
- D. Make a forensic image of the device and create a SRA-I hash.

Answer: D

Explanation:

Making a forensic image of the device and creating a SRA-I hash is the best step to preserve evidence, as it creates an exact copy of the device's data and verifies its integrity. A forensic image is a bit-by-bit copy of the device's storage media, which preserves all the information on the device, including deleted or hidden files. A SRA-I hash is a cryptographic value that is calculated from the forensic image, which can be used to prove that the image has not been altered or

tampered with. The other options are not as effective as making a forensic image and creating a SRA-I hash, as they may not capture all the relevant data, or they may not provide sufficient verification of the evidence's authenticity. Official References:

- > <https://www.sans.org/blog/forensics-101-acquiring-an-image-with-ftk-imager/>
- > <https://swaillescomputerforensics.com/digital-forensics-imaging-hash-value/>

NEW QUESTION 40

Which of the following is the first step that should be performed when establishing a disaster recovery plan?

- A. Agree on the goals and objectives of the plan
- B. Determine the site to be used during a disaster
- C. Demonstrate adherence to a standard disaster recovery process
- D. Identity applications to be run during a disaster

Answer: A

Explanation:

The first step that should be performed when establishing a disaster recovery plan is to agree on the goals and objectives of the plan. The goals and objectives of the plan should define what the plan aims to achieve, such as minimizing downtime, restoring critical functions, ensuring data integrity, or meeting compliance requirements. The goals and objectives of the plan should also be aligned with the business needs and priorities of the organization and be measurable and achievable.

NEW QUESTION 42

While performing a dynamic analysis of a malicious file, a security analyst notices the memory address changes every time the process runs. Which of the following controls is most likely preventing the analyst from finding the proper memory address of the piece of malicious code?

- A. Address space layout randomization
- B. Data execution prevention
- C. Stack canary
- D. Code obfuscation

Answer: A

Explanation:

The correct answer is A. Address space layout randomization.

Address space layout randomization (ASLR) is a security control that randomizes the memory address space of a process, making it harder for an attacker to exploit memory-based vulnerabilities, such as buffer overflows¹. ASLR can also prevent a security analyst from finding the proper memory address of a piece of malicious code, as the memory address changes every time the process runs².

The other options are not the best explanations for why the memory address changes every time the process runs. Data execution prevention (B) is a security control that prevents code from being executed in certain memory regions, such as the stack or the heap³. Stack canary © is a security technique that places a random value on the stack before a function's return address, to detect and prevent stack buffer overflows. Code obfuscation (D) is a technique that modifies the source code or binary of a program to make it more difficult to understand or reverse engineer. These techniques do not affect the memory address space of a process, but rather the execution or analysis of the code.

NEW QUESTION 46

During an extended holiday break, a company suffered a security incident. This information was properly relayed to appropriate personnel in a timely manner and the server was up to date and configured with appropriate auditing and logging. The Chief Information Security Officer wants to find out precisely what happened. Which of the following actions should the analyst take first?

- A. Clone the virtual server for forensic analysis
- B. Log in to the affected server and begin analysis of the logs
- C. Restore from the last known-good backup to confirm there was no loss of connectivity
- D. Shut down the affected server immediately

Answer: A

Explanation:

The first action that the analyst should take in this case is to clone the virtual server for forensic analysis. Cloning the virtual server involves creating an exact copy or image of the server's data and state at a specific point in time. Cloning the virtual server can help preserve and protect any evidence or information related to the security incident, as well as prevent any tampering, contamination, or destruction of evidence. Cloning the virtual server can also allow the analyst to safely analyze and investigate the incident without affecting the original server or its operations.

NEW QUESTION 51

A security analyst is trying to identify anomalies on the network routing. Which of the following functions can the analyst use on a shell script to achieve the objective most accurately?

- A. `function x() { info=$(geoiplookup $1) && echo "$1 | $info" }`
- B. `function x() { info=$(ping -c 1 $1 | awk -F "/" 'END{print $5}') && echo "$1 | $info" }`
- C. `function x() { info=$(dig $(dig -x $1 | grep PTR | tail -n 1 | awk -F "." '{print $1}').origin.asn.cymru.com TXT +short) && echo "$1 | $info" }`
- D. `function x() { info=$(traceroute -m 40 $1 | awk 'END{print $1}') && echo "$1 | $info" }`

Answer: C

Explanation:

The function that can be used on a shell script to identify anomalies on the network routing most accurately is: `function x() { info=$(dig $(dig -x $1 | grep PTR | tail -n 1 | awk -F "." '{print $1}').origin.asn.cymru.com TXT +short) && echo "$1 | $info" }`

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. The function then prints the IP address and the ASN information, which can help identify any routing

anomalies or inconsistencies

NEW QUESTION 56

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 61

Which of the following will most likely ensure that mission-critical services are available in the event of an incident?

- A. Business continuity plan
- B. Vulnerability management plan
- C. Disaster recovery plan
- D. Asset management plan

Answer: C

NEW QUESTION 65

A security analyst needs to ensure that systems across the organization are protected based on the sensitivity of the content each system hosts. The analyst is working with the respective system owners to help determine the best methodology that seeks to promote confidentiality, availability, and integrity of the data being hosted. Which of the following should the security analyst perform first to categorize and prioritize the respective systems?

- A. Interview the users who access these systems,
- B. Scan the systems to see which vulnerabilities currently exist.
- C. Configure alerts for vendor-specific zero-day exploits.
- D. Determine the asset value of each system.

Answer: D

Explanation:

Determining the asset value of each system is the best action to perform first, as it helps to categorize and prioritize the systems based on the sensitivity of the data they host. The asset value is a measure of how important a system is to the organization, in terms of its financial, operational, or reputational impact. The asset value can help the security analyst to assign a risk level and a protection level to each system, and to allocate resources accordingly. The other actions are not as effective as determining the asset value, as they do not directly address the goal of promoting confidentiality, availability, and integrity of the data. Interviewing the users who access these systems may provide some insight into how the systems are used and what data they contain, but it may not reflect the actual value or sensitivity of the data from an organizational perspective. Scanning the systems to see which vulnerabilities currently exist may help to identify and remediate some security issues, but it does not help to categorize or prioritize the systems based on their data sensitivity. Configuring alerts for vendor-specific zero-day exploits may help to detect and respond to some emerging threats, but it does not help to protect the systems based on their data sensitivity.

NEW QUESTION 70

A recent zero-day vulnerability is being actively exploited, requires no user interaction or privilege escalation, and has a significant impact to confidentiality and integrity but not to availability. Which of the following CVE metrics would be most accurate for this zero-day threat?

- A. CVSS: 31/AV: N/AC: L/PR: N/UI: N/S: U/C: H/I: K/A: L
- B. CVSS:31/AV:K/AC:L/PR:H/UI:R/S:C/H/I:H/A:L
- C. CVSS:31/AV:N/AC:L/PR:N/UI:H/S:U/C:L/I:N/A:H
- D. CVSS:31/AV:L/AC:L/PR:R/UI:R/S:U/C:H/I:L/A:H

Answer: A

Explanation:

This answer matches the description of the zero-day threat. The attack vector is network (AV:N), the attack complexity is low (AC:L), no privileges are required (PR:N), no user interaction is required (UI:N), the scope is unchanged (S:U), the confidentiality and integrity impacts are high (C:H/I:H), and the availability impact is low (A:L). Official References: <https://nvd.nist.gov/vuln-metrics/cvss>

NEW QUESTION 72

Which of the following items should be included in a vulnerability scan report? (Choose two.)

- A. Lessons learned
- B. Service-level agreement
- C. Playbook
- D. Affected hosts
- E. Risk score
- F. Education plan

Answer: DE

Explanation:

A vulnerability scan report should include information about the affected hosts, such as their IP addresses, hostnames, operating systems, and services. It should also include a risk score for each vulnerability, which indicates the severity and potential impact of the vulnerability on the host and the organization. Official References: <https://www.first.org/cvss/>

NEW QUESTION 74

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 76

A security analyst must preserve a system hard drive that was involved in a litigation request Which of the following is the best method to ensure the data on the device is not modified?

- A. Generate a hash value and make a backup image.
- B. Encrypt the device to ensure confidentiality of the data.
- C. Protect the device with a complex password.
- D. Perform a memory scan dump to collect residual data.

Answer: A

Explanation:

Generating a hash value and making a backup image is the best method to ensure the data on the device is not modified, as it creates a verifiable copy of the original data that can be used for forensic analysis. Encrypting the device, protecting it with a password, or performing a memory scan dump do not prevent the data from being altered or deleted. Verified References: CompTIA CySA+ CS0-002 Certification Study Guide, page 3291

NEW QUESTION 77

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 80

A company that has a geographically diverse workforce and dynamic IPs wants to implement a vulnerability scanning method with reduced network traffic. Which of the following would best meet this requirement?

- A. External
- B. Agent-based
- C. Non-credentialed
- D. Credentialed

Answer: B

Explanation:

Agent-based vulnerability 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 vulnerability scanning can reduce network traffic, as the scans are performed locally and only the results are transmitted over the network. Agent-based vulnerability scanning can also provide more accurate and up-to-date results, as the agents can scan continuously or

on-demand, regardless of the system or network status or location.

NEW QUESTION 82

A security analyst performs various types of vulnerability scans. Review the vulnerability scan results to determine the type of scan that was executed and if a false positive occurred for each device.

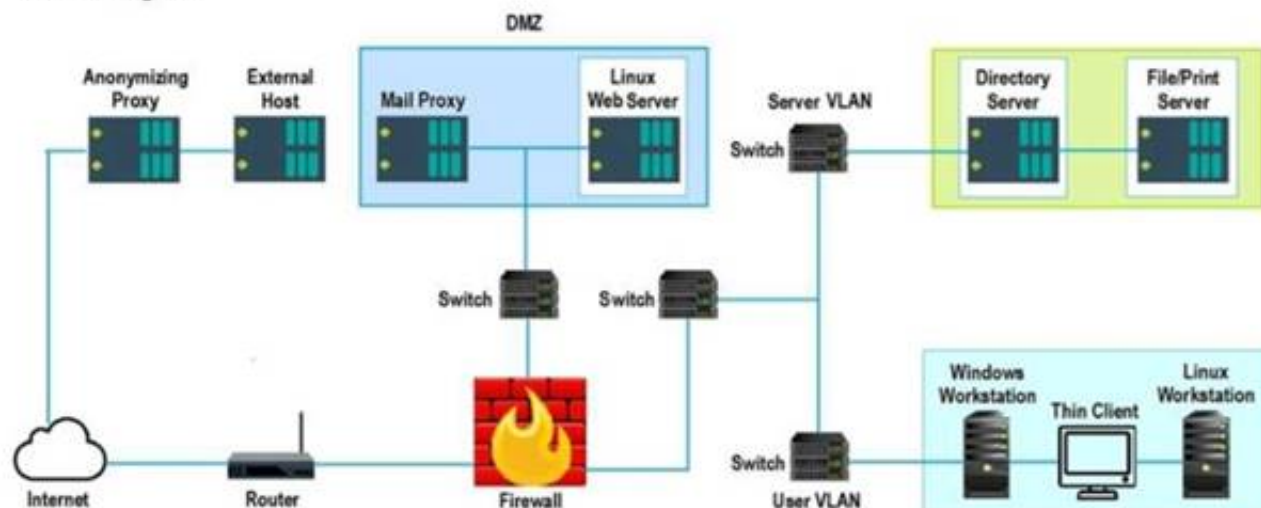
Instructions:

Select the Results Generated drop-down option to determine if the results were generated from a credentialed scan, non-credentialed scan, or a compliance scan. For ONLY the credentialed and non-credentialed scans, evaluate the results for false positives and check the findings that display false positives. NOTE: If you would like to uncheck an option that is currently selected, click on the option a second time.

Lastly, based on the vulnerability scan results, identify the type of Server by dragging the Server to the results. The Linux Web Server, File-Print Server and Directory Server are draggable.

If at any time you would like to bring back the initial state of the simulation, please select the Reset All button. When you have completed the simulation, please select the Done button to submit. Once the simulation is submitted, please select the Next button to continue.

Network Diagram



Hot Area:

False Positive	Findings Listing	Results Generated
<input type="radio"/>	Findings Listing 1 Critical (10.0) 12209 Security Update for Microsoft Windows (835732) Critical (10.0) 13852 Microsoft Windows Task Scheduler Remote Overflow (841873) Critical (10.0) 18502 Vulnerability in SMB Could Allow Remote Code Execution (896422) Critical (10.0) 58662 Samba 3.x:3.6.4/3.5.14/3.4.16 RPC Multiple Buffer Overflows (20161146) Critical (10.0) 19407 Vulnerability in Printer Spooler Service Could Allow Remote Code Execution (896423)	Credentialed Non-Credentialed Compliance
<input type="radio"/>	Findings Listing 2 Critical (10.0) 19407 Vulnerability in Printer Spooler Service Could Allow Remote Code Execution (896423) Critical (10.0) 11890 Ubuntu 5.04/5.10/6.06 LTS : Buffer Overrun in Messenger Service (CVE-2016-8035) Critical (10.0) 27942 Ubuntu 5.04/5.10/6.06 LTS : php5 vulnerabilities (CVE-2016-362-1) Critical (10.0) 27978 Ubuntu 5.10/6.06 LTS / 6.10 : gnupg vulnerability (CVE-2016-3931) Critical (10.0) 28017 Ubuntu 5.10/6.06 LTS / 6.10 : php5 regression (CVE-2016-4242)	Credentialed Non-Credentialed Compliance
<input type="radio"/>	Findings Listing 3 WARNING (1.0.1) System cryptography: Force strong key protection for user keys stored on the computer. Prompt the User each time a key is first used INFORM (1.2.4) Network access: Do not allow anonymous enumeration of SAM accounts: Enabled INFORM (1.3.4) Network access: Do not allow anonymous enumeration of SAM accounts and shares: Enabled INFORM (1.5.0) Network access: Let everyone permissions apply to anonymous users: Disabled INFORM (1.6.5) Network access: Sharing and security model for local accounts Classic - local users authenticate as themselves	Credentialed Non-Credentialed Compliance

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

Hot Area:

False Positive	Findings Listing	Results Generated
<input checked="" type="radio"/>	Findings Listing 1 Critical (10.0) 12209 Security Update for Microsoft Windows (835732) Critical (10.0) 13852 Microsoft Windows Task Scheduler Remote Overflow (841873) Critical (10.0) 18502 Vulnerability in SMB Could Allow Remote Code Execution (896422) Critical (10.0) 58662 Samba 3.x:3.6.4/3.5.14/3.4.16 RPC Multiple Buffer Overflows (20161146) Critical (10.0) 19407 Vulnerability in Printer Spooler Service Could Allow Remote Code Execution (896423)	Credentialed Non-Credentialed Compliance
<input checked="" type="radio"/>	Findings Listing 2 Critical (10.0) 19407 Vulnerability in Printer Spooler Service Could Allow Remote Code Execution (896423) Critical (10.0) 11890 Ubuntu 5.04/5.10/6.06 LTS : Buffer Overrun in Messenger Service (CVE-2016-8035) Critical (10.0) 27942 Ubuntu 5.04/5.10/6.06 LTS : php5 vulnerabilities (CVE-2016-362-1) Critical (10.0) 27978 Ubuntu 5.10/6.06 LTS / 6.10 : gnupg vulnerability (CVE-2016-3931) Critical (10.0) 28017 Ubuntu 5.10/6.06 LTS / 6.10 : php5 regression (CVE-2016-4242)	Credentialed Non-Credentialed Compliance
<input checked="" type="radio"/>	Findings Listing 3 WARNING (1.0.1) System cryptography: Force strong key protection for user keys stored on the computer. Prompt the User each time a key is first used INFORM (1.2.4) Network access: Do not allow anonymous enumeration of SAM accounts: Enabled INFORM (1.3.4) Network access: Do not allow anonymous enumeration of SAM accounts and shares: Enabled INFORM (1.5.0) Network access: Let everyone permissions apply to anonymous users: Disabled INFORM (1.6.5) Network access: Sharing and security model for local accounts Classic - local users authenticate as themselves	Credentialed Non-Credentialed Compliance

NEW QUESTION 83

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 84

A security alert was triggered when an end user tried to access a website that is not allowed per organizational policy. Since the action is considered a terminable offense, the SOC analyst collects the authentication logs, web logs, and temporary files, reflecting the web searches from the user's workstation, to build the case for the investigation. Which of the following is the best way to ensure that the investigation complies with HR or privacy policies?

- A. Create a timeline of events detailing the date stamps, user account hostname and IP information associated with the activities
- B. Ensure that the case details do not reflect any user-identifiable information Password protect the evidence and restrict access to personnel related to the investigation
- C. Create a code name for the investigation in the ticketing system so that all personnel with access will not be able to easily identify the case as an HR-related investigation
- D. Notify the SOC manager for awareness after confirmation that the activity was intentional

Answer: B

Explanation:

The best way to ensure that the investigation complies with HR or privacy policies is to ensure that the case details do not reflect any user-identifiable information, such as name, email address, phone number, or employee ID. This can help protect the privacy and confidentiality of the user and prevent any potential discrimination or retaliation. Additionally, password protecting the evidence and restricting access to personnel related to the investigation can help preserve the integrity and security of the evidence and prevent any unauthorized or accidental disclosure or modification.

NEW QUESTION 89

An analyst wants to ensure that users only leverage web-based software that has been pre-approved by the organization. Which of the following should be deployed?

- A. Blocklisting
- B. Allowlisting
- C. Graylisting
- D. Webhooks

Answer: B

Explanation:

The correct answer is B. Allowlisting.

Allowlisting is a technique that allows only pre-approved web-based software to run on a system or network, while blocking all other software. Allowlisting can help prevent unauthorized or malicious software from compromising the security of an organization. Allowlisting can be implemented using various methods, such as application control, browser extensions, firewall rules, or proxy servers¹².

The other options are not the best techniques to ensure that users only leverage web-based software that has been pre-approved by the organization. Blocklisting (A) is a technique that blocks specific web-based software from running on a system or network, while allowing all other software. Blocklisting can be ineffective or inefficient, as it requires constant updates and may not catch all malicious software. Graylisting © is a technique that temporarily rejects or delays incoming messages from unknown or suspicious sources, until they are verified as legitimate. Graylisting is mainly used for email filtering, not for web-based software control. Webhooks (D) are a technique that allows web-based software to send or receive data from other web-based software in real time, based on certain events or triggers. Webhooks are not related to web-based software control, but rather to web-based software integration.

NEW QUESTION 93

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 97

A company is in the process of implementing a vulnerability management program. Which of the following scanning methods should be implemented to minimize the risk of OT/ICS devices malfunctioning due to the vulnerability identification process?

- A. Non-credentialed scanning
- B. Passive scanning
- C. Agent-based scanning
- D. Credentialed scanning

Answer: B

Explanation:

Passive scanning is a method of vulnerability identification that does not send any packets or probes to the target devices, but rather observes and analyzes the network traffic passively. Passive scanning can minimize the risk of OT/ICS devices malfunctioning due to the vulnerability identification process, as it does not interfere with the normal operation of the devices or cause any network disruption. Passive scanning can also detect vulnerabilities that active scanning may miss, such as misconfigured devices, rogue devices or unauthorized traffic. Official References:

- > <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>
- > <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>
- > <https://www.comptia.org/certifications/cybersecurity-analyst>

NEW QUESTION 98

A systems administrator notices unfamiliar directory names on a production server. The administrator reviews the directory listings and files, and then concludes the server has been compromised. Which of the following steps should the administrator take next?

- A. Inform the internal incident response team.
- B. Follow the company's incident response plan.
- C. Review the lessons learned for the best approach.
- D. Determine when the access started.

Answer: B

Explanation:

An incident response plan is a set of predefined procedures and guidelines that an organization follows when faced with a security breach or attack. An incident response plan helps to ensure that the organization can quickly and effectively contain, analyze, eradicate, and recover from the incident, as well as prevent or minimize the damage and impact to the business operations, reputation, and customers. An incident response plan also defines the roles and responsibilities of the incident response team, the communication channels and protocols, the escalation and reporting procedures, and the tools and resources available for the incident response.

By following the company's incident response plan, the administrator can ensure that they are following the best practices and standards for handling a security incident, and that they are coordinating and collaborating with the relevant stakeholders and authorities. Following the company's incident response plan can also help to avoid or reduce any legal, regulatory, or contractual liabilities or penalties that may arise from the incident.

The other options are not as effective or appropriate as following the company's incident response plan. Informing the internal incident response team (A) is a good step, but it should be done according to the company's incident response plan, which may specify who, when, how, and what to report. Reviewing the lessons learned for the best approach (C) is a good step, but it should be done after the incident has been resolved and closed, not during the active response phase. Determining when the access started (D) is a good step, but it should be done as part of the analysis phase of the incident response plan, not before following the plan.

NEW QUESTION 103

A security analyst is tasked with prioritizing vulnerabilities for remediation. The relevant company security policies are shown below:

Security Policy 1006: Vulnerability Management

* 1. The Company shall use the CVSSv3.1 Base Score Metrics (Exploitability and Impact) to prioritize the remediation of security vulnerabilities.

* 2. In situations where a choice must be made between confidentiality and availability, the Company shall prioritize confidentiality of data over availability of systems and data.

* 3. The Company shall prioritize patching of publicly available systems and services over patching of internally available system.

According to the security policy, which of the following vulnerabilities should be the highest priority to patch? A)

Name: THOR.HAMMER

CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:N/A:H

Internal System

B)

Name: CAP.SHIELD

CVSS 3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:N/A:N

External System

C)

Name: LOKI.DAGGER

CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:N/A:H

External System

D)

Name: THANOS.GAUNTLET
CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:N/A:N
Internal System

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

Explanation:

According to the security policy, the company shall use the CVSSv3.1 Base Score Metrics to prioritize the remediation of security vulnerabilities. Option C has the highest CVSSv3.1 Base Score of 9.8, which indicates a critical severity level. The company shall also prioritize confidentiality of data over availability of systems and data, and option C has a high impact on confidentiality (C:H). Finally, the company shall prioritize patching of publicly available systems and services over patching of internally available systems, and option C affects a public-facing web server. Official References: <https://www.first.org/cvss/>

NEW QUESTION 106

Which of the following describes the best reason for conducting a root cause analysis?

- A. The root cause analysis ensures that proper timelines were documented.
- B. The root cause analysis allows the incident to be properly documented for reporting.
- C. The root cause analysis develops recommendations to improve the process.
- D. The root cause analysis identifies the contributing items that facilitated the event

Answer: D

Explanation:

The root cause analysis identifies the contributing items that facilitated the event is the best reason for conducting a root cause analysis, as it reflects the main goal and benefit of this problem-solving approach. A root cause analysis (RCA) is a process of discovering the root causes of problems in order to identify appropriate solutions. A root cause is the core issue or factor that sets in motion the entire cause-and-effect chain that leads to the problem. A root cause analysis assumes that it is more effective to systematically prevent and solve underlying issues rather than just treating symptoms or putting out fires. A root cause analysis can be performed using various methods, tools, and techniques that help to uncover the causes of problems, such as events and causal factor analysis, change analysis, barrier analysis, or fishbone diagrams. A root cause analysis can help to improve quality, performance, safety, or efficiency by finding and eliminating the sources of problems. The other options are not as accurate as the root cause analysis identifies the contributing items that facilitated the event, as they do not capture the essence or value of conducting a root cause analysis. The root cause analysis ensures that proper timelines were documented is a possible outcome or benefit of conducting a root cause analysis, but it is not the best reason for doing so. Documenting timelines can help to establish the sequence of events and actions that led to the problem, but it does not necessarily identify or address the root causes. The root cause analysis allows the incident to be properly documented for reporting is also a possible outcome or benefit of conducting a root cause analysis, but it is not the best reason for doing so. Documenting and reporting incidents can help to communicate and share information about problems and solutions, but it does not necessarily identify or address the root causes. The root cause analysis develops recommendations to improve the process is another possible outcome or benefit of conducting a root cause analysis, but it is not the best reason for doing so. Developing recommendations can help to implement solutions and prevent future problems, but it does not necessarily identify or address the root causes.

NEW QUESTION 110

Which of the following is the best action to take after the conclusion of a security incident to improve incident response in the future?

- A. Develop a call tree to inform impacted users
- B. Schedule a review with all teams to discuss what occurred
- C. Create an executive summary to update company leadership
- D. Review regulatory compliance with public relations for official notification

Answer: B

Explanation:

One of the best actions to take after the conclusion of a security incident to improve incident response in the future is to schedule a review with all teams to discuss what occurred, what went well, what went wrong, and what can be improved. This review is also known as a lessons learned session or an after-action report. The purpose of this review is to identify the root causes of the incident, evaluate the effectiveness of the incident response process, document any gaps or weaknesses in the security controls, and recommend corrective actions or preventive measures for future incidents. Official References: <https://www.eccouncil.org/cybersecurity-exchange/threat-intelligence/cyber-kill-chain-seven-steps-cyberattack/>

NEW QUESTION 114

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 116

Which of the following concepts is using an API to insert bulk access requests from a file into an identity management system an example of?

- A. Command and control
- B. Data enrichment
- C. Automation
- D. Single sign-on

Answer: C

Explanation:

Automation is the best concept to describe the example, as it reflects the use of technology to perform tasks or processes without human intervention. Automation can help to improve efficiency, accuracy, consistency, and scalability of various operations, such as identity and access management (IAM). IAM is a security framework that enables organizations to manage the identities and access rights of users and devices across different systems and applications. IAM can help to ensure that only authorized users and devices can access the appropriate resources at the appropriate time and for the appropriate purpose. IAM can involve various tasks or processes, such as authentication, authorization, provisioning, deprovisioning, auditing, or reporting. Automation can help to simplify and streamline these tasks or processes by using software tools or scripts that can execute predefined actions or workflows based on certain triggers or conditions. For example, automation can help to create, update, or delete user accounts in bulk based on a file or a database, rather than manually entering or modifying each account individually. The example in the question shows that an API is used to insert bulk access requests from a file into an identity management system. An API (Application Programming Interface) is a set of rules or specifications that defines how different software components or systems can communicate and exchange data with each other. An API can help to enable automation by providing a standardized and consistent way to access and manipulate data or functionality of a software component or system. The example in the question shows that an API is used to automate the process of inserting bulk access requests from a file into an identity management system, rather than manually entering each request one by one. The other options are not correct, as they describe different concepts or techniques. Command and control is a term that refers to the ability of an attacker to remotely control a compromised system or device, such as using malware or backdoors. Command and control is not related to what is described in the example. Data enrichment is a term that refers to the process of enhancing or augmenting existing data with additional information from external sources, such as adding demographic or behavioral attributes to customer profiles. Data enrichment is not related to what is described in the example. Single sign-on is a term that refers to an authentication method that allows users to access multiple systems or applications with one set of credentials, such as using a single username and password for different websites or services. Single sign-on is not related to what is described in the example.

NEW QUESTION 120

A managed security service provider is having difficulty retaining talent due to an increasing workload caused by a client doubling the number of devices connected to the network. Which of the following would best aid in decreasing the workload without increasing staff?

- A. SIEM
- B. XDR
- C. SOAR
- D. EDR

Answer: C

Explanation:

SOAR stands for Security Orchestration, Automation and Response, which is a set of features that can help security teams manage, prioritize and respond to security incidents more efficiently and effectively. SOAR can help decrease the workload without increasing staff by automating repetitive tasks, streamlining workflows, integrating different tools and platforms, and providing actionable insights and recommendations. SOAR is also one of the current trends that CompTIA CySA+ covers in its exam objectives. Official References:

- <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>
- <https://www.comptia.org/certifications/cybersecurity-analyst>
- <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>

NEW QUESTION 123

A security analyst is reviewing the findings of the latest vulnerability report for a company's web application. The web application accepts files for a Bash script to be processed if the files match a given hash. The analyst is able to submit files to the system due to a hash collision. Which of the following should the analyst suggest to mitigate the vulnerability with the fewest changes to the current script and infrastructure?

- A. Deploy a WAF to the front of the application.
- B. Replace the current MD5 with SHA-256.
- C. Deploy an antivirus application on the hosting system.
- D. Replace the MD5 with digital signatures.

Answer: B

Explanation:

The correct answer is B. Replace the current MD5 with SHA-256.

The vulnerability that the security analyst is able to exploit is a hash collision, which is a situation where two different files produce the same hash value. Hash collisions can allow an attacker to bypass the integrity or authentication checks that rely on hash values, and submit malicious files to the system. The web application uses MD5, which is a hashing algorithm that is known to be vulnerable to hash collisions. Therefore, the analyst should suggest replacing the current MD5 with SHA-256, which is a more secure and collision-resistant hashing algorithm.

The other options are not the best suggestions to mitigate the vulnerability with the fewest changes to the current script and infrastructure. Deploying a WAF (web application firewall) to the front of the application

(A) may help protect the web application from some common attacks, but it may not prevent hash collisions or detect malicious files. Deploying an antivirus application on the hosting system © may help scan and remove malicious files from the system, but it may not prevent hash collisions or block malicious files from being submitted. Replacing the MD5 with digital signatures (D) may help verify the authenticity and integrity of the files, but it may require significant changes to the current script and infrastructure, as digital signatures involve public-key cryptography and certificate authorities.

NEW QUESTION 124

After a security assessment was done by a third-party consulting firm, the cybersecurity program recommended integrating DLP and CASB to reduce analyst alert fatigue. Which of the following is the best possible outcome that this effort hopes to achieve?

- A. SIEM ingestion logs are reduced by 20%.
- B. Phishing alerts drop by 20%.
- C. False positive rates drop to 20%.
- D. The MTTR decreases by 20%.

Answer: D

Explanation:

The MTTR (Mean Time to Resolution) decreases by 20% is the best possible outcome that this effort hopes to achieve, as it reflects the improvement in the efficiency and effectiveness of the incident response process by reducing analyst alert fatigue. Analyst alert fatigue is a term that refers to the phenomenon of security analysts becoming overwhelmed, desensitized, or exhausted by the large number of alerts they receive from various security tools or systems, such as DLP (Data Loss Prevention) or CASB (Cloud Access Security Broker). DLP is a security solution that helps to prevent unauthorized access, use, or transfer of sensitive data, such as personal information, intellectual property, or financial records. CASB is a security solution that helps to monitor and control the use of cloud-based applications and services, such as SaaS (Software as a Service), PaaS (Platform as a Service), or IaaS (Infrastructure as a Service). Both DLP and CASB can generate alerts when they detect potential data breaches, policy violations, or malicious activities, but they can also produce false positives, irrelevant information, or duplicate notifications that can overwhelm or distract the security analysts. Analyst alert fatigue can have negative consequences for the security posture and performance of an organization, such as missing or ignoring critical alerts, delaying or skipping investigations or remediations, making errors or mistakes, or losing motivation or morale. Therefore, it is important to reduce analyst alert fatigue and optimize the alert management process by using various strategies, such as tuning the alert thresholds and rules, prioritizing and triaging the alerts based on severity and context, enriching and correlating the alerts with additional data sources, automating or orchestrating repetitive or low-level tasks or actions, or integrating and consolidating different security tools or systems into a unified platform. By reducing analyst alert fatigue and optimizing the alert management process, the effort hopes to achieve a decrease in the MTTR, which is a metric that measures the average time it takes to resolve an incident from the moment it is reported to the moment it is closed. A lower MTTR indicates a faster and more effective incident response process, which can help to minimize the impact and damage of security incidents, improve customer satisfaction and trust, and enhance security operations and outcomes. The other options are not as relevant or realistic as the MTTR decreases by 20%, as they do not reflect the best possible outcome that this effort hopes to achieve. SIEM ingestion logs are reduced by 20% is not a relevant outcome, as it does not indicate any improvement in the incident response process or any reduction in analyst alert fatigue. SIEM (Security Information and Event Management) is a security solution that collects and analyzes data from various sources, such as logs, events, or alerts, and provides security monitoring, threat detection, and incident response capabilities. SIEM ingestion logs are records of the data that is ingested by the SIEM system from different sources. Reducing SIEM ingestion logs may imply less data volume or less data sources for the SIEM system, which may not necessarily improve its performance or accuracy. Phishing alerts drop by 20% is not a realistic outcome, as it does not depend on the integration of DLP and CASB or any reduction in analyst alert fatigue. Phishing alerts are notifications that indicate potential phishing attempts or attacks, such as fraudulent emails, websites, or messages that try to trick users into revealing sensitive information or installing malware. Phishing alerts can be generated by various security tools or systems, such as email security solutions, web security solutions, endpoint security solutions, or user awareness training programs. Reducing phishing alerts may imply less phishing attempts or attacks on the organization, which may not necessarily be influenced by the integration of DLP and CASB or any reduction in analyst alert fatigue. False positive rates drop to 20% is not a realistic outcome

NEW QUESTION 129

Which of the following is a reason why proper handling and reporting of existing evidence are important for the investigation and reporting phases of an incident response?

- A. To ensure the report is legally acceptable in case it needs to be presented in court
- B. To present a lessons-learned analysis for the incident response team
- C. To ensure the evidence can be used in a postmortem analysis
- D. To prevent the possible loss of a data source for further root cause analysis

Answer: A

Explanation:

The correct answer is A. To ensure the report is legally acceptable in case it needs to be presented in court. Proper handling and reporting of existing evidence are important for the investigation and reporting phases of an incident response because they ensure the integrity, authenticity, and admissibility of the evidence in case it needs to be presented in court. Evidence that is mishandled, tampered with, or poorly documented may not be accepted by the court or may be challenged by the opposing party. Therefore, incident responders should follow the best practices and standards for evidence collection, preservation, analysis, and reporting¹.

The other options are not reasons why proper handling and reporting of existing evidence are important for the investigation and reporting phases of an incident response. They are rather outcomes or benefits of conducting a thorough and effective incident response process. A lessons-learned analysis (B) is a way to identify the strengths and weaknesses of the incident response team and improve their performance for future incidents. A postmortem analysis © is a way to determine the root cause, impact, and timeline of the incident and provide recommendations for remediation and prevention. A root cause analysis (D) is a way to identify the underlying factors that led to the incident and address them accordingly.

NEW QUESTION 132

An incident response team found IoCs in a critical server. The team needs to isolate and collect technical evidence for further investigation. Which of the following pieces of data should be collected first in order to preserve sensitive information before isolating the server?

- A. Hard disk
- B. Primary boot partition
- C. Malicious files
- D. Routing table
- E. Static IP address

Answer: A

Explanation:

The hard disk is the piece of data that should be collected first in order to preserve sensitive information before isolating the server. The hard disk contains all the files and data stored on the server, which may include evidence of malicious activity, such as malware installation, data exfiltration, or configuration changes. The hard disk should be collected using proper forensic techniques, such as creating an image or a copy of the disk and maintaining its integrity using hashing algorithms.

NEW QUESTION 134

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 138

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 141

An organization was compromised, and the usernames and passwords of all employees were leaked online. Which of the following best describes the remediation that could reduce the impact of this situation?

- A. Multifactor authentication
- B. Password changes
- C. System hardening
- D. Password encryption

Answer: A

Explanation:

Multifactor authentication (MFA) is a security method that requires users to provide two or more pieces of evidence to verify their identity, such as a password, a PIN, a fingerprint, or a one-time code. MFA can reduce the impact of a credential leak because even if the attackers have the usernames and passwords of the employees, they would still need another factor to access the organization's systems and resources. Password changes, system hardening, and password encryption are also good security practices, but they do not address the immediate threat of compromised credentials.

References: CompTIA CySA+ Certification Exam Objectives, [What Is Multifactor Authentication (MFA)?]

NEW QUESTION 142

A Chief Information Security Officer wants to map all the attack vectors that the company faces each day. Which of the following recommendations should the company align their security controls around?

- A. OSSTMM
- B. Diamond Model Of Intrusion Analysis
- C. OWASP
- D. MITRE ATT&CK

Answer: D

Explanation:

The correct answer is D. MITRE ATT&CK.

MITRE ATT&CK is a framework that maps the tactics, techniques, and procedures (TTPs) of various threat actors and groups, based on real-world observations and data. MITRE ATT&CK can help a Chief Information Security Officer (CISO) to map all the attack vectors that the company faces each day, as well as to align their security controls around the most relevant and prevalent threats. MITRE ATT&CK can also help the CISO to assess the effectiveness and maturity of their security posture, as well as to identify and prioritize the gaps and improvements.

The other options are not the best recommendations for mapping all the attack vectors that the company faces each day. OSSTMM (Open Source Security Testing Methodology Manual) (A) is a methodology that provides guidelines and best practices for conducting security testing and auditing, but it does not map the TTPs of threat actors or groups. Diamond Model of Intrusion Analysis (B) is a model that analyzes the relationships and interactions between four elements of an intrusion: adversary, capability, infrastructure, and victim. The Diamond Model can help understand the characteristics and context of an intrusion, but it does not map the TTPs of threat actors or groups. OWASP (Open Web Application Security Project) © is a project that provides resources and tools for improving the security of web applications, but it does not map the TTPs of threat actors or groups.

NEW QUESTION 147

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 148

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