

## Exam Questions CS0-003

CompTIA CySA+ Certification Beta Exam

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### NEW QUESTION 1

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 2

A SOC analyst recommends adding a layer of defense for all endpoints that will better protect against external threats regardless of the device's operating system. Which of the following best meets this requirement?

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

**Answer:** D

#### Explanation:

EDR stands for Endpoint Detection and Response, which is a layer of defense that monitors endpoints for malicious activity and provides automated or manual response capabilities. EDR can protect against external threats regardless of the device's operating system, as it can detect and respond to attacks based on behavioral analysis and threat intelligence. EDR is also one of the tools that CompTIA CySA+ covers in its exam objectives. Official References:

- > <https://www.comptia.org/certifications/cybersecurity-analyst>
- > <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>
- > <https://resources.infosecinstitute.com/certification/cysa-plus-ia-levels/>

### NEW QUESTION 3

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

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

**Answer:** A

#### Explanation:

A CASB (Cloud Access Security Broker) is a security solution that acts as an intermediary between cloud users and cloud providers, and monitors and enforces security policies for cloud access and usage. A CASB can help organizations protect their data and applications in the cloud from unauthorized or malicious access, as well as comply with regulatory standards and best practices. A CASB can also provide visibility, control, and analytics for cloud activity, and identify and mitigate potential threats<sup>12</sup>

The other options are not correct. DMARC (Domain-based Message Authentication, Reporting and Conformance) is an email authentication protocol that helps email domain owners prevent spoofing and phishing attacks by verifying the sender's identity and instructing the receiver how to handle unauthenticated messages<sup>34</sup> SIEM (Security Information and Event Management) is a security solution that collects, aggregates, and analyzes log data from various sources across an organization's network, such as applications, devices, servers, and users, and provides real-time alerts, dashboards, reports, and incident response capabilities to help security teams identify and mitigate cyberattacks<sup>56</sup> PAM (Privileged Access Management) is a security solution that helps organizations manage and protect the access and permissions of users, accounts, processes, and systems that have elevated or administrative privileges. PAM can help prevent credential theft, data breaches, insider threats, and compliance violations by monitoring, detecting, and preventing unauthorized privileged access to critical resources<sup>78</sup>

### NEW QUESTION 4

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

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

Which of the following malicious activities was attempted?

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

**Answer:** D

**Explanation:**

XSS is a type of web application attack that exploits the vulnerability of a web server or browser to execute malicious scripts or commands on the client-side. XSS attackers inject malicious code, such as JavaScript, VBScript, HTML, or CSS, into a web page or application that is viewed by other users. The malicious code can then access or manipulate the user's session, cookies, browser history, or personal information, or perform actions on behalf of the user, such as stealing credentials, redirecting to phishing sites, or installing malware<sup>12</sup>

The line in the web server log shows an example of an XSS attack using VBScript. The attacker tried to insert an <IMG> 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 attacks<sup>3</sup>

**NEW QUESTION 5**

A security analyst has found the following suspicious DNS traffic while analyzing a packet capture:

- DNS traffic while a tunneling session is active.
- The mean time between queries is less than one second.
- The average query length exceeds 100 characters. Which of the following attacks most likely occurred?

- A. DNS exfiltration
- B. DNS spoofing
- C. DNS zone transfer
- D. DNS poisoning

**Answer:** A

**Explanation:**

DNS exfiltration is a technique that uses the DNS protocol to transfer data from a compromised network or device to an attacker-controlled server. DNS exfiltration can bypass firewall rules and security products that do not inspect DNS traffic. The characteristics of the suspicious DNS traffic in the question match the indicators of DNS exfiltration, such as:

- DNS traffic while a tunneling session is active: This implies that the DNS protocol is being used to create a covert channel for data transfer.
- The mean time between queries is less than one second: This implies that the DNS queries are being sent at a high frequency to maximize the amount of data transferred.
- The average query length exceeds 100 characters: This implies that the DNS queries are encoding large amounts of data in the subdomains or other fields of the DNS packets.

Official References:

- <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>
- <https://resources.infosecinstitute.com/topic/bypassing-security-products-via-dns-data-exfiltration/>
- [https://www.reddit.com/r/CompTIA/comments/nvjzjt/dns\\_exfiltration\\_](https://www.reddit.com/r/CompTIA/comments/nvjzjt/dns_exfiltration_)

**NEW QUESTION 6**

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 7**

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

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

**Answer:** D

**Explanation:**

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

affected by other processes or users that may modify or terminate them. Therefore, running processes must be collected first before any other type of evidence in a computer system

#### NEW QUESTION 8

A cybersecurity analyst notices unusual network scanning activity coming from a country that the company does not do business with. Which of the following is the best mitigation technique?

- A. Geoblock the offending source country
- B. Block the IP range of the scans at the network firewall.
- C. Perform a historical trend analysis and look for similar scanning activity.
- D. Block the specific IP address of the scans at the network firewall

**Answer:** A

#### Explanation:

Geoblocking is the best mitigation technique for unusual network scanning activity coming from a country that the company does not do business with, as it can prevent any potential attacks or data breaches from that country. Geoblocking is the practice of restricting access to websites or services based on geographic location, usually by blocking IP addresses associated with a certain country or region. Geoblocking can help reduce the overall attack surface and protect against malicious actors who may be trying to exploit vulnerabilities or steal information. The other options are not as effective as geoblocking, as they may not block all the possible sources of the scanning activity, or they may not address the root cause of the problem. Official References:

- > <https://www.blumira.com/geoblocking/>
- > <https://www.avg.com/en/signal/geo-blocking>

#### NEW QUESTION 9

During an incident, a security analyst discovers a large amount of PII has been emailed externally from an employee to a public email address. The analyst finds that the external email is the employee's personal email. Which of the following should the analyst recommend be done first?

- A. Place a legal hold on the employee's mailbox.
- B. Enable filtering on the web proxy.
- C. Disable the public email access with CASB.
- D. Configure a deny rule on the firewall.

**Answer:** A

#### Explanation:

Placing a legal hold on the employee's mailbox is the best action to perform first, as it preserves all mailbox content, including deleted items and original versions of modified items, for potential legal or forensic purposes. A legal hold is a feature that allows an administrator to retain mailbox data for a user indefinitely or for a specified period, regardless of the user's actions or retention policies. A legal hold can be applied to a mailbox using Litigation Hold or In-Place Hold in Exchange Server or Exchange Online. A legal hold can help to ensure that evidence of data exfiltration or other malicious activities is not lost or tampered with, and that the organization can comply with any legal or regulatory obligations. The other actions are not as urgent or effective as placing a legal hold on the employee's mailbox, as they do not address the immediate threat of data loss or compromise. Enabling filtering on the web proxy may help to prevent some types of data exfiltration or malicious traffic, but it does not help to recover or preserve the data that has already been emailed externally. Disabling the public email access with CASB (Cloud Access Security Broker) may help to block or monitor the use of public email services by employees, but it does not help to recover or preserve the data that has already been emailed externally. Configuring a deny rule on the firewall may help to block or monitor the network traffic from the employee's laptop, but it does not help to recover or preserve the data that has already been emailed externally.

#### NEW QUESTION 10

Which of the following risk management principles is accomplished by purchasing cyber insurance?

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

**Answer:** D

#### Explanation:

Transfer is the risk management principle that is accomplished by purchasing cyber insurance. Transfer is a strategy that involves shifting the risk or its consequences to another party, such as an insurance company, a vendor, or a partner. Transfer does not eliminate the risk, but it reduces the potential impact or liability of the risk for the original party. Cyber insurance is a type of insurance that covers the losses and damages resulting from cyberattacks, such as data breaches, ransomware, denial-of-service attacks, or network disruptions. Cyber insurance can help transfer the risk of cyber incidents by providing financial compensation, legal assistance, or recovery services to the insured party. 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 10

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

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

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

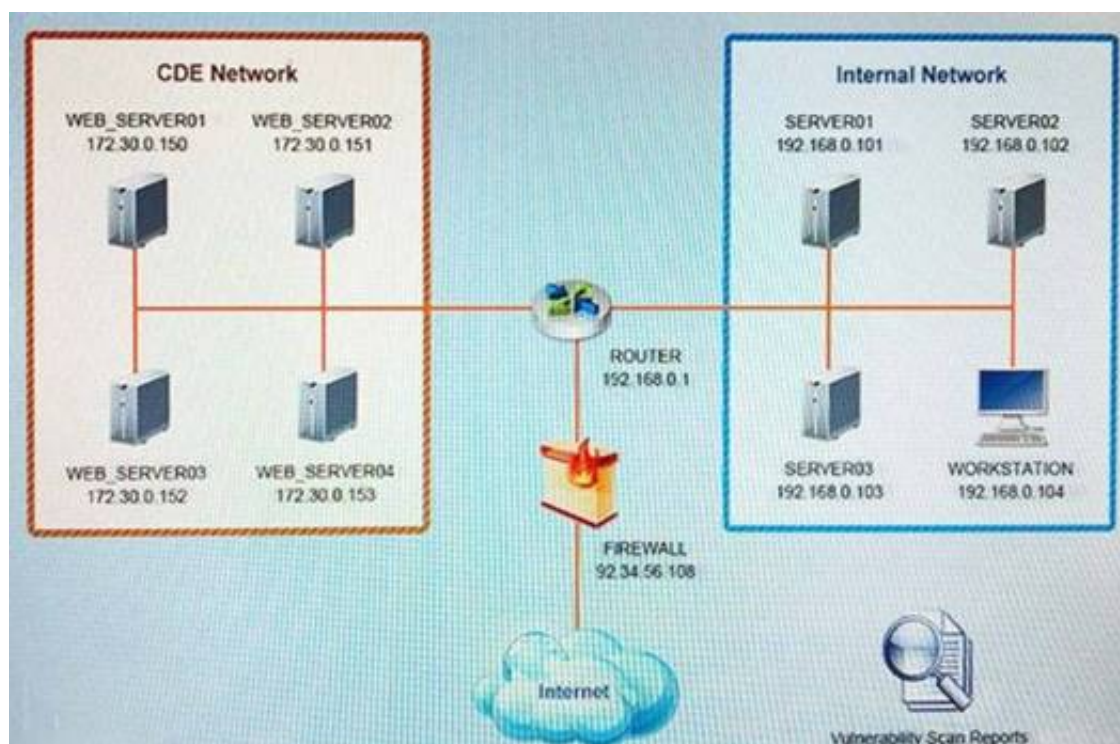
After reviewing the information provided in the network diagram, select the STEP 2 tab to complete the simulation by selecting the correct Validation Result and Remediation Action for each server listed using the drop-down options.

#### INSTRUCTIONS:

The simulation includes 2 steps.

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





#### Vulnerability Scan Report

##### HIGH SEVERITY

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

##### MEDIUM SEVERITY

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

##### LOW SEVERITY

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

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

#### Network Diagram

#### INSTRUCTIONS

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

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

- A. Mastered  
B. Not Mastered

**Answer:** A

**Explanation:**

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

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

#### NEW QUESTION 14

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 18

A security analyst received a malicious binary file to analyze. Which of the following is the best technique to perform the analysis?

- A. Code analysis
- B. Static analysis
- C. Reverse engineering
- D. Fuzzing

**Answer:** C

**Explanation:**

Reverse engineering is a technique that involves analyzing a binary file to understand its structure, functionality, and behavior. Reverse engineering can help security analysts perform malware analysis, vulnerability research, exploit development, and software debugging. Reverse engineering can be done using various tools, such as disassemblers, debuggers, decompilers, and hex editors.

#### NEW QUESTION 22

A security analyst obtained the following table of results from a recent vulnerability assessment that was conducted against a single web server in the environment:

Finding	Impact	Credential required?	Complexity
Self-signed certificate in use	High	No	High
Old copyright date	Low	No	N/A
All user input accepted on forms	High	No	Low
Full error messages displayed	Medium	No	Low
Control panel login open to public	High	Yes	Medium

Which of the following should be completed first to remediate the findings?

- A. Ask the web development team to update the page contents
- B. Add the IP address allow listing for control panel access
- C. Purchase an appropriate certificate from a trusted root CA
- D. Perform proper sanitization on all fields

**Answer:** D

**Explanation:**

The first action that should be completed to remediate the findings is to perform proper sanitization on all fields. Sanitization is a process that involves validating, filtering, or encoding any user input or data before processing or storing it on a system or application. Sanitization can help prevent various types of attacks, such as cross-site scripting (XSS), SQL injection, or command injection, that exploit unsanitized input or data to execute malicious scripts, commands, or queries on a

system or application. Performing proper sanitization on all fields can help address the most critical and common vulnerability found during the vulnerability assessment, which is XSS.

#### NEW QUESTION 25

An organization has experienced a breach of customer transactions. Under the terms of PCI DSS, which of the following groups should the organization report the breach to?

- A. PCI Security Standards Council
- B. Local law enforcement
- C. Federal law enforcement
- D. Card issuer

**Answer: D**

#### Explanation:

Under the terms of PCI DSS, an organization that has experienced a breach of customer transactions should report the breach to the card issuer. The card issuer is the financial institution that issues the payment cards to the customers and that is responsible for authorizing and processing the transactions. The card issuer may have specific reporting requirements and procedures for the organization to follow in the event of a breach. The organization should also notify other parties that may be affected by the breach, such as customers, law enforcement, or regulators, depending on the nature and scope of the breach. Official References: <https://www.pcisecuritystandards.org/>

#### NEW QUESTION 27

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

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

**Answer: D**

#### Explanation:

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

#### NEW QUESTION 29

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 34

An analyst notices there is an internal device sending HTTPS traffic with additional characters in the header to a known-malicious IP in another country. Which of the following describes what the analyst has noticed?

- A. Beaconing
- B. Cross-site scripting
- C. Buffer overflow
- D. PHP traversal

**Answer: A**

#### NEW QUESTION 36

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 39

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

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

**Answer:** A

#### Explanation:

The correct answer is A. Address space layout randomization.

Address space layout randomization (ASLR) is a security control that randomizes the memory address space of a process, making it harder for an attacker to exploit memory-based vulnerabilities, such as buffer overflows<sup>1</sup>. ASLR can also prevent a security analyst from finding the proper memory address of a piece of malicious code, as the memory address changes every time the process runs<sup>2</sup>.

The other options are not the best explanations for why the memory address changes every time the process runs. Data execution prevention (B) is a security control that prevents code from being executed in certain memory regions, such as the stack or the heap<sup>3</sup>. Stack canary © is a security technique that places a random value on the stack before a function's return address, to detect and prevent stack buffer overflows. Code obfuscation (D) is a technique that modifies the source code or binary of a program to make it more difficult to understand or reverse engineer. These techniques do not affect the memory address space of a process, but rather the execution or analysis of the code.

#### NEW QUESTION 44

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

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

**Answer:** C

#### Explanation:

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

This function takes an IP address as an argument and performs two DNS lookups using the dig command. The first lookup uses the -x option to perform a reverse DNS lookup and get the hostname associated with the IP address. The second lookup uses the origin.asn.cymru.com domain to get the autonomous system number (ASN) and other information related to the IP address. The function then prints the IP address and the ASN information, which can help identify any routing anomalies or inconsistencies

#### NEW QUESTION 48

The Chief Executive Officer of an organization recently heard that exploitation of new attacks in the industry was happening approximately 45 days after a patch was released. Which of the following would best protect this organization?

- A. A mean time to remediate of 30 days
- B. A mean time to detect of 45 days
- C. A mean time to respond of 15 days
- D. Third-party application testing

**Answer:** A

#### Explanation:

A mean time to remediate (MTTR) is a metric that measures how long it takes to fix a vulnerability after it is discovered. A MTTR of 30 days would best protect the organization from the new attacks that are exploited 45 days after a patch is released, as it would ensure that the vulnerabilities are fixed before they are exploited

#### NEW QUESTION 52

A user downloads software that contains malware onto a computer that eventually infects numerous other systems. Which of the following has the user become?

- A. Hacklivist
- B. Advanced persistent threat
- C. Insider threat
- D. Script kiddie

**Answer:** C

#### Explanation:

The user has become an insider threat by downloading software that contains malware onto a computer that eventually infects numerous other systems. An insider threat is a person or entity that has legitimate access to an organization's systems, networks, or resources and uses that access to cause harm or damage to the



organization. An insider threat can be intentional or unintentional, malicious or negligent, and can result from various actions or behaviors, such as downloading unauthorized software, violating security policies, stealing data, sabotaging systems, or collaborating with external attackers.

#### NEW QUESTION 56

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

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

**Answer: B**

#### Explanation:

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

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

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

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

#### NEW QUESTION 61

An organization would like to ensure its cloud infrastructure has a hardened configuration. A requirement is to create a server image that can be deployed with a secure template. Which of the following is the best resource to ensure secure configuration?

- A. CIS Benchmarks
- B. PCI DSS
- C. OWASP Top Ten
- D. ISO 27001

**Answer: A**

#### Explanation:

The best resource to ensure secure configuration of cloud infrastructure is A. CIS Benchmarks. CIS Benchmarks are a set of prescriptive configuration recommendations for various technologies, including cloud providers, operating systems, network devices, and server software. They are developed by a global community of cybersecurity experts and help organizations protect their systems against threats more confidently. PCI DSS, OWASP Top Ten, and ISO 27001 are also important standards for information security, but they are not focused on providing specific guidance for hardening cloud infrastructure. PCI DSS is a compliance scheme for payment card transactions, OWASP Top Ten is a list of common web application security risks, and ISO 27001 is a framework for establishing and maintaining an information security management system. These standards may have some relevance for cloud security, but they are not as comprehensive and detailed as CIS Benchmarks.

#### NEW QUESTION 63

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 64

An analyst recommends that an EDR agent collect the source IP address, make a connection to the firewall, and create a policy to block the malicious source IP address across the entire network automatically. Which of the following is the best option to help the analyst implement this recommendation?

- A. SOAR
- B. SIEM
- C. SLA
- D. IoC

**Answer: A**

#### Explanation:

SOAR (Security Orchestration, Automation, and Response) is the best option to help the analyst implement the recommendation, as it reflects the software solution that enables security teams to integrate and coordinate separate tools into streamlined threat response workflows and automate repetitive tasks. SOAR is a term coined by Gartner in 2015 to describe a technology that combines the functions of security incident response platforms, security orchestration and automation platforms, and threat intelligence platforms in one offering. SOAR solutions help security teams to collect inputs from various sources, such as EDR

agents, firewalls, or SIEM systems, and perform analysis and triage using a combination of human and machine power. SOAR solutions also allow security teams to define and execute incident response procedures in a digital workflow format, using automation to perform low-level tasks or actions, such as blocking an IP address or quarantining a device. SOAR solutions can help security teams to improve efficiency, consistency, and scalability of their operations, as well as reduce mean time to detect (MTTD) and mean time to respond (MTTR) to threats. The other options are not as suitable as SOAR, as they do not match the description or purpose of the recommendation. SIEM (Security Information and Event Management) is a software 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 solutions can help security teams to gain visibility, correlation, and context of their security data, but they do not provide automation or orchestration features like SOAR solutions. SLA (Service Level Agreement) is a document that defines the expectations and responsibilities between a service provider and a customer, such as the quality, availability, or performance of the service. SLAs can help to manage customer expectations, formalize communication, and improve productivity and relationships, but they do not help to implement technical recommendations like SOAR solutions. IoC (Indicator of Compromise) is a piece of data or evidence that suggests a system or network has been compromised by a threat actor, such as an IP address, a file hash, or a registry key. IoCs can help to identify and analyze malicious activities or incidents, but they do not help to implement response actions like SOAR solutions.

#### NEW QUESTION 69

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

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

**Answer:** C

#### NEW QUESTION 71

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

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

**Answer:** A

#### Explanation:

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

#### NEW QUESTION 75

The security operations team is required to consolidate several threat intelligence feeds due to redundant tools and portals. Which of the following will best achieve the goal and maximize results?

- A. Single pane of glass
- B. Single sign-on
- C. Data enrichment
- D. Deduplication

**Answer:** D

#### Explanation:

Deduplication is a process that involves removing any duplicate or redundant data or information from a data set or source. Deduplication can help consolidate several threat intelligence feeds by eliminating any overlapping or repeated indicators of compromise (IoCs), alerts, reports, or recommendations. Deduplication can also help reduce the volume and complexity of threat intelligence data, as well as improve its quality, accuracy, or relevance.

#### NEW QUESTION 76

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 79

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 81**

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 86**

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 87**

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

Instructions:

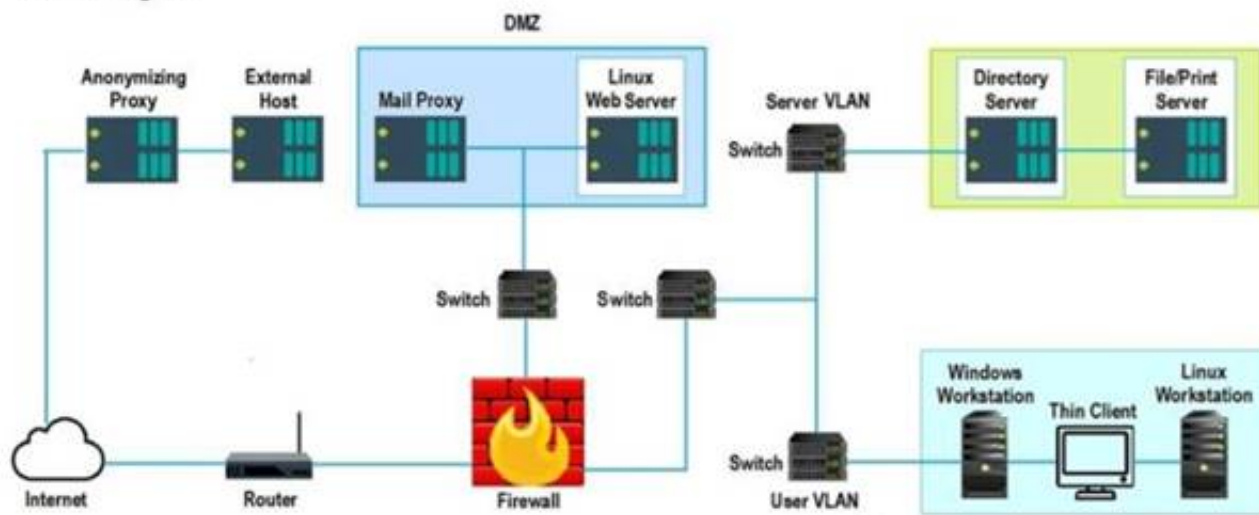
Select the Results Generated drop-down option to determine if the results were generated from a credentialed scan, non-credentialed scan, or a compliance scan. For ONLY the credentialed and non-credentialed scans, evaluate the results for false positives and check the findings that display false positives.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

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

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



Network Diagram



## Hot Area:

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

- A. Mastered  
B. Not Mastered

Answer: A

## Explanation:

### Hot Area:

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

## NEW QUESTION 92

New employees in an organization have been consistently plugging in personal webcams despite the company policy prohibiting use of personal devices. The SOC manager discovers that new employees are not aware of the company policy. Which of the following will the SOC manager most likely recommend to help ensure new employees are accountable for following the company policy?

- A. Human resources must email a copy of a user agreement to all new employees  
B. Supervisors must get verbal confirmation from new employees indicating they have read the user agreement  
C. All new employees must take a test about the company security policy during the cjtboardmg process  
D. All new employees must sign a user agreement to acknowledge the company security policy

Answer: D



**Explanation:**

The best action that the SOC manager can recommend to help ensure new employees are accountable for following the company policy is to require all new employees to sign a user agreement to acknowledge the company security policy. A user agreement is a document that defines the rights and responsibilities of the users regarding the use of the company's systems, networks, or resources, as well as the consequences of violating the company's security policy. Signing a user agreement can help ensure new employees are aware of and agree to comply with the company security policy, as well as hold them accountable for any breaches or incidents caused by their actions or inactions.

**NEW QUESTION 97**

An attacker has just gained access to the syslog server on a LAN. Reviewing the syslog entries has allowed the attacker to prioritize possible next targets. Which of the following is this an example of?

- A. Passive network foot printing
- B. OS fingerprinting
- C. Service port identification
- D. Application versioning

**Answer:** A

**Explanation:**

Passive network foot printing is the best description of the example, as it reflects the technique of collecting information about a network or system by monitoring or sniffing network traffic without sending any packets or interacting with the target. Foot printing is a term that refers to the process of gathering information about a target network or system, such as its IP addresses, open ports, operating systems, services, or vulnerabilities. Foot printing can be done for legitimate purposes, such as penetration testing or auditing, or for malicious purposes, such as reconnaissance or intelligence gathering. Foot printing can be classified into two types: active and passive. Active foot printing involves sending packets or requests to the target and analyzing the responses, such as using tools like ping, traceroute, or Nmap. Active foot printing can provide more accurate and detailed information, but it can also be detected by firewalls or intrusion detection systems (IDS). Passive foot printing involves observing or capturing network traffic without sending any packets or requests to the target, such as using tools like tcpdump, Wireshark, or Shodan. Passive foot printing can provide less information, but it can also avoid detection by firewalls or IDS. The example in the question shows that the attacker has gained access to the syslog server on a LAN and reviewed the syslog entries to prioritize possible next targets. A syslog server is a server that collects and stores log messages from various devices or applications on a network. A syslog entry is a record of an event or activity that occurred on a device or application, such as an error, a warning, or an alert. By reviewing the syslog entries, the attacker can obtain information about the network or system, such as its configuration, status, performance, or security issues. This is an example of passive network foot printing, as the attacker is not sending any packets or requests to the target, but rather observing or capturing network traffic from the syslog server. The other options are not correct, as they describe different techniques or concepts. OS fingerprinting is a technique of identifying the operating system of a target by analyzing its responses to certain packets or requests, such as using tools like Nmap or Xprobe2. OS fingerprinting can be done actively or passively, but it is not what the attacker is doing in the example. Service port identification is a technique of identifying the services running on a target by scanning its open ports and analyzing its responses to certain packets or requests, such as using tools like Nmap or Netcat. Service port identification can be done actively or passively, but it is not what the attacker is doing in the example. Application versioning is a concept that refers to the process of assigning unique identifiers to different versions of an application, such as using numbers, letters, dates, or names. Application versioning can help to track changes, updates, bugs, or features of an application, but it is not related to what the attacker is doing in the example.

**NEW QUESTION 101**

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

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

**Answer:** B

**Explanation:**

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

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

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

**NEW QUESTION 105**

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

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

**Answer:** D

**Explanation:**

The root cause analysis identifies the contributing items that facilitated the event is the best reason for conducting a root cause analysis, as it reflects the main goal and benefit of this problem-solving approach. A root cause analysis (RCA) is a process of discovering the root causes of problems in order to identify appropriate solutions. A root cause is the core issue or factor that sets in motion the entire cause-and-effect chain that leads to the problem. A root cause analysis assumes that it is more effective to systematically prevent and solve underlying issues rather than just treating symptoms or putting out fires. A root cause analysis can be

performed using various methods, tools, and techniques that help to uncover the causes of problems, such as events and causal factor analysis, change analysis, barrier analysis, or fishbone diagrams. A root cause analysis can help to improve quality, performance, safety, or efficiency by finding and eliminating the sources of problems. The other options are not as accurate as the root cause analysis identifies the contributing items that facilitated the event, as they do not capture the essence or value of conducting a root cause analysis. The root cause analysis ensures that proper timelines were documented is a possible outcome or benefit of conducting a root cause analysis, but it is not the best reason for doing so. Documenting timelines can help to establish the sequence of events and actions that led to the problem, but it does not necessarily identify or address the root causes. The root cause analysis allows the incident to be properly documented for reporting is also a possible outcome or benefit of conducting a root cause analysis, but it is not the best reason for doing so. Documenting and reporting incidents can help to communicate and share information about problems and solutions, but it does not necessarily identify or address the root causes. The root cause analysis develops recommendations to improve the process is another possible outcome or benefit of conducting a root cause analysis, but it is not the best reason for doing so. Developing recommendations can help to implement solutions and prevent future problems, but it does not necessarily identify or address the root causes.

#### NEW QUESTION 106

A security analyst is trying to detect connections to a suspicious IP address by collecting the packet captures from the gateway. Which of the following commands should the security analyst consider running?

- A. `grep [IP address] packets.pcap`
- B. `cat packets.pcap | grep [IP Address]`
- C. `strings packets.pcap | grep [IP Address]`

**Answer: C**

#### Explanation:

tcpdump is a command-line tool that can capture and analyze network packets from a given interface or file. The `-n` option prevents tcpdump from resolving hostnames, which can speed up the analysis. The `-r` option reads packets from a file, in this case `packets.pcap`. The `host [IP address]` filter specifies that tcpdump should only display packets that have the given IP address as either the source or the destination. This command can help the security analyst detect connections to a suspicious IP address by collecting the packet captures from the gateway. Official References:

- > <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>
- > [https://www.reddit.com/r/CompTIA/comments/tmxx84/passed\\_cysa\\_heres\\_my\\_experience\\_and\\_how\\_i\\_s](https://www.reddit.com/r/CompTIA/comments/tmxx84/passed_cysa_heres_my_experience_and_how_i_s)

#### NEW QUESTION 111

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 114

An analyst is reviewing a vulnerability report and must make recommendations to the executive team. The analyst finds that most systems can be upgraded with a

reboot resulting in a single downtime window. However, two of the critical systems cannot be upgraded due to a vendor appliance that the company does not have access to. Which of the following inhibitors to remediation do these systems and associated vulnerabilities best represent?

- A. Proprietary systems
- B. Legacy systems
- C. Unsupported operating systems
- D. Lack of maintenance windows

**Answer:** A

**Explanation:**

Proprietary systems are systems that are owned and controlled by a specific vendor or manufacturer, and that use proprietary standards or protocols that are not compatible with other systems. Proprietary systems can pose a challenge for vulnerability management, as they may not allow users to access or modify their configuration, update their software, or patch their vulnerabilities. In this case, two of the critical systems cannot be upgraded due to a vendor appliance that the company does not have access to. This indicates that these systems and associated vulnerabilities are examples of proprietary systems as inhibitors to remediation

**NEW QUESTION 116**

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 121**

A cybersecurity analyst is reviewing SIEM logs and observes consistent requests originating from an internal host to a blocklisted external server. Which of the following best describes the activity that is taking place?

- A. Data exfiltration
- B. Rogue device
- C. Scanning
- D. Beaconing

**Answer:** D

**Explanation:**

Beaconing is the best term to describe the activity that is taking place, as it refers to the periodic communication between an infected host and a blocklisted external server. Beaconing is a common technique used by malware to establish a connection with a command-and-control (C2) server, which can provide instructions, updates, or exfiltration capabilities to the malware. Beaconing can vary in frequency, duration, and payload, depending on the type and sophistication of the malware. The other terms are not as accurate as beaconing, as they describe different aspects of malicious activity. Data exfiltration is the unauthorized transfer of data from a compromised system to an external destination, such as a C2 server or a cloud storage service. Data exfiltration can be a goal or a consequence of malware infection, but it does not necessarily involve blocklisted servers or consistent requests. Rogue device is a device that is connected to a network without authorization or proper security controls. Rogue devices can pose a security risk, as they can introduce malware, bypass firewalls, or access sensitive data. However, rogue devices are not necessarily infected with malware or communicating with blocklisted servers. Scanning is the process of probing a network or a system for vulnerabilities, open ports, services, or other information. Scanning can be performed by legitimate administrators or malicious actors, depending on the intent and authorization. Scanning does not imply consistent requests or blocklisted servers, as it can target any network or system.

**NEW QUESTION 123**

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

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

**Answer:** B

**Explanation:**

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

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

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



application firewall) to the front of the application

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

#### NEW QUESTION 125

A company's security team is updating a section of the reporting policy that pertains to inappropriate use of resources (e.g., an employee who installs cryptominers on workstations in the office). Besides the security team, which of the following groups should the issue be escalated to first in order to comply with industry best practices?

- A. Help desk
- B. Law enforcement
- C. Legal department
- D. Board member

**Answer:** C

#### Explanation:

The correct answer is C. Legal department.

According to the CompTIA Cybersecurity Analyst (CySA+) certification exam objectives, one of the tasks for a security analyst is to “report and escalate security incidents to appropriate stakeholders and authorities” 1. This includes reporting any inappropriate use of resources, such as installing cryptominers on workstations, which may violate the company’s policies and cause financial and reputational damage. The legal department is the most appropriate group to escalate this issue to first, as they can advise on the legal implications and actions that can be taken against the employee. The legal department can also coordinate with other groups, such as law enforcement, help desk, or board members, as needed. The other options are not the best choices to escalate the issue to first, as they may not have the authority or expertise to handle the situation properly.

#### NEW QUESTION 127

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 reporting<sup>1</sup>.

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 128

Which of the following is often used to keep the number of alerts to a manageable level when establishing a process to track and analyze violations?

- A. Log retention
- B. Log rotation
- C. Maximum log size
- D. Threshold value

**Answer:** D

#### Explanation:

A threshold value is a parameter that defines the minimum or maximum level of a metric or event that triggers an alert. For example, a threshold value can be set to alert when the number of failed login attempts exceeds 10 in an hour, or when the CPU usage drops below 20% for more than 15 minutes. By setting a threshold value, the process can filter out irrelevant or insignificant alerts and focus on the ones that indicate a potential problem or anomaly. A threshold value can help to reduce the noise and false positives in the alert system, and improve the efficiency and accuracy of the analysis<sup>12</sup>

#### NEW QUESTION 131

A security analyst is reviewing the following alert that was triggered by FIM on a critical system:



Host	Path	Key added
WEBSERVER01	HKLM\Software\Microsoft\Windows\CurrentVersion\Personalization	Allow (1)
WEBSERVER01	HKLM\Software\Microsoft\Windows\CurrentVersion\Run	RunMe (%appdata%\abc.exe)
WEBSERVER01	HKCU\Printers\ConvertUserDevModesCount	Microsoft XPS Writer (2)
WEBSERVER01	HKCU\Network\Z	Remote Path (192.168.1.10 CorpZ_Drive)
WEBSERVER01	HKLM\Software\Microsoft\PCHealthCheck	Installed (1)

Which of the following best describes the suspicious activity that is occurring?

- A. A fake antivirus program was installed by the user.
- B. A network drive was added to allow exfiltration of data
- C. A new program has been set to execute on system start
- D. The host firewall on 192.168.1.10 was disabled.

**Answer: C**

**Explanation:**

A new program has been set to execute on system start is the most likely cause of the suspicious activity that is occurring, as it indicates that the malware has modified the registry keys of the system to ensure its persistence. File Integrity Monitoring (FIM) is a tool that monitors changes to files and registry keys on a system and alerts the security analyst of any unauthorized or malicious modifications. The alert triggered by FIM shows that the malware has created a new registry key under the Run subkey, which is used to launch programs automatically when the system starts. The new registry key points to a file named "update.exe" in the Temp folder, which is likely a malicious executable disguised as a legitimate update file. 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.comptia.org/training/books/cysa-cs0-002-study-guide>

**NEW QUESTION 134**

A SOC analyst identifies the following content while examining the output of a debugger command over a client-server application:

getconnection (database01, "alpha " , "AXTV. 127GdCx94GTd") ;

Which of the following is the most likely vulnerability in this system?

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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 139**

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

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

**Answer: B**

**Explanation:**

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

**NEW QUESTION 142**

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<sup>1</sup>.

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 © 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 145

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
<div>AppServ1AppServ2AppServ3AppServ4</div> <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>	<p>Fill out the following report based on your analysis of the scan data.</p> <div><input type="checkbox"/> AppServ1 is only using TLS 1.2 <input type="checkbox"/> AppServ2 is only using TLS 1.2 <input type="checkbox"/> AppServ3 is only using TLS 1.2 <input type="checkbox"/> AppServ4 is only using TLS 1.2 <input type="checkbox"/> AppServ1 is using Apache 2.4.18 or greater <input type="checkbox"/> AppServ2 is using Apache 2.4.18 or greater <input type="checkbox"/> AppServ3 is using Apache 2.4.18 or greater <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 AppServ3 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 AppServ4	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 148

Which of the following is the most important factor to ensure accurate incident response reporting?

- A. A well-defined timeline of the events
- B. A guideline for regulatory reporting
- C. Logs from the impacted system

D. A well-developed executive summary

**Answer:** A

**Explanation:**

A well-defined timeline of the events is the most important factor to ensure accurate incident response reporting, as it provides a clear and chronological account of what happened, when it happened, who was involved, and what actions were taken. A timeline helps to identify the root cause of the incident, the impact and scope of the damage, the effectiveness of the response, and the lessons learned for future improvement. A timeline also helps to communicate the incident to relevant stakeholders, such as management, legal, regulatory, or media entities. The other factors are also important for incident response reporting, but they are not as essential as a well-defined timeline. Official References:

- > <https://www.ibm.com/topics/incident-response>
- > <https://www.crowdstrike.com/cybersecurity-101/incident-response/incident-response-steps/>

**NEW QUESTION 149**

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

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

**Answer:** D

**Explanation:**

The correct answer is D. MITRE ATT&CK.

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

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

**NEW QUESTION 150**

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 155**

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 157

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