

# CompTIA

## Exam Questions CS0-003

CompTIA CySA+ Certification Beta Exam



**NEW QUESTION 1**

Several critical bugs were identified during a vulnerability scan. The SLA risk requirement is that all critical vulnerabilities should be patched within 24 hours. After sending a notification to the asset owners, the patch cannot be deployed due to planned, routine system upgrades. Which of the following is the best method to remediate the bugs?

- A. Reschedule the upgrade and deploy the patch
- B. Request an exception to exclude the patch from installation
- C. Update the risk register and request a change to the SLA
- D. Notify the incident response team and rerun the vulnerability scan

**Answer:** C

**Explanation:**

When a patch cannot be deployed due to conflicting routine system upgrades, updating the risk register and requesting a change to the Service Level Agreement (SLA) is a practical approach. It allows for re-evaluation of the risk and adjustment of the SLA to reflect the current situation.

**NEW QUESTION 2**

A company has the following security requirements:

- No public IPs
- All data secured at rest
- No insecure ports/protocols

After a cloud scan is completed, a security analyst receives reports that several misconfigurations are putting the company at risk. Given the following cloud scanner output:

VM name	VM_DEV_DB	VM_PRD_Web01	VM_DEV_Web02	VM_PRD_DB
IP config	private	public	public	public
Encrypt	no	yes	yes	no
Ingress port	443, open	3389, open	22, open	80, open

Which of the following should the analyst recommend be updated first to meet the security requirements and reduce risks?

- A. VM\_PRD\_DB
- B. VM\_DEV\_DB
- C. VM\_DEV\_Web02
- D. VM\_PRD\_Web01

**Answer:** D

**Explanation:**

This VM has a public IP and an open port 80, which violates the company's security requirements of no public IPs and no insecure ports/protocols. It also exposes the VM to potential attacks from the internet. This VM should be updated first to use a private IP and close the port 80, or use a secure protocol such as HTTPS.

References[CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition], Chapter 2: Cloud and Hybrid Environments, page 67.[What is a Public IP Address?][What is Port 80?]

**NEW QUESTION 3**

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 4**

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

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

**Answer:** C

**Explanation:**

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

References:

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

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

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

**NEW QUESTION 5**

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

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

**Answer:** D

**Explanation:**

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

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

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

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

**NEW QUESTION 6**

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

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

Which of the following is the organization's MTTD?

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

**Answer:** C

**Explanation:**

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

**NEW QUESTION 7**

An analyst is remediating items associated with a recent incident. The analyst has isolated the vulnerability and is actively removing it from the system. Which of the following steps of the process does this describe?

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

**Answer:** A

**Explanation:**

Eradication is a step in the incident response process that involves removing any traces or remnants of the incident from the affected systems or networks, such as malware, backdoors, compromised accounts, or malicious files. Eradication also involves restoring the systems or networks to their normal or secure state, as

well as verifying that the incident is completely eliminated and cannot recur. In this case, the analyst is remediating items associated with a recent incident by isolating the vulnerability and actively removing it from the system. This describes the eradication step of the incident response process.

#### NEW QUESTION 8

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 9

After completing a review of network activity, the threat hunting team discovers a device on the network that sends an outbound email via a mail client to a non-company email address daily at 10:00 p.m. Which of the following is potentially occurring?

- A. Irregular peer-to-peer communication
- B. Rogue device on the network
- C. Abnormal OS process behavior
- D. Data exfiltration

**Answer:** D

#### Explanation:

Data exfiltration is the theft or unauthorized transfer or movement of data from a device or network. It can occur as part of an automated attack or manually, on-site or through an internet connection, and involve various methods. It can affect personal or corporate data, such as sensitive or confidential information. Data exfiltration can be prevented or detected by using compression, encryption, authentication, authorization, and other controls<sup>1</sup>

The network activity shows that a device on the network is sending an outbound email via a mail client to a non-company email address daily at 10:00 p.m. This could indicate that the device is compromised by malware or an insider threat, and that the email is used to exfiltrate data from the network to an external party. The email could contain attachments, links, or hidden data that contain the stolen information. The timing of the email could be designed to avoid detection by normal network monitoring or security systems.

#### NEW QUESTION 10

##### SIMULATION

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

- ? There must be one primary server or service per device.
- ? Only default port should be used
- ? Non- secure protocols should be disabled.
- ? The corporate internet presence should be placed in a protected subnet

Instructions :

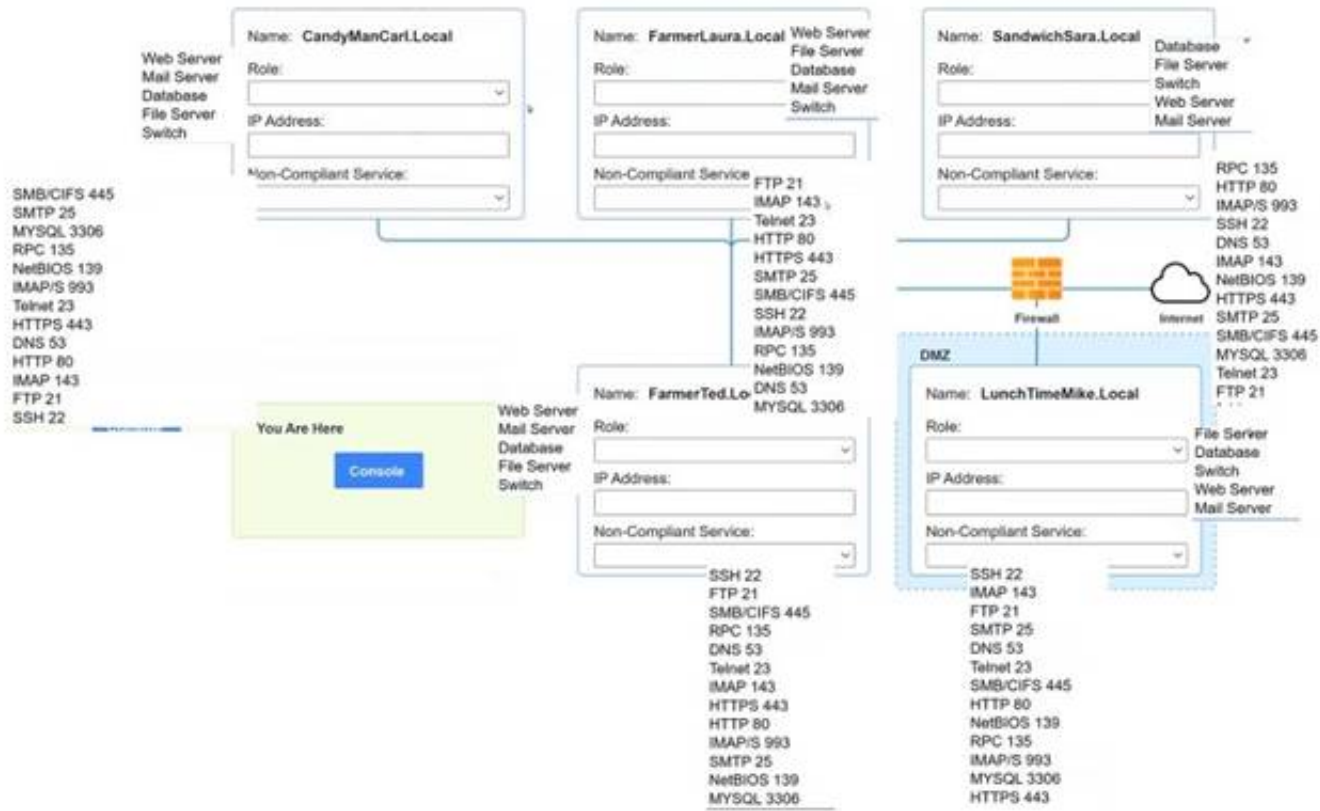
? Using the available tools, discover devices on the corporate network and the services running on these devices.

You must determine

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



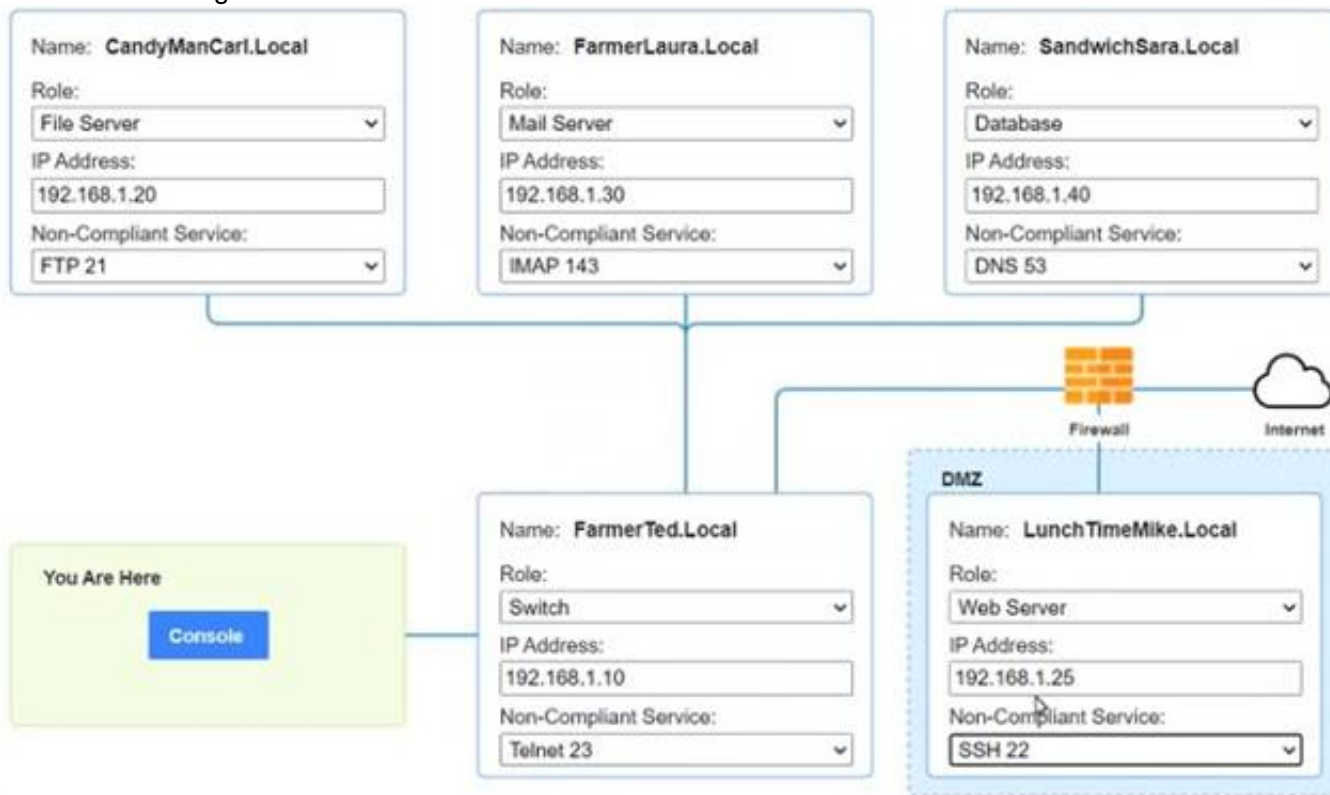




- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**  
 Answer below images



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

[root@server1 ~]# nmap candymancarl.local

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

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

[root@server1 ~]# nmap farmerlaura.local

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

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

[root@server1 ~]# nmap sandwichsara.local

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

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

[root@server1 ~]# nmap farmerted.local

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

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

[root@server1 ~]# nmap lunchtimemike.local

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

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

[root@server1 ~]#
```

#### NEW QUESTION 10

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 14**

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

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

**Answer: C**

**Explanation:**

CVSS 3.0/AV:N/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H is the attack vector that the analyst should remediate first, as it has the highest CVSSv3 score of 8.1. CVSSv3 (Common Vulnerability Scoring System version 3) is a standard framework for rating the severity of vulnerabilities, based on various metrics that reflect the characteristics and impact of the vulnerability. The CVSSv3 score is calculated from three groups of metrics: Base, Temporal, and Environmental. The Base metrics are mandatory and reflect the intrinsic qualities of the vulnerability, such as how it can be exploited, what privileges are required, and what impact it has on confidentiality, integrity, and availability. The Temporal metrics are optional and reflect the current state of the vulnerability, such as whether there is a known exploit, a patch, or a workaround. The Environmental metrics are also optional and reflect the context of the vulnerability in a specific environment, such as how it affects the asset value, security requirements, or mitigating controls. The Base metrics produce a score ranging from 0 to 10, which can then be modified by scoring the Temporal and Environmental metrics. A CVSS score is also represented as a vector string, a compressed textual representation of the values used to derive the score.

The attack vector in question has the following Base metrics:

? Attack Vector (AV): Network (N). This means that the vulnerability can be exploited remotely over a network connection.

? Attack Complexity (AC): Low (L). This means that the attack does not require any special conditions or changes to the configuration of the target system.

? Privileges Required (PR): Low (L). This means that the attacker needs some privileges on the target system to exploit the vulnerability, such as user-level access.

? User Interaction (UI): None (N). This means that the attack does not require any user action or involvement to succeed.

? Scope (S): Unchanged (U). This means that the impact of the vulnerability is confined to the same security authority as the vulnerable component, such as an application or an operating system.

? Confidentiality Impact ©: High (H). This means that the vulnerability results in a total loss of confidentiality, such as unauthorized disclosure of all data on the system.

? Integrity Impact (I): High (H). This means that the vulnerability results in a total loss of integrity, such as unauthorized modification or deletion of all data on the system.

? Availability Impact (A): High (H). This means that the vulnerability results in a total loss of availability, such as denial of service or system crash.

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

Where:

Impact =  $6.42 \times [1 - ((1 - \text{Confidentiality}) \times (1 - \text{Integrity}) \times (1 - \text{Availability}))]$  Exploitability =  $8.22 \times \text{Attack Vector} \times \text{Attack Complexity} \times \text{Privileges Required} \times \text{User Interaction}$

Using this formula, we get:

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

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

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

Therefore, this attack vector has a Base score of 8.8, which is higher than any other option. The other attack vectors have lower Base scores, as they have different values for some of the Base metrics:

? CVSS:3.0/AV:P/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H has a Base score of 6.2, as it

has a lower value for Attack Vector (Physical), which means that the vulnerability can only be exploited by having physical access to the target system.

? CVSS:3.0/AV:A/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H has a Base score of 7.4, as it

has a lower value for Attack Vector (Adjacent Network), which means that the vulnerability can only be exploited by being on the same physical or logical network as the target system.

? CVSS:3.0/AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H has a Base score of 6.8, as it has

a lower value for Attack Vector (Local), which means that the vulnerability can only be exploited by having local access to the target system, such as through a terminal or a command shell.

**NEW QUESTION 18**

An incident response team finished responding to a significant security incident. The management team has asked the lead analyst to provide an after-action report that includes lessons learned. Which of the following is the most likely reason to include lessons learned?

- A. To satisfy regulatory requirements for incident reporting
- B. To hold other departments accountable
- C. To identify areas of improvement in the incident response process
- D. To highlight the notable practices of the organization's incident response team

**Answer: C**

**Explanation:**

The most likely reason to include lessons learned in an after-action report is to identify areas of improvement in the incident response process. The lessons learned process is a way of reviewing and evaluating the incident response activities and outcomes, as well as identifying and documenting any strengths, weaknesses, gaps, or best practices. Identifying areas of improvement in the incident response process can help enhance the security posture, readiness, or capability of the organization for future incidents, as well as provide feedback or recommendations on how to address any issues or challenges.

**NEW QUESTION 19**

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 21**

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

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

**Answer: A**

**Explanation:**

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

**NEW QUESTION 26**

Which of the following would likely be used to update a dashboard that integrates.....

- A. Webhooks
- B. Extensible Markup Language
- C. Threat feed combination
- D. JavaScript Object Notation

**Answer: D**

**Explanation:**

JavaScript Object Notation (JSON) is commonly used for transmitting data in web applications and would be suitable for updating dashboards that integrate various data sources. It's lightweight and easy to parse and generate.

**NEW QUESTION 27**

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

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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 32**

A security analyst is responding to an indent that involves a malicious attack on a network. Data closet. Which of the following best explains how are analyst should properly document the incident?

- A. Back up the configuration file for alt network devices
- B. Record and validate each connection
- C. Create a full diagram of the network infrastructure
- D. Take photos of the impacted items

**Answer: D**

**Explanation:**



When documenting a physical incident in a network data closet, taking photos provides a clear and immediate record of the situation, which is essential for thorough incident documentation and subsequent investigation. Proper documentation of an incident in a data closet should include taking photos of the impacted items. This provides visual evidence and helps in understanding the physical context of the incident, which is crucial for a thorough investigation. Backing up configuration files, recording connections, and creating network diagrams, while important, are not the primary means of documenting the physical aspects of an incident.

**NEW QUESTION 33**

A payroll department employee was the target of a phishing attack in which an attacker impersonated a department director and requested that direct deposit information be updated to a new account. Afterward, a deposit was made into the unauthorized account. Which of the following is one of the first actions the incident response team should take when they receive notification of the attack?

- A. Scan the employee's computer with virus and malware tools.
- B. Review the actions taken by the employee and the email related to the event
- C. Contact human resources and recommend the termination of the employee.
- D. Assign security awareness training to the employee involved in the incident.

**Answer:** B

**Explanation:**

In case of a phishing attack, it's crucial to review what actions were taken by the employee and analyze the phishing email to understand its nature and impact. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 6, page 246; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 6, page 255.

**NEW QUESTION 37**

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

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

**Answer:** B

**Explanation:**

The correct answer is B. Adversary emulation. Adversary emulation is a technique that involves mimicking the tactics, techniques, and procedures (TTPs) of a specific threat actor or group to test the effectiveness of the security controls and incident response capabilities of an organization<sup>1</sup>. Adversary emulation can help identify and address the gaps and weaknesses in the security posture of an organization, as well as improve the readiness and skills of the security team. Adversary emulation can also help measure the dwell time, which is the duration that a threat actor remains undetected inside the network<sup>2</sup>. The other options are not the best techniques to meet the CISO's goals. Vulnerability scanning (A) is a technique that involves scanning the network and systems for known vulnerabilities, but it does not simulate a real attack or test the incident response capabilities. Passive discovery © is a technique that involves collecting information about the network and systems without sending any packets or probes, but it does not identify or exploit any vulnerabilities or test the security controls. Bug bounty (D) is a program that involves rewarding external researchers or hackers for finding and reporting vulnerabilities in an organization's systems or applications, but it does not focus on a specific threat actor or group.

**NEW QUESTION 38**

During an incident involving phishing, a security analyst needs to find the source of the malicious email. Which of the following techniques would provide the analyst with this information?

- A. Header analysis
- B. Packet capture
- C. SSL inspection
- D. Reverse engineering

**Answer:** A

**Explanation:**

Header analysis is the technique of examining the metadata of an email, such as the sender, recipient, date, subject, and routing information. It can help to identify the source of a malicious email by revealing the IP address and domain name of the originator, as well as any spoofing or redirection attempts. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 6, page 240; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 6, page 249.

**NEW QUESTION 41**

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 43**

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

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

**Answer:** C

**Explanation:**

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

**NEW QUESTION 46**

Which of the following should be updated after a lessons-learned review?

- A. Disaster recovery plan
- B. Business continuity plan
- C. Tabletop exercise
- D. Incident response plan

**Answer:** D

**Explanation:**

A lessons-learned review is a process of evaluating the effectiveness and efficiency of the incident response plan after an incident or an exercise. The purpose of the review is to identify the strengths and weaknesses of the incident response plan, and to update it accordingly to improve the future performance and resilience of the organization. Therefore, the incident response plan should be updated after a lessons-learned review. References: The answer was based on the NCSC CAF guidance from the National Cyber Security Centre, which states: "You should use post-incident and post-exercise reviews to actively reduce the risks associated with the same, or similar, incidents happening in future. Lessons learned can inform any aspect of your cyber security, including: System configuration Security monitoring and reporting Investigation procedures Containment/recovery strategies"

**NEW QUESTION 50**

A security analyst is performing vulnerability scans on the network. The analyst installs a scanner appliance, configures the subnets to scan, and begins the scan of the network.

Which of the following would be missing from a scan performed with this configuration?

- A. Operating system version
- B. Registry key values
- C. Open ports
- D. IP address

**Answer:** B

**Explanation:**

Registry key values would be missing from a scan performed with this configuration, as the scanner appliance would not have access to the Windows Registry of the scanned systems. The Windows Registry is a database that stores configuration settings and options for the operating system and installed applications. To scan the Registry, the scanner would need to have credentials to log in to the systems and run a local agent or script. The other items would not be missing from the scan, as they can be detected by the scanner appliance without credentials. Operating system version can be identified by analyzing service banners or fingerprinting techniques. Open ports can be discovered by performing a port scan or sending probes to common ports. IP address can be obtained by resolving

the hostname or using network discovery tools. <https://attack.mitre.org/techniques/T1112/>

### NEW QUESTION 53

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 58

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

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

**Answer: D**

#### Explanation:

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

### NEW QUESTION 63

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 onboarding 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 68

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

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

**Answer:** A

**Explanation:**

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

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

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

**NEW QUESTION 73**

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 78**

**SIMULATION**

You are a cybersecurity analyst tasked with interpreting scan data from Company As 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:



```
AppServ1 AppServ2 AppServ3 AppServ4

root@INFOSEC:~# curl --head appsrv1.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 appsrv1.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


root@INFOSEC:~# nmap --script ssl-enum-ciphers appsrv1.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).
|_ 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 appsrv1.fictionalorg.com

Starting Nmap 6.40 ( http://nmap.org ) at 2019-06-27 10:13 CDT

Nmap scan report for appsrv1.fictionalorg.com (10.21.4.68)
Host is up (0.15s latency).
rDNS record for 10.21.4.68: appsrv1.fictionalorg.com
PORT      STATE SERVICE
80/tcp    open  http
```

AppServ2:

```
AppServ1 AppServ2 AppServ3 AppServ4

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 appsrv2.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
```

AppServ3:

```
AppServ1 AppServ2 AppServ3 AppServ4

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 appsrv3.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
```

AppServ4:



AppServ1
AppServ2
AppServ3
AppServ4

```

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 appsrv4.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
Not shown: 998 filtered ports
PORT      STATE SERVICE
443/tcp   open  https
| TLSv1.2:
|   ciphers:
|     TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong
2:38:26 | TLS_RSA_WITH_AES_128_CBC_SHA - strong
| TLS_RSA_WITH_AES_128_GCM_SHA256 - strong

```

## 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:

Add Recommendation for

AppSrv4 ▼  
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 81

Following a recent security incident, the Chief Information Security Officer is concerned with improving visibility and reporting of malicious actors in the environment. The goal is to reduce the time to prevent lateral movement and potential data exfiltration. Which of the following techniques will best achieve the improvement?

- A. Mean time to detect
- B. Mean time to respond
- C. Mean time to remediate
- D. Service-level agreement uptime

Answer: A

#### Explanation:

Mean time to detect (MTTD) is a metric that measures how quickly an organization can identify a security incident or a malicious actor in the environment. Reducing MTTD can improve visibility and reporting of threats, as well as prevent lateral movement and data exfiltration by detecting them sooner.

#### NEW QUESTION 84

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

- ▼ Alerts (17)
  - > Absence of Anti-CSRF Tokens
  - > Content Security Policy (CSP) Header Not Set (6)
  - > **Cross-Domain Misconfiguration (34)**
  - > Directory Browsing (11)
  - > Missing Anti-clickjacking Header (2)
  - > Cookie No HttpOnly Flag (4)
  - > Cookie Without Secure Flag
  - > Cookie with SameSite Attribute None (2)
  - > Cookie without SameSite Attribute (5)
  - > Cross-Domain JavaScript Source File Inclusion
  - > Timestamp Disclosure - Unix (569)
  - > X-Content-Type-Options Header Missing (42)
  - > CORS Header
  - > Information Disclosure - Sensitive Information in URL (2)
  - > Information Disclosure - Suspicious Comments (43)
  - > Loosely Scoped Cookie (5)
  - > Re-examine Cache-control Directives (33)

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

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

**Answer: B**

**Explanation:**

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

**NEW QUESTION 85**

Which of the following would help an analyst to quickly find out whether the IP address in a SIEM alert is a known-malicious IP address?

- A. Join an information sharing and analysis center specific to the company's industry.
- B. Upload threat intelligence to the IPS in STIX/TAXII format.
- C. Add data enrichment for IPS in the ingestion pipeline.
- D. Review threat feeds after viewing the SIEM alert.

**Answer: C**

**Explanation:**

The best option to quickly find out whether the IP address in a SIEM alert is a known-malicious IP address is C. Add data enrichment for IPS in the ingestion pipeline.

Data enrichment is the process of adding more information and context to raw data, such as IP addresses, by using external sources. Data enrichment can help analysts to gain more insights into the nature and origin of the threats they face, and to prioritize and respond to them accordingly. Data enrichment for IPS (Intrusion Prevention System) means that the IPS can use enriched data to block or alert on malicious traffic based on various criteria, such as geolocation, reputation, threat intelligence, or behavior. By adding data enrichment for IPS in the ingestion pipeline, analysts can leverage the IPS's capabilities to filter out known-malicious IP addresses before they reach the SIEM, or to tag them with relevant information for further analysis. This can save time and resources for the analysts, and improve the accuracy and efficiency of the SIEM.

The other options are not as effective or efficient as data enrichment for IPS in the ingestion pipeline. Joining an information sharing and analysis center (ISAC) specific to the company's industry (A) can provide valuable threat intelligence and best practices, but it may not be timely or comprehensive enough to cover all possible malicious IP addresses. Uploading threat intelligence to the IPS in STIX/TAXII format (B) can help the IPS to identify and block malicious IP addresses based on standardized indicators of compromise, but it may require manual or periodic updates and integration with the SIEM. Reviewing threat feeds after viewing the SIEM alert (D) can help analysts to verify and contextualize the malicious IP addresses, but it may be too late or too slow to prevent or mitigate the damage. Therefore, C is the best option among the choices given.

**NEW QUESTION 89**

A security manager is looking at a third-party vulnerability metric (SMITTEN) to improve upon the company's current method that relies on CVSSv3. Given the following:

#### Vulnerability 1

CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:N/A:N - Base Score: 7.5  
High

SMITTEN: Malware exploitable: No; Exploit Activity: Low; Exposed  
Externally: No

#### Vulnerability 2

CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:U/C:L/I:L/A:N - Base Score: 5.4  
Medium

SMITTEN: Malware exploitable: Yes; Exploit Activity: HIGH; Exposed  
Externally: Yes

#### Vulnerability 3

CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H - Base Score: 9.8  
Critical

SMITTEN: Malware exploitable: No; Exploit Activity: None; Exposed  
Externally: Yes

#### Vulnerability 4

CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:C/C:H/I:H/A:H - Base Score: 9.9  
Critical

SMITTEN: Malware exploitable: Yes; Exploit Activity: Medium; Exposed  
Externally: No

Which of the following vulnerabilities should be prioritized?

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

**Answer: B**

#### Explanation:

Vulnerability 2 should be prioritized as it is exploitable, has high exploit activity, and is exposed externally according to the SMITTEN metric. References: Vulnerability Management Metrics: 5 Metrics to Start Measuring in Your Program, Section: Vulnerability Severity.

#### NEW QUESTION 90

Exploit code for a recently disclosed critical software vulnerability was publicly available (or download for several days before being removed). Which of the following CVSS v.3.1 temporal metrics was most impacted by this exposure?

- A. Remediation level
- B. Exploit code maturity
- C. Report confidence
- D. Availability

**Answer: B**

#### Explanation:

Exploit code maturity in the CVSS v.3.1 temporal metrics refers to the reliability and availability of exploit code for a vulnerability. Public availability of exploit code increases the exploit code maturity score.

The availability of exploit code affects the 'Exploit Code Maturity' metric in CVSS v.3.1. This metric evaluates the level of maturity of the exploit that targets the vulnerability. When exploit code is readily available, it suggests a higher level of maturity, indicating that the exploit is more reliable and easier to use.

#### NEW QUESTION 95

A new cybersecurity analyst is tasked with creating an executive briefing on possible threats to the organization. Which of the following will produce the data needed for the briefing?

- A. Firewall logs
- B. Indicators of compromise
- C. Risk assessment
- D. Access control lists

**Answer: B**

#### Explanation:



Indicators of compromise (IoCs) are pieces of data or evidence that suggest a system or network has been compromised by an attacker or malware. IoCs can include IP addresses, domain names, URLs, file hashes, registry keys, network traffic patterns, user behaviors, or system anomalies. IoCs can be used to detect, analyze, and respond to security incidents, as well as to share threat intelligence with other organizations or authorities. IoCs can produce the data needed for an executive briefing on possible threats to the organization, as they can provide information on the source, nature, scope, impact, and mitigation of the threats.

**NEW QUESTION 99**

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 103**

A security analyst noticed the following entry on a web server log:

Warning: fopen (http://127.0.0.1:16) :

failed to open stream:

Connection refused in /hj/var/www/showimage.php on line 7

Which of the following malicious activities was most likely attempted?

- A. XSS
- B. CSRF
- C. SSRF
- D. RCE

**Answer:** C

**Explanation:**

The malicious activity that was most likely attempted is SSRF (Server-Side Request Forgery). This is a type of attack that exploits a vulnerable web application to make requests to other resources on behalf of the web server. In this case, the attacker tried to use the fopen function to access the local loopback address (127.0.0.1) on port 16, which could be a service that is not intended to be exposed to the public. The connection was refused, indicating that the port was closed or filtered. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 2: Software and Application Security, page 66.

**NEW QUESTION 104**

During the log analysis phase, the following suspicious command is detected-

```
<?php preg_replace('/.*\/e', 'system("ping -c 4 10.0.0.1");', ''); ?>
```

Which of the following is being attempted?

- A. Buffer overflow
- B. RCE
- C. ICMP tunneling
- D. Smurf attack

**Answer:** B

**Explanation:**

RCE stands for remote code execution, which is a type of attack that allows an attacker to execute arbitrary commands on a target system. The suspicious command in the question is an example of RCE, as it tries to download and execute a malicious file from a remote server using the wget and chmod commands. A buffer overflow is a type of vulnerability that occurs when a program writes more data to a memory buffer than it can hold, potentially overwriting other memory locations and corrupting the program's execution. ICMP tunneling is a technique that uses ICMP packets to encapsulate and transmit data that would normally be blocked by firewalls or filters. A smurf attack is a type of DDoS attack that floods a network with ICMP echo requests, causing all devices on the network to reply and generate a large amount of traffic. Verified References: What Is Buffer Overflow? Attacks, Types & Vulnerabilities - Fortinet1, What Is a Smurf Attack? Smurf DDoS Attack | Fortinet2, exploit - Interpreting CVE ratings: Buffer Overflow vs. Denial of ...3

**NEW QUESTION 107**

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 110

Given the following CVSS string- CVSS:3.0/AV:N/AC:L/PR:N/UI:N/3:U/C:K/I:K/A:H  
 Which of the following attributes correctly describes this vulnerability?

- A. A user is required to exploit this vulnerability.
- B. The vulnerability is network based.
- C. The vulnerability does not affect confidentiality.
- D. The complexity to exploit the vulnerability is high.

**Answer: B**

#### Explanation:

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

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

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

? <https://packitforwarding.com/index.php/2019/01/10/comptia-cysa-common-vulnerability-scoring-system-cvss/>

#### NEW QUESTION 111

A vulnerability management team is unable to patch all vulnerabilities found during their weekly scans. Using the third-party scoring system described below, the team patches the most urgent vulnerabilities:

Metric	Description
Cobain	Exploitable by malware
Grohl	Externally facing
Novo	Exploit PoC available
Smear	Older than 2 years
Channing	Vulnerability research activity

Additionally, the vulnerability management team feels that the metrics Smear and Channing are less important than the others, so these will be lower in priority. Which of the following vulnerabilities should be patched first, given the above third-party scoring system?

- A. InLoud: Cobain: Yes Grohl: No Novo: Yes Smear: Yes Channing: No B.TSpirit: Cobain: Yes Grohl: Yes Novo: Yes Smear: No Channing: No C.ENamless: Cobain: Yes Grohl: No Novo: Yes Smear: No Channing: No D.PBleach: Cobain: Yes Grohl: No Novo: No Smear: No Channing: Yes

**Answer: B**

#### Explanation:

The vulnerability that should be patched first, given the above third-party scoring system, is:

TSpirit: Cobain: Yes Grohl: Yes Novo: Yes Smear: No Channing: No

This vulnerability has three out of five metrics marked as Yes, which indicates a high severity level. The metrics Cobain, Grohl, and Novo are more important than Smear and Channing, according to the vulnerability management team. Therefore, this vulnerability poses a greater risk than the other vulnerabilities and should be patched first.

#### NEW QUESTION 113

A team of analysts is developing a new internal system that correlates information from a variety of sources analyzes that information, and then triggers notifications according to company policy Which of the following technologies was deployed?

- A. SIEM
- B. SOAR
- C. IPS
- D. CERT

**Answer: A**

#### Explanation:

SIEM (Security Information and Event Management) technology aggregates and analyzes activity from many different resources across your IT infrastructure. The description of correlating information from various sources and triggering notifications aligns with the capabilities of a SIEM system.

#### NEW QUESTION 115

During an internal code review, software called "ACE" was discovered to have a vulnerability that allows the execution of arbitrary code. The vulnerability is in a legacy, third-party vendor resource that is used by the ACE software. ACE is used worldwide and is essential for many businesses in this industry. Developers informed the Chief Information Security Officer that removal of the vulnerability will take time. Which of the following is the first action to take?

- A. Look for potential IoCs in the company.
- B. Inform customers of the vulnerability.

- C. Remove the affected vendor resource from the ACE software.
- D. Develop a compensating control until the issue can be fixed permanently.

**Answer:** D

**Explanation:**

A compensating control is an alternative measure that provides a similar level of protection as the original control, but is used when the original control is not feasible or cost-effective. In this case, the CISO should develop a compensating control to mitigate the risk of the vulnerability in the ACE software, such as implementing additional monitoring, firewall rules, or encryption, until the issue can be fixed permanently by the developers. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 5, page 197; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 5, page 205.

**NEW QUESTION 119**

Which of the following techniques can help a SOC team to reduce the number of alerts related to the internal security activities that the analysts have to triage?

- A. Enrich the SIEM-ingested data to include all data required for triage.
- B. Schedule a task to disable alerting when vulnerability scans are executing.
- C. Filter all alarms in the SIEM with low severity.
- D. Add a SOAR rule to drop irrelevant and duplicated notifications.

**Answer:** B

**NEW QUESTION 120**

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 122**

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 124**

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

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

**Answer:** A

**Explanation:**

Multifactor authentication (MFA) is a security method that requires users to provide two or more pieces of evidence to verify their identity, such as a password, a

PIN, a fingerprint, or a one-time code. MFA can reduce the impact of a credential leak because even if the attackers have the usernames and passwords of the employees, they would still need another factor to access the organization's systems and resources. Password changes, system hardening, and password encryption are also good security practices, but they do not address the immediate threat of compromised credentials.

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

**NEW QUESTION 129**

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 132**

A security analyst is working on a server patch management policy that will allow the infrastructure team to be informed more quickly about new patches. Which of the following would most likely be required by the infrastructure team so that vulnerabilities can be remediated quickly? (Select two).

- A. Hostname
- B. Missing KPI
- C. CVE details
- D. POC availability
- E. IoCs
- F. npm identifier

**Answer:** CE

**Explanation:**

CVE details and IoCs are information that would most likely be required by the infrastructure team so that vulnerabilities can be remediated quickly. CVE details provide the description, severity, impact, and solution of the vulnerabilities that affect the servers. IoCs are indicators of compromise that help identify and respond to potential threats or attacks on the servers. References: Server and Workstation Patch Management Policy, Section: Policy; Patch Management Policy: Why You Need One in 2024, Section: What is a patch management policy?

**NEW QUESTION 137**

A technician identifies a vulnerability on a server and applies a software patch. Which of the following should be the next step in the remediation process?

- A. Testing
- B. Implementation
- C. Validation
- D. Rollback

**Answer:** C

**Explanation:**

The next step in the remediation process after applying a software patch is validation. Validation is a process that involves verifying that the patch has been successfully applied, that it has fixed the vulnerability, and that it has not caused any adverse effects on the system or application functionality or performance. Validation can be done using various methods, such as scanning, testing, monitoring, or auditing.

**NEW QUESTION 141**

After identifying a threat, a company has decided to implement a patch management program to remediate vulnerabilities. Which of the following risk management principles is the company exercising?

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

**Answer:** C

**Explanation:**

Mitigate is the best term to describe the risk management principle that the company is exercising, as it means to reduce the likelihood or impact of a risk. By implementing a patch management program to remediate vulnerabilities, the company is mitigating the threat of cyberattacks that could exploit those vulnerabilities and compromise the security or functionality of the systems. The other terms are not as accurate as mitigate, as they describe different risk management principles. Transfer means to shift the responsibility or burden of a risk to another party, such as an insurer or a contractor. Accept means to acknowledge the existence of a risk and decide not to take any action to reduce it, usually because the risk is low or the cost of mitigation is too high. Avoid means to eliminate the possibility of a risk by changing the plans or activities that could cause it, such as cancelling a project or discontinuing a service.

**NEW QUESTION 143**

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 146**

A SOC analyst is analyzing traffic on a network and notices an unauthorized scan. Which of the following types of activities is being observed?

- A. Potential precursor to an attack
- B. Unauthorized peer-to-peer communication
- C. Rogue device on the network
- D. System updates

**Answer:** A

**NEW QUESTION 151**

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

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

**Answer:** B

**Explanation:**

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

**NEW QUESTION 152**

Which of the following best describes the threat concept in which an organization works to ensure that all network users only open attachments from known sources?

- A. Hactivist threat
- B. Advanced persistent threat
- C. Unintentional insider threat
- D. Nation-state threat

**Answer:** C

**Explanation:**

An unintentional insider threat is a type of network security threat that occurs when a legitimate user of the network unknowingly exposes the network to malicious activity, such as opening a phishing email or a malware-infected attachment from an unknown source. This can compromise the network security and allow attackers to access sensitive data or systems. The other options are not related to the threat concept of ensuring that all network users only open attachments from known sources.

ReferencesCompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 1: Threat and Vulnerability Management, page 13.What is Network Security | Threats, Best Practices

| Imperva, Network Security Threats and Attacks, Phishing section.Five Ways to Defend Against Network Security Threats, 2. Use Firewalls section.

**NEW QUESTION 156**

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 160**

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

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 164**

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 165**

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 168**

A vulnerability scan of a web server that is exposed to the internet was recently completed. A security analyst is reviewing the resulting vector strings:

Vulnerability 1: CVSS: 3.0/AV:N/AC: L/PR: N/UI : N/S: U/C: H/I : L/A:L Vulnerability 2: CVSS: 3.0/AV: L/AC: H/PR:N/UI : N/S: U/C: L/I : L/A: H Vulnerability 3: CVSS: 3.0/AV:A/AC: H/PR: L/UI : R/S: U/C: L/I : H/A:L Vulnerability 4: CVSS: 3.0/AV: P/AC: L/PR: H/UI : N/S: U/C: H/I:N/A:L

Which of the following vulnerabilities should be patched first?

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

**Answer:** A

**NEW QUESTION 173**

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

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

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

**Answer:** B

#### NEW QUESTION 177

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 182

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 185

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

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

**Answer:** A

#### Explanation:

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

#### NEW QUESTION 190

Which of the following actions would an analyst most likely perform after an incident has been investigated?

- A. Risk assessment
- B. Root cause analysis
- C. Incident response plan
- D. Tabletop exercise

**Answer:** D

#### Explanation:

A tabletop exercise is the most likely action that an analyst would perform after an incident has been investigated. A tabletop exercise is a simulation of a potential incident scenario that involves the key stakeholders and decision-makers of the organization. The purpose of a tabletop exercise is to evaluate the effectiveness of the incident response plan, identify the gaps and weaknesses in the plan, and improve the communication and coordination among the incident response team

and other parties. A tabletop exercise can help the analyst to learn from the incident investigation, test the assumptions and recommendations made during the investigation, and enhance the preparedness and resilience of the organization for future incidents<sup>12</sup>. Risk assessment, root cause analysis, and incident response plan are all actions that an analyst would perform before or during an incident investigation, not after. Risk assessment is the process of identifying, analyzing, and evaluating the risks that may affect the organization. Root cause analysis is the method of finding the underlying or fundamental causes of an incident. Incident response plan is the document that defines the roles, responsibilities, procedures, and resources for responding to an incident<sup>345</sup>. References: Tabletop Exercises: Six Scenarios to Help Prepare Your Cybersecurity Team, Tabletop Exercises for Incident Response - SANS Institute, Risk Assessment - NIST, Root Cause Analysis - OWASP, Incident Response Plan | Ready.gov

**NEW QUESTION 195**

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. `tcpdump -n -r packets.pcap host [IP address]`
- D. `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\\_studied/](https://www.reddit.com/r/CompTIA/comments/tmxx84/passed_cysa_heres_my_experience_and_how_i_studied/)

**NEW QUESTION 199**

An organization has activated the CSIRT. A security analyst believes a single virtual server was compromised and immediately isolated from the network. Which of the following should the CSIRT conduct next?

- A. Take a snapshot of the compromised server and verify its integrity
- B. Restore the affected server to remove any malware
- C. Contact the appropriate government agency to investigate
- D. Research the malware strain to perform attribution

**Answer:** A

**Explanation:**

The next action that the CSIRT should conduct after isolating the compromised server from the network is to take a snapshot of the compromised server and verify its integrity. Taking a snapshot of the compromised server involves creating an exact copy or image of the server's data and state at a specific point in time. Verifying its integrity involves ensuring that the snapshot has not been altered, corrupted, or tampered with during or after its creation. Taking a snapshot and verifying its integrity can help preserve and protect any evidence or information related to the incident, as well as prevent any tampering, contamination, or destruction of evidence.

**NEW QUESTION 201**

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 205**

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



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

Which of the following best describes the output?

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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 210**

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

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

**Answer: B**

**Explanation:**

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

**NEW QUESTION 215**

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

- A. Change the display filter to f c

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

**Answer:** C

**Explanation:**

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

**NEW QUESTION 219**

AXSS vulnerability was reported on one of the non-sensitive/non-mission-critical public websites of a company. The security department confirmed the finding and needs to provide a recommendation to the application owner. Which of the following recommendations will best prevent this vulnerability from being exploited? (Select two).

- A. Implement an IPS in front of the web server.
- B. Enable MFA on the website.
- C. Take the website offline until it is patched.
- D. Implement a compensating control in the source code.
- E. Configure TLS v1.3 on the website.
- F. Fix the vulnerability using a virtual patch at the WAF.

**Answer:** DF

**Explanation:**

The best recommendations to prevent an XSS vulnerability from being exploited are to implement a compensating control in the source code and to fix the vulnerability using a virtual patch at the WAF. A compensating control is a technique that mitigates the risk of a vulnerability by adding additional security measures, such as input validation, output encoding, or HTML sanitization. A virtual patch is a rule that blocks or modifies malicious requests or responses at the WAF level, without modifying the application code. These recommendations are effective, efficient, and less disruptive than the other options. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 4: Security Operations and Monitoring, page 156; Cross Site Scripting Prevention Cheat Sheet, Section: XSS Defense Philosophy.

**NEW QUESTION 221**

An analyst is evaluating the following vulnerability report:

```
Vulnerability:
  Vulnerability Name: Remote Code Execution
  Group: Information Disclosure
  OWASP: A9 Using Components with Known Vulnerabilities

Metrics:
  CVE Dictionary Entry: CVE-2022-9999
  Base Score: 9.3
  CVSS:3.1 /AV:N/AC:L/PR:N/UI:N/S:C/C:H/I:H/A:H

Profile:
  Authentication: Not used
  Times detected: View history
  Aggressiveness: High

Payloads:
  Click here for Request Payload
  Click here for Response Payload
```

Which of the following vulnerability report sections provides information about the level of impact on data confidentiality if a successful exploitation occurs?

- A. Payloads
- B. Metrics
- C. Vulnerability
- D. Profile

**Answer:** B

**Explanation:**

The correct answer is B. Metrics.

The Metrics section of the vulnerability report provides information about the level of impact on data confidentiality if a successful exploitation occurs. The Metrics section contains the CVE dictionary entry and the CVSS base score of the vulnerability. CVE stands for Common Vulnerabilities and Exposures and it is a standardized system for identifying and naming vulnerabilities. CVSS stands for Common Vulnerability Scoring System and it is a standardized system for measuring and rating the severity of vulnerabilities.

The CVSS base score is a numerical value between 0 and 10 that reflects the intrinsic characteristics of a vulnerability, such as its exploitability, impact, and scope. The CVSS base score is composed of three metric groups: Base, Temporal, and Environmental. The Base metric group captures the characteristics of a vulnerability that are constant over time and across user environments. The Base metric group consists of six metrics: Attack Vector, Attack Complexity, Privileges Required, User Interaction, Scope, and Impact. The Impact metric measures the effect of a vulnerability on the confidentiality, integrity, and availability of the affected resources.

In this case, the CVSS base score of the vulnerability is 9.8, which indicates a critical severity level. The Impact metric of the CVSS base score is 6.0, which indicates a high impact on confidentiality, integrity, and availability. Therefore, the Metrics section provides information about the level of impact on data confidentiality if a successful exploitation occurs.

The other sections of the vulnerability report do not provide information about the level of impact on data confidentiality if a successful exploitation occurs. The Payloads section contains links to request and response payloads that demonstrate how the vulnerability can be exploited. The Payloads section can help an analyst to understand how the attack works, but it does not provide a quantitative measure of the impact. The Vulnerability section contains information about the type, group, and description of the vulnerability. The Vulnerability section can help an analyst to identify and classify the vulnerability, but it does not provide a numerical value of the impact. The Profile section contains information about the authentication, times viewed, and aggressiveness of the vulnerability. The Profile section can help an analyst to assess the risk and priority of the vulnerability, but it does not provide a specific measure of the impact on data confidentiality.

References:

- ? [1] CVE - Common Vulnerabilities and Exposures (CVE)
- ? [2] Common Vulnerability Scoring System SIG
- ? [3] CVSS v3.1 Specification Document
- ? [4] CVSS v3.1 User Guide
- ? [5] How to Read a Vulnerability Report - Security Boulevard

### NEW QUESTION 223

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/nvjuzt/dns\\_exfiltration\\_explanation/](https://www.reddit.com/r/CompTIA/comments/nvjuzt/dns_exfiltration_explanation/)

### NEW QUESTION 227

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

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

Which of the following vulnerabilities should be prioritized for remediation?

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

**Answer: B**

### Explanation:

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

References:

? CVSS v3.1 Specification Document, section 2.1.1 and 2.1.2

? The CVSS v3 Vulnerability Scoring System, section 3.1 and 3.2

### NEW QUESTION 232

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



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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 234**

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

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

**Answer: C**

**Explanation:**

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

**NEW QUESTION 235**

A security analyst reviews the following results of a Nikto scan:



Which of the following should the security administrator investigate next?

- A. tiki
- B. phpList
- C. shtml.exe
- D. sshome

**Answer: C**

**Explanation:**

The security administrator should investigate shtml.exe next, as it is a potential vulnerability that allows remote code execution on the web server. Nikto scan results indicate that the web server is running Apache on Windows, and that the shtml.exe file is accessible in the /scripts/ directory. This file is part of the Server Side Includes (SSI) feature, which allows dynamic content generation on web pages. However, if the SSI feature is not configured properly, it can allow attackers to execute arbitrary commands on the web server by injecting malicious code into the URL or the web page. Therefore, the security administrator should check the SSI configuration and permissions, and remove or disable the shtml.exe file if it is not needed. References: Nikto-Penetration testing. Introduction, Web application scanning with Nikto

**NEW QUESTION 240**

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

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

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

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

**Answer: B**

**Explanation:**

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

**NEW QUESTION 242**

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 247**

Which of the following makes STIX and OpenloC information readable by both humans and machines?

- A. XML
- B. URL
- C. OVAL
- D. TAXII

**Answer: A**

**Explanation:**

The correct answer is A. XML.

STIX and OpenloC are two standards for representing and exchanging cyber threat intelligence (CTI) information. STIX stands for Structured Threat Information Expression and OpenloC stands for Open Location and Identity Coordinates. Both standards use XML as the underlying data format to encode the information in a structured and machine-readable way. XML stands for Extensible Markup Language and it is a widely used standard for defining and exchanging data on the web. XML uses tags, attributes, and elements to describe the structure and meaning of the data. XML is also human-readable, as it uses plain text and follows a hierarchical and nested structure.

XML is not the only format that can be used to make STIX and OpenloC information readable by both humans and machines, but it is the most common and widely supported one. Other formats that can be used include JSON, CSV, or PDF, depending on the use case and the preferences of the information producers and consumers. However, XML has some advantages over other formats, such as:

- ? XML is more expressive and flexible than JSON or CSV, as it can define complex data types, schemas, namespaces, and validation rules.
- ? XML is more standardized and interoperable than PDF, as it can be easily parsed, transformed, validated, and queried by various tools and languages.
- ? XML is more compatible with existing CTI standards and tools than other formats, as it is the basis for STIX 1.x, TAXII 1.x, MAEC, CybOX, OVAL, and others.

References:

- ? 1 Introduction to STIX - GitHub Pages
- ? 2 5 Best Threat Intelligence Feeds in 2023 (Free & Paid Tools) - Comparitech
- ? 3 What Are STIX/TAXII Standards? - Anomali Resources
- ? 4 What is STIX/TAXII? | Cloudflare
- ? 5 Sample Use | TAXII Project Documentation - GitHub Pages
- ? 6 Trying to retrieve xml data with taxii - Stack Overflow
- ? 7 CISA AIS TAXII Server Connection Guide
- ? 8 CISA AIS TAXII Server Connection Guide v2.0 | CISA

**NEW QUESTION 248**

An analyst is conducting routine vulnerability assessments on the company infrastructure. When performing these scans, a business-critical server crashes, and the cause is traced back to the vulnerability scanner. Which of the following is the cause of this issue?

- A. The scanner is running without an agent installed.
- B. The scanner is running in active mode.
- C. The scanner is segmented improperly.
- D. The scanner is configured with a scanning window.

**Answer:** B

**Explanation:**

The scanner is running in active mode, which is the cause of this issue. Active mode is a type of vulnerability scanning that sends probes or requests to the target systems to test their responses and identify potential vulnerabilities. Active mode can provide more accurate and comprehensive results, but it can also cause more network traffic, performance degradation, or system instability. In some cases, active mode can trigger denial-of-service (DoS) conditions or crash the target systems, especially if they are not configured to handle the scanning requests or if they have underlying vulnerabilities that can be exploited by the scanner<sup>12</sup>. Therefore, the analyst should use caution when performing active mode scanning, and avoid scanning business-critical or sensitive systems without proper authorization and preparation<sup>3</sup>. References: Vulnerability Scanning for my Server - Spiceworks Community, Negative Impacts of Automated Vulnerability Scanners and How ... - Acunetix, Vulnerability Scanning Best Practices

**NEW QUESTION 252**

An analyst receives threat intelligence regarding potential attacks from an actor with seemingly unlimited time and resources. Which of the following best describes the threat actor attributed to the malicious activity?

- A. Insider threat
- B. Ransomware group
- C. Nation-state
- D. Organized crime

**Answer:** C

**NEW QUESTION 255**

Which of the following can be used to learn more about TTPs used by cybercriminals?

- A. ZenMAP
- B. MITRE ATT&CK
- C. National Institute of Standards and Technology
- D. theHarvester

**Answer:** B

**Explanation:**

MITRE ATT&CK is a globally accessible knowledge base of adversary tactics and techniques based on real-world observations. It is used as a foundation for the development of specific threat models and methodologies in the private sector, in government, and in the cybersecurity product and service community. It can help security professionals understand, detect, and mitigate cyber threats by providing a comprehensive framework of TTPs. References: MITRE ATT&CK, Getting Started with ATT&CK, MITRE ATT&CK | MITRE

**NEW QUESTION 257**

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

..\./..\./boot.ini

Which of the following is being attempted?

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

**Answer:** A

**Explanation:**

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

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

**NEW QUESTION 259**

While a security analyst for an organization was reviewing logs from web servers. the analyst found several successful attempts to downgrade HTTPS sessions to



use cipher modes of operation susceptible to padding oracle attacks. Which of the following combinations of configuration changes should the organization make to remediate this issue? (Select two).

- A. Configure the server to prefer TLS 1.3.
- B. Remove cipher suites that use CBC.
- C. Configure the server to prefer ephemeral modes for key exchange.
- D. Require client browsers to present a user certificate for mutual authentication.
- E. Configure the server to require HSTS.
- F. Remove cipher suites that use GCM.

**Answer:** AB

**Explanation:**

The correct answer is A. Configure the server to prefer TLS 1.3 and B. Remove cipher suites that use CBC.

A padding oracle attack is a type of attack that exploits the padding validation of a cryptographic message to decrypt the ciphertext without knowing the key. A padding oracle is a system that responds to queries about whether a message has a valid padding or not, such as a web server that returns different error messages for invalid padding or invalid MAC. A padding oracle attack can be applied to the CBC mode of operation, where the attacker can manipulate the ciphertext blocks and use the oracle's responses to recover the plaintext<sup>12</sup>.

To remediate this issue, the organization should make the following configuration changes:

? Configure the server to prefer TLS 1.3. TLS 1.3 is the latest version of the Transport Layer Security protocol, which provides secure communication between clients and servers. TLS 1.3 has several security improvements over previous versions, such as:

? Remove cipher suites that use CBC. Cipher suites are combinations of cryptographic algorithms that specify how TLS connections are secured. Cipher suites that use CBC mode are vulnerable to padding oracle attacks, as well as other attacks such as BEAST and Lucky 13. Therefore, they should be removed from the server's configuration and replaced with cipher suites that use more secure modes of operation, such as GCM or CCM<sup>78</sup>.

The other options are not effective or necessary to remediate this issue.

Option C is not effective because configuring the server to prefer ephemeral modes for key exchange does not prevent padding oracle attacks. Ephemeral modes for key exchange are methods that generate temporary and random keys for each session, such as Diffie-Hellman or Elliptic Curve Diffie-Hellman. Ephemeral modes provide forward secrecy, which means that compromising the long-term keys does not affect the security of past sessions. However, ephemeral modes do not protect against padding oracle attacks, which exploit the padding validation of the ciphertext rather than the key exchange<sup>9</sup>.

Option D is not necessary because requiring client browsers to present a user certificate for mutual authentication does not prevent padding oracle attacks. Mutual authentication is a process that verifies the identity of both parties in a communication, such as using certificates or passwords. Mutual authentication enhances security by preventing impersonation or spoofing attacks. However, mutual authentication does not protect against padding oracle attacks, which exploit the padding validation of the ciphertext rather than the authentication.

Option E is not necessary because configuring the server to require HSTS does not prevent padding oracle attacks. HSTS stands for HTTP Strict Transport Security and it is a mechanism that forces browsers to use HTTPS connections instead of HTTP connections when communicating with a web server. HSTS enhances security by preventing downgrade or man-in-the-middle attacks that try to intercept or modify HTTP traffic. However, HSTS does not protect against padding oracle attacks, which exploit the padding validation of HTTPS traffic rather than the protocol.

Option F is not effective because removing cipher suites that use GCM does not prevent padding oracle attacks. GCM stands for Galois/Counter Mode and it is a mode of operation that provides both encryption and authentication for block ciphers, such as AES. GCM is more secure and efficient than CBC mode, as it prevents various types of attacks, such as padding oracle, BEAST, Lucky 13, and IV reuse attacks. Therefore, removing cipher suites that use GCM would reduce security rather than enhance it.

References:

- ? 1 Padding oracle attack - Wikipedia
- ? 2 flast101/padding-oracle-attack-explained - GitHub
- ? 3 A Cryptographic Analysis of the TLS 1.3 Handshake Protocol | Journal of Cryptology
- ? 4 Which block cipher mode of operation does TLS 1.3 use? - Cryptography Stack Exchange
- ? 5 The Essentials of Using an Ephemeral Key Under TLS 1.3
- ? 6 Guidelines for the Selection, Configuration, and Use of ... - NIST
- ? 7 CBC decryption vulnerability - .NET | Microsoft Learn
- ? 8 The Padding Oracle Attack | Robert Heaton
- ? 9 What is Ephemeral Diffie-Hellman? | Cloudflare
- ? [10] What is Mutual TLS? How mTLS Authentication Works | Cloudflare
- ? [11] What is HSTS? HTTP Strict Transport Security Explained | Cloudflare
- ? [12] Galois/Counter Mode - Wikipedia
- ? [13] AES-GCM and its IV/nonce value - Cryptography Stack Exchange

**NEW QUESTION 263**

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

Security Policy 1006: Vulnerability Management

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

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

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

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

A)

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

B)

Name: CAP.SHIELD  
CVSS 3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:N/A:N  
External System

C)

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

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

**Answer:** C

**Explanation:**

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

**NEW QUESTION 264**

Which of the following best describes the goal of a disaster recovery exercise as preparation for possible incidents?

- A. TO provide metrics and test continuity controls
- B. To verify the roles of the incident response team
- C. To provide recommendations for handling vulnerabilities
- D. To perform tests against implemented security controls

**Answer:** A

**Explanation:**

The correct answer is A. To provide metrics and test continuity controls.

A disaster recovery exercise is a simulation or a test of the disaster recovery plan, which is a set of procedures and resources that are used to restore the normal operations of an organization after a disaster or a major incident. The goal of a disaster recovery exercise is to provide metrics and test continuity controls, which are the measures that ensure the availability and resilience of the critical systems and processes of an organization. A disaster recovery exercise can help evaluate the effectiveness, efficiency, and readiness of the disaster recovery plan, as well as identify and address any gaps or issues .

The other options are not the best descriptions of the goal of a disaster recovery exercise. Verifying the roles of the incident response team (B) is a goal of an incident response exercise, which is a simulation or a test of the incident response plan, which is a set of procedures and roles that are used to detect, contain, analyze, and remediate an incident. Providing recommendations for handling vulnerabilities © is a goal of a vulnerability assessment, which is a process of identifying and prioritizing the weaknesses and risks in an organization's systems or network. Performing tests against implemented security controls (D) is a goal of a penetration test, which is an authorized and simulated attack on an organization's systems or network to evaluate their security posture and identify any vulnerabilities or misconfigurations.

**NEW QUESTION 268**

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