CompTIA

Exam Questions CAS-004

CompTIA Advanced Security Practitioner (CASP+) Exam

NEW QUESTION 1
During a phishing exercise, a few privileged users ranked high on the failure list. The enterprise would like to ensure that privileged users have an extra security-monitoring control in place. Which of the following Is the MOST
likely solution?

A. A WAF to protect web traffic
B. User and entity behavior analytics
C. Requirements to change the local password
D. A gap analysis

Answer: B

Explanation:
User and entity behavior analytics (UEBA) is the best solution to monitor and detect unusual or malicious activity by privileged users who failed the phishing exercise. UEBA uses machine learning and behavioral analytics to establish a baseline of normal activity and identify anomalies that indicate potential threats. UEBA can help detect compromised credentials, insider threats, and advanced persistent threats that may evade traditional security solutions. The other options are either irrelevant or less effective for the given scenario.

NEW QUESTION 2
Ann, a CIRT member, is conducting incident response activities on a network that consists
of several hundred virtual servers and thousands of endpoints and users. The network generates more than 10,000 log messages per second. The enterprise belong to a large, web-based cryptocurrency startup, Ann has distilled the relevant information into an easily digestible report for executive management . However, she still needs to collect evidence of the intrusion that caused the incident. Which of the following should Ann use to gather the required information?

A. Traffic interceptor log analysis
B. Log reduction and visualization tools
C. Proof of work analysis
D. Ledger analysis software

Answer: B

NEW QUESTION 3
A security analyst discovered that a database administrator's workstation was compromised by malware. After examining the Jogs. the compromised workstation was observed connecting to multiple databases through ODBC. The following query behavior was captured:

```
SELECT *
from ACCOUNTS
where * regexp '^[0-9]{4}[-]+[0-9]{4}[-]+[0-9]{4}[-]+[0-9]{4}$'
```

Assuming this query was used to acquire and exfiltrate data, which of the following types of
data was compromised, and what steps should the incident response plan contain?
A) Personal health information: Inform the human resources department of the breach and review the DLP logs.
) Account history; Inform the relationship managers of the breach and create new accounts for the affected users.
C) Customer IDs: Inform the customer service department of the breach and work to change the account numbers.
D) PAN: Inform the legal department of the breach and look for this data in dark web monitoring.

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

Answer: D

NEW QUESTION 4
An architectural firm is working with its security team to ensure that any draft images that are leaked to the public can be traced back to a specific external party. Which of the following would BEST accomplish this goal?

A. Properly configure a secure file transfer system to ensure file integrity.
B. Have the external parties sign non-disclosure agreements before sending any images.
C. Only share images with external parties that have worked with the firm previously.
D. Utilize watermarks in the images that are specific to each external party.

Answer: D

Explanation:
Utilizing watermarks in the images that are specific to each external party would best accomplish the goal of tracing back any leaked draft images. Watermarks are visible or invisible marks that can be embedded in digital images to indicate ownership, authenticity, or origin. Watermarks can also be used to identify the recipient of the image and deter unauthorized copying or distribution. If a draft image is leaked to the public, the watermark can reveal which external party was responsible for the breach.

NEW QUESTION 5
A system administrator at a medical imaging company discovers protected health information (PHI) on a general-purpose file server. Which of the following steps should the administrator take NEXT?

A. Isolate all of the PHI on its own VLAN and keep it segregated at Layer 2.
B. Take an MD5 hash of the server.
C. Delete all PHI from the network until the legal department is consulted.

D. Consult the legal department to determine the legal requirements.

Answer: A

NEW QUESTION 6
A security engineer at a company is designing a system to mitigate recent setbacks caused competitors that are beating the company to market with the new products. Several of the products incorporate propriety enhancements developed by the engineer's company. The network already includes a SEIM and a NIPS and requires 2FA for all user access. Which of the following system should the engineer consider NEXT to mitigate the associated risks?

A. DLP
B. Mail gateway
C. Data flow enforcement
D. UTM

Answer: A

Explanation:
A DLP system is the best option for the company to mitigate the risk of losing its proprietary enhancements to competitors. DLP stands for data loss prevention, which is a set of tools and policies that aim to prevent unauthorized access, disclosure, or exfiltration of sensitive data. DLP can monitor, filter, encrypt, or block data transfers based on predefined rules and criteria, such as content, source, destination, etc. DLP can help protect the company's intellectual property and trade secrets from being compromised by malicious actors or accidental leaks. Verified References: https://www.comptia.org/training/books/casp-cas-004-study-guide , https://www.csoonline.com/article/3245746/what-is-dlp-data-loss-prevention-and-how- does-it-work.html

NEW QUESTION 7
A security analyst needs to recommend a remediation to the following threat:

```
GET http://comptia.com/casp/search?q=scriptingcrc
GET http://comptia.com/casp/..%5../Windows/System32/cmd.exe?/c+sql+s:\
POST http://comptia.com/casp/login.asp
GET http://comptia.com/casp/user=54x90211z
```

Which of the following actions should the security analyst propose to prevent this successful exploitation?

A. Patch the system.
B. Update the antivirus.
C. Install a host-based firewall.
D. Enable TLS 1.2.

Answer: D

NEW QUESTION 8
A development team created a mobile application that contacts a company's back-end APIs housed in a PaaS environment. The APIs have been experiencing high processor utilization due to scraping activities. The security engineer needs to recommend a solution that will prevent and remedy the behavior.
Which of the following would BEST safeguard the APIs? (Choose two.)

A. Bot protection
B. OAuth 2.0
C. Input validation
D. Autoscaling endpoints
E. Rate limiting
F. CSRF protection

Answer: DE

Explanation:
Reference: https://stackoverflow.com/questions/3161548/how-do-i-prevent-site-scraping

NEW QUESTION 9
A cloud security engineer is setting up a cloud-hosted WAF. The engineer needs to implement a solution to protect the multiple websites the organization hosts. The organization websites are:
* www.mycompany.org
* www.mycompany.com
* campus.mycompany.com
* wiki. mycompany.org
The solution must save costs and be able to protect all websites. Users should be able to notify the cloud security engineer of any on-path attacks. Which of the following is the BEST solution?

A. Purchase one SAN certificate.
B. Implement self-signed certificates.
C. Purchase one certificate for each website.
D. Purchase one wildcard certificate.

Answer: D

Explanation:
Purchasing one wildcard certificate is the best solution to protect multiple websites hosted by an organization in a cloud-hosted WAF. A wildcard certificate is a type of SSL/TLS certificate that can secure a domain name and any number of its subdomains with a single certificate. For example, a wildcard certificate for *.mycompany.com can secure www.mycompany.com, campus.mycompany.com, and any other subdomain under mycompany.com. A wildcard certificate can save costs and simplify management compared to purchasing individual certificates for each website.

References: [CompTIA CASP+ Study Guide, Second Edition, page 301]

NEW QUESTION 10
A networking team was asked to provide secure remote access to all company employees. The team decided to use client-to-site VPN as a solution. During a discussion, the Chief Information Security Officer raised a security concern and asked the networking team to route the Internet traffic of remote users through the main office infrastructure. Doing this would prevent remote users from accessing the Internet through their local networks while connected to the VPN.
Which of the following solutions does this describe?

A. Full tunneling
B. Asymmetric routing
C. SSH tunneling
D. Split tunneling

Answer: A

Explanation:
The concern is users operating in a spit tunnel config which is what is being described. Using a Full Tunnel would route traffic from all applications through a single tunnel. https://cybernews.com/what-is-vpn/split-tunneling/

NEW QUESTION 10
A security analyst is investigating a possible buffer overflow attack. The following output was found on a user's workstation:
graphic.linux_randomization.prg
Which of the following technologies would mitigate the manipulation of memory segments?

A. NX bit
B. ASLR
C. DEP
D. HSM

Answer: B

Explanation:
https://eklitzke.org/memory-protection-and-aslr
ASLR (Address Space Layout Randomization) is a technology that can mitigate the manipulation of memory segments caused by a buffer overflow attack. ASLR randomizes the location of memory segments, such as the stack, heap, or libraries, making it harder for an attacker to predict or control where to inject malicious code or overwrite memory segments. NX bit (No-eXecute bit) is a technology that can mitigate the execution of malicious code injected by a buffer overflow attack. NX bit marks certain memory segments as non-executable, preventing an attacker from running code in those segments. DEP (Data Execution Prevention) is a technology that can mitigate the execution of malicious code injected by a buffer overflow attack. DEP uses hardware and software mechanisms to mark certain memory regions as data-only, preventing an attacker from running code in those regions. HSM (Hardware Security Module) is a device that can provide cryptographic functions and key storage, but it does not mitigate the manipulation of memory segments
caused by a buffer overflow attack. Verified References: https://www.comptia.org/blog/what-is-aslr https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 15
An organization's hunt team thinks a persistent threats exists and already has a foothold in the enterprise network.
Which of the following techniques would be BEST for the hunt team to use to entice the adversary to uncover malicious activity?

A. Deploy a SOAR tool.
B. Modify user password history and length requirements.
C. Apply new isolation and segmentation schemes.
D. Implement decoy files on adjacent hosts.

Answer: D

Explanation:
Implementing decoy files on adjacent hosts is a technique that can entice the adversary to uncover malicious activity, as it can lure them into accessing fake or irrelevant data that can trigger an alert or reveal their presence. Decoy files are also known as honeyfiles or honeypots, and they are part of deception technology. Deploying a SOAR (Security Orchestration Automation and Response) tool may not entice the adversary to uncover malicious activity, as SOAR is mainly focused on automating and streamlining security operations, not deceiving attackers. Modifying user password history and length requirements may not entice the adversary to uncover malicious activity, as it could affect legitimate users and not reveal the attacker's actions. Applying new isolation and segmentation schemes may not entice the adversary to uncover malicious activity, as it could limit their access and movement, but not expose their presence. Verified References: https://www.comptia.org/blog/what-is-deception-technology https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 17
A company recently deployed a SIEM and began importing logs from a firewall, a file server, a domain controller a web server, and a laptop. A security analyst receives a series of SIEM alerts and prepares to respond. The following is the alert information:

Severity	Source device	Event info	Time (UTC)
Medium	abc-usa-fw01	RDP (3389) traffic from abc-admin-lp01 to abc-usa-fs1	1020:08
Low	abc-ger-dc1	Successful logon event for user jdoe on abc-usa-fs1	1020:34
Medium	abc-ger-fw01	RDP (3389) traffic from abc-usa-fs1 to abc-ger-fs1	1021:02
Low	abc-usa-fw01	SMB (445) traffic from abc-usa-fs1 to abc-web01	1020:51
Low	abc-usa-dc1	Successful logon event for user jdoe on abc-ger-fs1	1024:55
High	abc-usa-fw01	FTP (21) traffic from abc-ger-fs1 to abc-web01	1025:16
High	abc-web01	Successful logon event for user Administrator	1126:40

Which of the following should the security analyst do FIRST?

A. Disable Administrator on abc-uaa-fsl, the local account is compromised
B. Shut down the abc-usa-fsl server, a plaintext credential is being used
C. Disable the jdoe account, it is likely compromised
D. Shut down abc-usa-fw01; the remote access VPN vulnerability is exploited

Answer: C

Explanation:
Based on the SIEM alerts, the security analyst should first disable the jdoe account, as it is likely compromised by an attacker. The alerts show that the jdoe account successfully logged on to the abc-usa-fsl server, which is a file server, and then initiated SMB (445) traffic to the abc-web01 server, which is a web server. This indicates that the attacker may be trying to exfiltrate data from the file server to the web server. Disabling the jdoe account would help stop this unauthorized activity and prevent further damage.
Disabling Administrator on abc-usa-fsl, the local account is compromised, is not the first action to take, as it is not clear from the alerts if the local account is compromised or not. The alert shows that there was a successful logon event for Administrator on abc-usa-fsl, but it does not specify if it was a local or domain account, or if it was authorized or not. Moreover, disabling the local account would not stop the SMB traffic from jdoe to abc- web01.
Shutting down the abc-usa-fsl server, a plaintext credential is being used, is not the first action to take, as it is not clear from the alerts if a plaintext credential is being used or not. The alert shows that there was RDP (3389) traffic from abc-admin1-logon to abc-usa-fsl, but it does not specify if the credential was encrypted or not. Moreover, shutting down the file server would disrupt its normal operations and affect other users.
Shutting down abc-usa-fw01; the remote access VPN vulnerability is exploited, is not the first action to take, as it is not clear from the alerts if the remote access VPN vulnerability is exploited or not. The alert shows that there was FTP (21) traffic from abc-usa-dcl to abc- web01, but it does not specify if it was related to the VPN or not. Moreover, shutting down the firewall would expose the network to other threats and affect other
services. References: What is SIEM? | Microsoft Security, What is a SIEM Alert? | Cofense

NEW QUESTION 21
A security is assisting the marketing department with ensuring the security of the organization's social media platforms. The two main concerns are:
The Chief marketing officer (CMO) email is being used department wide as the username The password has been shared within the department
Which of the following controls would be BEST for the analyst to recommend?

A. Configure MFA for all users to decrease their reliance on other authentication.
B. Have periodic, scheduled reviews to determine which OAuth configuration are set for each media platform.
C. Create multiple social media accounts for all marketing user to separate their actions.
D. Ensue the password being shared is sufficiently and not written down anywhere.

Answer: A

Explanation:
Configuring MFA for all users to decrease their reliance on other authentication is the best option to improve email security at the company. MFA stands for multi-factor authentication, which is a method of verifying a user's identity by requiring two or more factors, such as something the user knows (e.g., password), something the user
has (e.g., token), or something the user is (e.g., biometric). MFA can prevent unauthorized access to email accounts even if the username or password is compromised or shared. Verified References: https://www.comptia.org/training/books/casp-cas-004-study-guide , https://www.csoonline.com/article/3239144/what-is-mfa-how-multi-factor-authentication- works.html

NEW QUESTION 23
Which of the following allows computation and analysis of data within a ciphertext without knowledge of the plaintext?

A. Lattice-based cryptography
B. Quantum computing
C. Asymmetric cryptography
D. Homomorphic encryption

Answer: D

Explanation:
Reference: https://searchsecurity.techtarget.com/definition/cryptanalysis
Homomorphic encryption is a type of encryption that allows computation and analysis of data within a ciphertext without knowledge of the plaintext. This means that encrypted data can be processed without being decrypted first, which enhances the security and privacy of the data. Homomorphic encryption can enable

applications such as secure cloud computing, machine learning, and data analytics. References: https://www.ibm.com/security/homomorphic-encryption https://www.synopsys.com/blogs/software-security/homomorphic-encryption/

NEW QUESTION 27
A developer is creating a new mobile application for a company. The application uses REST API and TLS 1.2 to communicate securely with the external back-end server. Due to this configuration, the company is concerned about HTTPS interception attacks.
Which of the following would be the BEST solution against this type of attack?

A. Cookies
B. Wildcard certificates
C. HSTS
D. Certificate pinning

Answer: D

Explanation:
Reference: https://cloud.google.com/security/encryption-in-transit
Certificate pinning is a technique that can prevent HTTPS interception attacks by hardcoding the expected certificate or public key of the server in the application code, so that any certificate presented by an intermediary will be rejected. Cookies are small pieces of data that are stored by browsers to remember user preferences or sessions, but they do not prevent HTTPS interception attacks. Wildcard certificates are certificates that can be used for multiple subdomains of a domain, but they do not prevent HTTPS interception attacks. HSTS (HTTP Strict Transport Security) is a policy that forces browsers to use HTTPS connections, but it does not prevent HTTPS interception attacks. Verified References: https://www.comptia.org/blog/what-is-certificate-pinning https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 28
As part of its risk strategy, a company is considering buying insurance for cybersecurity incidents.
Which of the following BEST describes this kind of risk response?

A. Risk rejection
B. Risk mitigation
C. Risk transference
D. Risk avoidance

Answer: C

NEW QUESTION 31
A company provides guest WiFi access to the internet and physically separates the guest network from the company's internal WIFI. Due to a recent incident in which an attacker gained access to the compay's intend WIFI, the company plans to configure WPA2 Enterprise in an EAP- TLS configuration. Which of the following must be installed on authorized hosts for this new configuration to work properly?

A. Active Directory OPOs
B. PKI certificates
C. Host-based firewall
D. NAC persistent agent

Answer: B

NEW QUESTION 33
A security analyst discovered that the company's WAF was not properly configured. The main web server was breached, and the following payload was found in one of the malicious requests:

```
<!DOCTYPE doc [
<!ELEMENT doc ANY>
<ENTITY xxe SYSTEM "file:///etc/password">]>
<doc>&xxe;</doc>
```

Which of the following would BEST mitigate this vulnerability?

A. CAPTCHA
B. Input validation
C. Data encoding
D. Network intrusion prevention

Answer: B

Explanation:
Reference: https://hdivsecurity.com/owasp-xml-external-entities-xxe

NEW QUESTION 35
To save time, a company that is developing a new VPN solution has decided to use the OpenSSL library within Its proprietary software. Which of the following should the company consider to maximize risk reduction from vulnerabilities introduced by OpenSSL?

A. Include stable, long-term releases of third-party libraries instead of using newer versions.
B. Ensure the third-party library implements the TLS and disable weak ciphers.
C. Compile third-party libraries into the main code statically instead of using dynamic loading.
D. Implement an ongoing, third-party software and library review and regression testing.

Answer: D

Explanation:
Implementing an ongoing, third-party software and library review and regression testing is the best way to maximize risk reduction from vulnerabilities introduced by OpenSSL. Third-party software and libraries are often used by developers to save time and resources, but they may also introduce security risks if they are not properly maintained and updated. By reviewing and testing the third-party software and library regularly, the company can ensure that they are using the latest and most secure version of OpenSSL, and that their proprietary software is compatible and functional with it. References: [CompTIA CASP+ Study Guide, Second Edition, page 362]

NEW QUESTION 40
A security architect is given the following requirements to secure a rapidly changing enterprise with an increasingly distributed and remote workforce
• Cloud-delivered services
• Full network security stack
• SaaS application security management
• Minimal latency for an optimal user experience
• Integration with the cloud 1AM platform Which of the following is the BEST solution?

A. Routing and Remote Access Service (RRAS)
B. NGFW
C. Managed Security Service Provider (MSSP)
D. SASE

Answer: D

NEW QUESTION 41
A security analyst is trying to identify the source of a recent data loss incident. The analyst has reviewed all the for the time surrounding the identified all the assets on the network at the time of the data loss. The analyst suspects the key to finding the source was obfuscated in an application. Which of the following tools should the analyst use NEXT?

A. Software Decomplier
B. Network enurrerator
C. Log reduction and analysis tool
D. Static code analysis

Answer: D

NEW QUESTION 42
Users are reporting intermittent access issues with a new cloud application that was recently added to the network. Upon investigation, the security administrator notices the human resources department is able to run required queries with the new application, but the marketing department is unable to pull any needed reports on various resources using the new application. Which of the following MOST likely needs to be done to avoid this in the future?

A. Modify the ACLS.
B. Review the Active Directory.
C. Update the marketing department's browser.
D. Reconfigure the WAF.

Answer: A

Explanation:
Modifying the ACLs (access control lists) is the most likely solution to avoid the intermittent access issues with the new cloud application. ACLs are used to define permissions for different users and groups to access resources on a network. The problem may be caused by incorrect or missing ACLs for the marketing department that prevent them from accessing the cloud application or its data sources. The other options are either irrelevant or less effective for the given scenario.

NEW QUESTION 43
An organization wants to perform a scan of all its systems against best practice security configurations.
Which of the following SCAP standards, when combined, will enable the organization to view each of the configuration checks in a machine-readable checklist format for fill automation? (Choose two.)

A. ARF
B. XCCDF
C. CPE
D. CVE
E. CVSS
F. OVAL

Answer: BF

Explanation:
Reference: https://www.govinfo.gov/content/pkg/GOVPUB-C13- 9ecd8eae582935c93d7f410e955dabb6/pdf/GOVPUB-C13-9ecd8eae582935c93d7f410e955dabb6.pdf (p.12)
XCCDF (Extensible Configuration Checklist Description Format) and OVAL (Open Vulnerability and Assessment Language) are two SCAP (Security Content Automation Protocol) standards that can enable the organization to view each of the configuration
checks in a machine-readable checklist format for full automation. XCCDF is a standard for expressing security checklists and benchmarks, while OVAL is a standard for expressing system configuration information and vulnerabilities. ARF (Asset Reporting Format) is a standard for expressing the transport format of information about assets, not configuration checks. CPE (Common Platform Enumeration) is a standard for identifying and naming hardware, software, and operating systems, not configuration checks. CVE (Common Vulnerabilities and Exposures) is a standard for identifying and naming publicly known cybersecurity vulnerabilities, not configuration checks. CVSS (Common Vulnerability Scoring System) is a standard for assessing the severity of cybersecurity vulnerabilities, not configuration checks. Verified References: https://www.comptia.org/blog/what-is-scap https://partners.comptia.org/docs/default-source/resources/casp-content-

guide

NEW QUESTION 48
A company's Chief Information Officer wants to Implement IDS software onto the current system's architecture to provide an additional layer of security. The software must be able to monitor system activity, provide Information on attempted attacks, and provide analysis of malicious activities to determine the processes or users Involved. Which of the following would provide this information?

A. HIPS
B. UEBA
C. HIDS
D. NIDS

Answer: B

NEW QUESTION 51
A software development company makes Its software version available to customers from a web portal. On several occasions, hackers were able to access the software repository to change the package that is automatically published on the website. Which of the following would be the BEST technique to ensure the software the users download is the official software released by the company?

A. Distribute the software via a third-party repository.
B. Close the web repository and deliver the software via email.
C. Email the software link to all customers.
D. Display the SHA checksum on the website.

Answer: D

NEW QUESTION 52
A software development company is building a new mobile application for its social media platform. The company wants to gain its Users' rust by reducing the risk of on-path attacks between the mobile client and its servers and
by implementing stronger digital trust. To support users' trust, the company has released the following internal guidelines:
* Mobile clients should verify the identity of all social media servers locally.
* Social media servers should improve TLS performance of their certificate status.
* Social media servers should inform the client to only use HTTPS.
Given the above requirements, which of the following should the company implement? (Select TWO).

A. Quick UDP internet connection
B. OCSP stapling
C. Private CA
D. DNSSEC
E. CRL
F. HSTS
G. Distributed object model

Answer: BF

Explanation:
OCSP stapling and HSTS are the best options to meet the requirements of reducing the risk of on-path attacks and implementing stronger digital trust. OCSP stapling allows the
social media servers to improve TLS performance by sending a signed certificate status along with the certificate, eliminating the need for the client to contact the CA separately. HSTS allows the social media servers to inform the client to only use HTTPS and prevent downgrade attacks.

NEW QUESTION 55
Which of the following is the MOST important security objective when applying cryptography to control messages that tell an ICS how much electrical power to output?

A. Importing the availability of messages
B. Ensuring non-repudiation of messages
C. Enforcing protocol conformance for messages
D. Assuring the integrity of messages

Answer: D

Explanation:
Assuring the integrity of messages is the most important security objective when applying cryptography to control messages that tell an ICS (industrial control system) how much electrical power to output. Integrity is the security objective that ensures the accuracy and completeness of data or information, preventing unauthorized modifications or tampering. Assuring the integrity of messages can prevent malicious or accidental changes to the control messages that could affect the operation or safety of the ICS or the electrical power output. Importing the availability of messages is not a security objective when applying cryptography, but a security objective that ensures the accessibility and usability of data or information, preventing unauthorized denial or disruption of service.
Ensuring non-repudiation of messages is not a security objective when applying cryptography, but a security objective that ensures the authenticity and accountability of data or information, preventing unauthorized denial or dispute of actions or transactions. Enforcing protocol conformance for messages is not a security objective when applying cryptography, but a security objective that ensures the compliance and consistency of data or information, preventing unauthorized deviations or violations of rules or standards. Verified References: https://www.comptia.org/blog/what-is-integrity
https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 59
A systems administrator is in the process of hardening the host systems before connecting to the network. The administrator wants to add protection to the boot loader to ensure the hosts are secure before the OS fully boots.
Which of the following would provide the BEST boot loader protection?

A. TPM
B. HSM
C. PKI
D. UEFI/BIOS

Answer: A

Explanation:
A TPM (trusted platform module) is a hardware device that can provide boot
loader protection by storing cryptographic keys and verifying the integrity of the boot process. An HSM (hardware security module) is similar to a TPM, but it is used for storing keys for applications, not for booting. A PKI (public key infrastructure) is a system of certificates and keys that can provide encryption and authentication, but not boot loader protection. UEFI/BIOS are firmware interfaces that control the boot process, but they do not provide protection by themselves.
Verified References: https://www.comptia.org/blog/what- is-a-tpm-trusted-platform-module https://partners.comptia.org/docs/default- source/resources/casp-content-guide

NEW QUESTION 60
An organization is researching the automation capabilities for systems within an OT network. A security analyst wants to assist with creating secure coding practices and would like to learn about the programming languages used on the PLCs. Which of the following programming languages is the MOST relevant for PLCs?

A. Ladder logic
B. Rust
C. C
D. Python
E. Java

Answer: A

NEW QUESTION 61
Which of the following terms refers to the delivery of encryption keys to a CASB or a third- party entity?

A. Key sharing
B. Key distribution
C. Key recovery
D. Key escrow

Answer: D

Explanation:
Key escrow is a process that involves storing encryption keys with a trusted third party, such as a CASB (Cloud Access Security Broker) or a government agency. Key escrow can enable authorized access to encrypted data in case of emergencies, legal issues, or data recovery. However, key escrow also introduces some risks and challenges, such as trust, security, and privacy. References: https://www.techopedia.com/definition/1772/key-escrow https://searchsecurity.techtarget.com/definition/key-escrow

NEW QUESTION 63
A company suspects a web server may have been infiltrated by a rival corporation. The security engineer reviews the web server logs and finds the following:

```
ls -l -a /usr/heinz/public; cat ./config/db.yml
```

The security engineer looks at the code with a developer, and they determine the log entry is created when the following line is run:

```
system ("ls -l -a #{path}")
```

Which of the following is an appropriate security control the company should implement?

A. Restrict directory permission to read-only access.
B. Use server-side processing to avoid XSS vulnerabilities in path input.
C. Separate the items in the system call to prevent command injection.
D. Parameterize a query in the path variable to prevent SQL injection.

Answer: C

Explanation:
The company using the wrong port is the most likely root cause of why secure LDAP is not working. Secure LDAP is a protocol that provides secure communication between clients and servers using LDAP (Lightweight Directory Access Protocol), which is a protocol that allows querying and modifying directory services over TCP/IP. Secure LDAP uses SSL (Secure Sockets Layer) or TLS (Transport Layer Security) to encrypt LDAP traffic and prevent unauthorized disclosure or interception.

NEW QUESTION 68
A cloud security architect has been tasked with selecting the appropriate solution given the following:
* The solution must allow the lowest RTO possible.
* The solution must have the least shared responsibility possible.
« Patching should be a responsibility of the CSP.
Which of the following solutions can BEST fulfill the requirements?

A. Paas
B. laas
C. Private
D. Saas

Answer: D

Explanation:
SaaS, or software as a service, is the solution that can best fulfill the requirements of having the lowest RTO possible, the least shared responsibility possible, and patching as a responsibility of the CSP. SaaS is a cloud service model that provides users with access to software applications hosted and managed by the CSP over the internet. SaaS has the lowest RTO (recovery time objective), which is the maximum acceptable time for restoring a system or service after a disruption, because it does not require any installation, configuration, or maintenance by the users. SaaS also has the least shared responsibility possible because most of the security aspects are handled by the CSP, such as patching, updating, backup, encryption, authentication, etc.
References: [CompTIA CASP+ Study Guide, Second Edition, pages 403-404]

NEW QUESTION 69
A SOC analyst is reviewing malicious activity on an external, exposed web server. During the investigation, the analyst determines specific traffic is not being logged, and there is no visibility from the WAF for the web application.
Which of the following is the MOST likely cause?

A. The user agent client is not compatible with the WAF.
B. A certificate on the WAF is expired.
C. HTTP traffic is not forwarding to HTTPS to decrypt.
D. Old, vulnerable cipher suites are still being used.

Answer: C

Explanation:
This could be the cause of the lack of visibility from the WAF (Web Application Firewall) for the web application, as the WAF may not be able to inspect or block unencrypted HTTP traffic. To solve this issue, the web server should redirect all HTTP requests to HTTPS and use SSL/TLS certificates to encrypt the traffic.

NEW QUESTION 74
A global organization's Chief Information Security Officer (CISO) has been asked to analyze the risks involved in a plan to move the organization's current MPLS-based WAN network to use commodity Internet and SD-WAN hardware. The SD-WAN provider is currently highly regarded but Is a regional provider. Which of the following is MOST likely identified as a potential risk by the CISO?

A. The SD-WAN provider would not be able to handle the organization's bandwidth requirements.
B. The operating costs of the MPLS network are too high for the organization.
C. The SD-WAN provider uses a third party for support.
D. Internal IT staff will not be able to properly support remote offices after the migration.

Answer: C

Explanation:
SD-WAN (Software-Defined Wide Area Network) is a technology that allows organizations to use multiple, low-cost Internet connections to create a secure and dynamic WAN. SD- WAN can provide benefits such as lower costs, higher performance, and easier management compared to traditional WAN technologies, such as MPLS (Multiprotocol Label Switching).
However, SD-WAN also introduces some potential risks, such as:
? The reliability and security of the Internet connections, which may vary depending on the location, provider, and traffic conditions.
? The compatibility and interoperability of the SD-WAN hardware and software, which may come from different vendors or use different standards.
? The availability and quality of the SD-WAN provider’s support, which may depend
on the provider’s size, reputation, and outsourcing practices.
In this case, the CISO would most likely identify the risk that the SD-WAN provider uses a third party for support, because this could:
? Affect the organization’s ability to resolve issues or request changes in a timely
and effective manner.
? Expose the organization’s network data and configuration to unauthorized or malicious parties.
? Increase the complexity and uncertainty of the SD-WAN service level agreement (SLA) and contract terms.

NEW QUESTION 77
The Chief information Officer (CIO) of a large bank, which uses multiple third-party organizations to deliver a service, is concerned about the handling and security of customer data by the parties. Which of the following should be implemented to BEST manage the risk?

A. Establish a review committee that assesses the importance of suppliers and ranks them according to contract renewal
B. At the time of contract renewal, incorporate designs and operational controls into the contracts and a right-to-audit claus
C. Regularly assess the supplier’s post-contract renewal with a dedicated risk management team.
D. Establish a team using members from first line risk, the business unit, and vendor management to assess only design security controls of all supplier
E. Store findings from the reviews in a database for all other business units and risk teams to reference.
F. Establish an audit program that regularly reviews all suppliers regardless of the data they access, how they access the data, and the type of data, Review all design and operational controls based on best practice standard and report the finding back to upper management.
G. Establish a governance program that rates suppliers based on their access to data, the type of data, and how they access the data Assign key controls that are reviewed andmanaged based on the supplier’s ratin
H. Report finding units that rely on the suppliers and the various risk teams.

Answer: D

Explanation:
A governance program that rates suppliers based on their access to data, the type of data, and how they access the data is the best way to manage the risk of handling and security of customer data by third parties. This allows the company to assign key controls that are reviewed and managed based on the supplier’s rating and report findings to the relevant units and risk teams. Verified References: https://www.comptia.org/training/books/casp-cas-004-study-guide , https://www.isaca.org/resources/isaca-journal/issues/2018/volume-1/third-party-risk- management

NEW QUESTION 79
A high-severity vulnerability was found on a web application and introduced to the enterprise. The vulnerability could allow an unauthorized user to utilize an open-source library to view privileged user information. The enterprise is unwilling to accept the risk, but the developers cannot fix the issue right away.

Which of the following should be implemented to reduce the risk to an acceptable level until the issue can be fixed?

A. Scan the code with a static code analyzer, change privileged user passwords, and provide security training.
B. Change privileged usernames, review the OS logs, and deploy hardware tokens.
C. Implement MFA, review the application logs, and deploy a WAF.
D. Deploy a VPN, configure an official open-source library repository, and perform a full application review for vulnerabilities.

Answer: C

Explanation:
Reference: https://www.microfocus.com/en-us/what-is/sast
Implementing MFA can add an extra layer of security to protect against unauthorized access if the vulnerability is exploited. Reviewing the application logs can help identify if any attempts have been made to exploit the vulnerability, and deploying a WAF can help block any attempts to exploit the vulnerability. While the other options may provide some level of security, they may not directly address the vulnerability and may not reduce the risk to an acceptable level.

NEW QUESTION 84
A cybersecurity analyst discovered a private key that could have been exposed.
Which of the following is the BEST way for the analyst to determine if the key has been compromised?

A. HSTS
B. CRL
C. CSRs
D. OCSP

Answer: C

Explanation:
Reference: https://www.ssl.com/faqs/compromised-private-keys/

NEW QUESTION 85
A Chief Security Officer (CSO) is concerned about the number of successful ransomware attacks that have hit the company. The data Indicates most of the attacks came through a
fake email. The company has added training, and the CSO now wants to evaluate whether the training has been successful. Which of the following should the CSO implement?

A. Simulating a spam campaign
B. Conducting a sanctioned vishing attack
C. Performing a risk assessment
D. Executing a penetration test

Answer: A

Explanation:
A spam campaign is a mass distribution of unsolicited or fraudulent emails that may contain malicious links, attachments, or requests. Spam campaigns are often used by attackers to deliver ransomware, which is a type of malware that encrypts the victim's data and demands a ransom for its decryption.
Simulating a spam campaign would allow the Chief Security Officer (CSO) to evaluate whether the training has been successful in reducing the number of successful ransomware attacks that have hit the company, because it would:
? Test the employees' ability to recognize and avoid clicking on fake or malicious
emails, which is one of the main vectors for ransomware infection.
? Measure the effectiveness of the training by comparing the click-through rate and the infection rate before and after the training.
? Provide feedback and reinforcement to the employees by informing them of their performance and reminding them of the best practices for email security.

NEW QUESTION 87
A company is looking at sending historical backups containing customer PII to a cloud service provider to save on storage costs. Which of the following is the MOST important consideration before making this decision?

A. Availability
B. Data sovereignty
C. Geography
D. Vendor lock-in

Answer: B

NEW QUESTION 91
In preparation for the holiday season, a company redesigned the system that manages retail sales and moved it to a cloud service provider. The new infrastructure did not meet the company's availability requirements. During a postmortem analysis, the following issues were highlighted:
* 1. International users reported latency when images on the web page were initially loading.
* 2. During times of report processing, users reported issues with inventory when attempting to place orders.
* 3. Despite the fact that ten new API servers were added, the load across servers was heavy at peak times.
Which of the following infrastructure design changes would be BEST for the organization to implement to avoid these issues in the future?

A. Serve static content via distributed CDNs, create a read replica of the central database and pull reports from there, and auto-scale API servers based on performance.
B. Increase the bandwidth for the server that delivers images, use a CDN, change the database to a non-relational database, and split the ten API servers across two load balancers.
C. Serve images from an object storage bucket with infrequent read times, replicate the database across different regions, and dynamically create API servers based on load.
D. Serve static-content object storage across different regions, increase the instance size on the managed relational database, and distribute the ten API servers across multiple regions.

Answer: A

Explanation:
This solution would address the three issues as follows:
? Serving static content via distributed CDNs would reduce the latency for international users by delivering images from the nearest edge location to the user's request.
? Creating a read replica of the central database and pulling reports from there
would offload the read-intensive workload from the primary database and avoid affecting the inventory data for order placement.
? Auto-scaling API servers based on performance would dynamically adjust the
number of servers to match the demand and balance the load across them at peak times.

NEW QUESTION 94
A software company wants to build a platform by integrating with another company's established product. Which of the following provisions would be MOST important to include when drafting an agreement between the two companies?

A. Data sovereignty
B. Shared responsibility
C. Source code escrow
D. Safe harbor considerations

Answer: B

Explanation:
When drafting an agreement between two companies, it is important to clearly define the responsibilities of each party. This is particularly relevant when a software company is looking to integrate with an established product. A shared responsibility agreement ensures that both parties understand their respective responsibilities and are able to work together efficiently and effectively. For example, the software company might be responsible for integrating the product and ensuring it meets user needs, while the established product provider might be responsible for providing ongoing support and maintenance. By outlining these responsibilities in the agreement, both parties can ensure that the platform is built and maintained successfully. References: CompTIA Advanced Security Practitioner (CASP+) Study Guide, Chapter 8, Working with Third Parties.

NEW QUESTION 96
FILL IN THE BLANK
SIMULATION
You are a security analyst tasked with interpreting an Nmap scan output from company's privileged network.
The company's hardening guidelines indicate the following: There should be one primary server or service per device. Only default ports should be used. Non-secure protocols should be disabled.
INSTRUCTIONS
Using the Nmap output, identify the devices on the network and their roles, and any open ports that should be closed.
For each device found by Nmap, add a device entry to the Devices Discovered list, with the following information:
The IP address of the device
The primary server or service of the device (Note that each IP should by associated with one service/port only)
The protocol(s) that should be disabled based on the hardening guidelines (Note that multiple ports may need to be closed to comply with the hardening guidelines)
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

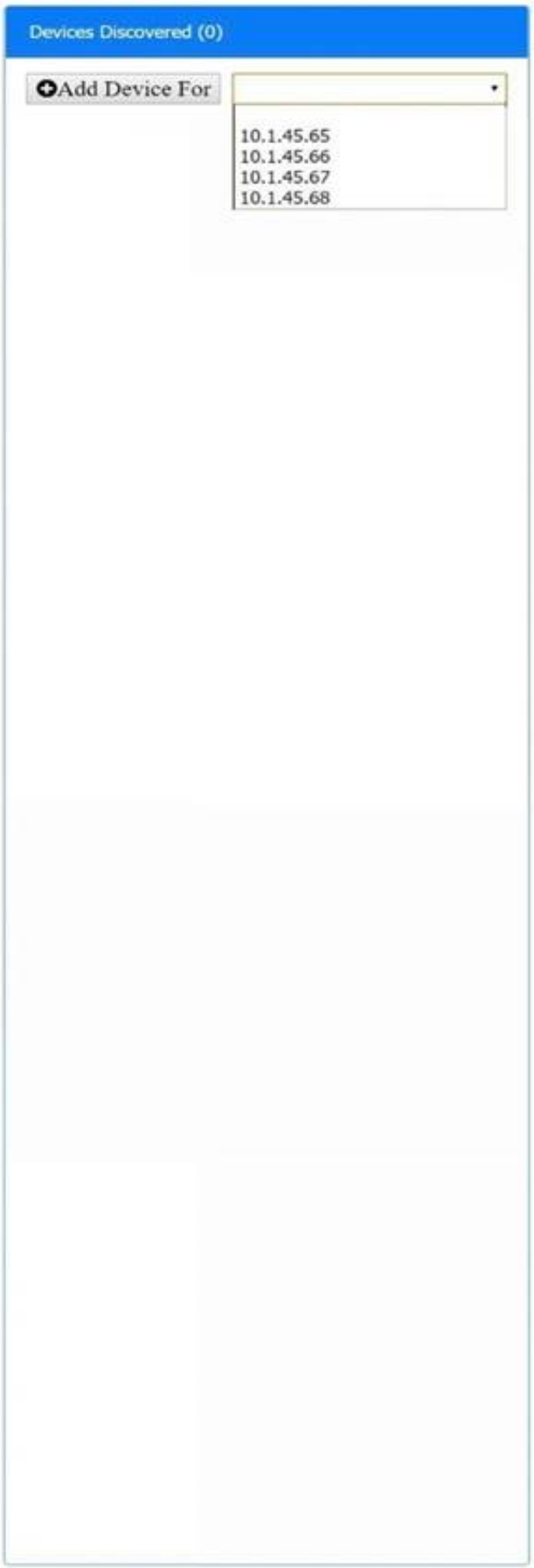
NMAP Scan Output

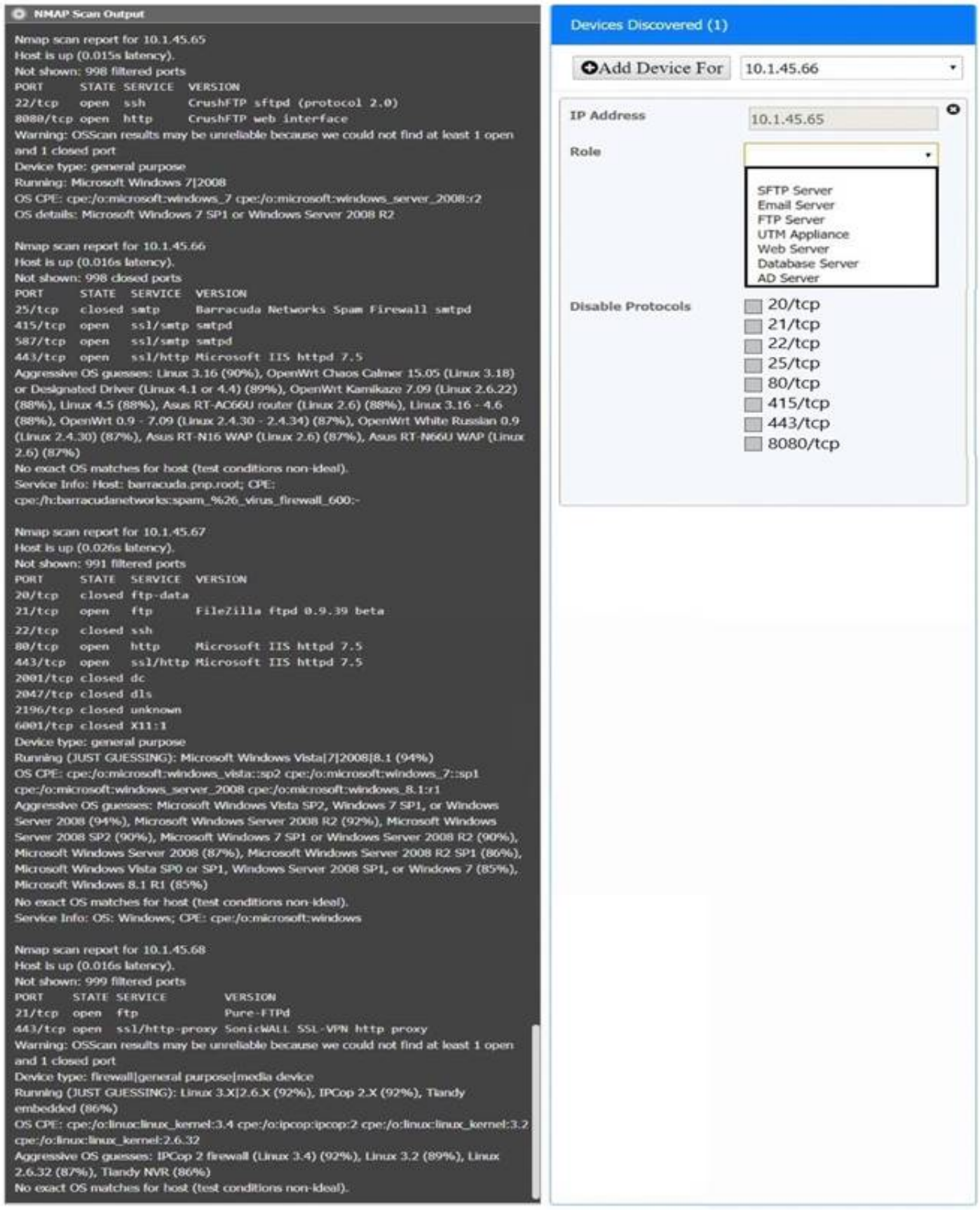
```
Nmap scan report for 10.1.45.65
Host is up (0.015s latency).
Not shown: 998 filtered ports
PORT     STATE SERVICE  VERSION
22/tcp   open  ssh      CrushFTP sftpd (protocol 2.0)
8080/tcp open  http     CrushFTP web interface
Warning: OSScan results may be unreliable because we could not find at least 1 open
and 1 closed port
Device type: general purpose
Running: Microsoft Windows 7|2008
OS CPE: cpe:/o:microsoft:windows_7 cpe:/o:microsoft:windows_server_2008:r2
OS details: Microsoft Windows 7 SP1 or Windows Server 2008 R2

Nmap scan report for 10.1.45.66
Host is up (0.016s latency).
Not shown: 998 closed ports
PORT     STATE  SERVICE  VERSION
25/tcp   closed smtp     Barracuda Networks Spam Firewall smtpd
415/tcp  open   ssl/smtp smtpd
587/tcp  open   ssl/smtp smtpd
443/tcp  open   ssl/http Microsoft IIS httpd 7.5
Aggressive OS guesses: Linux 3.16 (90%), OpenWrt Chaos Calmer 15.05 (Linux 3.18)
or Designated Driver (Linux 4.1 or 4.4) (89%), OpenWrt Kamikaze 7.09 (Linux 2.6.22)
(88%), Linux 4.5 (88%), Asus RT-AC66U router (Linux 2.6) (88%), Linux 3.16 - 4.6
(88%), OpenWrt 0.9 - 7.09 (Linux 2.4.30 - 2.4.34) (87%), OpenWrt White Russian 0.9
(Linux 2.4.30) (87%), Asus RT-N16 WAP (Linux 2.6) (87%), Asus RT-N66U WAP (Linux
2.6) (87%)
No exact OS matches for host (test conditions non-ideal).
Service Info: Host: barracuda.pnp.root; CPE:
cpe:/h:barracudanetworks:spam_%26_virus_firewall_600:-

Nmap scan report for 10.1.45.67
Host is up (0.026s latency).
Not shown: 991 filtered ports
PORT     STATE  SERVICE  VERSION
20/tcp   closed ftp-data
21/tcp   open   ftp      FileZilla ftpd 0.9.39 beta
22/tcp   closed ssh
80/tcp   open   http     Microsoft IIS httpd 7.5
443/tcp  open   ssl/http Microsoft IIS httpd 7.5
2001/tcp closed dc
2047/tcp closed dls
2196/tcp closed unknown
6001/tcp closed X11:1
Device type: general purpose
Running (JUST GUESSING): Microsoft Windows Vista|7|2008|8.1 (94%)
OS CPE: cpe:/o:microsoft:windows_vista::sp2 cpe:/o:microsoft:windows_7::sp1
cpe:/o:microsoft:windows_server_2008 cpe:/o:microsoft:windows_8.1:r1
Aggressive OS guesses: Microsoft Windows Vista SP2, Windows 7 SP1, or Windows
Server 2008 (94%), Microsoft Windows Server 2008 R2 (92%), Microsoft Windows
Server 2008 SP2 (90%), Microsoft Windows 7 SP1 or Windows Server 2008 R2 (90%),
Microsoft Windows Server 2008 (87%), Microsoft Windows Server 2008 R2 SP1 (86%),
Microsoft Windows Vista SP0 or SP1, Windows Server 2008 SP1, or Windows 7 (85%),
Microsoft Windows 8.1 R1 (85%)
No exact OS matches for host (test conditions non-ideal).
Service Info: OS: Windows; CPE: cpe:/o:microsoft:windows

Nmap scan report for 10.1.45.68
Host is up (0.016s latency).
Not shown: 999 filtered ports
PORT    STATE SERVICE        VERSION
21/tcp  open  ftp            Pure-FTPd
443/tcp open  ssl/http-proxy SonicWALL SSL-VPN http proxy
Warning: OSScan results may be unreliable because we could not find at least 1 open
and 1 closed port
Device type: firewall|general purpose|media device
Running (JUST GUESSING): Linux 3.X|2.6.X (92%), IPCop 2.X (92%), Tiandy
embedded (86%)
OS CPE: cpe:/o:linux:linux_kernel:3.4 cpe:/o:ipcop:ipcop:2 cpe:/o:linux:linux_kernel:3.2
cpe:/o:linux:linux_kernel:2.6.32
Aggressive OS guesses: IPCop 2 firewall (Linux 3.4) (92%), Linux 3.2 (89%), Linux
2.6.32 (87%), Tiandy NVR (86%)
No exact OS matches for host (test conditions non-ideal).
```





A. Mastered
B. Not Mastered

Answer: A

Explanation:
* 10.1.45.65 SFTP Server Disable 8080
* 10.1.45.66 Email Server Disable 415 and 443
* 10.1.45.67 Web Server Disable 21, 80
* 10.1.45.68 UTM Appliance Disable 21

NEW QUESTION 98
Which of the following are risks associated with vendor lock-in? (Choose two.)

A. The client can seamlessly move data.
B. The vendor can change product offerings.
C. The client receives a sufficient level of service.
D. The client experiences decreased quality of service.
E. The client can leverage a multicloud approach.
F. The client experiences increased interoperability.

Answer: BD

Explanation:
Reference: https://www.cloudflare.com/learning/cloud/what-is-vendor-lock-in/#:~:text=Vendor%20lock%2Din%20can%20become,may%20involve%20reformatting%2 0the%20data
Vendor lock-in is a situation where a client becomes dependent on a vendor for products or services and cannot easily switch to another vendor without substantial costs or inconvenience. Some of the risks associated with vendor lock-in are that the vendor can change product offerings, such as by discontinuing or modifying features, increasing prices, or reducing support, and that the client experiences decreased quality of service, such as by having poor performance, reliability, or security. These risks could affect the client's business operations, satisfaction, or competitiveness. The client can seamlessly move data, the client receives a

sufficient level of service, and the client can leverage a multicloud approach are not risks associated with vendor lock-in, but potential benefits of avoiding vendor lock-in. Verified References: https://www.comptia.org/blog/what-is-vendor- lock-in https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 103
A company has moved its sensitive workloads lo the cloud and needs to ensure high availability and resiliency of its web-based application. The cloud architecture team was given the following requirements
• The application must run at 70% capacity at all times
• The application must sustain DoS and DDoS attacks.
• Services must recover automatically.
Which of the following should the cloud architecture team implement? (Select THREE).

A. Read-only replicas
B. BCP
C. Autoscaling
D. WAF
E. CDN
F. Encryption
G. Continuous snapshots
H. Containenzation

Answer: CDF

Explanation:
The cloud architecture team should implement Autoscaling (C), WAF (D) and Encryption (F). Autoscaling (C) will ensure that the application is running at 70% capacity at all times. WAF (D) will protect the application from DoS and DDoS attacks. Encryption (F) will protect the data from unauthorized access and ensure that the sensitive workloads remain secure.

NEW QUESTION 106
A company undergoing digital transformation is reviewing the resiliency of a CSP and is concerned about meeting SLA requirements in the event of a CSP incident.
Which of the following would be BEST to proceed with the transformation?

A. An on-premises solution as a backup
B. A load balancer with a round-robin configuration
C. A multicloud provider solution
D. An active-active solution within the same tenant

Answer: C

Explanation:
A multicloud provider solution is the best option for proceeding with the digital transformation while ensuring SLA (service level agreement) requirements in the event of a CSP (cloud service provider) incident. A multicloud provider solution is a strategy that involves using multiple CSPs for different cloud services or applications, such as infrastructure, platform, or software as a service. A multicloud provider solution can provide resiliency, redundancy, and availability for cloud services or applications, as it can distribute the workload and risk across different CSPs and avoid single points of failure or vendor lock-in. An on-premises solution as a backup is not a good option for proceeding with the digital transformation, as it could involve high costs, complexity, or maintenance for maintaining both cloud and on-premises resources, as well as affect the scalability or flexibility of cloud services or applications. A load balancer with a round-robin configuration is not a good option for proceeding with the digital transformation, as it could introduce latency or performance issues for cloud services or applications, as well as not provide sufficient resiliency or redundancy in case of a CSP incident. An active-active solution within the same tenant is not a good option for proceeding with the digital transformation, as it could still be affected by a CSP incident that impacts the entire tenant or region, as well as increase the costs or complexity of managing multiple instances of cloud services or applications. Verified References: https://www.comptia.org/blog/what-is-multicloud https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 111
A security analyst is concerned that a malicious piece of code was downloaded on a Linux system. After some research, the analyst determines that the suspected piece of code is performing a lot of input/output (I/O) on the disk drive.

```
procs ---------memory--------swap---io--  --system-- -----cpu------
r b swpd free  buff   cache  si so bi     bo          in  cs   us sy id wa st
3 0 0    44712 110052 623096 0  0  304023 30004040    217 883  13 3  83 1  0
1 0 0    44408 110052 623096 0  0  300    200003      88  1446 31 4  65 0  0
0 0 0    44524 110052 623096 0  0  400020 20          84  872  11 2  87 0  0
0 2 0    44516 110052 623096 0  0  10     0           149 142  18 5  77 0  0
0 0 0    44524 110052 623096 0  0  0      0           60  431  14 1  85 0  0
```

Based on the output above, from which of the following process IDs can the analyst begin an investigation?

A. 65
B. 77
C. 83
D. 87

Answer: D

Explanation:
The process ID 87 can be the starting point for an investigation of a possible buffer overflow attack, as it shows a high percentage of CPU utilization (99.7%) and a suspicious command name (graphic.linux_randomization.prg). A buffer overflow attack is a type of attack that exploits a vulnerability in an application or system that allows an attacker to write data beyond the allocated buffer size, potentially overwriting memory segments and executing malicious code. A high CPU utilization could indicate that the process is performing intensive or abnormal operations, such as a buffer overflow attack. A suspicious command name could indicate that the process is trying to disguise itself or evade detection, such as by mimicking a legitimate program or using random characters. The other process IDs do not show signs of a buffer overflow attack, as they have low CPU utilization and normal command names. Verified References: https://www.comptia.org/blog/what-is-buffer-overflow https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 113
After a security incident, a network security engineer discovers that a portion of the company's sensitive external traffic has been redirected through a secondary ISP that is not normally used.
Which of the following would BEST secure the routes while allowing the network to function in the event of a single provider failure?

A. Disable BGP and implement a single static route for each internal network.
B. Implement a BGP route reflector.
C. Implement an inbound BGP prefix list.
D. Disable BGP and implement OSPF.

Answer: C

Explanation:
Defenses against BGP hijacks include IP prefix filtering, meaning IP address announcements are sent and accepted only from a small set of well-defined autonomous systems, and monitoring Internet traffic to identify signs of abnormal traffic flows.

NEW QUESTION 116
A company hosts a large amount of data in blob storage for its customers. The company recently had a number of issues with this data being prematurely deleted before the scheduled backup processes could be completed. The management team has asked the security architect for a recommendation that allows blobs to be deleted occasionally, but only after a successful backup. Which of the following solutions will BEST meet this requirement?

A. Mirror the blobs at a local data center.
B. Enable fast recovery on the storage account.
C. Implement soft delete for blobs.
D. Make the blob immutable.

Answer: C

Explanation:
Soft delete allows blobs to be deleted, but the data remains accessible for a period of time before it is permanently deleted. This allows the company to delete blobs as needed, while still affording enough time for the backup process to complete. After the backup process is complete, the blobs can be permanently deleted.

NEW QUESTION 117
A company Is adopting a new artificial-intelligence-based analytics SaaS solution. This Is the company's first attempt at using a SaaS solution, and a security architect has been asked to determine any future risks. Which of the following would be the GREATEST risk In adopting this solution?

A. The inability to assign access controls to comply with company policy
B. The inability to require the service provider process data in a specific country
C. The inability to obtain company data when migrating to another service
D. The inability to conduct security assessments against a service provider

Answer: C

NEW QUESTION 118
An organization is designing a network architecture that must meet the following requirements:
Users will only be able to access predefined services. Each user will have a unique allow list defined for access.
The system will construct one-to-one subject/object access paths dynamically.
Which of the following architectural designs should the organization use to meet these requirements?

A. Peer-to-peer secure communications enabled by mobile applications
B. Proxied application data connections enabled by API gateways
C. Microsegmentation enabled by software-defined networking
D. VLANs enabled by network infrastructure devices

Answer: C

Explanation:
Microsegmentation enabled by software-defined networking is an architectural design that can meet the requirements of allowing users to access only predefined services, having unique allow lists defined for each user, and constructing one- to-one subject/object access paths dynamically. Microsegmentation is a technique that divides a network into smaller segments or zones based on granular criteria, such as applications, services, users, or devices. Microsegmentation can provide fine-grained access control and isolation for network resources, preventing unauthorized or lateral movements within the network. Software-defined networking is a technology that decouples the control plane from the data plane in network devices, allowing centralized and programmable management of network functions and policies. Software-defined networking can enable microsegmentation by dynamically creating and enforcing network segments or zones based on predefined rules or policies. Peer-to-peer secure communications enabled by mobile applications is not an architectural design that can meet the requirements of allowing users to access only predefined services, having unique allow lists defined for each user, and constructing one-to-one subject/object access paths dynamically, as peer-to-peer secure communications is a technique that allows direct and encrypted communication between two or more parties without relying on a central server or intermediary. Proxied application data connections enabled by API gateways is not an architectural design that can meet the requirements of allowing users to access only predefined services, having unique allow lists defined for each user, and constructing one- to-one subject/object access paths dynamically, as proxied application data connections is a technique that allows indirect and filtered communication between applications or services through an intermediary device or service that can modify or monitor the traffic. VLANs (virtual local area networks) enabled by network infrastructure devices is not an architectural design that can meet the requirements of allowing users to access only predefined services, having unique allow lists defined for each user, and constructing one- to-one subject/object access paths dynamically, as VLANs are logical segments of a physical network that can group devices or users based on common criteria, such as function, department, or location. Verified References: https://www.comptia.org/blog/what- is-microsegmentation https://partners.comptia.org/docs/default-source/resources/casp- content-guide

NEW QUESTION 120
Due to locality and budget constraints, an organization's satellite office has a lower bandwidth allocation than other offices in the organization. As a result, the

local security infrastructure staff is assessing architectural options that will help preserve network bandwidth and increase speed to both internal and external resources while not sacrificing threat visibility.
Which of the following would be the BEST option to implement?

A. Distributed connection allocation
B. Local caching
C. Content delivery network
D. SD-WAN vertical heterogeneity

Answer: D

Explanation:
SD-WAN (software-defined wide area network) vertical heterogeneity is a technique that can help preserve network bandwidth and increase speed to both internal and external resources while not sacrificing threat visibility. SD-WAN vertical heterogeneity involves using different types of network links (such as broadband, cellular, or satellite) for different types of traffic (such as voice, video, or data) based on their performance and security requirements. This can optimize the network efficiency and reliability, as well as provide granular visibility and control over traffic flows. Distributed connection allocation is not a technique for preserving network bandwidth and increasing speed, but a method for distributing network connections among multiple servers or devices. Local caching is not a technique for preserving network bandwidth and increasing speed, but a method for storing frequently accessed data locally to reduce latency or load times. Content delivery network is not a technique for preserving network bandwidth and increasing speed, but a system of distributed servers that deliver web content to users based on their geographic location. Verified References: https://www.comptia.org/blog/what-is-sd-wan https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 125
A network architect is designing a new SD-WAN architecture to connect all local sites to a central hub site. The hub is then responsible for redirecting traffic to public cloud and datacenter applications. The SD-WAN routers are managed through a SaaS, and the same security policy is applied to staff whether working in the office or at a remote location. The main requirements are the following:
* 1. The network supports core applications that have 99.99% uptime.
* 2. Configuration updates to the SD-WAN routers can only be initiated from the management service.
* 3. Documents downloaded from websites must be scanned for malware.
Which of the following solutions should the network architect implement to meet the requirements?

A. Reverse proxy, stateful firewalls, and VPNs at the local sites
B. IDSs, WAFs, and forward proxy IDS
C. DoS protection at the hub site, mutual certificate authentication, and cloud proxy
D. IPSs at the hub, Layer 4 firewalls, and DLP

Answer: C

NEW QUESTION 128
A company's Chief Information Security Officer is concerned that the company's proposed move to the cloud could lead to a lack of visibility into network traffic flow logs within the VPC.
Which of the following compensating controls would be BEST to implement in this situation?

A. EDR
B. SIEM
C. HIDS
D. UEBA

Answer: B

Explanation:
Reference: https://runpanther.io/cyber-explained/cloud-based-siem-explained/

NEW QUESTION 130
A CSP, which wants to compete in the market, has been approaching companies in an attempt to gain business. The CSP is able to provide the same uptime as other CSPs at a markedly reduced cost. Which of the following would be the MOST significant business risk to a company that signs a contract with this CSP?

A. Resource exhaustion
B. Geographic location
C. Control plane breach
D. Vendor lock-in

Answer: A

Explanation:
Resource exhaustion is a condition that occurs when a system or service runs out of resources, such as memory, CPU, disk space, or bandwidth, and becomes unable to function properly or respond to requests. Resource exhaustion can be caused by high demand, poor design, misconfiguration, or malicious attacks, such as denial-of-service (DoS).
Resource exhaustion would be the most significant business risk to a company that signs a contract with a cloud service provider (CSP) that is able to provide the same uptime as other CSPs at a markedly reduced cost, because this could:
? Indicate that the CSP is oversubscribing or underprovisioning its resources, which
could result in performance degradation, service disruption, or data loss for the company.
? Affect the company's availability, reliability, and scalability requirements, which
could impact its operations, reputation, and customer satisfaction.
? Expose the company to potential security breaches or compliance violations, if the CSP does not implement adequate security controls or measures to prevent or mitigate resource exhaustion.

NEW QUESTION 133
A company is migrating from company-owned phones to a BYOD strategy for mobile devices. The pilot program will start with the executive management team

and be rolled out to the rest of the staff in phases. The company's Chief Financial Officer loses a phone multiple times a year.
Which of the following will MOST likely secure the data on the lost device?

A. Require a VPN to be active to access company data.
B. Set up different profiles based on the person's risk.
C. Remotely wipe the device.
D. Require MFA to access company applications.

Answer: C

Explanation:
Remotely wiping the device is the best way to secure the data on the lost device, as it would erase all the data and prevent unauthorized access. Requiring a VPN to be active to access company data may not protect the data on the device itself, as it could be stored locally or cached. Setting up different profiles based on the person's risk may not prevent data loss or theft, as it depends on the level of access and encryption. Requiring MFA to access company applications may not protect the data on the device itself, as it could be stored locally or cached. Verified References: https://www.comptia.org/blog/what- is-byod https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 134
A security engineer thinks the development team has been hard-coding sensitive environment variables in its code.
Which of the following would BEST secure the company's CI/CD pipeline?

A. Utilizing a trusted secrets manager
B. Performing DAST on a weekly basis
C. Introducing the use of container orchestration
D. Deploying instance tagging

Answer: A

Explanation:
Reference: https://about.gitlab.com/blog/2021/04/09/demystifying-ci-cd-variables/
A trusted secrets manager is a tool or service that securely stores and manages sensitive information, such as passwords, API keys, tokens, certificates, etc. A trusted secrets manager can help secure the company's CI/CD (Continuous Integration/Continuous Delivery) pipeline by preventing hard-coding sensitive environment variables in the code, which can expose them to unauthorized access or leakage. A trusted secrets manager can also enable encryption, rotation, auditing, and access control for the secrets. References: https://www.hashicorp.com/resources/what-is-a-secret-manager https://dzone.com/articles/how-to-securely-manage-secrets-in-a-ci-cd-pipeline

NEW QUESTION 139
An energy company is required to report the average pressure of natural gas used over the past quarter. A PLC sends data to a historian server that creates the required reports.
Which of the following historian server locations will allow the business to get the required reports in an and IT environment?

A. In the environment, use a VPN from the IT environment into the environment.
B. In the environment, allow IT traffic into the environment.
C. In the IT environment, allow PLCs to send data from the environment to the IT environment.
D. Use a screened subnet between the and IT environments.

Answer: D

Explanation:
A screened subnet is a network segment that separates two different environments, such as (operational technology) and IT (information technology), and provides security controls to limit and monitor the traffic between them. This would allow the business to get the required reports from the historian server without exposing the environment to unnecessary risks. Using a VPN, allowing IT traffic, or allowing PLCs to send data are less secure options that could compromise the environment. Verified References: https://www.comptia.org/blog/what-is-operational-technology https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 144
A company's SOC has received threat intelligence about an active campaign utilizing a specific vulnerability. The company would like to determine whether it is vulnerable to this active campaign.
Which of the following should the company use to make this determination?

A. Threat hunting
B. A system penetration test
C. Log analysis within the SIEM tool
D. The Cyber Kill Chain

Answer: B

Explanation:
The security analyst should remove the cipher TLS_DHE_DSS_WITH_RC4_128_SHA to support the business requirements, as it is considered weak and vulnerable to on-path attacks. RC4 is an outdated stream cipher that has been deprecated by major browsers and protocols due to its flaws and weaknesses. The other ciphers are more secure and compliant with secure-by-design principles and PCI DSS. Verified References: https://www.comptia.org/blog/what-is-a-cipher https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 146
A security engineer was auditing an organization's current software development practice and discovered that multiple open-source libraries were Integrated into the organization's software. The organization currently performs SAST and DAST on the software it develops.
Which of the following should the organization incorporate into the SDLC to ensure the security of the open-source libraries?

A. Perform additional SAST/DAST on the open-source libraries.

B. Implement the SDLC security guidelines.
C. Track the library versions and monitor the CVE website for related vulnerabilities.
D. Perform unit testing of the open-source libraries.

Answer: C

Explanation:
Reference: https://www.whitesourcesoftware.com/resources/blog/application-security-best- practices/
Tracking the library versions and monitoring the CVE (Common Vulnerabilities and Exposures) website for related vulnerabilities is an activity that the organization should incorporate into the SDLC (software development life cycle) to ensure the security of the open-source libraries integrated into its software. Tracking the library versions can help identify outdated or unsupported libraries that may contain vulnerabilities or bugs. Monitoring the CVE website can help discover publicly known vulnerabilities in the open- source libraries and their severity ratings. Performing additional SAST/DAST (static application security testing/dynamic application security testing) on the open-source libraries may not be feasible or effective for ensuring their security, as SAST/DAST are mainly focused on testing the source code or functionality of the software, not the libraries. Implementing the SDLC security guidelines is a general activity that the organization should follow for developing secure software, but it does not specifically address the security of the open-source libraries. Performing unit testing of the open-source libraries may not be feasible or effective for ensuring their security, as unit testing is mainly focused on testing the individual components or modules of the software, not the libraries. Verified References: https://www.comptia.org/blog/what-is-cve https://partners.comptia.org/docs/default-source/resources/casp-content-guide

NEW QUESTION 147
A junior developer is informed about the impact of new malware on an Advanced RISC Machine (ARM) CPU, and the code must be fixed accordingly. Based on the debug, the malware is able to insert itself in another process memory location.
Which of the following technologies can the developer enable on the ARM architecture to prevent this type of malware?

A. Execute never
B. No-execute
C. Total memory encryption
D. Virtual memory encryption

Answer: A

Explanation:
Execute never is a technology that can be enabled on the ARM architecture to prevent malware from inserting itself in another process memory location and executing code. Execute never is a feature that allows each memory region to be tagged as not containing executable code by setting the execute never (XN) bit in the translation table entry. If the XN bit is set to 1, then any attempt to execute an instruction in that region results in a permission fault. If the XN bit is cleared to 0, then code can execute from that memory region. Execute never also prevents speculative instruction fetches from memory regions that are marked as non-executable, which can avoid undesirable side-effects or vulnerabilities. By enabling execute never, the developer can protect the process memory from being hijacked by malware. Verified References:
? https://developer.arm.com/documentation/ddi0360/f/memory-management-unit/memory-access-control/execute-never-bits
? https://developer.arm.com/documentation/den0013/d/The-Memory-Management-Unit/Memory-attributes/Execute-Never
? https://developer.arm.com/documentation/ddi0406/c/System-Level-Architecture/Virtual-Memory-System-Architecture–VMSA-/Memory-access- control/Execute-never-restrictions-on-instruction-fetching

NEW QUESTION 150
A security architect Is analyzing an old application that is not covered for maintenance anymore because the software company is no longer in business. Which of the following techniques should have been Implemented to prevent these types of risks?

A. Code reviews
B. Supply chain visibility
C. Software audits
D. Source code escrows

Answer: D

Explanation:
A source code escrow is a legal agreement that involves a third party holding the source code of a software application on behalf of the software vendor and the software licensee. The source code escrow ensures that the licensee can access the source code in case the vendor goes out of business, fails to provide maintenance or support, or breaches the contract terms.
A source code escrow would have prevented the risk of having an old application that is not covered for maintenance anymore because the software company is no longer in business, because it would:
? Allow the licensee to obtain the source code and continue to update, fix, or modify
the application according to their needs.
? Protect the vendor’s intellectual property rights and prevent unauthorized disclosure or use of the source code.
? Provide a legal framework and a trusted mediator for resolving any disputes or issues between the vendor and the licensee.

NEW QUESTION 151
A vulnerability analyst identified a zero-day vulnerability in a company’s internally developed software. Since the current vulnerability management system does not have any checks for this vulnerability, an engineer has been asked to create one.
Which of the following would be BEST suited to meet these requirements?

A. ARF
B. ISACs
C. Node.js
D. OVAL

Answer: D

Explanation:
OVAL (Open Vulnerability and Assessment Language) is a standard that would be best suited for creating checks for a zero-day vulnerability in an organization’s internally developed software. OVAL is a standard for expressing system configuration information and vulnerabilities in an XML format, allowing interoperability and automation among different security tools and platforms. An engineer can use OVAL to create definitions or tests for specific vulnerabilities or states in the

software, and then use OVAL- compatible tools to scan or evaluate the software against those definitions or tests. ARF (Asset Reporting Format) is not a standard for creating checks for vulnerabilities, but a standard for expressing information about assets and their characteristics in an XML format, allowing interoperability and automation among different security tools and platforms. ISACs (Information Sharing and Analysis Centers) are not standards for creating checks for vulnerabilities, but organizations that collect, analyze, and disseminate information about threats, vulnerabilities, incidents, or best practices among different sectors or communities. Node.js is not a standard for creating checks for vulnerabilities, but a runtime environment that allows executing JavaScript code outside of a web browser, enabling the development of scalable web applications or services. Verified References: https://www.comptia.org/blog/what-is-oval https://partners.comptia.org/docs/default- source/resources/casp-content-guide

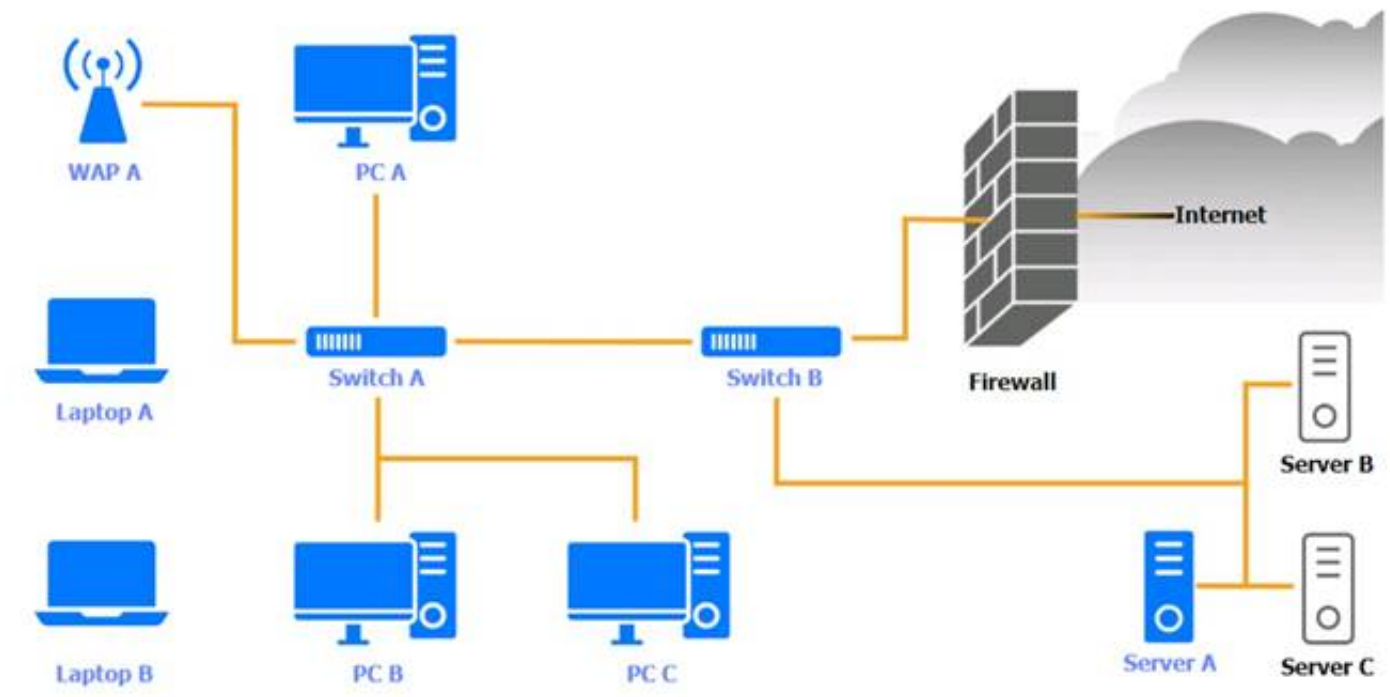
NEW QUESTION 152
A company is looking to fortify its cybersecurity defenses and is focusing on its network infrastructure. The solution cannot affect the availability of the company's services to ensure false positives do not drop legitimate traffic.
Which of the following would satisfy the requirement?

A. NIDS
B. NIPS
C. WAF
D. Reverse proxy

Answer: A

Explanation:
Reference: https://subscription.packtpub.com/book/networking-and- servers/9781782174905/5/ch05lvl1sec38/differentiating-between-nids-and-nips https://owasp.org/www-community/controls/Intrusion_Detection
A NIDS (Network Intrusion Detection System) is a security solution that monitors network traffic for signs of malicious activity, such as attacks, intrusions, or policy violations. A NIDS does not affect the availability of the company's services because it operates in passive mode, which means it does not block or modify traffic. Instead, it alerts the network administrator or other security tools when it detects an anomaly or threat. References: https://www.cisco.com/c/en/us/products/security/what-is-network-intrusion-detection- system.html https://www.imperva.com/learn/application-security/network-intrusion- detection-system-nids/

NEW QUESTION 154
SIMULATION
A security engineer needs to review the configurations of several devices on the network to meet the following requirements:
• The PostgreSQL server must only allow connectivity in the 10.1.2.0/24 subnet.
• The SSH daemon on the database server must be configured to listen to port 4022.
• The SSH daemon must only accept connections from a Single workstation.
• All host-based firewalls must be disabled on all workstations.
• All devices must have the latest updates from within the past eight days.
• All HDDs must be configured to secure data at rest.
• Cleartext services are not allowed.
• All devices must be hardened when possible.
Instructions:
Click on the various workstations and network devices to review the posture assessment results. Remediate any possible issues or indicate that no issue is found.
Click on Server A to review output data. Select commands in the appropriate tab to remediate connectivity problems to the pOSTGREsql DATABASE VIA ssh



WAP A

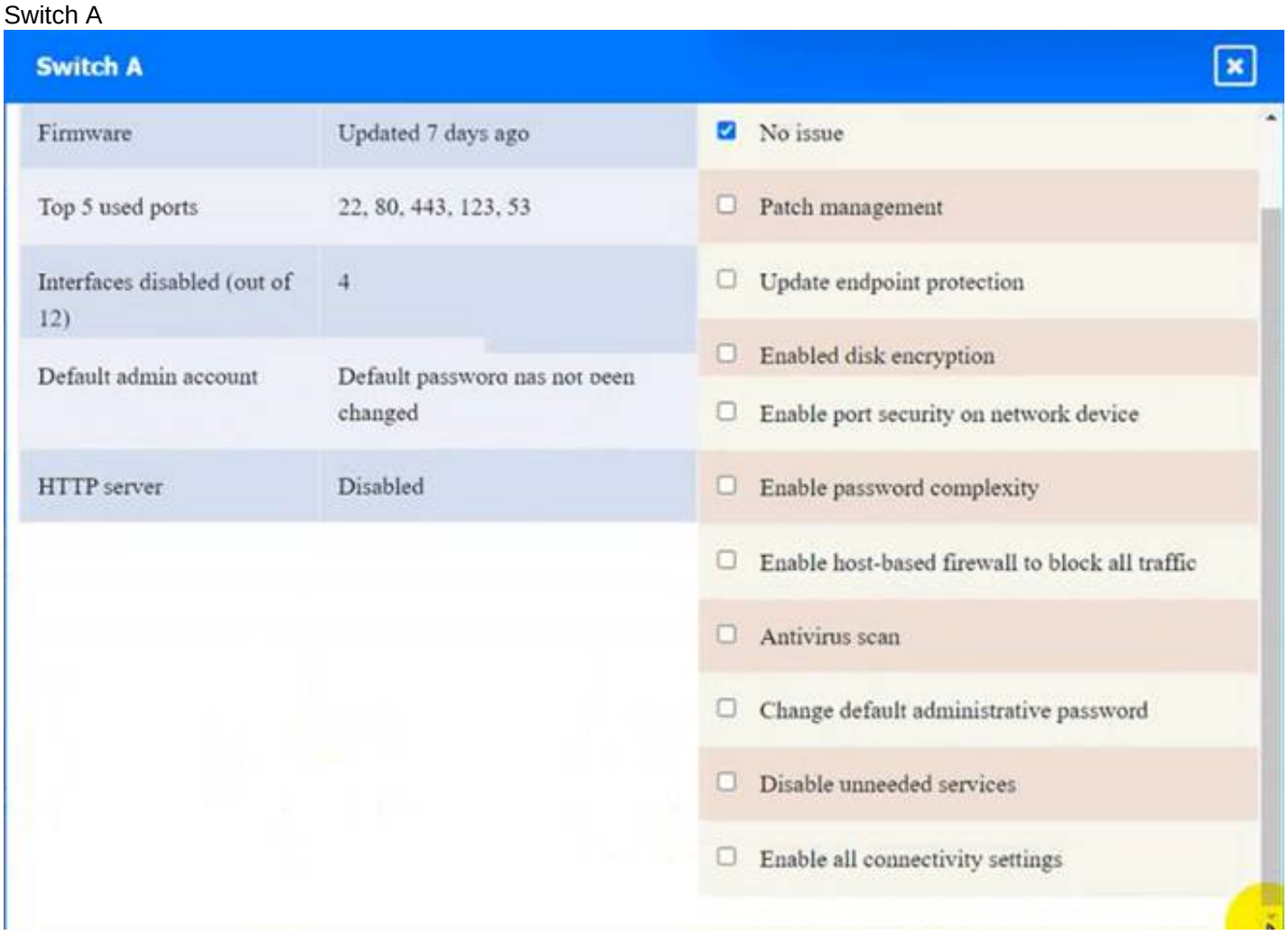

WAP A
Finding
Status
Remediation
Firmware
Updated 5 days ago
No issue
Top 5 used ports
22, 80, 443, 123, 53
Patch management
SSID broadcast
Disabled
Update endpoint protection
Default admin account
Default password has been changed
Enabled disk encryption
HTTP server
Disabled
Enable port security on network device
Enable password complexity
Enable host-based firewall to block all traffic
Antivirus scan
Change default administrative password
Disable unneeded services
Enable all connectivity settings

PC A


PC A
OS updates
Updated 2 days ago, last checked 5:08 a.m.
No issue
Endpoint protection
Last checked 6:11 a.m.
Patch management
Browser version
91.2.5 (7/31/2023)
Update endpoint protection
Disk encryption
Enabled
Enabled disk encryption
Password complexity
Enabled
Enable port security on network device
Host-based firewall
Disabled
Enable password complexity
CPU & memory usage
Normal
Enable host-based firewall to block all traffic
Screensaver
Enabled
Antivirus scan
Top 5 used ports
22, 80, 443, 389, 53
Change default administrative password
Wireless
Disabled
Disable unneeded services
Enable all connectivity settings

Laptop A

Switch A



Switch B:


Switch B
Firmware
Updated 7 days ago
Top 5 used ports
22, 80, 443, 123, 53
Interfaces disabled (out of 6)
1
Default admin account
Default password has been changed
HTTP server
Disabled
No issue
Patch management
Update endpoint protection
Enabled disk encryption
Enable port security on network device
Enable password complexity
Enable host-based firewall to block all traffic
Antivirus scan
Change default administrative password
Disable unneeded services
Enable all connectivity settings

Laptop B


Laptop B
OS updates
Updated 3 days ago, last checked 8:08 a.m.
Endpoint protection
Last checked in 8:11 a.m.
Browser version
81.2.5 (7/31/2023)
Disk encryption
Disabled
Password Complexity
Enabled
Host-based firewall
Disabled
CPU & memory usage
Normal
Screensaver
Enabled
Top 5 used ports
22, 80, 443, 8080, 53
Wireless
Enabled
No issue
Patch management
Update endpoint protection
Enabled disk encryption
Enable port security on network device
Enable password complexity
Enable host-based firewall to block all traffic
Antivirus scan
Change default administrative password
Disable unneeded services
Enable all connectivity settings

PC B

PC B

OS updates	Updated 2 days ago, last checked 5:10 a.m.	☑ No issue
Endpoint protection	Last checked in 6:13 a.m.	☐ Patch management
Browser version	91.2.5 (7/31/2023)	☐ Update endpoint protection
Disk encryption	Enabled	☐ Enabled disk encryption
Password complexity	Enabled	☐ Enable port security on network device
Host-based firewall	Disabled	☐ Enable password complexity
CPU & memory usage	Medium	☐ Enable host-based firewall to block all traffic
Screensaver	Enabled	☐ Antivirus scan
Top 5 used ports	22, 80, 443, 389, 53	☐ Change default administrative password
Wireless	Disabled	☐ Disable unneeded services
		☐ Enable all connectivity settings

PC C

PC C

OS updates	Updated 22 days ago	☑ No issue
Endpoint protection	Last checked 6:19 a.m.	☐ Patch management
Browser version	91.2.5 (7/18/2022)	☐ Update endpoint protection
Disk encryption	Enabled	☐ Enabled disk encryption
Password complexity	Enabled	☐ Enable port security on network device
Host-based firewall	Disabled	☐ Enable password complexity
CPU & memory usage	High	☐ Enable host-based firewall to block all traffic
Screensaver	Enabled	☐ Antivirus scan
Top 5 used ports	22, 80, 443, 23, 53	☐ Change default administrative password
Wireless	Disabled	☐ Disable unneeded services
		☐ Enable all connectivity settings

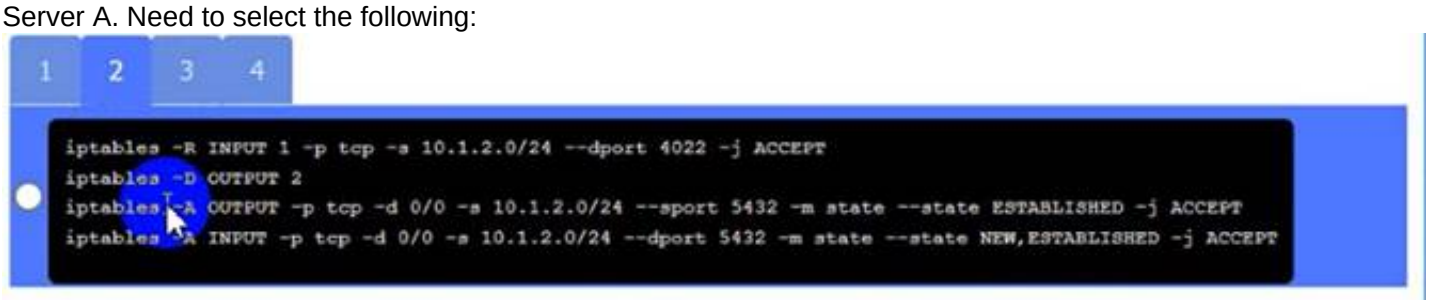
Server A

A. Mastered
B. Not Mastered

Answer: A

Explanation:
WAP A: No issue found. The WAP A is configured correctly and meets the requirements. PC A = Enable host-based firewall to block all traffic
This option will turn off the host-based firewall and allow all traffic to pass through. This will comply with the requirement and also improve the connectivity of PC A to other devices on the network. However, this option will also reduce the security of PC A and make it more vulnerable to attacks. Therefore, it is recommended to use other security measures, such as antivirus, encryption, and password complexity, to protect PC A from potential threats.
Laptop A: Patch management
This option will install the updates that are available for Laptop A and ensure that it has the most recent security patches and bug fixes. This will comply with the requirement and also improve the performance and stability of Laptop A. However, this option may also require a reboot of Laptop A and some downtime during the update process. Therefore, it is recommended to backup any important data and close any open applications before applying the updates.
Switch A: No issue found. The Switch A is configured correctly and meets the requirements.
Switch B: No issue found. The Switch B is configured correctly and meets the requirements.
Laptop B: Disable unneeded services

This option will stop and disable the telnet service that is using port 23 on Laptop B. Telnet is a cleartext service that transmits data in plain text over the network, which exposes it to eavesdropping, interception, and modification by attackers. By disabling the telnet service, you will comply with the requirement and also improve the security of Laptop B. However, this option may also affect the functionality of Laptop B if it needs to use telnet for remote administration or other purposes. Therefore, it is recommended to use a secure alternative to telnet, such as SSH or HTTPS, that encrypts the data in transit.
PC B: Enable disk encryption
This option will encrypt the HDD of PC B using a tool such as BitLocker or VeraCrypt. Disk encryption is a technique that protects data at rest by converting it into an unreadable format that can only be decrypted with a valid key or password. By enabling disk encryption, you will comply with the requirement and also improve the confidentiality and integrity of PC B's data. However, this option may also affect the performance and usability of PC B, as it requires additional processing time and user authentication to access the encrypted data. Therefore, it is recommended to backup any important data and choose a strong key or password before encrypting the disk.
PC C: Disable unneeded services
This option will stop and disable the SSH daemon that is using port 22 on PC C. SSH is a secure service that allows remote access and command execution over an encrypted channel. However, port 22 is the default and well-known port for SSH, which makes it a common target for brute-force attacks and port scanning. By disabling the SSH daemon on port 22, you will comply with the requirement and also improve the security of PC C. However, this option may also affect the functionality of PC C if it needs to use SSH for remote administration or other purposes. Therefore, it is recommended to enable the SSH daemon on a different port, such as 4022, by editing the configuration file using the following command:
sudo nano /etc/ssh/sshd_config
Server A. Need to select the following:



A black and white screen with white text
Description automatically generated

NEW QUESTION 158
An organization's finance system was recently attacked. A forensic analyst is reviewing the contents Of the compromised files for credit card data.
Which of the following commands should the analyst run to BEST determine whether financial data was lost?

A. `grep -v '^4[0-9]{12}(?:[0-9]{3})?$' file`

B. `grep '^4[0-9]{12}(?:[0-9]{3})?$' file`

C. `grep '^6(?:011|5[0-9]{2})[0-9]{12}?' file`

D. `grep -v '^6(?:011|5[0-9]{2})[0-9]{12}?' file`

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

Answer: C

NEW QUESTION 159
A company launched a new service and created a landing page within its website network for users to access the service. Per company policy, all websites must utilize encryption for any authentication pages. A junior network administrator proceeded to use an outdated procedure to order new certificates. Afterward, customers are reporting the following error when accessing a new web page: NET:ERR_CERT_COMMON_NAME_INVALID. Which of the following BEST describes what the administrator should do NEXT?

A. Request a new certificate with the correct subject alternative name that includes the new websites.
B. Request a new certificate with the correct organizational unit for the company's website.
C. Request a new certificate with a stronger encryption strength and the latest cipher suite.
D. Request a new certificate with the same information but including the old certificate on the CRL.

Answer: D

NEW QUESTION 161
A user experiences an HTTPS connection error when trying to access an Internet banking website from a corporate laptop. The user then opens a browser on a mobile phone and is able to access the same Internet banking website without issue. Which of the following security configurations is MOST likely the cause of the error?

A. HSTS
B. TLS 1.2
C. Certificate pinning
D. Client authentication

Answer: A

NEW QUESTION 164
A security engineer is reviewing a record of events after a recent data breach incident that Involved the following:
• A hacker conducted reconnaissance and developed a footprint of the company s Internet- facing web application assets.
• A vulnerability in a third-party horary was exploited by the hacker, resulting in the compromise of a local account.
• The hacker took advantage of the account's excessive privileges to access a data store and exfiltrate the data without detection.
Which of the following is the BEST solution to help prevent this type of attack from being successful in the future?

A. Dynamic analysis
B. Secure web gateway
C. Software composition analysis
D. User behavior analysis
E. Stateful firewall

Answer: C

Explanation:
Software composition analysis (SCA) is the best solution to help prevent this type of attack from being successful in the future. SCA is a process of identifying the third-party and open source components in the applications of an organization. This analysis leads to the discovery of security risks, quality of code, and license compliance of the components. SCA can help the security engineer to detect and remediate any vulnerabilities in a third- party library that was exploited by the hacker, such as updating to a newer and more secure version of the library. SCA can also help to enforce secure coding practices and standards, such as following the principle of least privilege and avoiding excessive privileges for local accounts. By using SCA, the security engineer can improve the security posture and resilience of the web application assets against future attacks. Verified References:
? https://www.synopsys.com/glossary/what-is-software-composition-analysis.html
? https://www.geeksforgeeks.org/overview-of-software-composition-analysis/

NEW QUESTION 167
A vulnerability scanner detected an obsolete version of an open-source file-sharing application on one of a company's Linux servers. While the software version is no longer supported by the OSS community, the company's Linux vendor backported fixes, applied them for all current vulnerabilities, and agrees to support the software in the future.
Based on this agreement, this finding is BEST categorized as a:

A. true positive.
B. true negative.
C. false positive.
D. false negative.

Answer: C

NEW QUESTION 171
A security analyst receives an alert from the SIEM regarding unusual activity on an authorized public SSH jump server. To further investigate, the analyst pulls the event logs directly from /var/log/auth.log: graphic.ssh_auth_log.
Which of the following actions would BEST address the potential risks by the activity in the logs?

A. Alerting the misconfigured service account password
B. Modifying the AllowUsers configuration directive
C. Restricting external port 22 access
D. Implementing host-key preferences

Answer: B

Explanation:
Reference: https://www.rapid7.com/blog/post/2017/10/04/how-to-secure-ssh-server-using- port-knocking-on-ubuntu-linux/
The AllowUsers configuration directive is an option for SSH servers that specifies which users are allowed to log in using SSH. The directive can include usernames, hostnames, IP addresses, or patterns. The directive can also be negated with a preceding exclamation mark (!) to deny access to specific users. The logs show that there are multiple failed login attempts from different IP addresses using different usernames, such as root, admin, test, etc. This indicates a brute-force attack that is trying to guess the SSH credentials. To address this risk, the security analyst should modify the AllowUsers configuration directive to only allow specific users or hosts that are authorized to access the SSH jump server. This will prevent unauthorized users from attempting to log in using SSH and reduce the attack surface. References: https://man.openbsd.org/sshd_config#AllowUsers
https://www.ssh.com/academy/ssh/brute-force

NEW QUESTION 176
A security engineer has been asked to close all non-secure connections from the corporate network. The engineer is attempting to understand why the corporate UTM will not allow users to download email via IMAPS. The engineer formulates a theory and begins testing by creating the firewall ID 58, and users are able to download emails correctly by using IMAP instead. The network comprises three VLANs:

- VLAN 30	Guest networks	192.168.20.0/25
- VLAN 20	Corporate user network	192.168.0.0/28
- VLAN 110	Corporate server network	192.168.0.16/29

The security engineer looks at the UTM firewall rules and finds the following:

Rule active	Firewall ID	Source	Destination	Ports	Action	TLS decryption
Yes	58	VLAN 20	15.22.33.45	143	Allow and log	Enabled
Yes	33	VLAN 30	Any	80, 443,	Allow and log	Disabled
Yes	22	VLAN 110	VLAN 20	Any	Allow and log	Disabled
No	21	VLAN 20	15.22.33.45	990	Allow and log	Disabled
Yes	20	VLAN 20	VLAN 110	Any	Allow and log	Enabled
Yes	19	VLAN 20	Any	993, 587	Allow and log	Enabled

Which of the following should the security engineer do to ensure IMAPS functions properly on the corporate user network?

A. Contact the email service provider and ask if the company IP is blocked.
B. Confirm the email server certificate is installed on the corporate computers.
C. Make sure the UTM certificate is imported on the corporate computers.
D. Create an IMAPS firewall rule to ensure email is allowed.

Answer: D

Explanation:
IMAPS (Internet Message Access Protocol Secure) is a protocol that allows users to access and manipulate email messages on a remote mail server over a secure connection. IMAPS uses SSL/TLS encryption to protect the communication between the client and the server. IMAPS uses port 993 by default. To ensure IMAPS functions properly on the corporate user network, the security engineer should create an IMAPS firewall rule on the UTM (Unified Threat Management) device that allows traffic from VLAN 10 (Corporate Users) to VLAN 20 (Email Server) over port 993. The existing firewall rules do not allow this traffic, as they only allow HTTP (port 80), HTTPS (port 443), and SMTP (port 25). References: https://www.techopedia.com/definition/2460/internet-message-access- protocol-secure-imaps https://www.sophos.com/en- us/support/knowledgebase/115145.aspx

NEW QUESTION 179
Based on PCI DSS v3.4, One Particular database field can store data, but the data must be unreadable. which of the following data objects meets this requirement?

A. PAN
B. CVV2
C. Cardholder name
D. expiration date

Answer: A

NEW QUESTION 184
A network administrator for a completely air-gapped and closed system has noticed that anomalous external files have been uploaded to one of the critical servers. The administrator has reviewed logs in the SIEM that were collected from security appliances, network infrastructure devices, and endpoints. Which of the following processes, if executed, would be MOST likely to expose an attacker?

A. Reviewing video from IP cameras within the facility
B. Reconfiguring the SIEM connectors to collect data from the perimeter network hosts
C. Implementing integrity checks on endpoint computing devices
D. Looking for privileged credential reuse on the network

Answer: A

Explanation:
Reviewing video from IP cameras within the facility would be the most likely process to expose an attacker who has compromised an air-gapped system. Since air-gapped systems are isolated from external networks, an attacker would need physical access to the system or use some covert channel to communicate with it. Video surveillance could reveal any unauthorized or suspicious activity within the facility that could be related to the attack. Verified References:

- https://www.welivesecurity.com/wp-content/uploads/2021/12/eset_jumping_the_air_gap_wp.pdf
- https://en.wikipedia.org/wiki/Air-Gap_Malware
- https://www.techtarget.com/searchsecurity/essentialguide/How-air-gap-attacks-challenge-the-notion-of-se

NEW QUESTION 187
A hospitality company experienced a data breach that included customer Pll. The hacker used social engineering to convince an employee to grant a third-party application access to some company documents within a cloud file storage service. Which of the following is the BEST solution to help prevent this type of attack in the future?

A. NGFW for web traffic inspection and activity monitoring
B. CSPM for application configuration control
C. Targeted employee training and awareness exercises
D. CASB for OAuth application permission control

Answer: D

Explanation:
The company should use CASB for OAuth application permission control to help prevent this type of attack in the future. CASB stands for cloud access security broker, which is a software tool that monitors and enforces security policies for cloud applications. CASB can help control which third-party applications can access the company's cloud file storage service and what permissions they have. CASB can also detect and block any unauthorized or malicious applications that try to access the company's data. Verified References:

- https://www.kaspersky.com/resource-center/threats/how-to-avoid-social-engineering-attacks
- https://www.eccouncil.org/cybersecurity-exchange/ethical-hacking/understanding-preventing-social-engin

- https://www.indusface.com/blog/10-ways-businesses-can-prevent-social-engineering-attacks/

NEW QUESTION 191
In a shared responsibility model for PaaS, which of the following is a customer's responsibility?

A. Network security
B. Physical security
C. OS security
D. Host infrastructure

Answer: C

Explanation:
In a shared responsibility model for PaaS, the customer's responsibility is OS security. PaaS stands for Platform as a Service, which is a cloud service model that provides a platform for customers to develop, run, and manage applications without having to deal with the underlying infrastructure. The cloud provider is responsible for the physical security, network security, and host infrastructure of the platform, while the customer is responsible for the security of the operating system, the application, and the data. The customer needs to ensure that the operating system is patched, configured, and protected from malware and unauthorized access. Verified References:

- https://learn.microsoft.com/en-us/azure/security/fundamentals/shared-responsibility
- https://www.techtarget.com/searchcloudcomputing/feature/The-cloud-shared-responsibility-model-for-Iaa
- https://www.splunk.com/en_us/blog/learn/shared-responsibility-model.html

NEW QUESTION 195
An analyst has prepared several possible solutions to a successful attack on the company. The solutions need to be implemented with the LEAST amount of downtime. Which of the following should the analyst perform?

A. Implement all the solutions at once in a virtual lab and then run the attack simulatio
B. Collect the metrics and then choose the best solution based on the metrics.
C. Implement every solution one at a time in a virtual lab, running a metric collection each tim
D. After the collection, run the attack simulation, roll back each solution, and then implement the nex
E. Choose the best solution based on the best metrics.
F. Implement every solution one at a time in a virtual lab, running an attack simulation each time while collecting metric
G. Roll back each solution and then implement the nex
H. Choose the best solution based on the best metrics.
I. Implement all the solutions at once in a virtual lab and then collect the metric
J. After collection, run the attack simulatio
K. Choose the best solution based on the best metrics.

Answer: C

NEW QUESTION 198
A software development company is building a new mobile application for its social media platform. The company wants to gain its users' trust by reducing the risk of on-path attacks between the mobile client and its servers and by implementing stronger digital trust. To support users' trust, the company has released the following internal guidelines:
• Mobile clients should verify the identity of all social media servers locally.
• Social media servers should improve TLS performance of their certificate status
• Social media servers should inform the client to only use HTTPS.
Given the above requirements, which of the following should the company implement? (Select TWO).

A. Quick UDP internet connection
B. OCSP stapling
C. Private CA
D. DNSSEC
E. CRL
F. HSTS
G. Distributed object model

Answer: BF

Explanation:
The company should implement OCSP stapling and HSTS to improve TLS performance and enforce HTTPS. OCSP stapling is a technique that allows a server to provide a signed proof of the validity of its certificate along with the TLS handshake, instead of relying on the client to contact the certificate authority (CA) for verification. This can reduce the latency and bandwidth of the TLS handshake, as well as improve the privacy and security of the certificate status. HSTS stands for HTTP Strict Transport Security, which is a mechanism that instructs browsers to only use HTTPS when connecting to a website, and to reject any unencrypted or invalid connections. This can prevent downgrade attacks, man-in-the-middle attacks, and mixed content errors, as well as improve the performance of HTTPS connections by avoiding unnecessary redirects. Verified References:

- https://www.techtarget.com/searchsecurity/definition/OCSP-stapling
- https://www.techtarget.com/searchsecurity/definition/HTTP-Strict-Transport-Security
- https://www.cloudflare.com/learning/ssl/what-is-hsts/

NEW QUESTION 202
Which of the following indicates when a company might not be viable after a disaster?

A. Maximum tolerable downtime
B. Recovery time objective
C. Mean time to recovery

D. Annual loss expectancy

Answer: A

Explanation:
The indicator that shows when a company might not be viable after a disaster is the maximum tolerable downtime (MTD). MTD is the maximum amount of time that a business process or function can be disrupted without causing unacceptable consequences for the organization. MTD is a key metric for business continuity planning and disaster recovery, as it helps determine the recovery time objective (RTO) and the recovery point objective (RPO) for each process or function. If the actual downtime exceeds the MTD, the organization may face severe losses, reputational damage, regulatory penalties, or even bankruptcy. Verified References:

- https://www.techtarget.com/searchdisasterrecovery/definition/maximum-tolerable-downtime
- https://www.techtarget.com/searchdisasterrecovery/definition/recovery-time-objective
- https://www.techtarget.com/searchdisasterrecovery/definition/recovery-point-objective

NEW QUESTION 205
A security architect recommends replacing the company's monolithic software application with a containerized solution. Historically, secrets have been stored in the application's configuration files. Which of the following changes should the security architect make in the new system?

A. Use a secrets management tool.
B. 'Save secrets in key escrow.
C. Store the secrets inside the Dockerfiles.
D. Run all Dockerfles in a randomized namespac

Answer: A

Explanation:
A secrets management tool is a tool that helps companies securely store, transmit, and manage sensitive digital authentication credentials such as passwords, keys, tokens, certificates, and other secrets. A secrets management tool can help prevent secrets sprawl, enforce business policies, and inject secrets into pipelines. A secrets management tool can also help protect secrets from unauthorized access, leakage, or compromise by using encryption, tokenization, access control, auditing, and rotation. A secrets management tool is a recommended solution for replacing the company's monolithic software application with a containerized solution, because it can provide a centralized and consistent way to manage secrets across multiple containers and environments.
* B. Saving secrets in key escrow is not a recommended solution for replacing the company's monolithic software application with a containerized solution, because it does not address the operational challenges of managing secrets for containers. Key escrow is a process of storing cryptographic keys with a trusted third party that can release them under certain conditions. Key escrow can be useful for backup or recovery purposes, but it does not provide the same level of security and automation as a secrets management tool.
* C. Storing the secrets inside the Dockerfiles is not a recommended solution for replacing the company's monolithic software application with a containerized solution, because it exposes the secrets to anyone who can access the Dockerfiles or the images built from them. Storing secrets inside the Dockerfiles is equivalent to hardcoding them into the application code, which is a bad practice that violates the principle of least privilege and increases the risk of secrets leakage or compromise.
* D. Running all Dockerfiles in a randomized namespace is not a recommended solution for replacing the company's monolithic software application with a containerized solution, because it does not address the issue of storing and managing secrets for containers. Running Dockerfiles in a randomized namespace is a technique to avoid name conflicts and collisions between containers, but it does not provide any security benefits for secrets.

NEW QUESTION 208
During a recent security incident investigation, a security analyst mistakenly turned off the infected machine prior to consulting with a forensic analyst. upon rebooting the machine, a malicious script that was running as a background process was no longer present. As a result, potentially useful evidence was lost. Which of the following should the security analyst have followed?

A. Order of volatility
B. Chain of custody
C. Verification
D. Secure storage

Answer: A

Explanation:

Order of volatility is a procedure that a computer forensics examiner must follow during evidence collection. It refers to the order in which digital evidence is collected, starting with the most volatile and moving to the least volatile. Volatile data is data that is not permanent and is easily lost, such as data in memory when you turn off a computer. The security analyst should have followed the order of volatility to preserve the most fragile evidence first, such as the malicious script running as a background process, before turning off the infected machine. Verified References:
? https://www.computer-forensics-recruiter.com/order-of-volatility/
? https://www.sans.org/blog/best-practices-in-digital-evidence-collection/
?https://blogs.getcertifiedgetahead.com/order-of-volatility/

NEW QUESTION 213
A security analyst is reviewing a new IOC in which data is injected into an online process. The IOC shows the data injection could happen in the following ways:
• Five numerical digits followed by a dash, followed by four numerical digits; or
• Five numerical digits
When one of these IOCs is identified, the online process stops working. Which of the following regular expressions should be implemented in the NIPS?

A. ^\d{4}(-\d{5})?$
B. ^\d{5}(-\d{4})?$
C. ^\d{5-4}$
D. ^\d{9}$

Answer: B

NEW QUESTION 215

A company has decided that only administrators are permitted to use PowerShell on their Windows computers. Which of the following is the BEST way for an administrator to implement this decision?

A. Monitor the Application and Services Logs group within Windows Event Log.
B. Uninstall PowerShell from all workstations.
C. Configure user settings in Group Policy.
D. Provide user education and training.
E. Block PowerShell via HIDS.

Answer: C

Explanation:

Configuring user settings in Group Policy is the best way for an administrator to implement the decision to restrict PowerShell access to only administrators. Group Policy is a feature of Windows that allows administrators to manage and enforce settings for users and computers in a domain. By using Group Policy, an administrator can create a policy that blocks or disables PowerShell for all users except for a particular group, such as administrators. This policy can be applied to all computers in the domain or to specific organizational units. This method is more effective and manageable than uninstalling PowerShell, monitoring event logs, providing user education, or blocking PowerShell via HIDS. Verified References:
? https://www.windowscentral.com/how-disable-powershell-windows-10
? https://learn.microsoft.com/en-us/answers/questions/195218/how-to-restrict- powershell-for-all-users-except-fo
? https://windowsloop.com/block-disable-powershell/

NEW QUESTION 216
An engineering team has deployed a new VPN service that requires client certificates to be used in order to successfully connect. On iOS devices, however, the following error occurs after importing the .p12 certificate file:
mbedTLS: ca certificate undefined
Which of the following is the root cause of this issue?

A. iOS devices have an empty root certificate chain by default.
B. OpenSSL is not configured to support PKCS#12 certificate files.
C. The VPN client configuration is missing the CA private key.
D. The iOS keychain imported only the client public and private keys.

Answer: D

Explanation:

The root cause of this issue is that the iOS keychain imported only the client public and private keys, but not the CA certificate. A PKCS#12 file (.p12 or .pfx) is a file format that contains a certificate and its private key, optionally protected by a password. A PKCS#12 file can also contain intermediate certificates or root certificates that are needed to verify the certificate chain. However, when importing a PKCS#12 file into the iOS keychain, only the certificate and its private key are imported, not the CA certificate. This means that the iOS device cannot verify the authenticity of the certificate, and displays the error message “mbedTLS: ca certificate undefined”. To fix this issue, the CA certificate needs to be imported separately into the iOS keychain, either manually or using a configuration profile. Verified References:
? https://developer.apple.com/documentation/devicemanagement/certificatepkcs12
? https://support.apple.com/guide/deployment/distribute-certificates- depcdc9a6a3f/web
? https://openvpn.net/faq/how-do-i-use-a-client-certificate-and-private-key-from-the- ios-keychain/

NEW QUESTION 218
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