CompTIA

Exam Questions CAS-005

CompTIA SecurityX Exam

NEW QUESTION 1
The identity and access management team is sending logs to the SIEM for continuous monitoring. The deployed log collector is forwarding logs to the SIEM. However, only false positive alerts are being generated. Which of the following is the most likely reason for the inaccurate alerts?

A. The compute resources are insufficient to support the SIEM
B. The SIEM indexes are 100 large
C. The data is not being properly parsed
D. The retention policy is not property configured

Answer: C

Explanation:
Proper parsing of data is crucial for the SIEM to accurately interpret and analyze the logs being forwarded by the log collector. If the data is not parsed correctly, the SIEM may misinterpret the logs, leading to false positives and inaccurate alerts. Ensuring that the log data is correctly parsed allows the SIEM to correlate and analyze the logs effectively, which is essential for accurate alerting and monitoring.

NEW QUESTION 2
After some employees were caught uploading data to online personal storage accounts, a company becomes concerned about data leaks related to sensitive, internal documentation. Which of the following would the company most likely do to decrease this type of risk?

A. Improve firewall rules to avoid access to those platforms.
B. Implement a cloud-access security broker
C. Create SIEM rules to raise alerts for access to those platforms
D. Deploy an internet proxy that filters certain domains

Answer: B

Explanation:
A Cloud Access Security Broker (CASB) is a security policy enforcement point placed between cloud service consumers and cloud service providers to combine and interject enterprise security policies as cloud-based resources are accessed. Implementing a CASB provides several benefits:
? A. Improve firewall rules to avoid access to those platforms: This can help but is not as effective or comprehensive as a CASB.
? B. Implement a cloud-access security broker: A CASB can provide visibility into cloud application usage, enforce data security policies, and protect against data leaks by monitoring and controlling access to cloud services. It also provides advanced features like data encryption, data loss prevention (DLP), and compliance monitoring.
? C. Create SIEM rules to raise alerts for access to those platforms: This helps in
monitoring but does not prevent data leaks.
? D. Deploy an internet proxy that filters certain domains: This can block access to specific sites but lacks the granular control and visibility provided by a CASB.
Implementing a CASB is the most comprehensive solution to decrease the risk of data leaks by providing visibility, control, and enforcement of security policies for cloud services. References:
? CompTIA Security+ Study Guide
? Gartner, "Magic Quadrant for Cloud Access Security Brokers"
? NIST SP 800-144, "Guidelines on Security and Privacy in Public Cloud Computing"

NEW QUESTION 3
Users are willing passwords on paper because of the number of passwords needed in an environment. Which of the following solutions is the best way to manage this situation and decrease risks?

A. Increasing password complexity to require 31 least 16 characters
B. implementing an SSO solution and integrating with applications
C. Requiring users to use an open-source password manager
D. Implementing an MFA solution to avoid reliance only on passwords

Answer: B

Explanation:
Implementing a Single Sign-On (SSO) solution and integrating it with applications is the best way to manage the situation and decrease risks. Here??s why:
? Reduced Password Fatigue: SSO allows users to log in once and gain access to multiple applications and systems without needing to remember and manage multiple passwords. This reduces the likelihood of users writing down passwords.
? Improved Security: By reducing the number of passwords users need to manage, SSO decreases the attack surface and potential for password-related security breaches. It also allows for the implementation of stronger authentication methods.
? User Convenience: SSO improves the user experience by simplifying the login process, which can lead to higher productivity and satisfaction.
? References:

NEW QUESTION 4
A security officer received several complaints from users about excessive MPA push notifications at night The security team investigates and suspects malicious activities regarding user account authentication Which of the following is the best way for the security officer to restrict MI~A notifications"

A. Provisioning FID02 devices
B. Deploying a text message based on MFA
C. Enabling OTP via email
D. Configuring prompt-driven MFA

Answer: D

Explanation:
Excessive MFA push notifications can be a sign of an attempted push notification attack, where attackers repeatedly send MFA prompts hoping the user will eventually approve one by mistake. To mitigate this:
? A. Provisioning FIDO2 devices: While FIDO2 devices offer strong authentication,

they may not be practical for all users and do not directly address the issue of excessive push notifications.
? B. Deploying a text message-based MFA: SMS-based MFA can still be vulnerable
to similar spamming attacks and phishing.
? C. Enabling OTP via email: Email-based OTPs add another layer of security but do not directly solve the issue of excessive notifications.
? D. Configuring prompt-driven MFA: This option allows users to respond to prompts in a secure manner, often including features like time-limited approval windows, additional verification steps, or requiring specific actions to approve. This can help prevent users from accidentally approving malicious attempts.
Configuring prompt-driven MFA is the best solution to restrict unnecessary MFA notifications and improve security.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-63B, "Digital Identity Guidelines"
? "Multi-Factor Authentication: Best Practices" by Microsoft

NEW QUESTION 5
Developers have been creating and managing cryptographic material on their personal laptops fix use in production environment. A security engineer needs to initiate a more secure process. Which of the following is the best strategy for the engineer to use?

A. Disabling the BIOS and moving to UEFI
B. Managing secrets on the vTPM hardware
C. Employing shielding lo prevent LMI
D. Managing key material on a HSM

Answer: D

Explanation:
The best strategy for securely managing cryptographic material is to use a Hardware Security Module (HSM). Here??s why:
? Security and Integrity: HSMs are specialized hardware devices designed to protect and manage digital keys. They provide high levels of physical and logical security, ensuring that cryptographic material is well protected against tampering and unauthorized access.
? Centralized Key Management: Using HSMs allows for centralized management of cryptographic keys, reducing the risks associated with decentralized and potentially insecure key storage practices, such as on personal laptops.
? Compliance and Best Practices: HSMs comply with various industry standards and regulations (such as FIPS 140-2) for secure key management. This ensures that the organization adheres to best practices and meets compliance requirements.
? References:

NEW QUESTION 6
A security analyst is reviewing the following authentication logs:

Date	Time	Computer	Account	Log-in success?
12/15	8:01:23AM	VM01	User1	No
12/15	8:01:23AM	VM01	User1	No
12/15	8:01:23AM	VM08	User8	No
12/15	8:01:23AM	VM01	User1	No
12/15	8:01:23AM	VM01	User1	No
12/15	8:01:23AM	VM12	User12	Yes
12/15	8:01:23AM	VM01	User1	Yes
12/15	8:01:23AM	VM01	User2	No
12/15	8:01:24AM	VM01	User2	No
12/15	8:01:24AM	VM01	User2	No
12/15	8:01:25AM	VM01	User2	No
12/15	8:01:25AM	VM08	User8	Yes

Which of the following should the analyst do first?

A. Disable User2's account
B. Disable User12's account
C. Disable User8's account
D. Disable User1's account

Answer: D

Explanation:
Based on the provided authentication logs, we observe that User1's account experienced multiple failed login attempts within a very short time span (at 8:01:23 AM on 12/15). This pattern indicates a potential brute-force attack or an attempt to gain unauthorized access. Here??s a breakdown of why disabling User1's

account is the appropriate first step:
? Failed Login Attempts: The logs show that User1 had four consecutive failed login attempts:
? Security Protocols and Best Practices: According to CompTIA Security+ guidelines, multiple failed login attempts within a short timeframe should trigger an immediate response to prevent further potential unauthorized access attempts. This typically involves temporarily disabling the account to stop ongoing brute-force attacks.
? Account Lockout Policy: Implementing an account lockout policy is a standard practice to thwart brute-force attacks. Disabling User1's account will align with these best practices and prevent further failed attempts, which might lead to successful unauthorized access if not addressed.
? References:
By addressing User1's account first, we effectively mitigate the immediate threat of a brute- force attack, ensuring that further investigation can be conducted without the risk of unauthorized access continuing during the investigation period.

NEW QUESTION 7
Company A and Company D ate merging Company A's compliance reports indicate branch protections are not in place A security analyst needs to ensure that potential threats to the software development life cycle are addressed. Which of the following should me analyst
cons<der when completing this basic?

A. If developers are unable to promote to production
B. If DAST code is being stored to a single code repository
C. If DAST scans are routinely scheduled
D. If role-based training is deployed

Answer: C

Explanation:
Dynamic Application Security Testing (DAST) is crucial for identifying and addressing security vulnerabilities during the software development life cycle (SDLC). Ensuring that DAST scans are routinely scheduled helps in maintaining a secure development process. Why Routine DAST Scans?
? Continuous Security Assessment: Regular DAST scans help in identifying
vulnerabilities in real-time, ensuring they are addressed promptly.
? Compliance: Routine scans ensure that the development process complies with security standards and regulations.
? Proactive Threat Mitigation: Regular scans help in early detection and mitigation of potential security threats, reducing the risk of breaches.
? Integration into SDLC: Ensures security is embedded within the development process, promoting a security-first approach.
Other options, while relevant, do not directly address the continuous assessment and proactive identification of threats:
? A. If developers are unable to promote to production: This is more of an
operational issue than a security assessment.
? B. If DAST code is being stored to a single code repository: This concerns code management rather than security testing frequency.
? D. If role-based training is deployed: While important, training alone does not ensure continuous security assessment.
References:
? CompTIA SecurityX Study Guide
? OWASP Testing Guide
? NIST Special Publication 800-53, "Security and Privacy Controls for Information Systems and Organizations"

NEW QUESTION 8
A company hosts a platform-as-a-service solution with a web-based front end, through which customer interact with data sets. A security administrator needs to deploy controls to prevent application-focused attacks. Which of the following most directly supports the administrator's objective'

A. improving security dashboard visualization on SIEM
B. Rotating API access and authorization keys every two months
C. Implementing application toad balancing and cross-region availability
D. Creating WAF policies for relevant programming languages

Answer: D

Explanation:
The best way to prevent application-focused attacks for a platform-as-a- service solution with a web-based front end is to create Web Application Firewall (WAF) policies for relevant programming languages. Here's why:
? Application-Focused Attack Prevention: WAFs are designed to protect web
applications by filtering and monitoring HTTP traffic between a web application and the Internet. They help prevent attacks such as SQL injection, cross-site scripting (XSS), and other application-layer attacks.
? Customizable Rules: WAF policies can be tailored to the specific programming
languages and frameworks used by the web application, providing targeted protection based on known vulnerabilities and attack patterns.
? Real-Time Protection: WAFs provide real-time protection, blocking malicious
requests before they reach the application, thereby enhancing the security posture of the platform.
? References:

NEW QUESTION 9
Users are experiencing a variety of issues when trying to access corporate resources examples include
• Connectivity issues between local computers and file servers within branch offices
• Inability to download corporate applications on mobile endpoints wtiilc working remotely
• Certificate errors when accessing internal web applications
Which of the following actions are the most relevant when troubleshooting the reported issues? (Select two).

A. Review VPN throughput
B. Check IPS rules
C. Restore static content on lite CDN.
D. Enable secure authentication using NAC
E. Implement advanced WAF rules.
F. Validate MDM asset compliance

Answer: AF

Explanation:
The reported issues suggest problems related to network connectivity, remote access, and certificate management:
? A. Review VPN throughput: Connectivity issues and the inability to download applications while working remotely may be due to VPN bandwidth or performance issues. Reviewing and optimizing VPN throughput can help resolve these problems by ensuring that remote users have adequate bandwidth for accessing corporate resources.
? F. Validate MDM asset compliance: Mobile Device Management (MDM) systems
ensure that mobile endpoints comply with corporate security policies. Validating MDM compliance can help address issues related to the inability to download applications and certificate errors, as non-compliant devices might be blocked from accessing certain resources.
? B. Check IPS rules: While important for security, IPS rules are less likely to directly
address the connectivity and certificate issues described.
? C. Restore static content on the CDN: This action is related to content delivery but does not address VPN or certificate-related issues.
? D. Enable secure authentication using NAC: Network Access Control (NAC) enhances security but does not directly address the specific issues described.
? E. Implement advanced WAF rules: Web Application Firewalls protect web applications but do not address VPN throughput or mobile device compliance.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-77, "Guide to IPsec VPNs"
? CIS Controls, "Control 11: Secure Configuration for Network Devices"

NEW QUESTION 10
A security engineer is given the following requirements:
• An endpoint must only execute Internally signed applications
• Administrator accounts cannot install unauthorized software.
• Attempts to run unauthorized software must be logged Which of the following best meets these requirements?

A. Maintaining appropriate account access through directory management and controls
B. Implementing a CSPM platform to monitor updates being pushed to applications
C. Deploying an EDR solution to monitor and respond to software installation attempts
D. Configuring application control with blocked hashes and enterprise-trusted root certificates

Answer: D

Explanation:
To meet the requirements of only allowing internally signed applications, preventing unauthorized software installations, and logging attempts to run unauthorized software, configuring application control with blocked hashes and enterprise-trusted root certificates is the best solution. This approach ensures that only applications signed by trusted certificates are allowed to execute, while all other attempts are blocked and logged. It effectively prevents unauthorized software installations by restricting execution to pre- approved applications.
References:
? CompTIA SecurityX Study Guide: Describes application control mechanisms and the use of trusted certificates to enforce security policies.
? NIST Special Publication 800-53, "Security and Privacy Controls for Information Systems and Organizations": Recommends application whitelisting and execution control for securing endpoints.
? "The Application Security Handbook" by Mark Dowd, John McDonald, and Justin Schuh: Covers best practices for implementing application control and managing trusted certificates

NEW QUESTION 10
An organization wants to create a threat model to identity vulnerabilities in its infrastructure. Which of the following, should be prioritized first?

A. External-facing Infrastructure with known exploited vulnerabilities
B. Internal infrastructure with high-seventy and Known exploited vulnerabilities
C. External facing Infrastructure with a low risk score and no known exploited vulnerabilities
D. External-facing infrastructure with a high risk score that can only be exploited with local access to the resource

Answer: A

Explanation:
When creating a threat model to identify vulnerabilities in an organization's infrastructure, prioritizing external-facing infrastructure with known exploited vulnerabilities is critical. Here??s why:
? Exposure to Attack: External-facing infrastructure is directly exposed to the
internet, making it a primary target for attackers. Any vulnerabilities in this layer pose an immediate risk to the organization's security.
? Known Exploited Vulnerabilities: Vulnerabilities that are already known and
exploited in the wild are of higher concern because they are actively being used by attackers. Addressing these vulnerabilities reduces the risk of exploitation significantly.
? Risk Mitigation: By prioritizing external-facing infrastructure with known exploited
vulnerabilities, the organization can mitigate the most immediate and impactful threats, thereby improving overall security posture.
? References:

NEW QUESTION 12
A security analyst reviews the following report:

	Location	Chassis manufacturer	OS	Application developer	Vendor
Product A	United States	Local company A	Debian 11	Unknown	Charlie Security Consulting
Product B	United States	Global company B	Red Hat Enterprise Linux	Developer B	BigBox Vulnerabilities

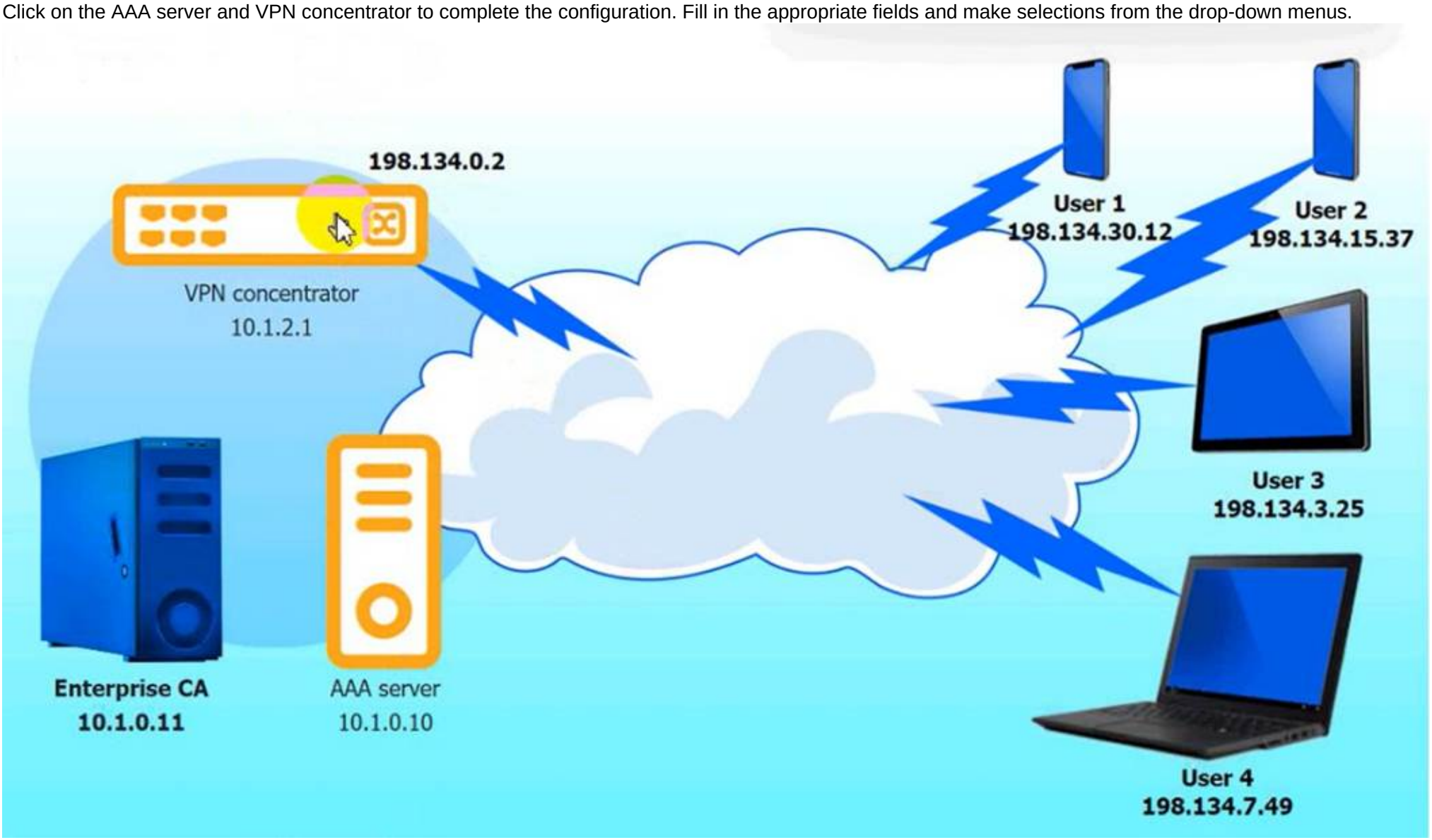
Which of the following assessments is the analyst performing?

A. System
B. Supply chain
C. Quantitative
D. Organizational

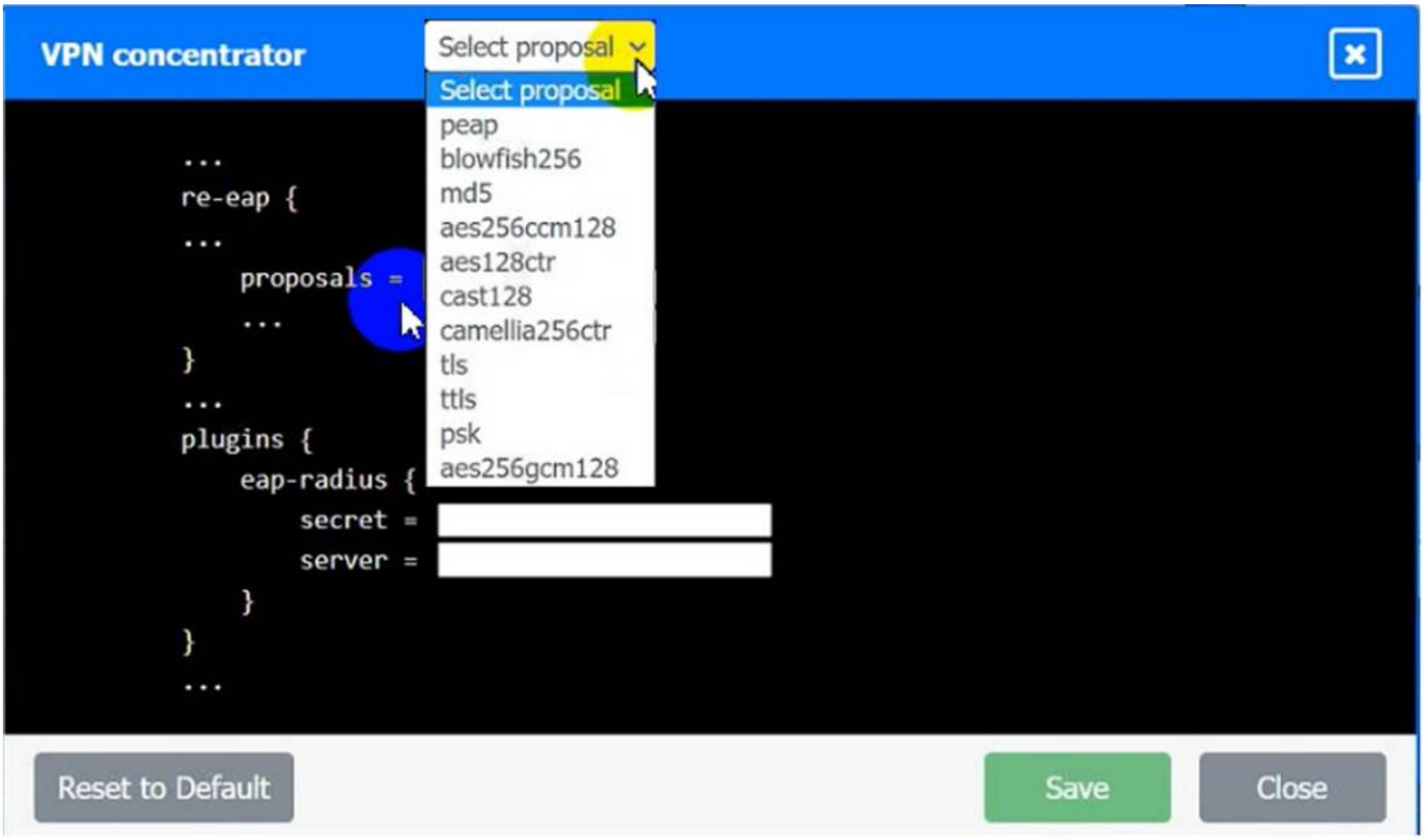
Answer: B

Explanation:
The table shows detailed information about products, including location, chassis manufacturer, OS, application developer, and vendor. This type of information is typically assessed in a supply chain assessment to evaluate the security and reliability of components and services from different suppliers.
Why Supply Chain Assessment?
? Component Evaluation: Assessing the origin and security of each component used in the products, including hardware, software, and third-party services.
? Vendor Reliability: Evaluating the security practices and reliability of vendors involved in providing components or services.
? Risk Management: Identifying potential risks associated with the supply chain, such as vulnerabilities in third-party components or insecure development practices.
Other types of assessments do not align with the detailed supplier and component information provided:
? A. System: Focuses on individual system security, not the broader supply chain.
? C. Quantitative: Focuses on numerical risk assessments, not supplier information.
? D. Organizational: Focuses on internal organizational practices, not external
suppliers.
References:
? CompTIA SecurityX Study Guide
? NIST Special Publication 800-161, "Supply Chain Risk Management Practices for Federal Information Systems and Organizations"
? "Supply Chain Security Best Practices," Gartner Research

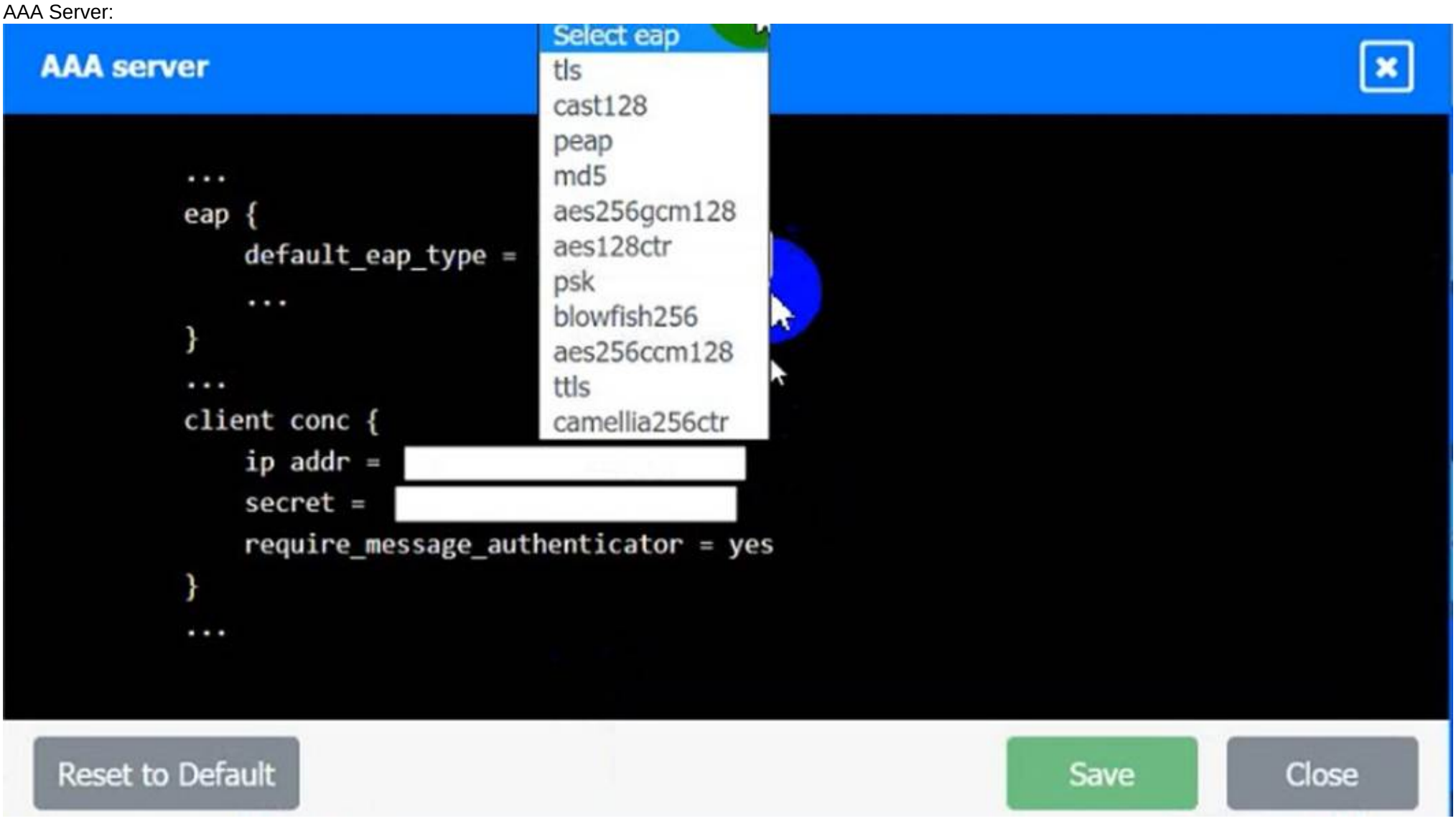
NEW QUESTION 14
SIMULATION
An IPSec solution is being deployed. The configuration files for both the VPN concentrator and the AAA server are shown in the diagram.
Complete the configuration files to meet the following requirements:
• The EAP method must use mutual certificate-based authentication (With issued client certificates).
• The IKEv2 Cipher suite must be configured to the MOST secure authenticated mode of operation,
• The secret must contain at least one uppercase character, one lowercase character, one numeric character, and one special character, and it must meet a minimum length requirement of eight characters,
INSTRUCTIONS
Click on the AAA server and VPN concentrator to complete the configuration. Fill in the appropriate fields and make selections from the drop-down menus.



VPN Concentrator:



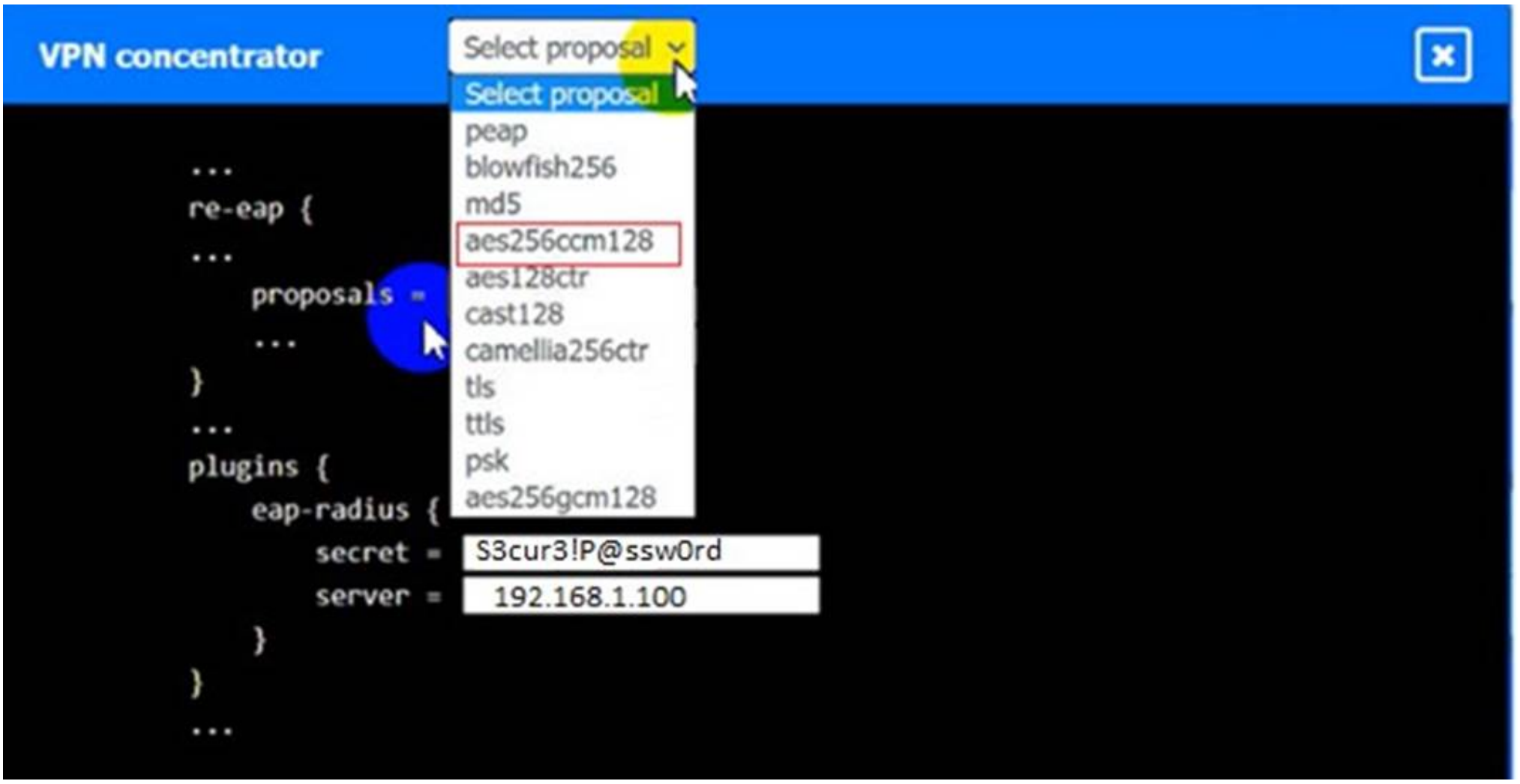
AAA Server:



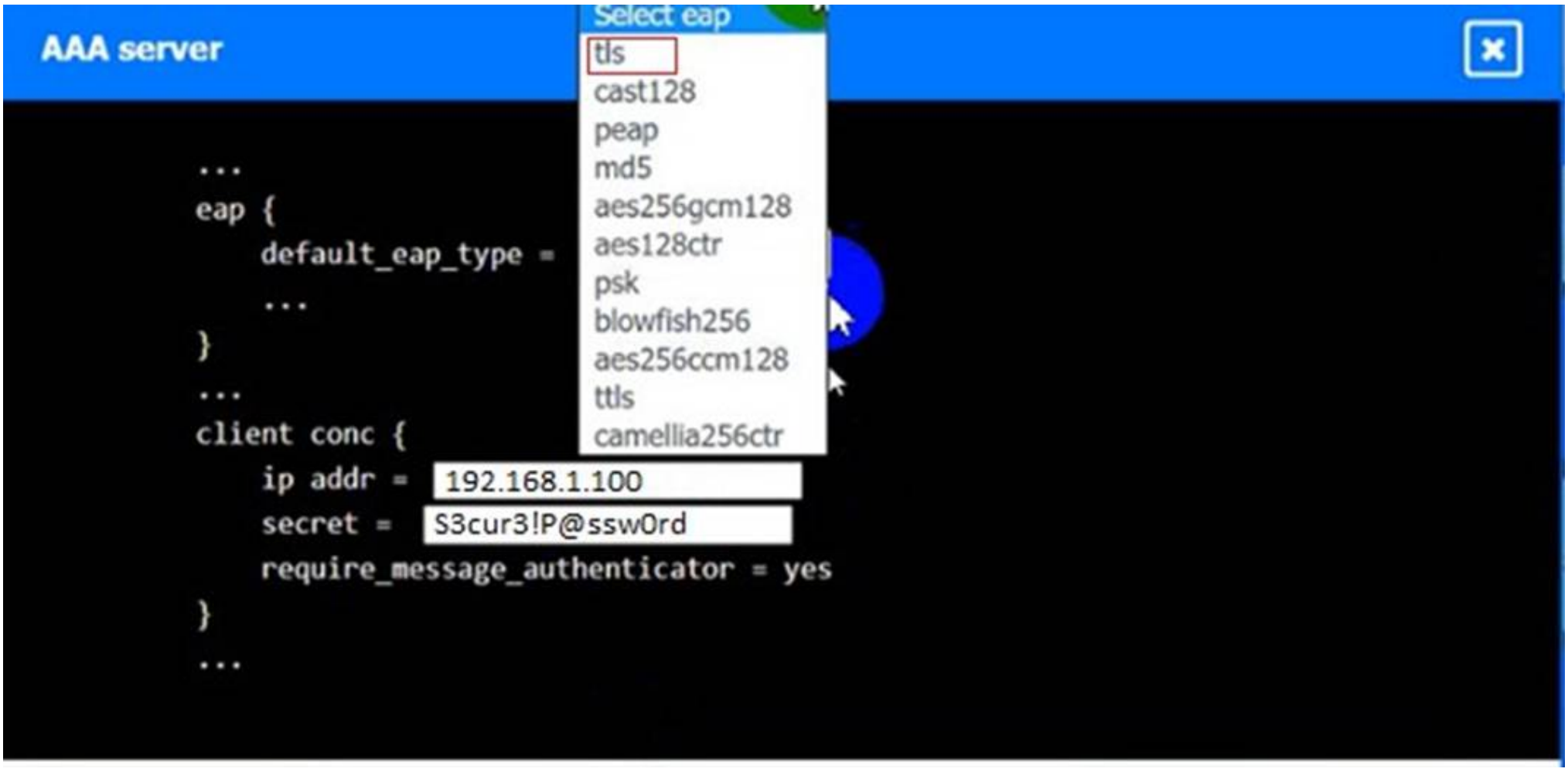
A. Mastered
B. Not Mastered

Answer: A

Explanation:
VPN Concentrator:



AAA Server:



NEW QUESTION 16
A systems administrator wants to use existing resources to automate reporting from disparate security appliances that do not currently communicate. Which of the following is the best way to meet this objective?

A. Configuring an API Integration to aggregate the different data sets
B. Combining back-end application storage into a single, relational database
C. Purchasing and deploying commercial off the shelf aggregation software
D. Migrating application usage logs to on-premises storage

Answer: A

Explanation:
The best way to automate reporting from disparate security appliances that do not currently communicate is to configure an API Integration to aggregate the different data sets. Here's why:
? Interoperability: APIs allow different systems to communicate and share data, even
if they were not originally designed to work together. This enables the integration of various security appliances into a unified reporting system.
? Automation: API integrations can automate the process of data collection,
aggregation, and reporting, reducing manual effort and increasing efficiency.
? Scalability: APIs provide a scalable solution that can easily be extended to include
additional security appliances or data sources as needed.
? References:

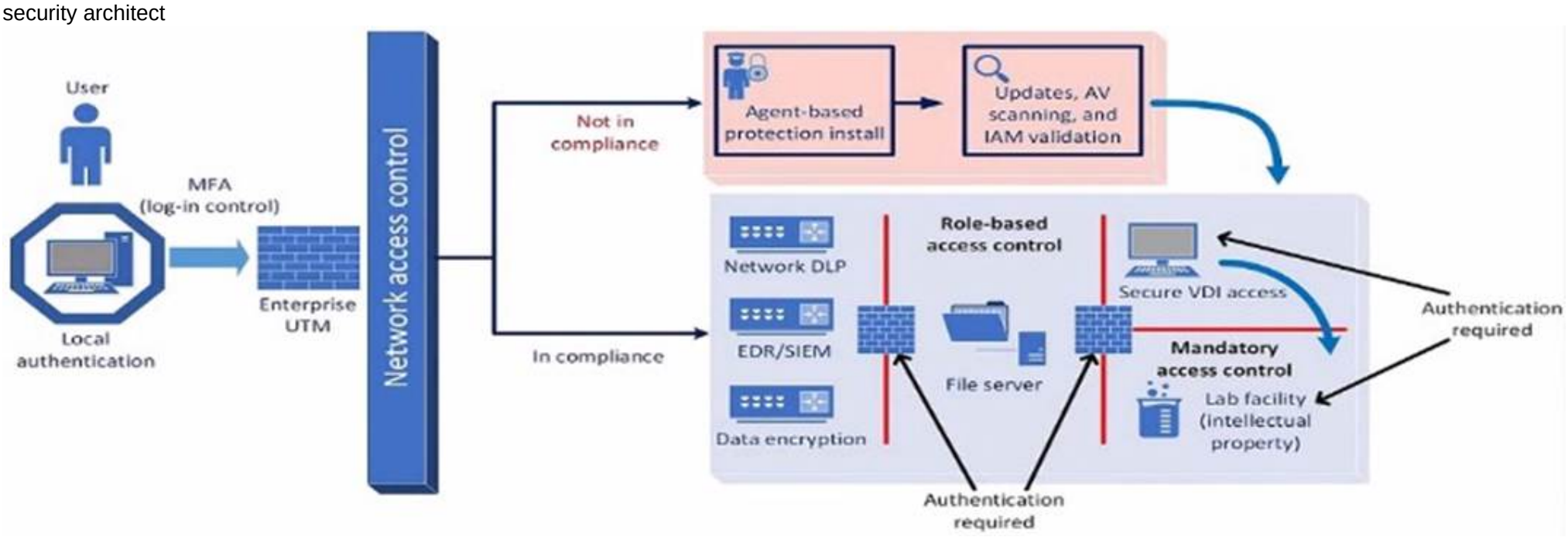
NEW QUESTION 21
Third parties notified a company's security team about vulnerabilities in the company's application. The security team determined these vulnerabilities were previously disclosed in third-party libraries. Which of the following solutions best addresses the reported vulnerabilities?

A. Using laC to include the newest dependencies
B. Creating a bug bounty program
C. Implementing a continuous security assessment program
D. Integrating a SASI tool as part of the pipeline

Answer: D

Explanation:
The best solution to address reported vulnerabilities in third-party libraries is integrating a Static Application Security Testing (SAST) tool as part of the development pipeline. Here??s why:
? Early Detection: SAST tools analyze source code for vulnerabilities before the
code is compiled. This allows developers to identify and fix security issues early in the development process.
? Continuous Security: By integrating SAST tools into the CI/CD pipeline, the organization ensures continuous security assessment of the codebase, including third-party libraries, with each code commit and build.
? Comprehensive Analysis: SAST tools provide a detailed analysis of the code, identifying potential vulnerabilities in both proprietary code and third-party dependencies, ensuring that known issues in libraries are addressed promptly.
? References:

NEW QUESTION 23
A company plans to implement a research facility with Intellectual property data that should be protected The following is the security diagram proposed by the security architect



Which of the following security architect models is illustrated by the diagram?

A. Identity and access management model
B. Agent based security model
C. Perimeter protection security model
D. Zero Trust security model

Answer: D

Explanation:
The security diagram proposed by the security architect depicts a Zero Trust security model. Zero Trust is a security framework that assumes all entities, both inside and outside the network, cannot be trusted and must be verified before gaining access to resources.
Key Characteristics of Zero Trust in the Diagram:
? Role-based Access Control: Ensures that users have access only to the resources necessary for their role.
? Mandatory Access Control: Additional layer of security requiring authentication for access to sensitive areas.
? Network Access Control: Ensures that devices meet security standards before accessing the network.
? Multi-factor Authentication (MFA): Enhances security by requiring multiple forms of verification.
This model aligns with the Zero Trust principles of never trusting and always verifying access requests, regardless of their origin.
References:
? CompTIA SecurityX Study Guide
? NIST Special Publication 800-207, "Zero Trust Architecture"
? "Implementing a Zero Trust Architecture," Forrester Research

NEW QUESTION 28
A security analyst Detected unusual network traffic related to program updating processes The analyst collected artifacts from compromised user workstations. The discovered artifacts were binary files with the same name as existing, valid binaries but. with different hashes which of the following solutions would most likely prevent this situation from reoccurring?

A. Improving patching processes
B. Implementing digital signature
C. Performing manual updates via USB ports
D. Allowing only dies from internal sources

Answer: B

Explanation:

Implementing digital signatures ensures the integrity and authenticity of software binaries. When a binary is digitally signed, any tampering with the file (e.g., replacing it with a malicious version) would invalidate the signature. This allows systems to verify the origin and integrity of binaries before execution, preventing the execution of unauthorized or compromised binaries.
? A. Improving patching processes: While important, this does not directly address the issue of verifying the integrity of binaries.
? B. Implementing digital signatures: This ensures that only valid, untampered binaries are executed, preventing attackers from substituting legitimate binaries with malicious ones.
? C. Performing manual updates via USB ports: This is not practical and does not scale well, especially in large environments.
? D. Allowing only files from internal sources: This reduces the risk but does not provide a mechanism to verify the integrity of binaries.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-57, "Recommendation for Key Management"
? OWASP (Open Web Application Security Project) guidelines on code signing

NEW QUESTION 32
An organization is implementing Zero Trust architecture A systems administrator must increase the effectiveness of the organization's context-aware access system. Which of the following is the best way to improve the effectiveness of the system?

A. Secure zone architecture
B. Always-on VPN
C. Accurate asset inventory
D. Microsegmentation

Answer: D

Explanation:
Microsegmentation is a critical strategy within Zero Trust architecture that enhances context-aware access systems by dividing the network into smaller, isolated segments. This reduces the attack surface and limits lateral movement of attackers within the network. It ensures that even if one segment is compromised, the attacker cannot easily access other segments. This granular approach to network security is essential for enforcing strict access controls and monitoring within Zero Trust environments.
Reference: CompTIA SecurityX Study Guide, Chapter on Zero Trust Security, Section on Microsegmentation and Network Segmentation.

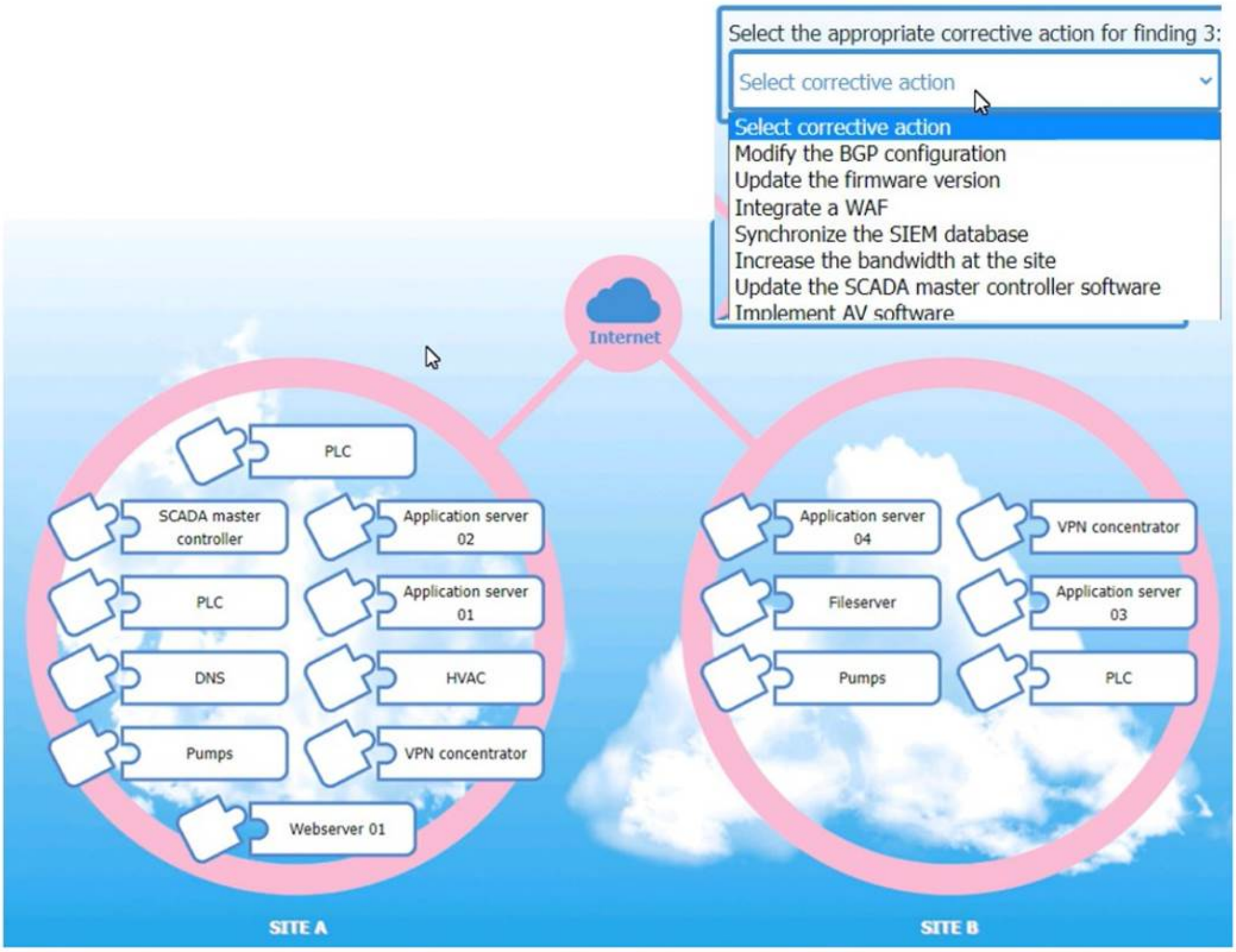
NEW QUESTION 36
A cloud engineer needs to identify appropriate solutions to:
• Provide secure access to internal and external cloud resources.
• Eliminate split-tunnel traffic flows.
• Enable identity and access management capabilities.
Which of the following solutions arc the most appropriate? (Select two).

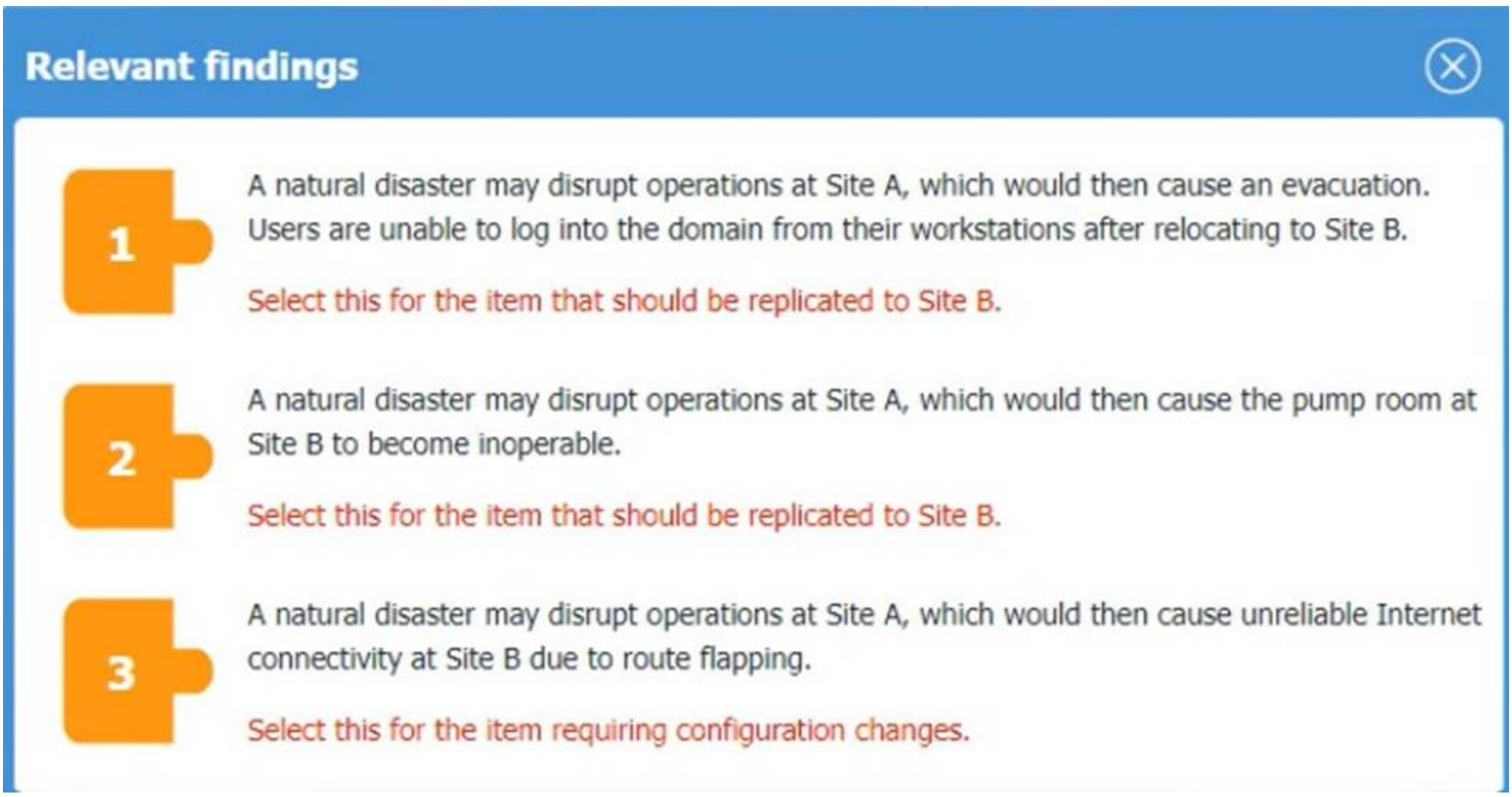
A. Federation
B. Microsegmentation
C. CASB
D. PAM
E. SD-WAN
F. SASE

Answer: CF

Explanation:
To provide secure access to internal and external cloud resources, eliminate split-tunnel traffic flows, and enable identity and access management capabilities, the most appropriate solutions are CASB (Cloud Access Security Broker) and SASE (Secure Access Service Edge).
Why CASB and SASE?
? CASB (Cloud Access Security Broker):
? SASE (Secure Access Service Edge):
Other options, while useful, do not comprehensively address all the requirements:
? A. Federation: Useful for identity management but does not eliminate split-tunnel traffic or provide comprehensive security.
? B. Microsegmentation: Enhances security within the network but does not directly address secure access to cloud resources or split-tunnel traffic.
? D. PAM (Privileged Access Management): Focuses on managing privileged accounts and does not provide comprehensive access control for internal and external resources.
? E. SD-WAN: Enhances WAN performance but does not inherently provide the identity and access management capabilities or eliminate split-tunnel traffic.
References:
? CompTIA SecurityX Study Guide
? "CASB: Cloud Access Security Broker," Gartner Research

NEW QUESTION 41
SIMULATION
An organization is planning for disaster recovery and continuity of operations, and has noted the following relevant findings:
* 1. A natural disaster may disrupt operations at Site A, which would then cause an evacuation. Users are unable to log into the domain from-their workstations after relocating to Site B.
* 2. A natural disaster may disrupt operations at Site A, which would then cause the pump room at Site B to become inoperable.
* 3. A natural disaster may disrupt operations at Site A, which would then cause unreliable internet connectivity at Site B due to route flapping.
INSTRUCTIONS
Match each relevant finding to the affected host by clicking on the host name and selecting the appropriate number.
For findings 1 and 2, select the items that should be replicated to Site B. For finding 3, select the item requiring configuration changes, then select the appropriate corrective action from the drop-down menu.





A. Mastered
B. Not Mastered

Answer: A

Explanation:

Matching Relevant Findings to the Affected Hosts:
? Finding 1:
? Finding 2:
? Finding 3:
Corrective Actions for Finding 3:
? Finding 3 Corrective Action:
? Replication to Site B for Finding 1:
? Replication to Site B for Finding 2:
? Configuration Changes for Finding 3:
References:
? CompTIA Security+ Study Guide: This guide provides detailed information on disaster recovery and continuity of operations, emphasizing the importance of replicating critical services and making necessary configuration changes to ensure seamless operation during disruptions.
? CompTIA Security+ Exam Objectives: These objectives highlight key areas in disaster recovery planning, including the replication of critical services and network configuration adjustments.
? Disaster Recovery and Business Continuity Planning (DRBCP): This resource outlines best practices for ensuring that operations can continue at an alternate site during a disaster, including the replication of essential services and network stability measures.
By ensuring that critical services like DNS and control systems for pumps are replicated at the alternate site, and by addressing network routing issues through proper BGP configuration, the organization can maintain operational continuity and minimize the impact of natural disasters on their operations.

NEW QUESTION 43
A software development team requires valid data for internal tests. Company regulations, however do not allow the use of this data in cleartext. Which of the following solutions best meet these requirements?

A. Configuring data hashing
B. Deploying tokenization
C. Replacing data with null record
D. Implementing data obfuscation

Answer: B

Explanation:
Tokenization replaces sensitive data elements with non-sensitive equivalents, called tokens, that can be used within the internal tests. The original data is stored securely and can be retrieved if necessary. This approach allows the software development team to work with data that appears realistic and valid without exposing the actual sensitive information.
Configuring data hashing (Option A) is not suitable for test data as it transforms the data into a fixed-length value that is not usable in the same way as the original data. Replacing
data with null records (Option C) is not useful as it does not provide valid data for testing. Data obfuscation (Option D) could be an alternative but might not meet the regulatory requirements as effectively as tokenization.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-57 Part 1 Rev. 5, "Recommendation for Key Management"
? PCI DSS Tokenization Guidelines

NEW QUESTION 47
Emails that the marketing department is sending to customers are pomp to the customers' spam folders. The security team is investigating the issue and discovers that the certificates used by the email server were reissued, but DNS records had not been updated. Which of the following should the security team update in order to fix this issue? (Select three.)

A. DMARC
B. SPF
C. DKIM
D. DNSSEC
E. SASC
F. SAN
G. SOA
H. MX

Answer: ABC

Explanation:
To prevent emails from being marked as spam, several DNS records related to email authentication need to be properly configured and updated when there are changes to the email server's certificates:
? A. DMARC (Domain-based Message Authentication, Reporting & Conformance):
DMARC records help email servers determine how to handle messages that fail SPF or DKIM checks, improving email deliverability and reducing the likelihood of emails being marked as spam.
? B. SPF (Sender Policy Framework): SPF records specify which mail servers are authorized to send email on behalf of your domain. Updating the SPF record ensures that the new email server is recognized as an authorized sender.
? C. DKIM (DomainKeys Identified Mail): DKIM adds a digital signature to email
headers, allowing the receiving server to verify that the email has not been tampered with and is from an authorized sender. Updating DKIM records ensures that emails are properly signed and authenticated.
? D. DNSSEC (Domain Name System Security Extensions): DNSSEC adds security
to DNS by enabling DNS responses to be verified. While important for DNS security, it does not directly address the issue of emails being marked as spam.
? E. SASC: This is not a relevant standard for this scenario.
? F. SAN (Subject Alternative Name): SAN is used in SSL/TLS certificates for securing multiple domain names, not for email delivery issues.
? G. SOA (Start of Authority): SOA records are used for DNS zone administration and do not directly impact email deliverability.
? H. MX (Mail Exchange): MX records specify the mail servers responsible for receiving email on behalf of a domain. While important, the primary issue here is the authentication of outgoing emails, which is handled by SPF, DKIM, and DMARC.
References:
? CompTIA Security+ Study Guide
? RFC 7208 (SPF), RFC 6376 (DKIM), and RFC 7489 (DMARC)
? NIST SP 800-45, "Guidelines on Electronic Mail Security"

NEW QUESTION 51
A security engineer wants to reduce the attack surface of a public-facing containerized application Which of the following will best reduce the application's privilege escalation attack surface?

A. Implementing the following commands in the Dockerfile:RUN echo user:x:1000:1000iuser:/home/user:/dew/null > /ete/passwd
B. Installing an EDR on the container's host with reporting configured to log to a centralized SIFM and Implementing the followingalerting rules TF PBOCESS_USEB=rooC ALERT_TYPE=critical
C. Designing a muiticontainer solution, with one set of containers that runs the mam application, and another set oi containers that perform automatic remediation by replacing compromised containers or disabling compromised accounts
D. Running the container in an isolated network and placing a load balancer in a public- facing networ
E. Adding the following ACL to the load balancer:PZRKZI HTTES from 0-0.0.0.0/0 pert 443

Answer: A

Explanation:
Implementing the given commands in the Dockerfile ensures that the container runs with non-root user privileges. Running applications as a non-root user reduces the risk of
privilege escalation attacks because even if an attacker compromises the application, they would have limited privileges and would not be able to perform actions that require root access.
? A. Implementing the following commands in the Dockerfile: This directly addresses
the privilege escalation attack surface by ensuring the application does not run with elevated privileges.
? B. Installing an EDR on the container's host: While useful for detecting threats, this
does not reduce the privilege escalation attack surface within the containerized application.
? C. Designing a multi-container solution: While beneficial for modularity and
remediation, it does not specifically address privilege escalation.
? D. Running the container in an isolated network: This improves network security but does not directly reduce the privilege escalation attack surface.
References:
? CompTIA Security+ Study Guide
? Docker documentation on security best practices
? NIST SP 800-190, "Application Container Security Guide"

NEW QUESTION 56
A security analyst wants to use lessons learned from a poor incident response to reduce dwell lime in the future The analyst is using the following data points

User	Site visited	HTTP method	Filter status	Traffic status	Alert status
account1	tools.com	GET	Allowed	Allowed	No
admin1	hacking.com	GET	Allowed	Allowed	Yes
account5	payroll.com	GET	Allowed	Allowed	No
account2	p4yr0ll.com	GET	Blocked	Blocked	No
account2	p4yr0ll.com	POST	Blocked	Blocked	No
account2	139.40.29.21	POST	Allowed	Allowed	No
account5	payroll.com	GET	Allowed	Allowed	No

Which of the following would the analyst most likely recommend?

A. Adjusting the SIEM to alert on attempts to visit phishing sites
B. Allowing TRACE method traffic to enable better log correlation
C. Enabling alerting on all suspicious administrator behavior
D. utilizing allow lists on the WAF for all users using GFT methods

Answer: C

Explanation:
In the context of improving incident response and reducing dwell time, the security analyst needs to focus on proactive measures that can quickly detect and alert on potential security breaches. Here??s a detailed analysis of the options provided:
* A. Adjusting the SIEM to alert on attempts to visit phishing sites: While this is a useful measure to prevent phishing attacks, it primarily addresses external threats and doesn??t directly impact dwell time reduction, which focuses on the time a threat remains undetected within a network.
* B. Allowing TRACE method traffic to enable better log correlation: The TRACE method in HTTP is used for debugging purposes, but enabling it can introduce security vulnerabilities. It??s not typically recommended for enhancing security monitoring or incident response.
* C. Enabling alerting on all suspicious administrator behavior: This option directly targets the potential misuse of administrator accounts, which are often high-value targets for attackers. By monitoring and alerting on suspicious activities from admin accounts, the organization can quickly identify and respond to potential breaches, thereby reducing dwell
time significantly. Suspicious behavior could include unusual login times, access to sensitive data not usually accessed by the admin, or any deviation from normal behavior patterns. This proactive monitoring is crucial for quick detection and response, aligning well with best practices in incident response.
* D. Utilizing allow lists on the WAF for all users using GET methods: This measure is aimed at restricting access based on allowed lists, which can be effective in preventing unauthorized access but doesn??t specifically address the need for quick detection and response to internal threats.
References:
? CompTIA SecurityX Study Guide: Emphasizes the importance of monitoring and alerting on admin activities as part of a robust incident response plan.
? NIST Special Publication 800-61 Revision 2, "Computer Security Incident Handling Guide": Highlights best practices for incident response, including the importance of detecting and responding to suspicious activities quickly.
? "Incident Response & Computer Forensics" by Jason T. Luttgens, Matthew Pepe, and Kevin Mandia: Discusses techniques for reducing dwell time through effective monitoring and alerting mechanisms, particularly focusing on privileged account activities.
By focusing on enabling alerting for suspicious administrator behavior, the security analyst addresses a critical area that can help reduce the time a threat goes undetected, thereby improving the overall security posture of the organization.

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NEW QUESTION 61
A senior security engineer flags me following log file snippet as hawing likely facilitated an attacker's lateral movement in a recent breach:

```
[log.txt]
...
qry_source: 19.27.214.22 TCP/53
qry_dest: 199.105.22.13 TCP/53
qry_type: AXFR
| in comptia.org
-------------| directoryserver1 A 10.80.8.10
-------------| directoryserver2 A 10.80.8.11
-------------| directoryserver3 A 10.80.8.12
-------------| internal-dns A 10.80.9.1
-------------| www-int A 10.80.9.3
-------------| fshare A 10.80.9.4
-------------| sip A 10.80.9.5
-------------| msn-crit-apps A 10.81.22.33
...
```

Which of the following solutions, if implemented, would mitigate the nsk of this issue reoccurnnp?

A. Disabling DNS zone transfers
B. Restricting DNS traffic to UDP'W
C. Implementing DNS masking on internal servers
D. Permitting only clients from internal networks to query DNS

Answer: A

Explanation:
The log snippet indicates a DNS AXFR (zone transfer) request, which can be exploited by attackers to gather detailed information about an internal network's infrastructure. Disabling DNS zone transfers is the best solution to mitigate this risk. Zone transfers should generally be restricted to authorized secondary DNS servers and not be publicly accessible, as they can reveal sensitive network information that facilitates lateral movement during an attack.
References:
? CompTIA SecurityX Study Guide: Discusses the importance of securing DNS configurations, including restricting zone transfers.
? NIST Special Publication 800-81, "Secure Domain Name System (DNS) Deployment Guide": Recommends restricting or disabling DNS zone transfers to prevent information leakage.

NEW QUESTION 63
A network engineer must ensure that always-on VPN access is enabled Curt restricted to company assets Which of the following best describes what the engineer needs to do"

A. Generate device certificates using the specific template settings needed
B. Modify signing certificates in order to support IKE version 2
C. Create a wildcard certificate for connections from public networks
D. Add the VPN hostname as a SAN entry on the root certificate

Answer: A

Explanation:
To ensure always-on VPN access is enabled and restricted to company assets, the network engineer needs to generate device certificates using the specific template settings required for the company's VPN solution. These certificates ensure that only authorized devices can establish a VPN connection.
Why Device Certificates are Necessary:
? Authentication: Device certificates authenticate company assets, ensuring that only authorized devices can access the VPN.
? Security: Certificates provide a higher level of security compared to username and password combinations, reducing the risk of unauthorized access.
? Compliance: Certificates help in meeting security policies and compliance requirements by ensuring that only managed devices can connect to the corporate network.
Other options do not provide the same level of control and security for always-on VPN access:
? B. Modify signing certificates for IKE version 2: While important for VPN protocols,
it does not address device-specific authentication.
? C. Create a wildcard certificate: This is not suitable for device-specific authentication and could introduce security risks.
? D. Add the VPN hostname as a SAN entry: This is more related to certificate management and does not ensure device-specific authentication.
References:
? CompTIA SecurityX Study Guide
? "Device Certificates for VPN Access," Cisco Documentation
? NIST Special Publication 800-77, "Guide to IPsec VPNs"

NEW QUESTION 68

A company isolated its OT systems from other areas of the corporate network These systems are required to report usage information over the internet to the vendor Which oi the following b*st reduces the risk of compromise or sabotage' (Select two).

A. Implementing allow lists
B. Monitoring network behavior
C. Encrypting data at rest
D. Performing boot Integrity checks
E. Executing daily health checks
F. Implementing a site-to-site IPSec VPN

Answer: AF

Explanation:
? A. Implementing allow lists: Allow lists (whitelisting) restrict network communication to only authorized devices and applications, significantly reducing the attack surface by ensuring that only pre-approved traffic is permitted.
? F. Implementing a site-to-site IPSec VPN: A site-to-site VPN provides a secure, encrypted tunnel for data transmission between the OT systems and the vendor, protecting the data from interception and tampering during transit.
Other options:
? B. Monitoring network behavior: While useful for detecting anomalies, it does not proactively reduce the risk of compromise or sabotage.
? C. Encrypting data at rest: Important for protecting data stored on devices, but does not address network communication risks.
? D. Performing boot integrity checks: Ensures the integrity of the system at startup but does not protect ongoing network communications.
? E. Executing daily health checks: Useful for maintaining system health but does not directly reduce the risk of network-based compromise or sabotage.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-82, "Guide to Industrial Control Systems (ICS) Security"
? "Industrial Network Security" by Eric D. Knapp and Joel Thomas Langill

NEW QUESTION 69
A security architect is establishing requirements to design resilience in un enterprise system trial will be extended to other physical locations. The system must
• Be survivable to one environmental catastrophe
• Re recoverable within 24 hours of critical loss of availability
• Be resilient to active exploitation of one site-to-site VPN solution

A. Load-balance connection attempts and data Ingress at internet gateways
B. Allocate fully redundant and geographically distributed standby sites.
C. Employ layering of routers from diverse vendors
D. Lease space to establish cold sites throughout other countries
E. Use orchestration to procure, provision, and transfer application workloads lo cloudservices
F. Implement full weekly backups to be stored off-site for each of the company's sites

Answer: B

Explanation:
To design resilience in an enterprise system that can survive environmental catastrophes, recover within 24 hours, and be resilient to active exploitation, the best strategy is to allocate fully redundant and geographically distributed standby sites. Here??s why:
? Geographical Redundancy: Having geographically distributed standby sites ensures that if one site is affected by an environmental catastrophe, the other sites can take over, providing continuity of operations.
? Full Redundancy: Fully redundant sites mean that all critical systems and data are replicated, enabling quick recovery in the event of a critical loss of availability.
? Resilience to Exploitation: Distributing resources across multiple sites reduces the risk of a single point of failure and increases resilience against targeted attacks.
? References:

NEW QUESTION 74
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