CompTIA

Exam Questions CAS-005

CompTIA SecurityX Exam

NEW QUESTION 1
A company wants to implement hardware security key authentication for accessing sensitive information systems The goal is to prevent unauthorized users from gaining access with a stolen password Which of the following models should the company implement to b«st solve this issue?

A. Rule based
B. Time-based
C. Role based
D. Context-based

Answer: D

Explanation:
Context-based authentication enhances traditional security methods by incorporating additional layers of information about the user's current environment and behavior. This can include factors such as the user's location, the time of access, the device used, and the behavior patterns. It is particularly useful in preventing unauthorized access even if an attacker has obtained a valid password.
? Rule-based (A) focuses on predefined rules and is less flexible in adapting to dynamic threats.
? Time-based (B) authentication considers the time factor but doesn't provide comprehensive protection against stolen credentials.
? Role-based (C) is more about access control based on the user's role within the organization rather than authenticating the user based on current context.
By implementing context-based authentication, the company can ensure that even if a password is compromised, the additional contextual factors required for access (which an attacker is unlikely to possess) provide a robust defense mechanism.
References:
? CompTIA SecurityX guide on authentication models and best practices.
? NIST guidelines on authentication and identity proofing.
? Analysis of multi-factor and adaptive authentication techniques.

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 must accept the terms presented in a captive petal when connecting to a guest network. Recently, users have reported that they are unable to access the Internet after joining the network A network engineer observes the following:
• Users should be redirected to the captive portal.
• The Motive portal runs Tl. S 1 2
• Newer browser versions encounter security errors that cannot be bypassed
• Certain websites cause unexpected re directs
Which of the following mow likely explains this behavior?

A. The TLS ciphers supported by the captive portal ate deprecated
B. Employment of the HSTS setting is proliferating rapidly.
C. Allowed traffic rules are causing the NIPS to drop legitimate traffic
D. An attacker is redirecting supplicants to an evil twin WLAN.

Answer: A

Explanation:
The most likely explanation for the issues encountered with the captive portal is that the TLS ciphers supported by the captive portal are deprecated. Here??s why:
? TLS Cipher Suites: Modern browsers are continuously updated to support the latest security standards and often drop support for deprecated and insecure cipher suites. If the captive portal uses outdated TLS ciphers, newer browsers may refuse to connect, causing security errors.
? HSTS and Browser Security: Browsers with HTTP Strict Transport Security
(HSTS) enabled will not allow connections to sites with weak security configurations. Deprecated TLS ciphers would cause these browsers to block the connection.
? References:
By updating the TLS ciphers to modern, supported ones, the security engineer can ensure compatibility with newer browser versions and resolve the connectivity issues reported by users.

NEW QUESTION 4
An audit finding reveals that a legacy platform has not retained loos for more than 30 days The platform has been segmented due to its interoperability with newer technology. As a temporary solution, the IT department changed the log retention to 120 days. Which of the following should the security engineer do to ensure the logs are being properly retained?

A. Configure a scheduled task nightly to save the logs
B. Configure event-based triggers to export the logs at a threshold.
C. Configure the SIEM to aggregate the logs
D. Configure a Python script to move the logs into a SQL database.

Answer: C

Explanation:
To ensure that logs from a legacy platform are properly retained beyond the default retention period, configuring the SIEM to aggregate the logs is the best approach. SIEM solutions are designed to collect, aggregate, and store logs from various sources, providing centralized log management and retention. This setup ensures that logs are retained according to policy and can be easily accessed for analysis and compliance purposes. References:
? CompTIA SecurityX Study Guide: Discusses the role of SIEM in log management and retention.
? NIST Special Publication 800-92, "Guide to Computer Security Log Management": Recommends the use of centralized log management solutions, such as SIEM, for effective log retention and analysis.
? "Security Information and Event Management (SIEM) Implementation" by David Miller: Covers best practices for configuring SIEM systems to aggregate and retain logs from various sources.

NEW QUESTION 5
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 6
A company receives several complaints from customers regarding its website. An engineer implements a parser for the web server logs that generates the following output:

Browser	User location	Load time	HTTP response
Mozilla 5.0	United States	190ms	302
Chrome 110	France	1.2s	302
Microsoft Edge	India	3.7s	307
Microsoft Edge	Australia	6.4s	200

which of the following should the company implement to best resolve the issue?

A. IDS
B. CDN
C. WAF
D. NAC

Answer: B

Explanation:
The table indicates varying load times for users accessing the website from different geographic locations. Customers from Australia and India are experiencing significantly higher load times compared to those from the United States. This suggests that latency and geographical distance are affecting the website's performance.
? A. IDS (Intrusion Detection System): While an IDS is useful for detecting malicious
activities, it does not address performance issues related to latency and geographical distribution of content.
? B. CDN (Content Delivery Network): A CDN stores copies of the website's content
in multiple geographic locations. By serving content from the nearest server to the user, a CDN can significantly reduce load times and improve user experience globally.
? C. WAF (Web Application Firewall): A WAF protects web applications by filtering and monitoring HTTP traffic but does not improve performance related to geographical latency.
? D. NAC (Network Access Control): NAC solutions control access to network
resources but are not designed to address web performance issues.
Implementing a CDN is the best solution to resolve the performance issues observed in the log output.
References:
? CompTIA Security+ Study Guide
? "CDN: Content Delivery Networks Explained" by Akamai Technologies
? NIST SP 800-44, "Guidelines on Securing Public Web Servers"

NEW QUESTION 7
A company's security policy states that any publicly available server must be patched within 12 hours after a patch is released A recent lIS zero-day vulnerability was discovered that affects all versions of the Windows Server OS:

	OS	Externally available?	Behind WAF?	IIS installed?
Host 1	Windows 2019	Yes	Yes	Yes
Host 2	Windows 2008 R2	No	N/A	No
Host 3	Windows 2012 R2	Yes	Yes	Yes
Host 4	Windows 2022	Yes	No	Yes
Host 5	Windows 2012 R2	No	N/A	No
Host 6	Windows 2019	Yes	No	No

Which of the following hosts should a security analyst patch first once a patch is available?

A. 1
B. 2
C. 3
D. 4
E. 5
F. 6

Answer: A

Explanation:
Based on the security policy that any publicly available server must be patched within 12 hours after a patch is released, the security analyst should patch Host 1 first. Here??s why:
? Public Availability: Host 1 is externally available, making it accessible from the
internet. Publicly available servers are at higher risk of being targeted by attackers, especially when a zero-day vulnerability is known.

? Exposure to Threats: Host 1 has IIS installed and is publicly accessible, increasing its exposure to potential exploitation. Patching this host first reduces the risk of a successful attack.
? Prioritization of Critical Assets: According to best practices, assets that are exposed to higher risks should be prioritized for patching to mitigate potential threats promptly.
? References:

NEW QUESTION 8
An organization mat performs real-time financial processing is implementing a new backup solution Given the following business requirements?
* The backup solution must reduce the risk for potential backup compromise
* The backup solution must be resilient to a ransomware attack.
* The time to restore from backups is less important than the backup data integrity
* Multiple copies of production data must be maintained
Which of the following backup strategies best meets these requirement?

A. Creating a secondary, immutable storage array and updating it with live data on a continuous basis
B. Utilizing two connected storage arrays and ensuring the arrays constantly sync
C. Enabling remote journaling on the databases to ensure real-time transactions are mirrored
D. Setting up antitempering on the databases to ensure data cannot be changed unintentionally

Answer: A

Explanation:
? A. Creating a secondary, immutable storage array and updating it with live data on a continuous basis: An immutable storage array ensures that data, once written, cannot be altered or deleted. This greatly reduces the risk of backup compromise
and provides resilience against ransomware attacks, as the ransomware cannot modify or delete the backup data. Maintaining multiple copies of production data with an immutable storage solution ensures data integrity and compliance with the requirement for multiple copies.
Other options:
? B. Utilizing two connected storage arrays and ensuring the arrays constantly sync: While this ensures data redundancy, it does not provide protection against ransomware attacks, as both arrays could be compromised simultaneously.
? C. Enabling remote journaling on the databases: This ensures real-time transaction mirroring but does not address the requirement for reducing the risk of backup compromise or resilience to ransomware.
? D. Setting up anti-tampering on the databases: While this helps ensure data integrity, it does not provide a comprehensive backup solution that meets all the specified requirements.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-209, "Security Guidelines for Storage Infrastructure"
? "Immutable Backup Architecture" by Veeam

NEW QUESTION 9
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
A company receives reports about misconfigurations and vulnerabilities in a third-party hardware device that is part of its released products. Which of the following solutions is the best way for the company to identify possible issues at an earlier stage?

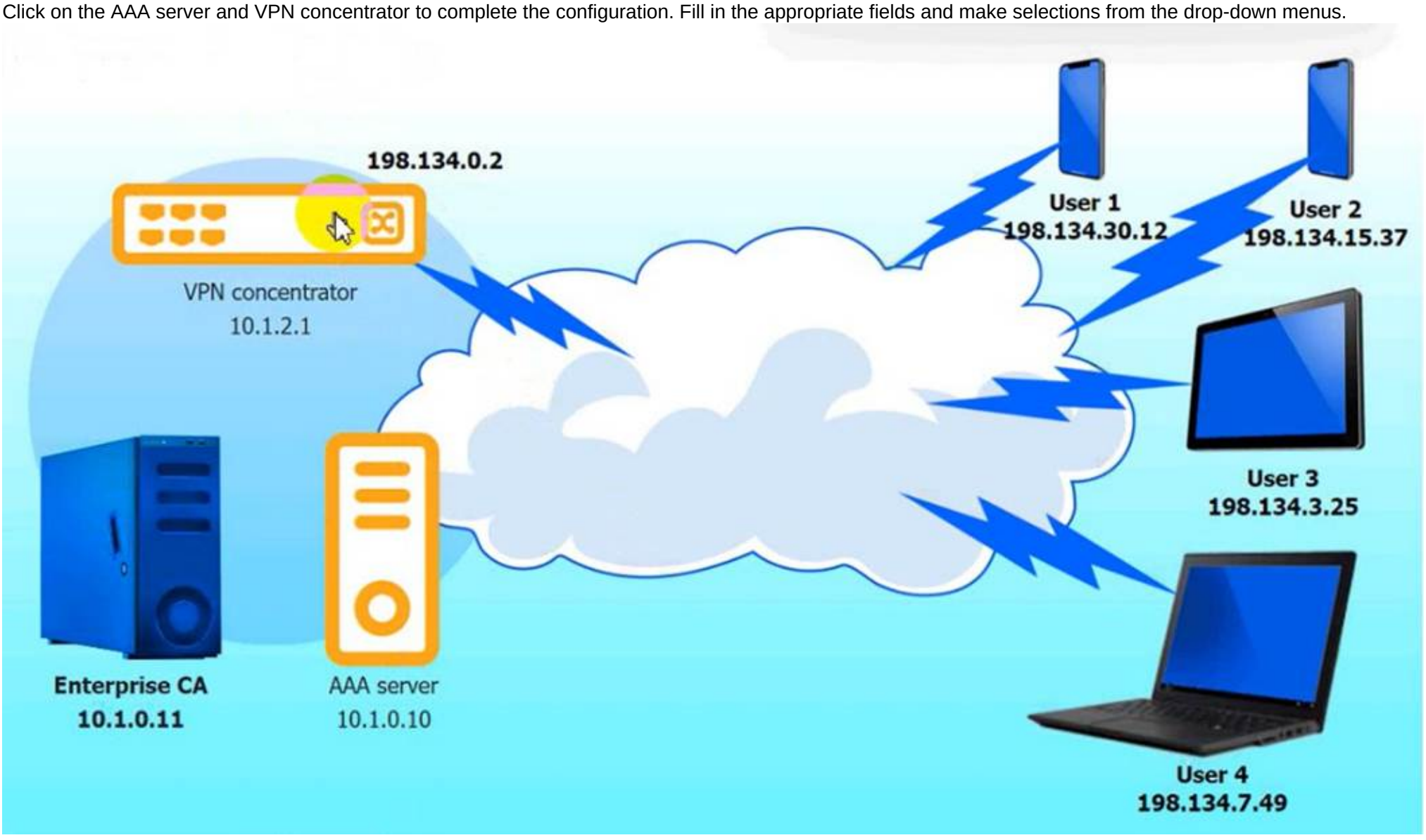
A. Performing vulnerability tests on each device delivered by the providers
B. Performing regular red-team exercises on the vendor production line
C. Implementing a monitoring process for the integration between the application and the vendor appliance
D. Implementing a proper supply chain risk management program

Answer: D

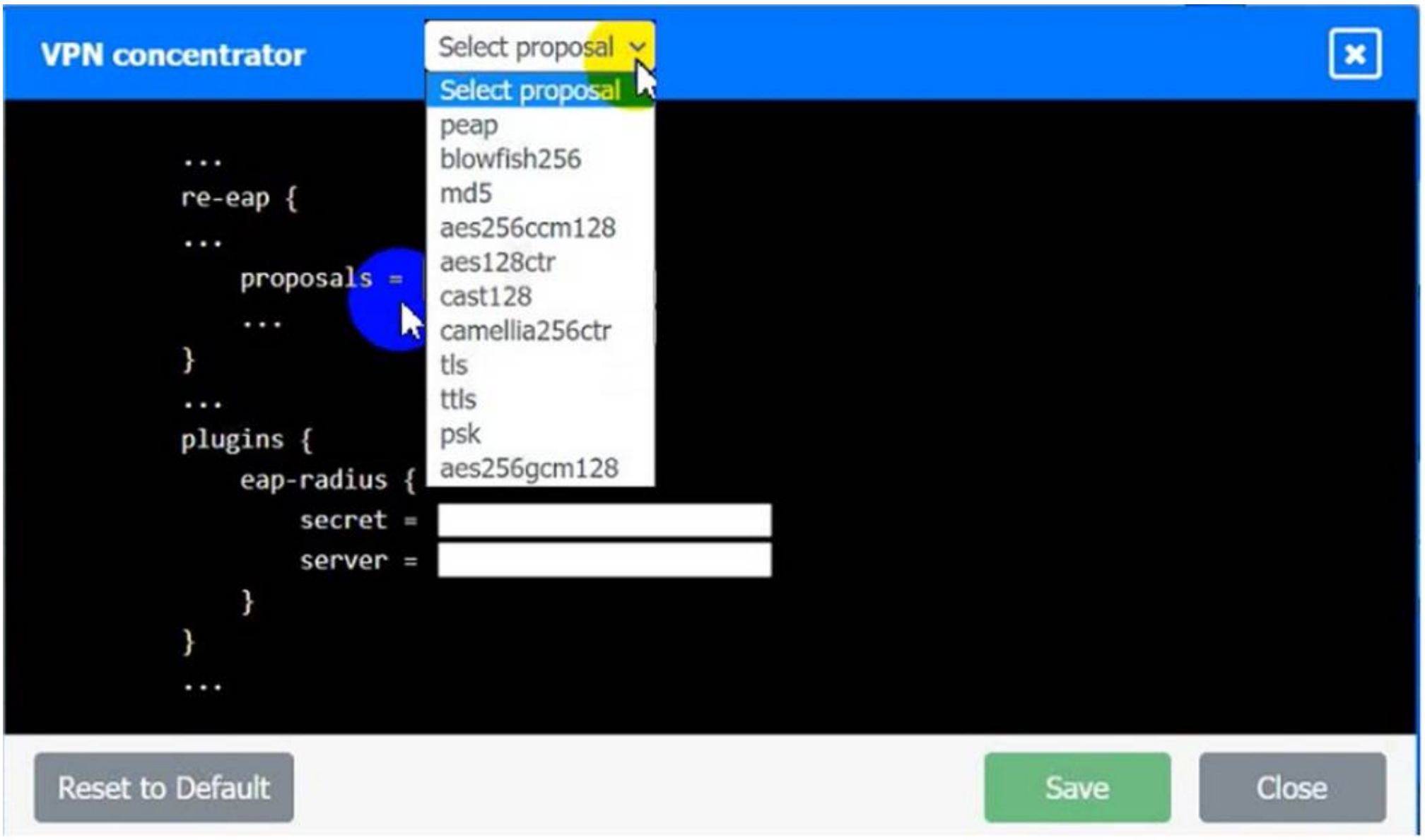
Explanation:
Addressing misconfigurations and vulnerabilities in third-party hardware requires a comprehensive approach to manage risks throughout the supply chain. Implementing a proper supply chain risk management (SCRM) program is the most effective solution as it encompasses the following:
? Holistic Approach: SCRM considers the entire lifecycle of the product, from initial
design through to delivery and deployment. This ensures that risks are identified and managed at every stage.
? Vendor Management: It includes thorough vetting of suppliers and ongoing

assessments of their security practices, which can identify and mitigate vulnerabilities early.
? Regular Audits and Assessments: A robust SCRM program involves regular audits
and assessments, both internally and with suppliers, to ensure compliance with security standards and best practices.
? Collaboration and Communication: Ensures that there is effective communication
and collaboration between the company and its suppliers, leading to faster identification and resolution of issues.
Other options, while beneficial, do not provide the same comprehensive risk management:
? A. Performing vulnerability tests on each device delivered by the providers: While useful, this is reactive and only addresses issues after they have been delivered.
? B. Performing regular red-team exercises on the vendor production line: This can identify vulnerabilities but is not as comprehensive as a full SCRM program.
? C. Implementing a monitoring process for the integration between the application and the vendor appliance: This is important but only covers the integration phase, not the entire supply chain.
References:
? CompTIA SecurityX Study Guide
? NIST Special Publication 800-161, "Supply Chain Risk Management Practices for Federal Information Systems and Organizations"
? ISO/IEC 27036-1:2014, "Information technology — Security techniques — Information security for supplier relationships"

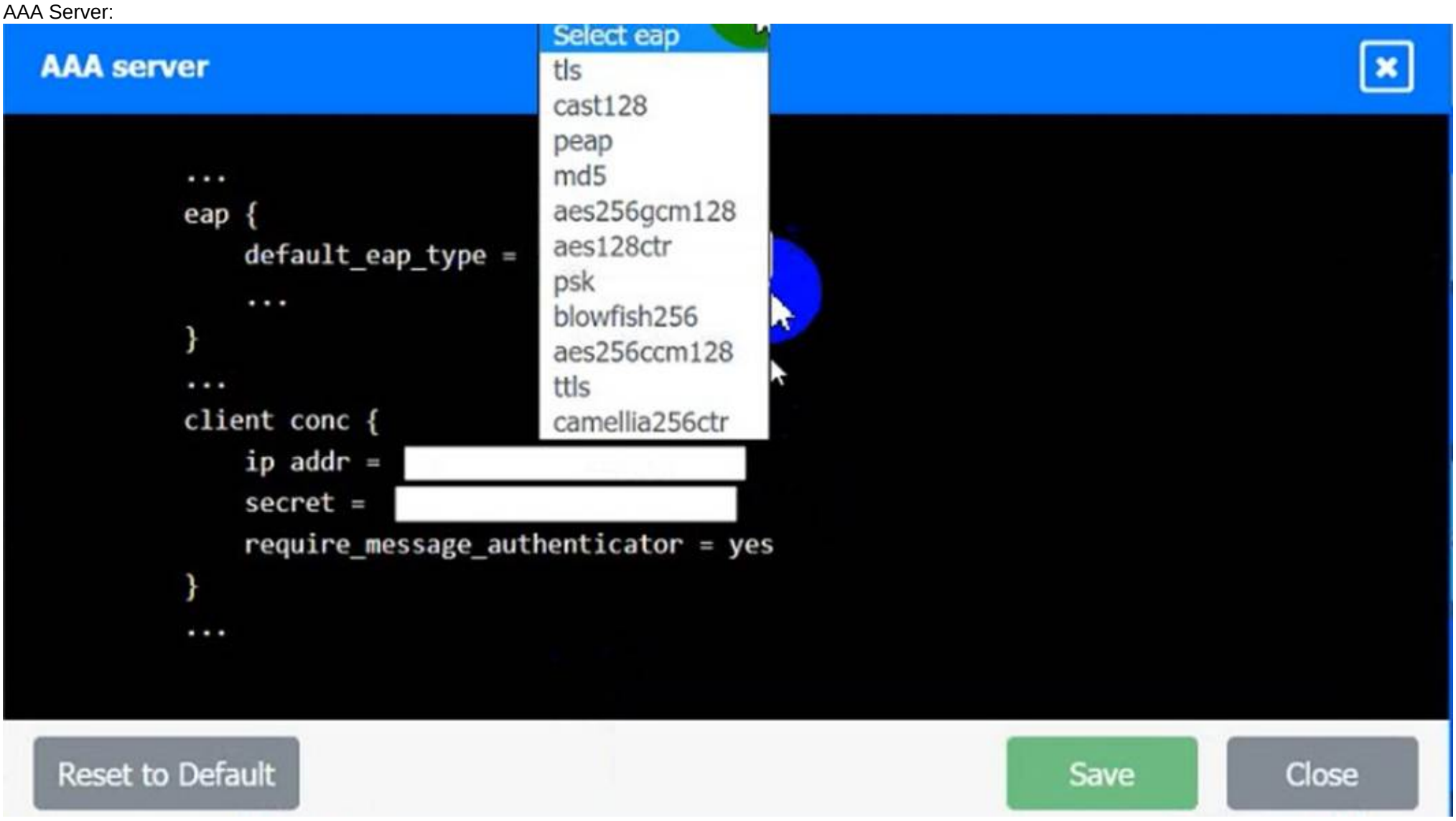
NEW QUESTION 10
SIMULATION
An IPSec solution is being deployed. The configuration files for both the VPN concentrator and the AAA server are shown in the diagram.
Complete the configuration files to meet the following requirements:
• The EAP method must use mutual certificate-based authentication (With 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:



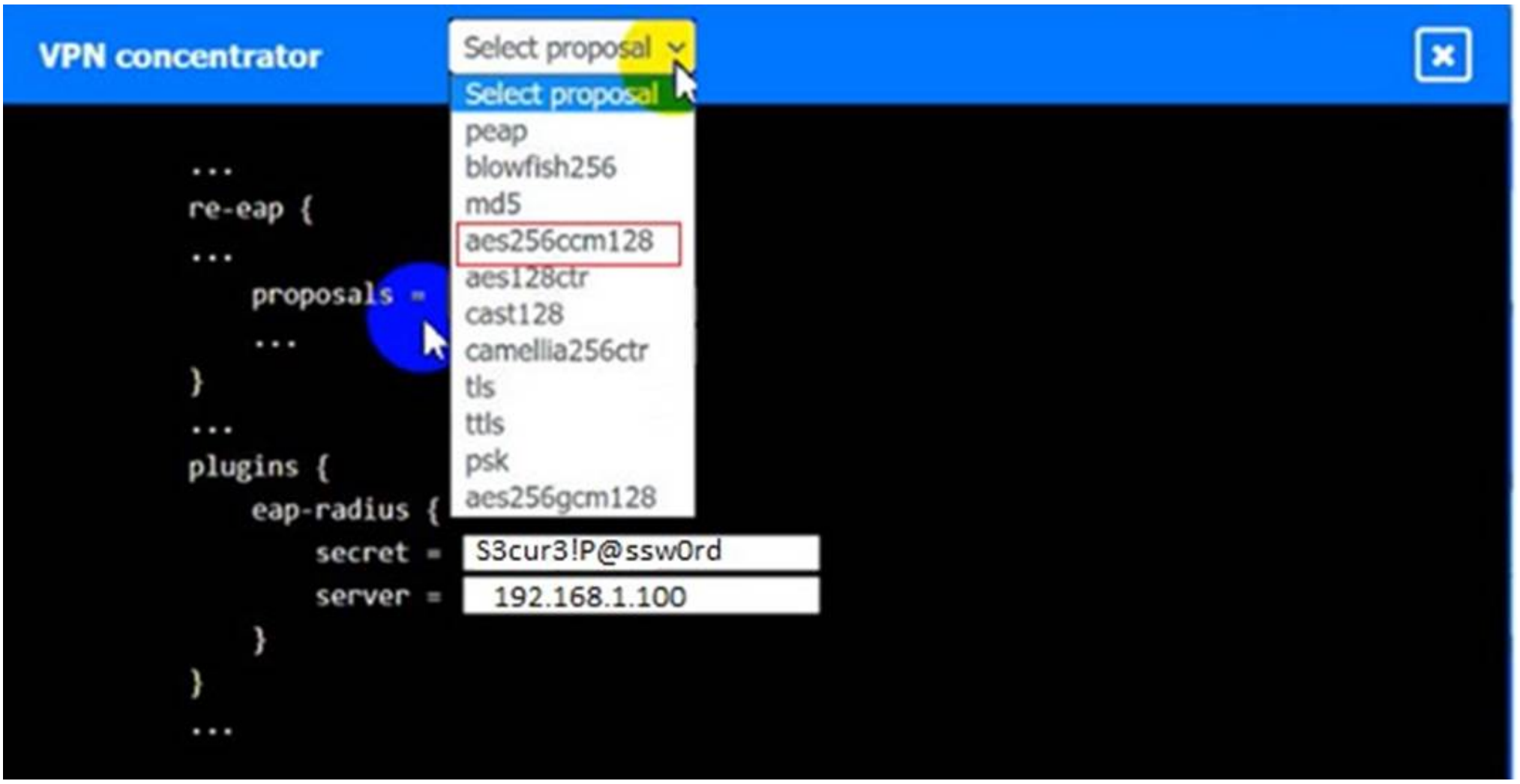
AAA Server:



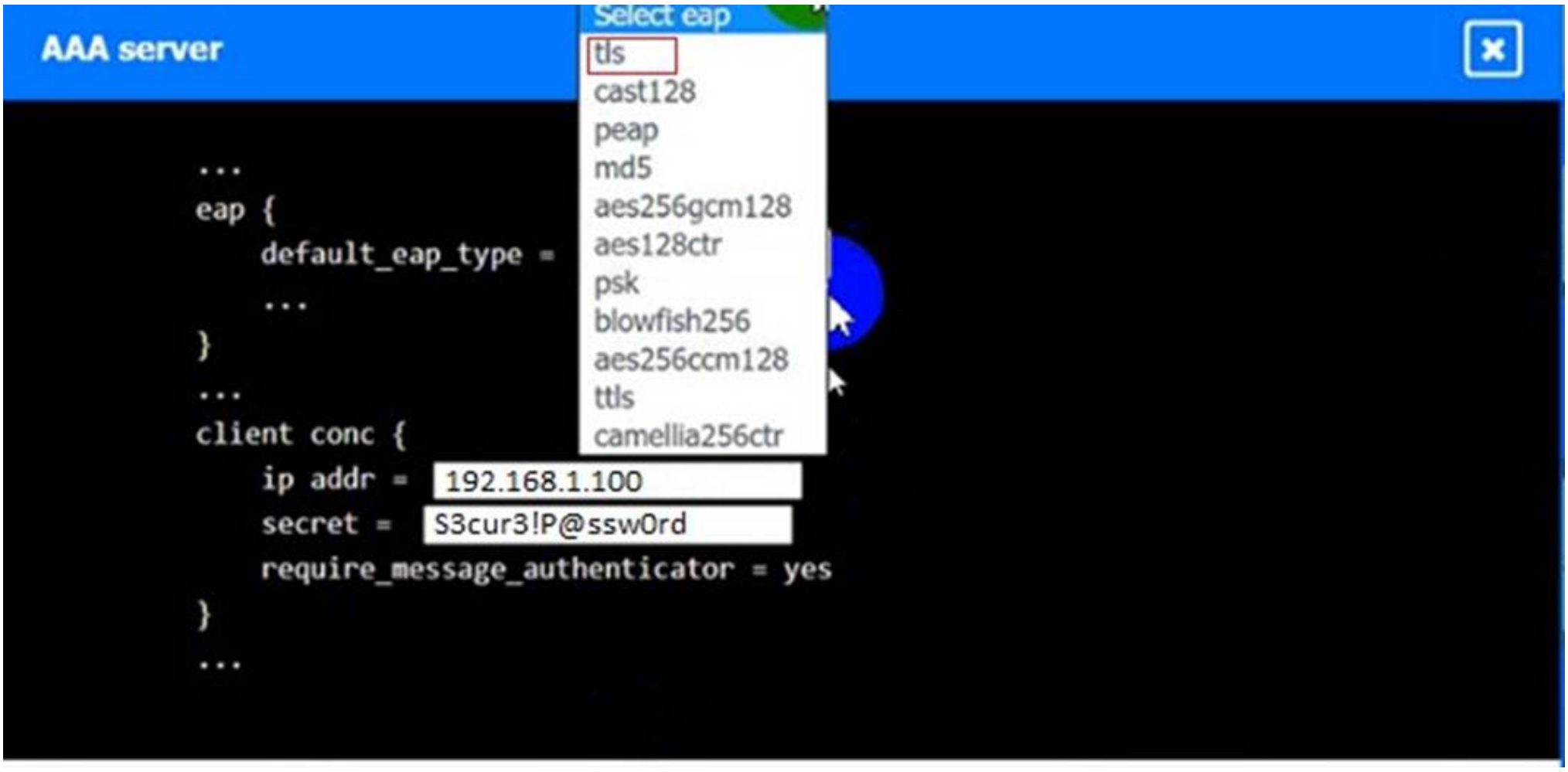
A. Mastered
B. Not Mastered

Answer: A

Explanation:
VPN Concentrator:



AAA Server:



NEW QUESTION 11
A company recently experienced an incident in which an advanced threat actor was able to shim malicious code against the hardware static of a domain controller The forensic team cryptographically validated that com the underlying firmware of the box and the operating system had not been compromised. However, the attacker was able to exfiltrate information from the server using a steganographic technique within LOAP Which of the following is me b»« way to reduce the risk oi reoccurrence?

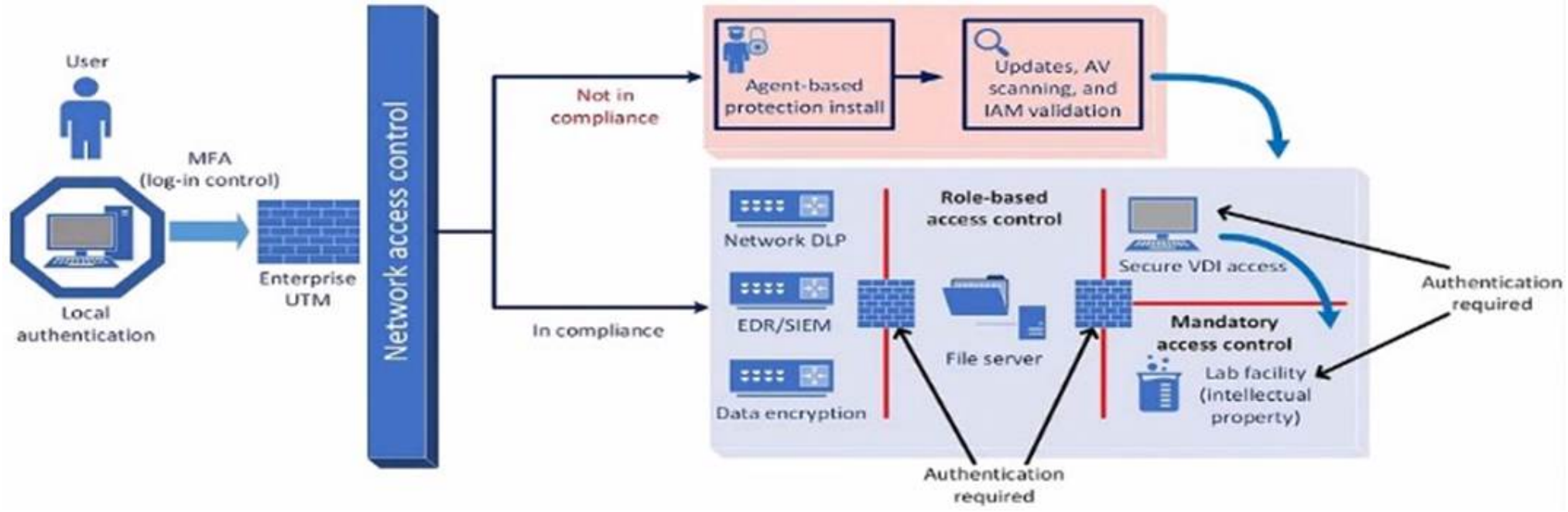
A. Enforcing allow lists for authorized network pons and protocols
B. Measuring and attesting to the entire boot chum
C. Rolling the cryptographic keys used for hardware security modules
D. Using code signing to verify the source of OS updates

Answer: A

Explanation:
The scenario describes a sophisticated attack where the threat actor used steganography within LDAP to exfiltrate data. Given that the hardware and OS firmware were validated and found uncompromised, the attack vector likely exploited a network communication channel. To mitigate such risks, enforcing allow lists for authorized network ports and protocols is the most effective strategy.
Here??s why this option is optimal:
? Port and Protocol Restrictions: By creating an allow list, the organization can restrict communications to only those ports and protocols that are necessary for legitimate business operations. This reduces the attack surface by preventing unauthorized or unusual traffic.
? Network Segmentation: Enforcing such rules helps in segmenting the network and ensuring that only approved communications occur, which is critical in

preventing data exfiltration methods like steganography.
? Preventing Unauthorized Access: Allow lists ensure that only predefined, trusted connections are allowed, blocking potential paths that attackers could use to infiltrate or exfiltrate data.
Other options, while beneficial in different contexts, are not directly addressing the network communication threat:
? B. Measuring and attesting to the entire boot chain: While this improves system
integrity, it doesn??t directly mitigate the risk of data exfiltration through network channels.
? C. Rolling the cryptographic keys used for hardware security modules: This is
useful for securing data and communications but doesn??t directly address the specific method of exfiltration described.
? D. Using code signing to verify the source of OS updates: Ensures updates are
from legitimate sources, but it doesn??t mitigate the risk of network-based data exfiltration.
References:
? CompTIA SecurityX Study Guide
? NIST Special Publication 800-41, "Guidelines on Firewalls and Firewall Policy"
? CIS Controls Version 8, Control 9: Limitation and Control of Network Ports, Protocols, and Services

NEW QUESTION 15
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 20
A company that relies on an COL system must keep it operating until a new solution is available Which of the following is the most secure way to meet this goal?

A. Isolating the system and enforcing firewall rules to allow access to only required endpoints
B. Enforcing strong credentials and improving monitoring capabilities
C. Restricting system access to perform necessary maintenance by the IT team
D. Placing the system in a screened subnet and blocking access from internal resources

Answer: A

Explanation:
To ensure the most secure way of keeping a legacy system (COL) operating until a new solution is available, isolating the system and enforcing strict firewall rules is the best approach. This method minimizes the attack surface by restricting access to only the necessary endpoints, thereby reducing the risk of unauthorized access and potential security breaches. Isolating the system ensures that it is not exposed to the broader network, while firewall rules control the traffic that can reach the system, providing a secure environment until a replacement is implemented.
References:
? CompTIA SecurityX Study Guide: Recommends network isolation and firewall rules as effective measures for securing legacy systems.
? NIST Special Publication 800-82, "Guide to Industrial Control Systems (ICS) Security": Advises on isolating critical systems and using firewalls to control access.
? "Network Security Assessment" by Chris McNab: Discusses techniques for isolating systems and enforcing firewall rules to protect vulnerable or legacy systems.
By isolating the system and implementing strict firewall controls, the organization can maintain the necessary operations securely while working on deploying a new solution.

NEW QUESTION 23
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

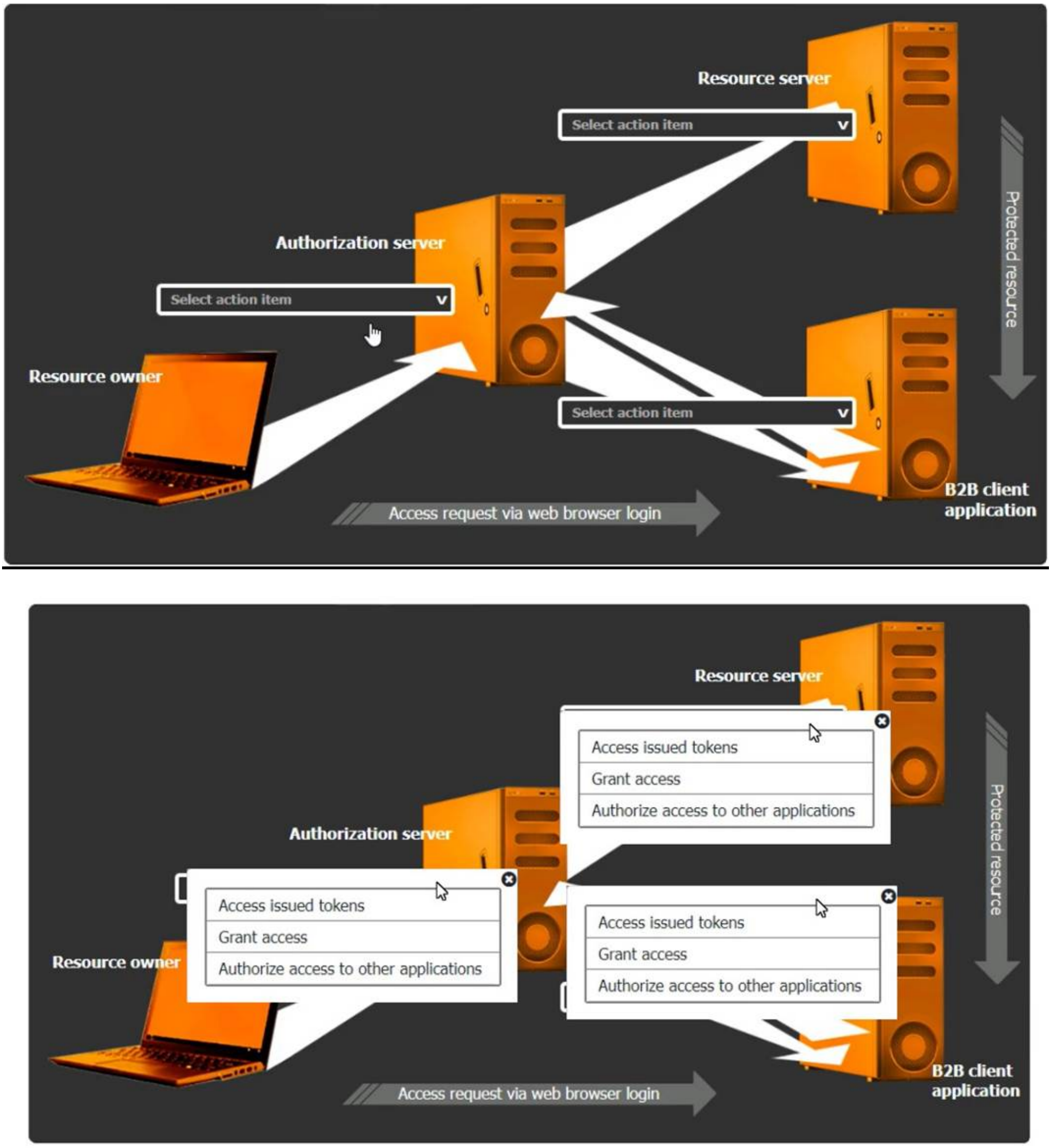
NEW QUESTION 25
After an incident occurred, a team reported during the lessons-learned review that the team.
* Lost important Information for further analysis.
* Did not utilize the chain of communication
* Did not follow the right steps for a proper response
Which of the following solutions is the best way to address these findinds?

A. Requesting budget for better forensic tools to Improve technical capabilities for Incident response operations
B. Building playbooks for different scenarios and performing regular table-top exercises
C. Requiring professional incident response certifications tor each new team member
D. Publishing the incident response policy and enforcing it as part of the security awareness program

Answer: B

Explanation:
Building playbooks for different scenarios and performing regular table-top exercises directly addresses the issues identified in the lessons-learned review. Here's why:
? Lost important information for further analysis: Playbooks outline step-by-step procedures for incident response, ensuring that team members know exactly what to document and how to preserve evidence.
? Did not utilize the chain of communication: Playbooks include communication protocols, specifying who to notify and when. Regular table-top exercises reinforce these communication channels, ensuring they are followed during actual incidents.
? Did not follow the right steps for a proper response: Playbooks provide a clear sequence of actions to be taken during various types of incidents, helping the team to respond in a structured and effective manner. Regular exercises allow the team to practice these steps, identifying and correcting any deviations from the plan.
Investing in better forensic tools (Option A) or requiring certifications (Option C) are also valuable, but they do not directly address the procedural and communication gaps identified. Publishing and enforcing the incident response policy (Option D) is important but not as practical and hands-on as playbooks and exercises in ensuring the team is prepared.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-61 Rev. 2, "Computer Security Incident Handling Guide"
? SANS Institute, "Incident Handler's Handbook"

NEW QUESTION 27
SIMULATION
You are tasked with integrating a new B2B client application with an existing OAuth workflow that must meet the following requirements:
. The application does not need to know the users' credentials.
. An approval interaction between the users and the HTTP service must be orchestrated.
. The application must have limited access to users' data. INSTRUCTIONS
Use the drop-down menus to select the action items for the appropriate locations. All placeholders must be filled.



A. Mastered
B. Not Mastered

Answer: A

Explanation:
Select the Action Items for the Appropriate Locations:
? Authorization Server:
? Resource Server:
? B2B Client Application:
Detailed Explanation
OAuth 2.0 is designed to provide specific authorization flows for web applications, desktop applications, mobile phones, and living room devices. The integration involves multiple steps and components, including:
? Resource Owner (User):
? Client Application (B2B Client Application):
? Authorization Server:

? Resource Server:
OAuth Workflow:
? The resource owner accesses the client application.
? The client application redirects the resource owner to the authorization server for authentication.
? The authorization server authenticates the resource owner and asks for consent to grant access to the client application.
? Upon consent, the authorization server issues an authorization code or token to the client application.
? The client application uses the authorization code or token to request access to the resources from the resource server.
? The resource server verifies the token with the authorization server and, if valid, grants access to the requested resources.
References:
? CompTIA Security+ Study Guide: Provides comprehensive information on various authentication and authorization protocols, including OAuth.
? OAuth 2.0 Authorization Framework (RFC 6749): The official documentation detailing the OAuth 2.0 framework, its flows, and components.
? OAuth 2.0 Simplified: A book by Aaron Parecki that provides a detailed yet easy- to-understand explanation of the OAuth 2.0 protocol.
By ensuring that each component in the OAuth workflow performs its designated role, the B2B client application can securely access the necessary resources without compromising user credentials, adhering to the principle of least privilege.

NEW QUESTION 31
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 34
An organization wants to manage specialized endpoints and needs a solution that provides the ability to
* Centrally manage configurations
* Push policies.
• Remotely wipe devices
• Maintain asset inventory
Which of the following should the organization do to best meet these requirements?

A. Use a configuration management database
B. Implement a mobile device management solution.
C. Configure contextual policy management
D. Deploy a software asset manager

Answer: B

Explanation:
To meet the requirements of centrally managing configurations, pushing policies, remotely wiping devices, and maintaining an asset inventory, the best solution is to implement a Mobile Device Management (MDM) solution.
MDM Capabilities:
? Central Management: MDM allows administrators to manage the configurations of all devices from a central console.
? Policy Enforcement: MDM solutions enable the push of security policies and updates to ensure compliance across all managed devices.
? Remote Wipe: In case a device is lost or stolen, MDM provides the capability to remotely wipe the device to protect sensitive data.
? Asset Inventory: MDM maintains an up-to-date inventory of all managed devices, including their configurations and installed applications.
Other options do not provide the same comprehensive capabilities required for managing specialized endpoints.
References:
? CompTIA SecurityX Study Guide
? NIST Special Publication 800-124 Revision 1, "Guidelines for Managing the Security of Mobile Devices in the Enterprise"
? "Mobile Device Management Overview," Gartner Research

NEW QUESTION 38
All organization is concerned about insider threats from employees who have individual access to encrypted material. Which of the following techniques best addresses this issue?

A. SSO with MFA
B. Sating and hashing
C. Account federation with hardware tokens
D. SAE
E. Key splitting

Answer: E

Explanation:
The technique that best addresses the issue of insider threats from employees who have individual access to encrypted material is key splitting. Here??s why:
? Key Splitting: Key splitting involves dividing a cryptographic key into multiple parts and distributing these parts among different individuals or systems. This ensures that no single individual has complete access to the key, thereby mitigating the risk of insider threats.
? Increased Security: By requiring multiple parties to combine their key parts to access encrypted material, key splitting provides an additional layer of security. This approach is particularly useful in environments where sensitive data needs to be protected from unauthorized access by insiders.
? Compliance and Best Practices: Key splitting aligns with best practices and regulatory requirements for handling sensitive information, ensuring that access is tightly controlled and monitored.
? References:
By employing key splitting, organizations can effectively reduce the risk of insider threats and enhance the overall security of encrypted material.

NEW QUESTION 43
A hospital provides tablets to its medical staff to enable them to more quickly access and edit patients' charts. The hospital wants to ensure that if a tablet is Identified as lost or stolen and a remote command is issued, the risk of data loss can be mitigated within seconds. The tablets are configured as follows to meet hospital policy
• Full disk encryption is enabled
• "Always On" corporate VPN is enabled
• ef-use-backed keystore is enabled'ready.
• Wi-Fi 6 is configured with SAE.
• Location services is disabled.
•Application allow list is configured

A. Revoking the user certificates used for VPN and Wi-Fi access
B. Performing cryptographic obfuscation
C. Using geolocation to find the device
D. Configuring the application allow list to only per mil emergency calls
E. Returning on the device's solid-state media to zero

Answer: E

Explanation:
To mitigate the risk of data loss on a lost or stolen tablet quickly, the most effective strategy is to return the device's solid-state media to zero, which effectively erases all data on the device. Here's why:
? Immediate Data Erasure: Returning the solid-state media to zero ensures that all
data is wiped instantly, mitigating the risk of data loss if the device is lost or stolen.
? Full Disk Encryption: Even though the tablets are already encrypted, physically erasing the data ensures that no residual data can be accessed if someone attempts to bypass encryption.
? Compliance and Security: This method adheres to best practices for data security and compliance, ensuring that sensitive patient data cannot be accessed by unauthorized parties.

NEW QUESTION 48
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
-------------| man-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 52
A software company deployed a new application based on its internal code repository Several customers are reporting anti-malware alerts on workstations used to test the application Which of the following is the most likely cause of the alerts?

A. Misconfigured code commit
B. Unsecure bundled libraries
C. Invalid code signing certificate
D. Data leakage

Answer: B

Explanation:
The most likely cause of the anti-malware alerts on customer workstations is unsecure bundled libraries. When developing and deploying new applications, it is common for developers to use third-party libraries. If these libraries are not properly vetted for security, they can introduce vulnerabilities or malicious code.
Why Unsecure Bundled Libraries?
? Third-Party Risks: Using libraries that are not secure can lead to malware infections if the libraries contain malicious code or vulnerabilities.
? Code Dependencies: Libraries may have dependencies that are not secure, leading to potential security risks.
? Common Issue: This is a frequent issue in software development where libraries are used for convenience but not properly vetted for security.
Other options, while relevant, are less likely to cause widespread anti-malware alerts:
? A. Misconfigured code commit: Could lead to issues but less likely to trigger anti- malware alerts.
? C. Invalid code signing certificate: Would lead to trust issues but not typically anti- malware alerts.
? D. Data leakage: Relevant for privacy concerns but not directly related to anti- malware alerts.
References:
? CompTIA SecurityX Study Guide
? "Securing Open Source Libraries," OWASP
? "Managing Third-Party Software Security Risks," Gartner Research

NEW QUESTION 56
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 57
.....

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