CAS-005 Dumps

CompTIA SecurityX Exam

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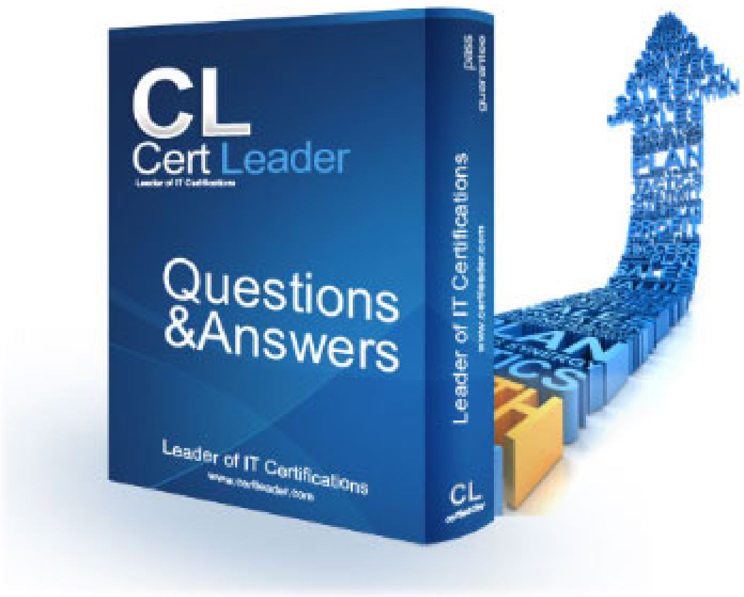
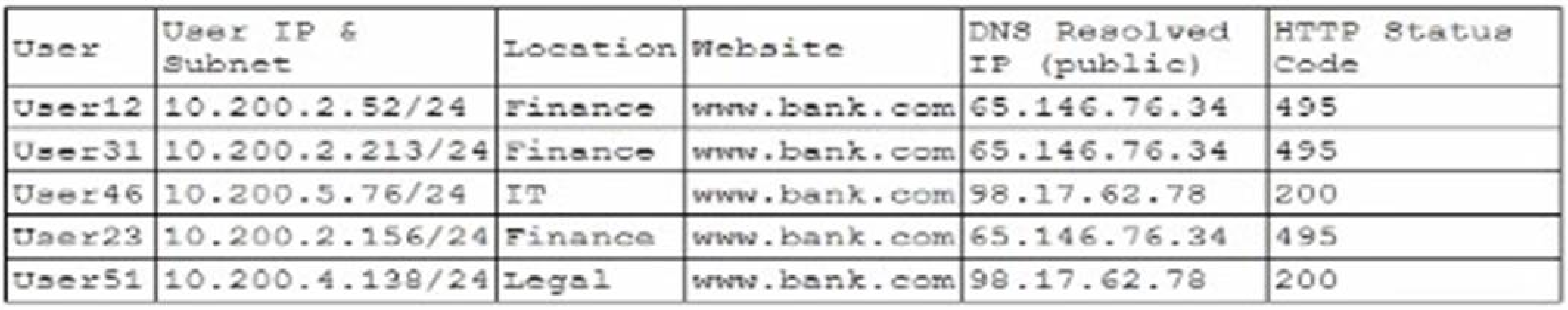


NEW QUESTION 1
A company's help desk is experiencing a large number of calls from the finance department slating access issues to www bank com The security operations center reviewed the following security logs:



User	User IP & Subnet	Location	Website	DNS Resolved IP (public)	HTTP Status Code
User12	10.200.2.52/24	Finance	www.bank.com	65.146.76.34	495
User31	10.200.2.213/24	Finance	www.bank.com	65.146.76.34	495
User46	10.200.5.76/24	IT	www.bank.com	98.17.62.78	200
User23	10.200.2.156/24	Finance	www.bank.com	65.146.76.34	495
User51	10.200.4.138/24	Legal	www.bank.com	98.17.62.78	200

Which of the following is most likely the cause of the issue?

A. Recursive DNS resolution is failing
B. The DNS record has been poisoned.
C. DNS traffic is being sinkholed.
D. The DNS was set up incorrectly.

Answer: C

Explanation:
Sinkholing, or DNS sinkholing, is a method used to redirect malicious traffic to a safe destination. This technique is often employed by security teams to prevent access to malicious domains by substituting a benign destination IP address.
In the given logs, users from the finance department are accessing www.bank.com and receiving HTTP status code 495. This status code is typically indicative of a client certificate error, which can occur if the DNS traffic is being manipulated or redirected incorrectly. The consistency in receiving the same HTTP status code across different users suggests a systematic issue rather than an isolated incident.
? Recursive DNS resolution failure (A) would generally lead to inability to resolve
DNS at all, not to a specific HTTP error.
? DNS poisoning (B) could result in users being directed to malicious sites, but again, would likely result in a different set of errors or unusual activity.
? Incorrect DNS setup (D) would likely cause broader resolution issues rather than targeted errors like the one seen here.
By reviewing the provided data, it is evident that the DNS traffic for www.bank.com is being rerouted improperly, resulting in consistent HTTP 495 errors for the finance department users. Hence, the most likely cause is that the DNS traffic is being sinkholed.
References:
? CompTIA SecurityX study materials on DNS security mechanisms.
? Standard HTTP status codes and their implications.

NEW QUESTION 2
A news organization wants to implement workflows that allow users to request that untruthful data be retraced and scrubbed from online publications to comply with the right to be forgotten Which of the following regulations is the organization most likely trying to address'

A. GDPR
B. COPPA
C. CCPA
D. DORA

Answer: A

Explanation:
The General Data Protection Regulation (GDPR) is the regulation most likely being addressed by the news organization. GDPR includes provisions for the "right to be forgotten," which allows individuals to request the deletion of personal data that is no longer necessary for the purposes for which it was collected. This regulation aims to protect the privacy and personal data of individuals within the European Union.
References:
? CompTIA SecurityX Study Guide: Covers GDPR and its requirements, including the right to be forgotten.
? GDPR official documentation: Details the rights of individuals, including data erasure and the right to be forgotten.
? "GDPR: A Practical Guide to the General Data Protection Regulation" by IT Governance Privacy Team: Provides a comprehensive overview of GDPR compliance, including workflows for data deletion requests.

NEW QUESTION 3
A company's SICM Is continuously reporting false positives and false negatives The security operations team has Implemented configuration changes to troubleshoot possible reporting errors Which of the following sources of information best supports the required analysts process? (Select two).

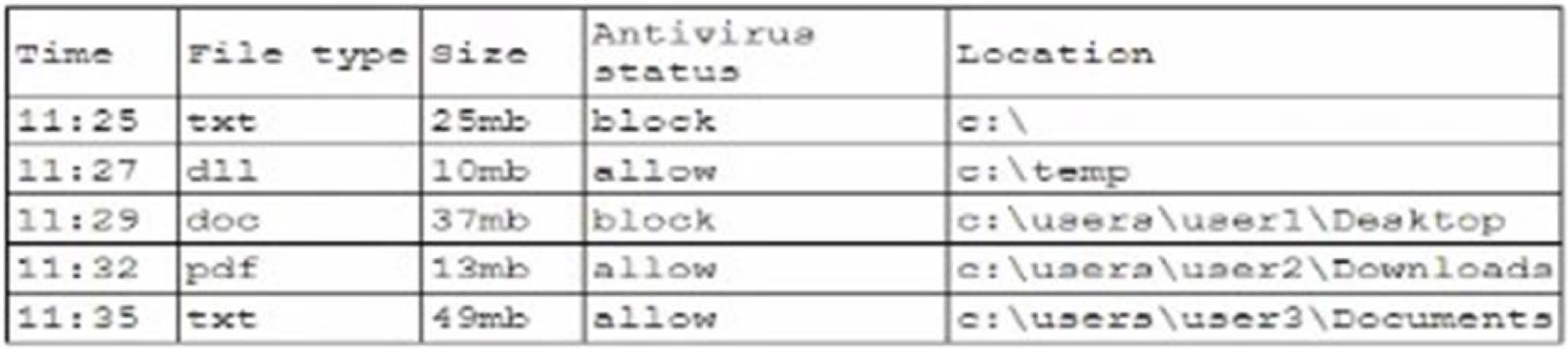
A. Third-party reports and logs
B. Trends
C. Dashboards
D. Alert failures
E. Network traffic summaries
F. Manual review processes

Answer: AB

Explanation:
When dealing with false positives and false negatives reported by a Security Information and Event Management (SIEM) system, the goal is to enhance the accuracy of the alerts and ensure that actual threats are identified correctly. The following sources of information best support the analysis process:
* A. Third-party reports and logs: Utilizing external sources of information such as threat intelligence reports, vendor logs, and other third-party data can provide a

broader
perspective on potential threats. These sources often contain valuable insights and context that can help correlate events more accurately, reducing the likelihood of false positives and false negatives.
* B. Trends: Analyzing trends over time can help in understanding patterns and anomalies in the data. By observing trends, the security team can distinguish between normal and abnormal behavior, which aids in fine-tuning the SIEM configurations to better detect true positives and reduce false alerts.
Other options such as dashboards, alert failures, network traffic summaries, and manual review processes are also useful but are more operational rather than foundational for understanding the root causes of reporting errors in SIEM configurations.
References:
? CompTIA SecurityX Study Guide: Emphasizes the importance of leveraging external threat intelligence and historical trends for accurate threat detection.
? NIST Special Publication 800-92, "Guide to Computer Security Log Management": Highlights best practices for log management, including the use of third-party sources and trend analysis to improve incident detection.
? "Security Information and Event Management (SIEM) Implementation" by David Miller: Discusses the use of external intelligence and trends to enhance SIEM accuracy.

NEW QUESTION 4
A security analyst is reviewing the following log:



Time	File type	Size	Antivirus status	Location
11:25	txt	25mb	block	c:\
11:27	dll	10mb	allow	c:\temp
11:29	doc	37mb	block	c:\users\user1\Desktop
11:32	pdf	13mb	allow	c:\users\user2\Downloads
11:35	txt	49mb	allow	c:\users\user3\Documents

Which of the following possible events should the security analyst investigate further?

A. A macro that was prevented from running
B. A text file containing passwords that were leaked
C. A malicious file that was run in this environment
D. A PDF that exposed sensitive information improperly

Answer: B

Explanation:
Based on the log provided, the most concerning event that should be investigated further is
the presence of a text file containing passwords that were leaked. Here's why:
? Sensitive Information Exposure: A text file containing passwords represents a significant security risk, as it indicates that sensitive credentials have been exposed in plain text, potentially leading to unauthorized access.
? Immediate Threat: Password leaks can lead to immediate exploitation by attackers, compromising user accounts and sensitive data. This requires urgent investi

NEW QUESTION 5
A global manufacturing company has an internal application mat is critical to making products This application cannot be updated and must Be available in the production area A security architect is implementing security for the application. Which of the following best describes the action the architect should take-?

A. Disallow wireless access to the application.
B. Deploy Intrusion detection capabilities using a network tap
C. Create an acceptable use policy for the use of the application
D. Create a separate network for users who need access to the application

Answer: D

Explanation:
Creating a separate network for users who need access to the application is the best action to secure an internal application that is critical to the production area and cannot be updated.
Why Separate Network?
? Network Segmentation: Isolates the critical application from the rest of the network, reducing the risk of compromise and limiting the potential impact of any security incidents.
? Controlled Access: Ensures that only authorized users have access to the application, enhancing security and reducing the attack surface.
? Minimized Risk: Segmentation helps in protecting the application from vulnerabilities that could be exploited from other parts of the network.
Other options, while beneficial, do not provide the same level of security for a critical application:
? A. Disallow wireless access: Useful but does not provide comprehensive protection.
? B. Deploy intrusion detection capabilities using a network tap: Enhances monitoring but does not provide the same level of isolation and control.
? C. Create an acceptable use policy: Important for governance but does not provide technical security controls.
References:
? CompTIA SecurityX Study Guide
? NIST Special Publication 800-125, "Guide to Security for Full Virtualization Technologies"
? "Network Segmentation Best Practices," Cisco Documentation

NEW QUESTION 6
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 7
A company wants to use IoT devices to manage and monitor thermostats at all facilities The thermostats must receive vendor security updates and limit access to other devices within the organization Which of the following best addresses the company's requirements"

A. Only allowing Internet access to a set of specific domains
B. Operating lot devices on a separate network with no access to other devices internally
C. Only allowing operation for IoT devices during a specified time window
D. Configuring IoT devices to always allow automatic updates

Answer: B

Explanation:
The best approach for managing and monitoring IoT devices, such as thermostats, is to operate them on a separate network with no access to other internal devices. This segmentation ensures that the IoT devices are isolated from the main network, reducing the risk of potential security breaches affecting other critical systems. Additionally, this setup allows for secure vendor updates without exposing the broader network to potential vulnerabilities inherent in IoT devices.
References:
? CompTIA SecurityX Study Guide: Recommends network segmentation for IoT devices to minimize security risks.
? NIST Special Publication 800-183, "Network of Things": Advises on the isolation of IoT devices to enhance security.
? "Practical IoT Security" by Brian Russell and Drew Van Duren: Discusses best practices for securing IoT devices, including network segmentation.

NEW QUESTION 8
A security analyst received a notification from a cloud service provider regarding an attack detected on a web server The cloud service provider shared the following information about the attack:
• The attack came from inside the network.
• The attacking source IP was from the internal vulnerability scanners.
• The scanner is not configured to target the cloud servers.
Which of the following actions should the security analyst take first?

A. Create an allow list for the vulnerability scanner IPs m order to avoid false positives
B. Configure the scan policy to avoid targeting an out-of-scope host
C. Set network behavior analysis rules
D. Quarantine the scanner sensor to perform a forensic analysis

Answer: D

Explanation:
When a security analyst receives a notification about an attack that appears to originate from an internal vulnerability scanner, it suggests that the scanner itself might have been compromised. This situation is critical because a compromised scanner can potentially conduct unauthorized scans, leak sensitive information, or execute malicious actions within the network. The appropriate first action involves containing the threat to prevent further damage and allow for a thorough investigation.
Here??s why quarantining the scanner sensor is the best immediate action:
? Containment and Isolation: Quarantining the scanner will immediately prevent it
from continuing any malicious activity or scans. This containment is crucial to protect the rest of the network from potential harm.
? Forensic Analysis: By isolating the scanner, a forensic analysis can be performed to understand how it was compromised, what actions it took, and what data or systems might have been affected. This analysis will provide valuable insights into the nature of the attack and help in taking appropriate remedial actions.
? Preventing Further Attacks: If the scanner is allowed to continue operating, it might execute more unauthorized actions, leading to greater damage. Quarantine ensures that the threat is neutralized promptly.
? Root Cause Identification: A forensic analysis can help identify vulnerabilities in the scanner??s configuration, software, or underlying system that allowed the compromise. This information is essential for preventing future incidents.
Other options, while potentially useful in the long term, are not appropriate as immediate actions in this scenario:
? A. Create an allow list for the vulnerability scanner IPs to avoid false positives:
This action addresses false positives but does not mitigate the immediate threat posed by the compromised scanner.
? B. Configure the scan policy to avoid targeting an out-of-scope host: This step is preventive for future scans but does not deal with the current incident where the scanner is already compromised.
? C. Set network behavior analysis rules: While useful for ongoing monitoring and detection, this does not address the immediate need to stop the compromised scanner??s activities.
In conclusion, the first and most crucial action is to quarantine the scanner sensor to halt any malicious activity and perform a forensic analysis to understand the scope and nature of the compromise. This step ensures that the threat is contained and provides a basis for further remediation efforts.
References:
? CompTIA SecurityX Study Guide

? NIST Special Publication 800-61 Revision 2, "Computer Security Incident Handling Guide"

NEW QUESTION 9

A security engineer is developing a solution to meet the following requirements?
• All endpoints should be able to establish telemetry with a SIEM.
• All endpoints should be able to be integrated into the XDR platform.
• SOC services should be able to monitor the XDR platform
Which of the following should the security engineer implement to meet the requirements?

A. CDR and central logging
B. HIDS and vTPM
C. WAF and syslog
D. HIPS and host-based firewall

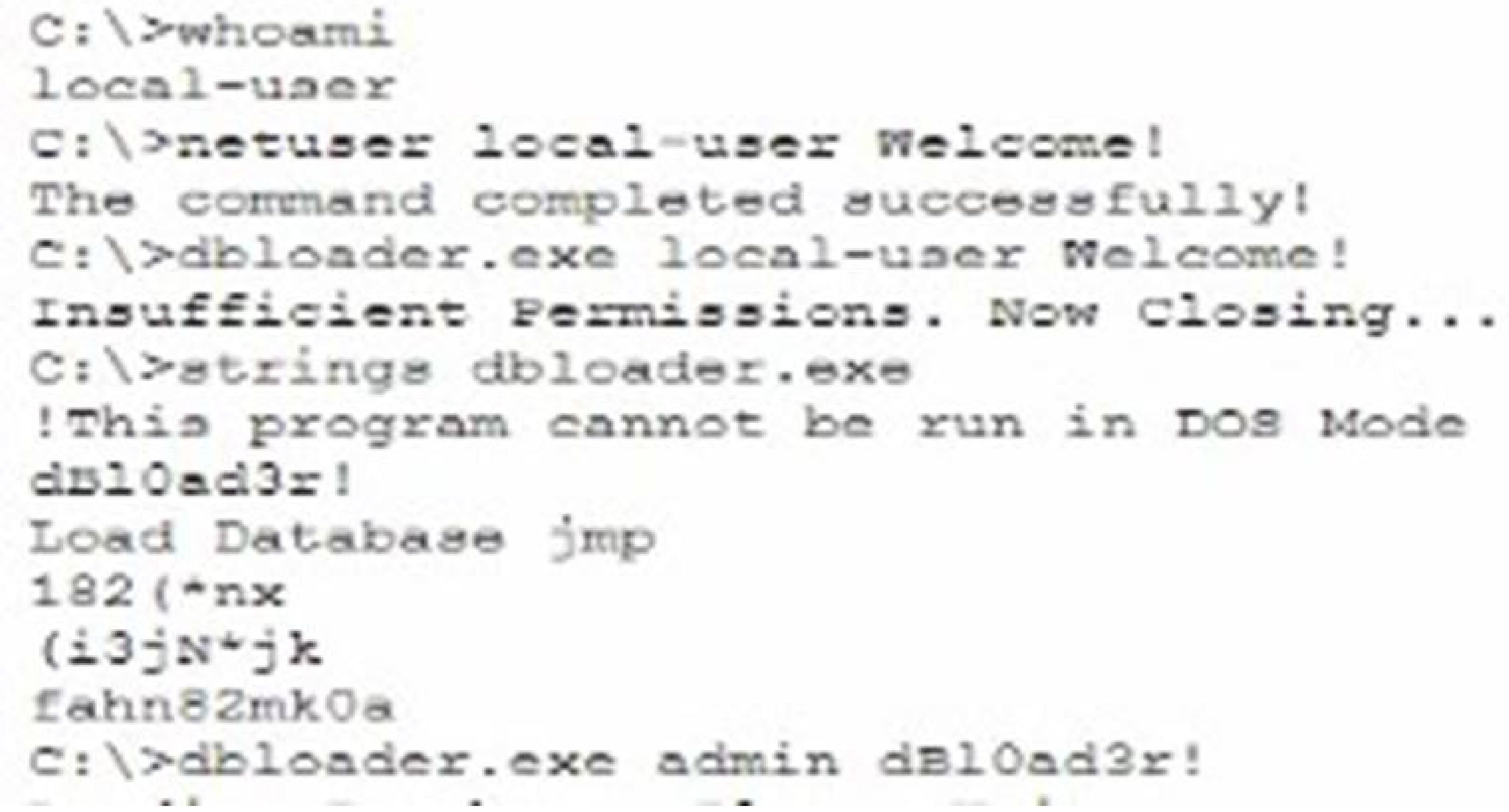
Answer: D

Explanation:

To meet the requirements of having all endpoints establish telemetry with a SIEM, integrate into an XDR platform, and allow SOC services to monitor the XDR platform, the best approach is to implement Host Intrusion Prevention Systems (HIPS) and a host-based firewall. HIPS can provide detailed telemetry data to the SIEM and can be integrated into the XDR platform for comprehensive monitoring and response. The host- based firewall ensures that only authorized traffic is allowed, providing an additional layer of security.
References:
? CompTIA SecurityX Study Guide: Describes the roles of HIPS and host-based firewalls in endpoint security and their integration with SIEM and XDR platforms.
? NIST Special Publication 800-94, "Guide to Intrusion Detection and Prevention Systems (IDPS)": Highlights the capabilities of HIPS for security monitoring and incident response.
? "Network Security Monitoring" by Richard Bejtlich: Discusses the integration of various security tools, including HIPS and firewalls, for effective security monitoring.

NEW QUESTION 10

Recent repents indicate that a software tool is being exploited Attackers were able to bypass user access controls and load a database. A security analyst needs to find the vulnerability and recommend a mitigation. The analyst generates the following output:



```
C:\>whoami
local-user
C:\>netuser local-user Welcome!
The command completed successfully!
C:\>dbloader.exe local-user Welcome!
Insufficient Permissions. Now Closing...
C:\>strings dbloader.exe
!This program cannot be run in DOS Mode
dB10ad3r!
Load Database jmp
182(*nx
(i3jN*jk
fahn82mk0a
C:\>dbloader.exe admin dB10ad3r!
```

Which of the following would the analyst most likely recommend?

A. Installing appropriate EDR tools to block pass-the-hash attempts
B. Adding additional time to software development to perform fuzz testing
C. Removing hard coded credentials from the source code
D. Not allowing users to change their local passwords

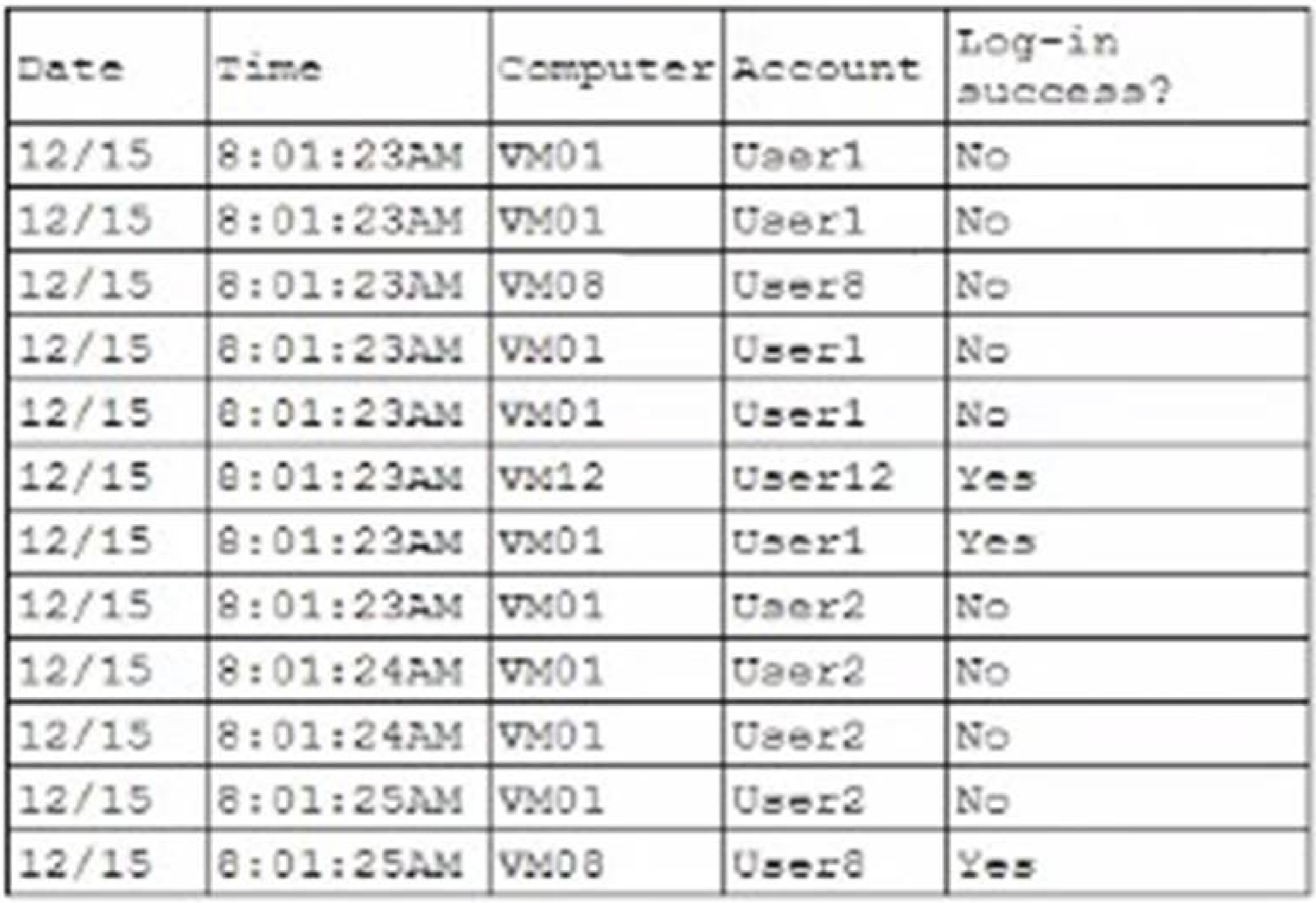
Answer: C

Explanation:

The output indicates that the software tool contains hard-coded credentials, which attackers can exploit to bypass user access controls and load the database. The most likely recommendation is to remove hard-coded credentials from the source code. Here??s why:
? Security Best Practices: Hard-coded credentials are a significant security risk
because they can be easily discovered through reverse engineering or simple inspection of the code. Removing them reduces the risk of unauthorized access.
? Credential Management: Credentials should be managed securely using
environment variables, secure vaults, or configuration management tools that provide encryption and access controls.
? Mitigation of Exploits: By eliminating hard-coded credentials, the organization can
prevent attackers from easily bypassing authentication mechanisms and gaining
unauthorized access to sensitive systems.
? References:

NEW QUESTION 10

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

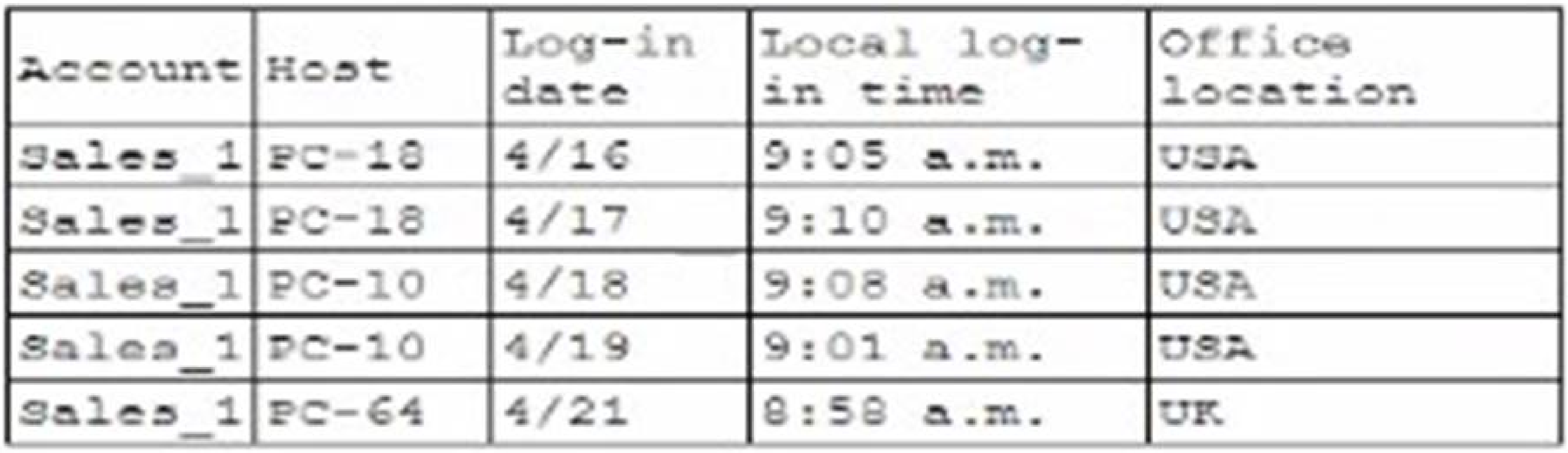
Which of the following should the analyst do first?

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 12
Which of the following is the security engineer most likely doing?



Account	Host	Log-in date	Local log-in time	Office location
Sales_1	PC-18	4/16	9:05 a.m.	USA
Sales_1	PC-18	4/17	9:10 a.m.	USA
Sales_1	PC-10	4/18	9:08 a.m.	USA
Sales_1	PC-10	4/19	9:01 a.m.	USA
Sales_1	PC-64	4/21	8:58 a.m.	UK

A. Assessing log in activities using geolocation to tune impossible Travel rate alerts
B. Reporting on remote log-in activities to track team metrics
C. Threat hunting for suspicious activity from an insider threat
D. Baselining user behavior to support advanced analytics

Answer: A

Explanation:
In the given scenario, the security engineer is likely examining login activities and their associated geolocations. This type of analysis is aimed at identifying unusual login patterns that might indicate an impossible travel scenario. An impossible travel scenario is when a single user account logs in from geographically distant locations in a short time, which is physically impossible. By assessing login activities using geolocation, the engineer can tune alerts to identify and respond to potential security breaches more effectively.

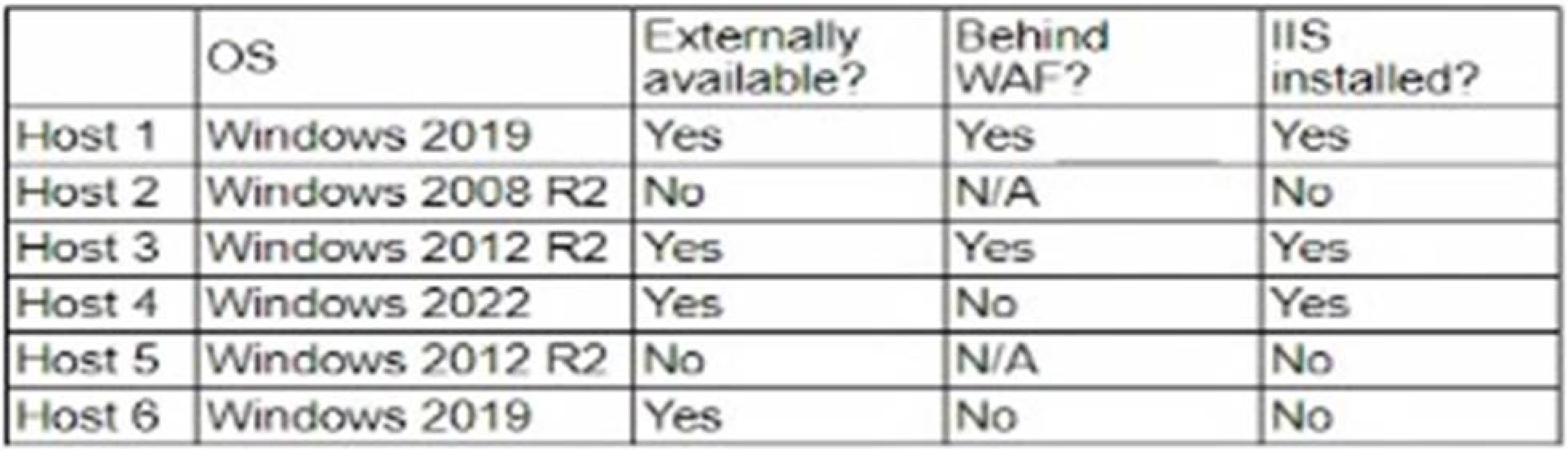
NEW QUESTION 13
A security engineer performed a code scan that resulted in many false positives. The security engineer must find a solution that improves the quality of scanning results before application deployment. Which of the following is the best solution?

A. Limiting the tool to a specific coding language and tuning the rule set
B. Configuring branch protection rules and dependency checks
C. Using an application vulnerability scanner to identify coding flaws in production
D. Performing updates on code libraries before code development

Answer: A

Explanation:
To improve the quality of code scanning results and reduce false positives, the best solution is to limit the tool to a specific coding language and fine-tune the rule set. By configuring the code scanning tool to focus on the specific language used in the application, the tool can more accurately identify relevant issues and reduce the number of false positives. Additionally, tuning the rule set ensures that the tool's checks are
appropriate for the application's context, further improving the accuracy of the scan results.
References:
? CompTIA SecurityX Study Guide: Discusses best practices for configuring code scanning tools, including language-specific tuning and rule set adjustments.
? "Secure Coding: Principles and Practices" by Mark G. Graff and Kenneth R. van Wyk: Highlights the importance of customizing code analysis tools to reduce false positives.
? OWASP (Open Web Application Security Project): Provides guidelines for configuring and tuning code scanning tools to improve accuracy.

NEW QUESTION 14
A company's security policy states that any publicly available server must be patched within 12 hours after a patch is released A recent IlS 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 15
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 20
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 23
A financial technology firm works collaboratively with business partners in the industry to share threat intelligence within a central platform This collaboration gives partner organizations the ability to obtain and share data associated with emerging threats from a variety of adversaries Which of the following should the organization most likely leverage to facilitate this activity? (Select two).

A. CWPP
B. YAKA
C. ATTACK
D. STIX
E. TAXII
F. JTAG

Answer: DE

Explanation:
? D. STIX (Structured Threat Information eXpression): STIX is a standardized language for representing threat information in a structured and machine-readable format. It facilitates the sharing of threat intelligence by ensuring that data is consistent and can be easily understood by all parties involved.
? E. TAXII (Trusted Automated eXchange of Indicator Information): TAXII is a transport mechanism that enables the sharing of cyber threat information over a secure and trusted network. It works in conjunction with STIX to automate the exchange of threat intelligence among organizations.
Other options:
? A. CWPP (Cloud Workload Protection Platform): This focuses on securing cloud workloads and is not directly related to threat intelligence sharing.
? B. YARA: YARA is used for malware research and identifying patterns in files, but it is not a platform for sharing threat intelligence.
? C. ATT&CK: This is a knowledge base of adversary tactics and techniques but does not facilitate the sharing of threat intelligence data.
? F. JTAG: JTAG is a standard for testing and debugging integrated circuits, not related to threat intelligence.
References:
? CompTIA Security+ Study Guide
? "STIX and TAXII: The Backbone of Threat Intelligence Sharing" by MITRE
? NIST SP 800-150, "Guide to Cyber Threat Information Sharing"

NEW QUESTION 27
A security team is responding to malicious activity and needs to determine the scope of impact the malicious activity appears to affect certain version of an application used by the organization Which of the following actions best enables the team to determine the scope of Impact?

A. Performing a port scan

B. Inspecting egress network traffic
C. Reviewing the asset inventory
D. Analyzing user behavior

Answer: C

Explanation:
Reviewing the asset inventory allows the security team to identify all instances of the affected application versions within the organization. By knowing which systems are running the vulnerable versions, the team can assess the full scope of the impact, determine which systems might be compromised, and prioritize them for further investigation and remediation.
Performing a port scan (Option A) might help identify open ports but does not provide specific information about the application versions. Inspecting egress network traffic (Option B) and analyzing user behavior (Option D) are important steps in the incident response process but do not directly identify which versions of the application are affected. References:
? CompTIA Security+ Study Guide
? NIST SP 800-61 Rev. 2, "Computer Security Incident Handling Guide"
? CIS Controls, "Control 1: Inventory and Control of Hardware Assets" and "Control 2: Inventory and Control of Software Assets"

NEW QUESTION 32
A company wants to install a three-tier approach to separate the web. database, and application servers A security administrator must harden the environment which of the following is the best solution?

A. Deploying a VPN to prevent remote locations from accessing server VLANs
B. Configuring a SASb solution to restrict users to server communication
C. Implementing microsegmentation on the server VLANs
D. installing a firewall and making it the network core

Answer: C

Explanation:
The best solution to harden a three-tier environment (web, database, and application servers) is to implement microsegmentation on the server VLANs. Here??s why:
? Enhanced Security: Microsegmentation creates granular security zones within the
data center, allowing for more precise control over east-west traffic between servers. This helps prevent lateral movement by attackers who may gain access to one part of the network.
? Isolation of Tiers: By segmenting the web, database, and application servers, the
organization can apply specific security policies and controls to each segment, reducing the risk of cross-tier attacks.
? Compliance and Best Practices: Microsegmentation aligns with best practices for
network security and helps meet compliance requirements by ensuring that sensitive data and systems are properly isolated and protected.
? References:

NEW QUESTION 36
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 37
A systems administrator works with engineers to process and address vulnerabilities as a result of continuous scanning activities. The primary challenge faced by the administrator is differentiating between valid and invalid findings. Which of the following would the systems administrator most likely verify is properly configured?

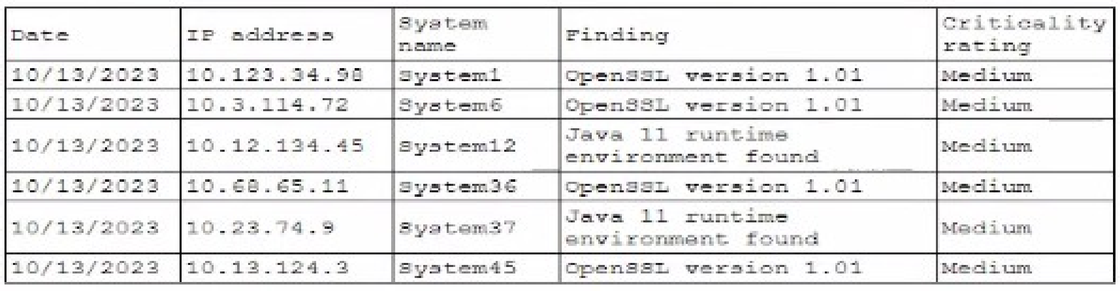
A. Report retention time
B. Scanning credentials
C. Exploit definitions
D. Testing cadence

Answer: B

Explanation:
When differentiating between valid and invalid findings from vulnerability scans, the systems administrator should verify that the scanning credentials are properly configured. Valid credentials ensure that the scanner can authenticate and access the systems being evaluated, providing accurate and comprehensive results. Without proper credentials, scans may miss vulnerabilities or generate false positives, making it difficult to prioritize and address the findings effectively.
References:
? CompTIA SecurityX Study Guide: Highlights the importance of using valid credentials for accurate vulnerability scanning.

? "Vulnerability Management" by Park Foreman: Discusses the role of scanning credentials in obtaining accurate scan results and minimizing false positives.
? "The Art of Network Security Monitoring" by Richard Bejtlich: Covers best practices for configuring and using vulnerability scanning tools, including the need for valid credentials.

NEW QUESTION 38
A security professional is investigating a trend in vulnerability findings for newly deployed cloud systems Given the following output:



Date	IP address	System name	Finding	Criticality rating
10/13/2023	10.123.34.98	System1	OpenSSL version 1.01	Medium
10/13/2023	10.3.114.72	System6	OpenSSL version 1.01	Medium
10/13/2023	10.12.134.45	System12	Java 11 runtime environment found	Medium
10/13/2023	10.68.65.11	System36	OpenSSL version 1.01	Medium
10/13/2023	10.23.74.9	System37	Java 11 runtime environment found	Medium
10/13/2023	10.13.124.3	System45	OpenSSL version 1.01	Medium

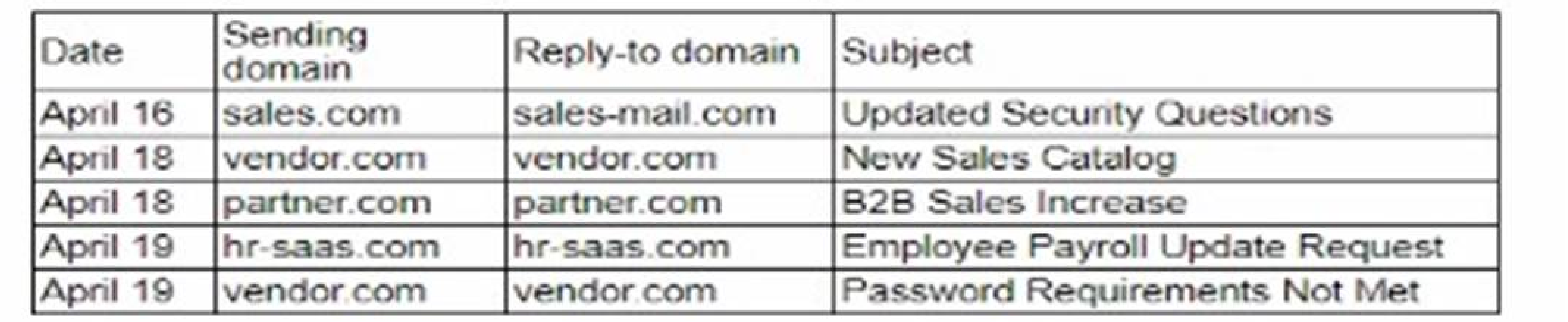
Which of the following actions would address the root cause of this issue?

A. Automating the patching system to update base Images
B. Recompiling the affected programs with the most current patches
C. Disabling unused/unneeded ports on all servers
D. Deploying a WAF with virtual patching upstream of the affected systems

Answer: A

Explanation:
The output shows that multiple systems have outdated or vulnerable software versions (OpenSSL 1.01 and Java 11 runtime). This suggests that the systems are not being patched regularly or effectively.
? A. Automating the patching system to update base images: Automating the
patching process ensures that the latest security updates and patches are applied to all systems, including newly deployed ones. This addresses the root cause by ensuring that base images used for deployment are always up-to-date with the latest security patches.
? B. Recompiling the affected programs with the most current patches: While this
can fix the immediate vulnerabilities, it does not address the root cause of the problem, which is the lack of regular updates.
? C. Disabling unused/unneeded ports on all servers: This improves security but does not address the specific issue of outdated software.
? D. Deploying a WAF with virtual patching upstream of the affected systems: This can provide a temporary shield but does not resolve the underlying issue of outdated software.
Automating the patching system to update base images ensures that all deployed systems are using the latest, most secure versions of software, addressing the root cause of the vulnerability trend.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-40 Rev. 3, "Guide to Enterprise Patch Management Technologies"
? CIS Controls, "Control 7: Continuous Vulnerability Management"

NEW QUESTION 41
A security analyst needs to ensure email domains that send phishing attempts without previous communications are not delivered to mailboxes The following email headers are being reviewed



Date	Sending domain	Reply-to domain	Subject
April 16	sales.com	sales-mail.com	Updated Security Questions
April 18	vendor.com	vendor.com	New Sales Catalog
April 18	partner.com	partner.com	B2B Sales Increase
April 19	hr-saas.com	hr-saas.com	Employee Payroll Update Request
April 19	vendor.com	vendor.com	Password Requirements Not Met

Which of the following is the best action for the security analyst to take?

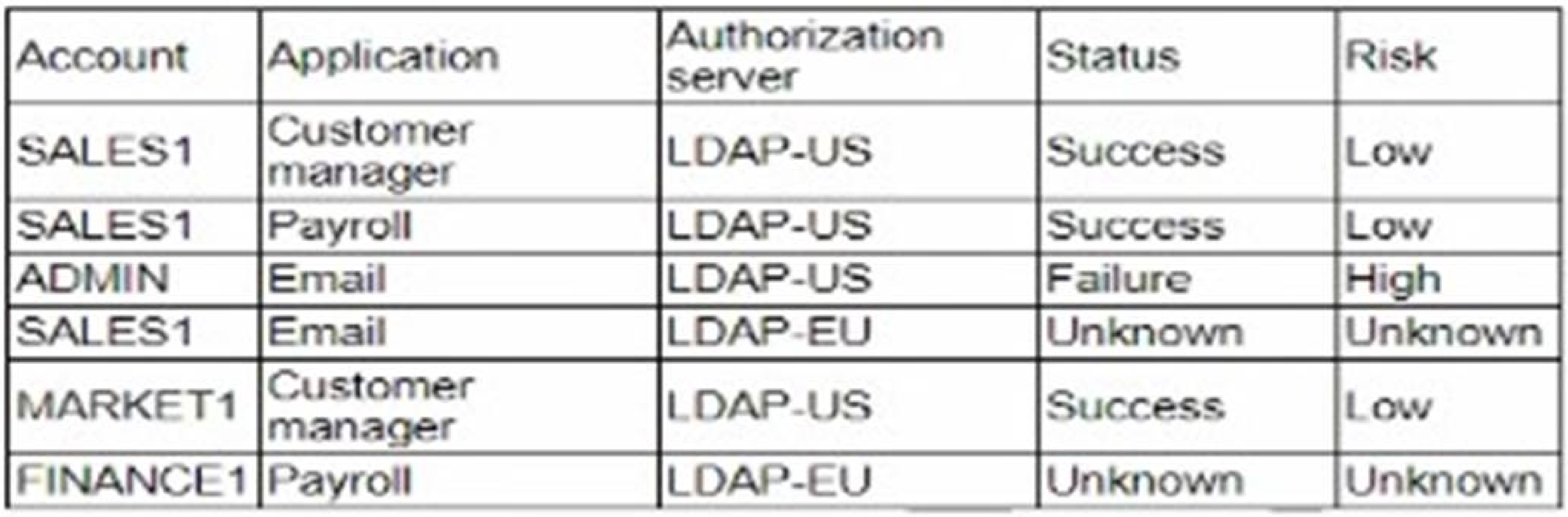
A. Block messages from hr-saas.com because it is not a recognized domain.
B. Reroute all messages with unusual security warning notices to the IT administrator
C. Quarantine all messages with sales-mail.com in the email header
D. Block vendor com for repeated attempts to send suspicious messages

Answer: D

Explanation:
In reviewing email headers and determining actions to mitigate phishing attempts, the security analyst should focus on patterns of suspicious behavior and the reputation of the sending domains. Here??s the analysis of the options provided:
* A. Block messages from hr-saas.com because it is not a recognized domain: Blocking a domain solely because it is not recognized can lead to legitimate emails being missed. Recognition alone should not be the criterion for blocking.
* B. Reroute all messages with unusual security warning notices to the IT administrator: While rerouting suspicious messages can be a good practice, it is not specific to the domain sending repeated suspicious messages.
* C. Quarantine all messages with sales-mail.com in the email header: Quarantining messages based on the presence of a specific domain in the email header can be too broad and may capture legitimate emails.
* D. Block vendor com for repeated attempts to send suspicious messages: This option is the most appropriate because it targets a domain that has shown a pattern of sending suspicious messages. Blocking a domain that repeatedly sends phishing attempts without previous communications helps in preventing future attempts from the same source and aligns with the goal of mitigating phishing risks.
References:

? CompTIA SecurityX Study Guide: Details best practices for handling phishing attempts, including blocking domains with repeated suspicious activity.
? NIST Special Publication 800-45 Version 2, "Guidelines on Electronic Mail Security": Provides guidelines on email security, including the management of suspicious email domains.
? "Phishing and Countermeasures: Understanding the Increasing Problem of Electronic Identity Theft" by Markus Jakobsson and Steven Myers: Discusses effective measures to counter phishing attempts, including blocking persistent offenders.
By blocking the domain that has consistently attempted to send suspicious messages, the security analyst can effectively reduce the risk of phishing attacks.

NEW QUESTION 45
A security analyst is reviewing suspicious log-in activity and sees the following data in the SICM:



Account	Application	Authorization server	Status	Risk
SALES1	Customer manager	LDAP-US	Success	Low
SALES1	Payroll	LDAP-US	Success	Low
ADMIN	Email	LDAP-US	Failure	High
SALES1	Email	LDAP-EU	Unknown	Unknown
MARKET1	Customer manager	LDAP-US	Success	Low
FINANCE1	Payroll	LDAP-EU	Unknown	Unknown

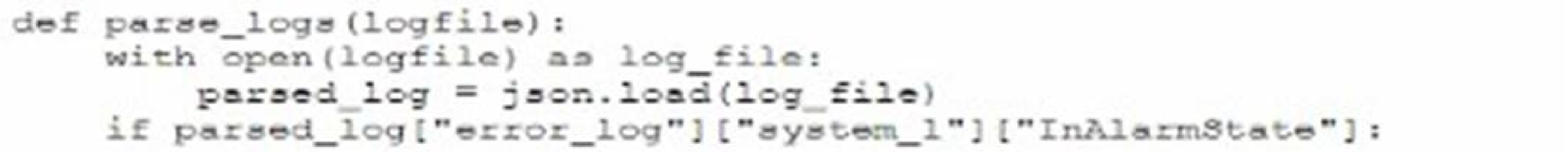
Which of the following is the most appropriate action for the analyst to take?

A. Update the log configuration settings on the directory server that Is not being captured properly.
B. Have the admin account owner change their password to avoid credential stuffing.
C. Block employees from logging in to applications that are not part of their business area.
D. implement automation to disable accounts that nave been associated with high-risk activity.

Answer: D

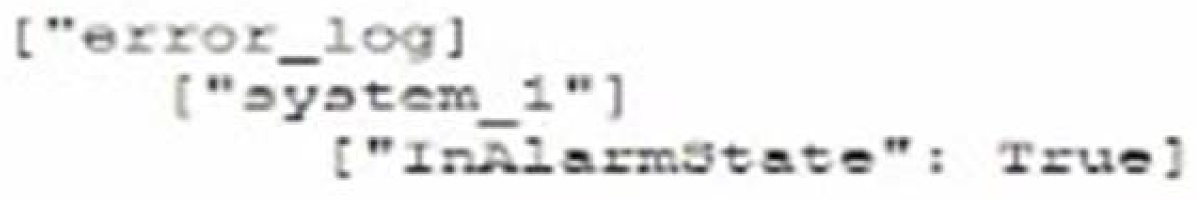
Explanation:
The log-in activity indicates a security threat, particularly involving the ADMIN account with a high-risk failure status. This suggests that the account may be targeted by malicious activities such as credential stuffing or brute force attacks.
? Updating log configuration settings (A) may help in better logging future activities
but does not address the immediate threat.
? Changing the admin account password (B) is a good practice but may not fully mitigate the ongoing threat if the account has already been compromised.
? Blocking employees (C) from logging into non-business applications might help in
reducing attack surfaces but doesn't directly address the compromised account issue.
Implementing automation to disable accounts associated with high-risk activities ensures an immediate response to the detected threat, preventing further unauthorized access and allowing time for thorough investigation and remediation.
References:
? CompTIA SecurityX guide on incident response and account management.
? Best practices for handling compromised accounts.
? Automation tools and techniques for security operations centers (SOCs).

NEW QUESTION 50
A security administrator needs to automate alerting. The server generates structured log files that need to be parsed to determine whether an alarm has been triggered Given the following code function:



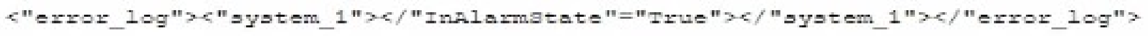
```
def parse_logs(logfile):
     with open(logfile) as log_file:
          parsed_log = json.load(log_file)
     if parsed_log["error_log"]["system_1"]["InAlarmState"]:
```

Which of the following is most likely the log input that the code will parse?
A)



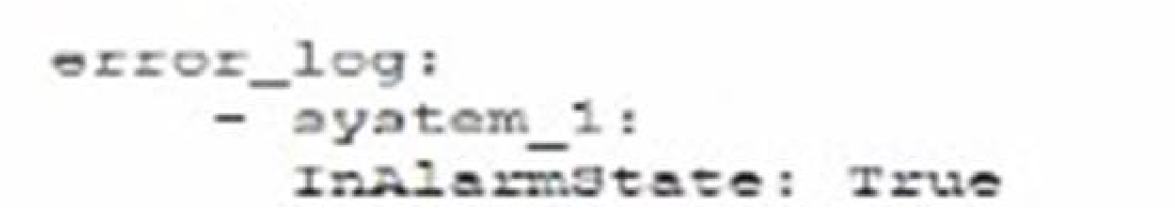
```
["error_log]
     ["system_1"]
          ["InAlarmState": True]
```

B)



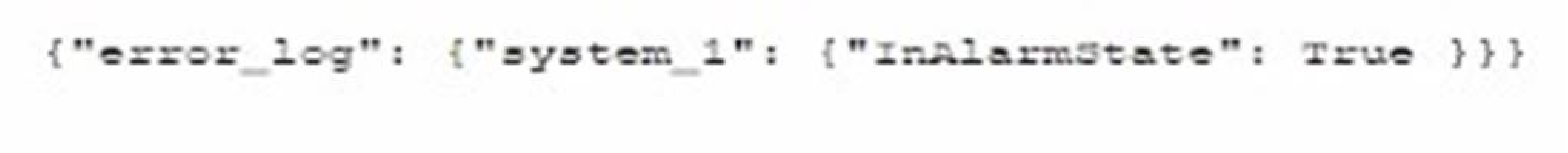
```
<"error_log"><"system_1"></"InAlarmState"="True"></"system_1"></"error_log">
```

C)



```
error_log:
      - system_1:
          InAlarmState: True
```

D)



```
{"error_log": {"system_1": {"InAlarmState": True }}}
```

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

Answer: A

Explanation:
The code function provided in the question seems to be designed to parse JSON formatted logs to check for an alarm state. Option A is a JSON format that matches the structure likely expected by the code. The presence of the "error_log" and "InAlarmState" keys suggests that this is the correct input format.
Reference: CompTIA SecurityX Study Guide, Chapter on Log Management and Automation, Section on Parsing Structured Logs.

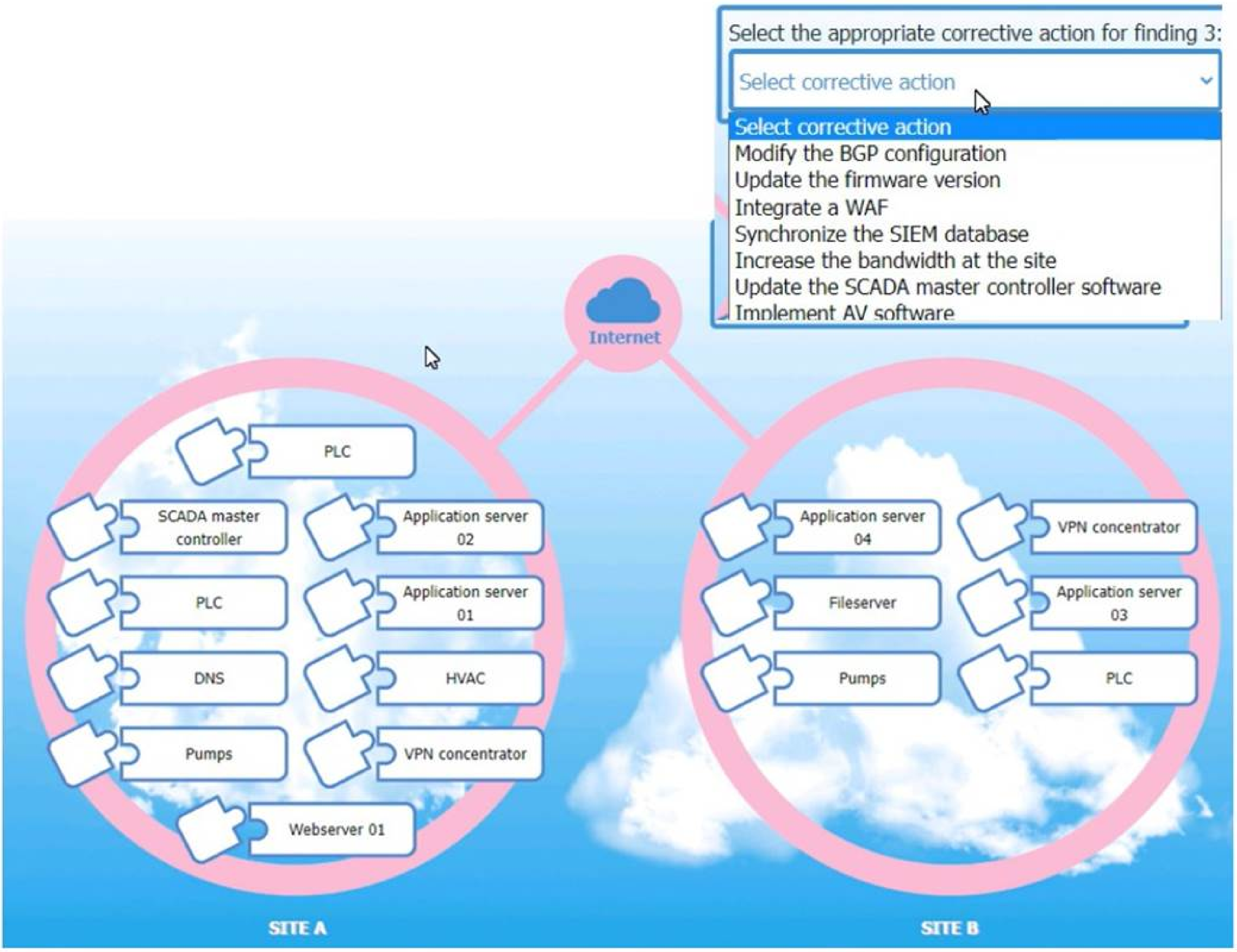
NEW QUESTION 55
A cloud engineer needs to identify appropriate solutions to:
• Provide secure access to internal and external cloud resources.
• Eliminate split-tunnel traffic flows.
• Enable identity and access management capabilities.
Which of the following solutions arc the most appropriate? (Select two).

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

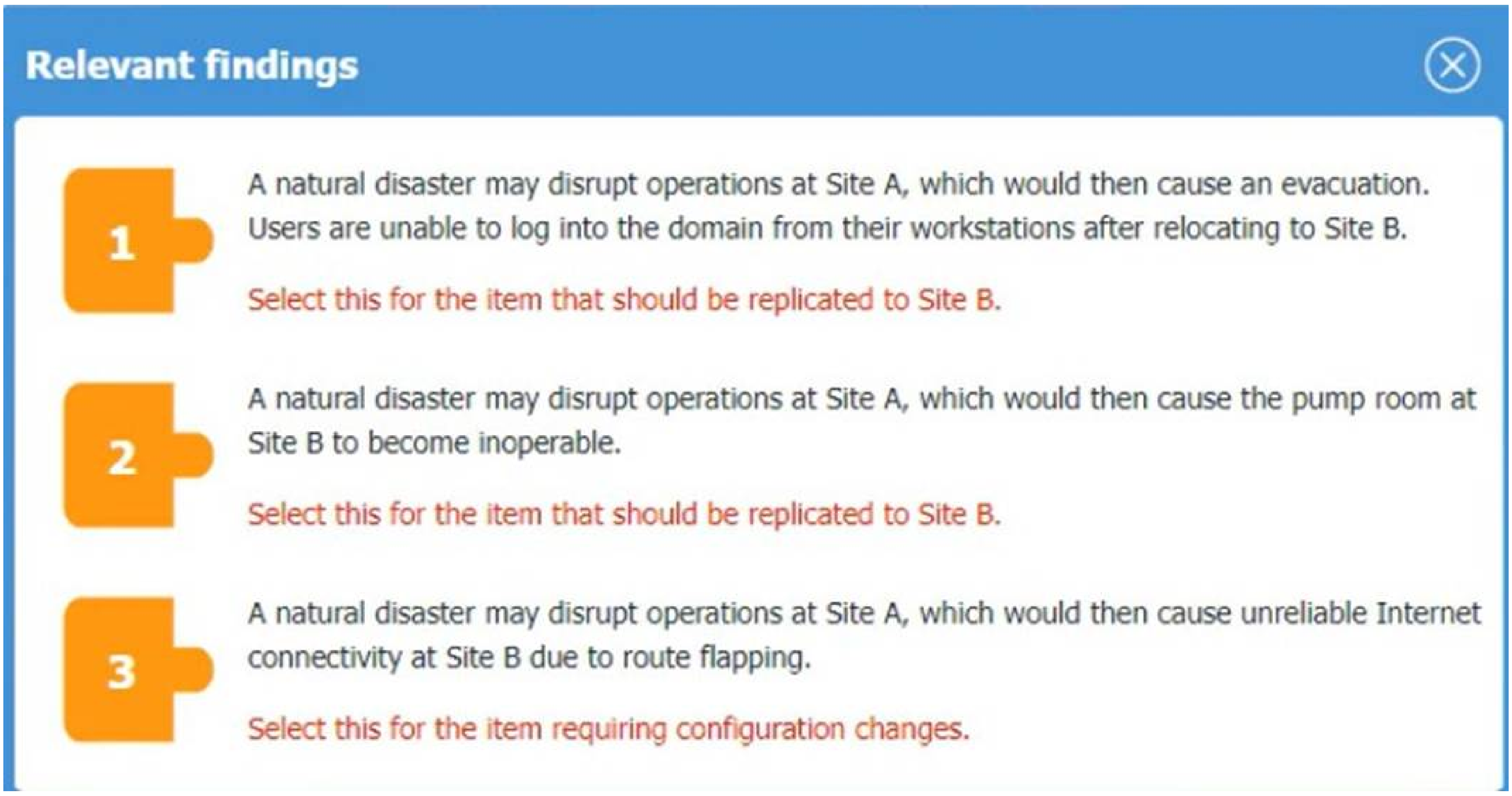
Answer: CF

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 56
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.



Select the appropriate corrective action for finding 3:



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.

Select this for the item that should be replicated 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.

Select this for the item that should be replicated to Site B.

3 A natural disaster may disrupt operations at Site A, which would then cause unreliable Internet connectivity at Site B due to route flapping.

Select this for the item requiring configuration changes.

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 61
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

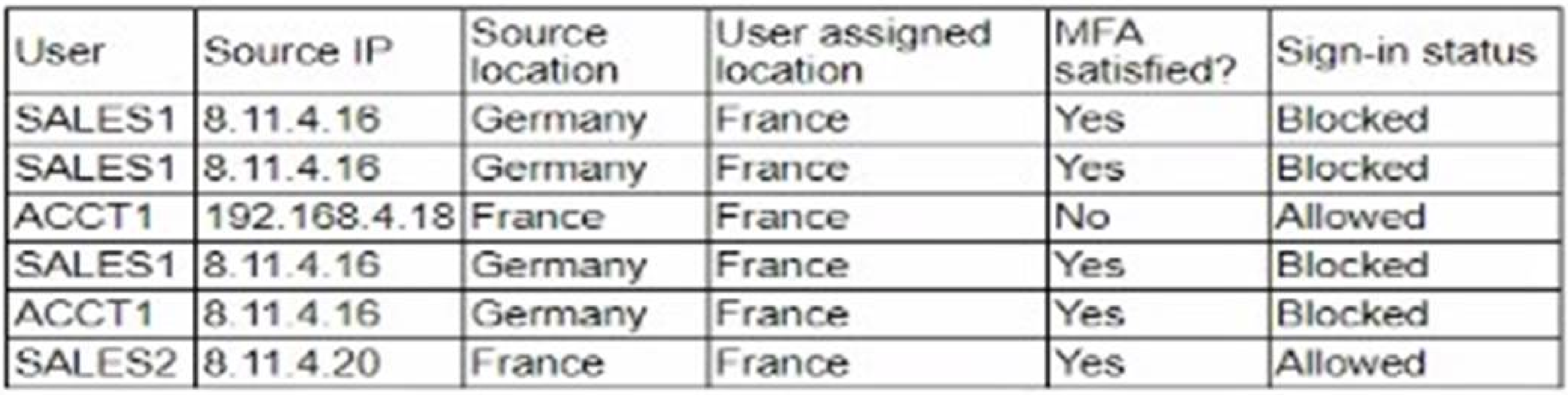
NEW QUESTION 66
The material finding from a recent compliance audit indicate a company has an issue with excessive permissions. The findings show that employees changing roles or departments results in privilege creep. Which of the following solutions are the best ways to mitigate this issue? (Select two).
Setting different access controls defined by business area

A. Implementing a role-based access policy
B. Designing a least-needed privilege policy
C. Establishing a mandatory vacation policy
D. Performing periodic access reviews
E. Requiring periodic job rotation

Answer: AD

Explanation:
To mitigate the issue of excessive permissions and privilege creep, the best solutions are:
? Implementing a Role-Based Access Policy:
? Performing Periodic Access Reviews:

NEW QUESTION 67
A security analyst is troubleshooting the reason a specific user is having difficulty accessing company resources The analyst reviews the following information:



User	Source IP	Source location	User assigned location	MFA satisfied?	Sign-in status
SALES1	8.11.4.16	Germany	France	Yes	Blocked
SALES1	8.11.4.16	Germany	France	Yes	Blocked
ACCT1	192.168.4.18	France	France	No	Allowed
SALES1	8.11.4.16	Germany	France	Yes	Blocked
ACCT1	8.11.4.16	Germany	France	Yes	Blocked
SALES2	8.11.4.20	France	France	Yes	Allowed

Which of the following is most likely the cause of the issue?

A. The local network access has been configured to bypass MFA requirements.
B. A network geolocation is being misidentified by the authentication server
C. Administrator access from an alternate location is blocked by company policy
D. Several users have not configured their mobile devices to receive OTP codes

Answer: B

Explanation:
The table shows that the user "SALES1" is consistently blocked despite having met the MFA requirements. The common factor in these blocked attempts is the source IP address (8.11.4.16) being identified as from Germany while the user is assigned to France. This discrepancy suggests that the network geolocation is being misidentified by the authentication server, causing legitimate access attempts to be blocked.
Why Network Geolocation Misidentification?
? Geolocation Accuracy: Authentication systems often use IP geolocation to verify the location of access attempts. Incorrect geolocation data can lead to legitimate requests being denied if they appear to come from unexpected locations.
? Security Policies: Company security policies might block access attempts from certain locations to prevent unauthorized access. If the geolocation is wrong, legitimate users can be inadvertently blocked.
? Consistent Pattern: The user "SALES1" from the IP address 8.11.4.16 is always blocked, indicating a consistent issue with geolocation.
Other options do not align with the pattern observed:
? A. Bypass MFA requirements: MFA is satisfied, so bypassing MFA is not the issue.
? C. Administrator access policy: This is about user access, not specific administrator access.
? D. OTP codes: The user has satisfied MFA, so OTP code configuration is not the issue.
References:
? CompTIA SecurityX Study Guide
? "Geolocation and Authentication," NIST Special Publication 800-63B
? "IP Geolocation Accuracy," Cisco Documentation

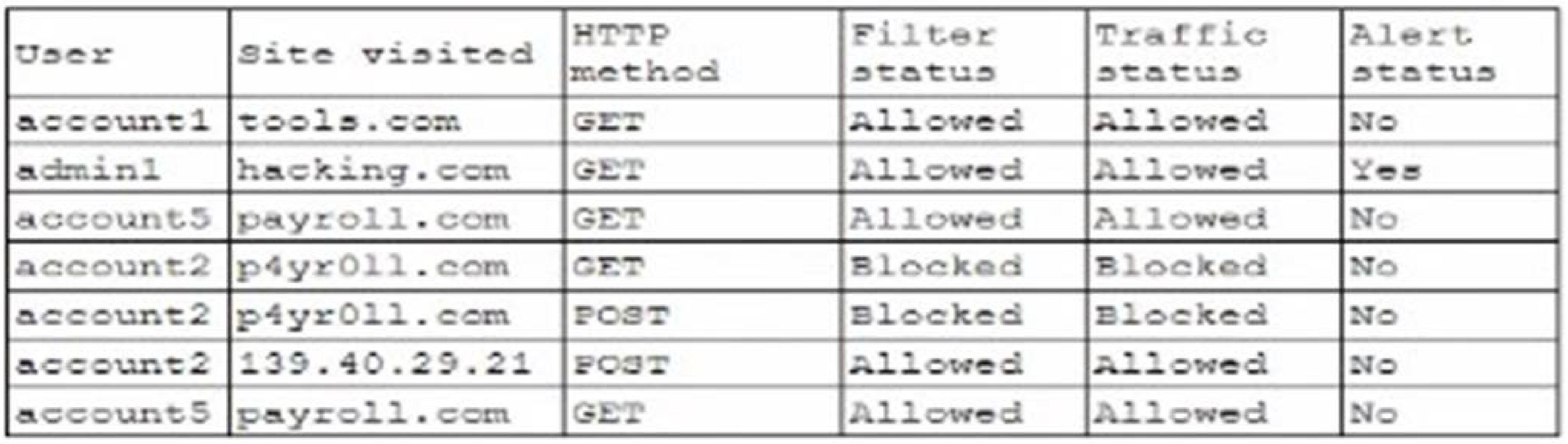
NEW QUESTION 68
All organization is concerned about insider threats from employees who have individual access to encrypted material. Which of the following techniques best addresses this issue?

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 73
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?

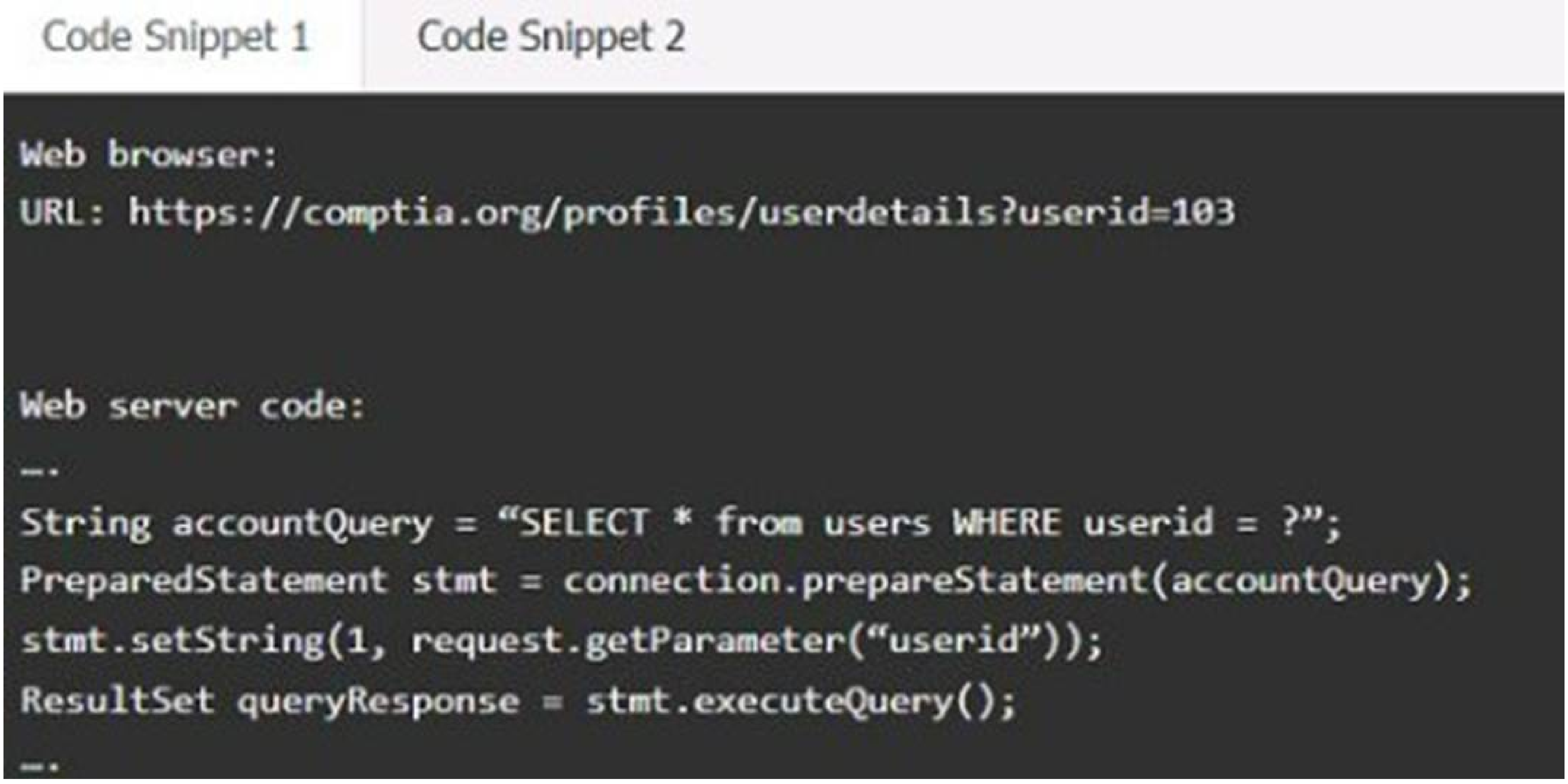
A. Adjusting the SIEM to alert on attempts to visit phishing sites
B. Allowing TRACE method traffic to enable better log correlation
C. Enabling alerting on all suspicious administrator behavior
D. utilizing allow lists on the WAF for all users using GFT methods

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.
Top of Form Bottom of Form

NEW QUESTION 74
SIMULATION
A product development team has submitted code snippets for review prior to release. INSTRUCTIONS
Analyze the code snippets, and then select one vulnerability, and one fix for each code snippet.
Code Snippet 1

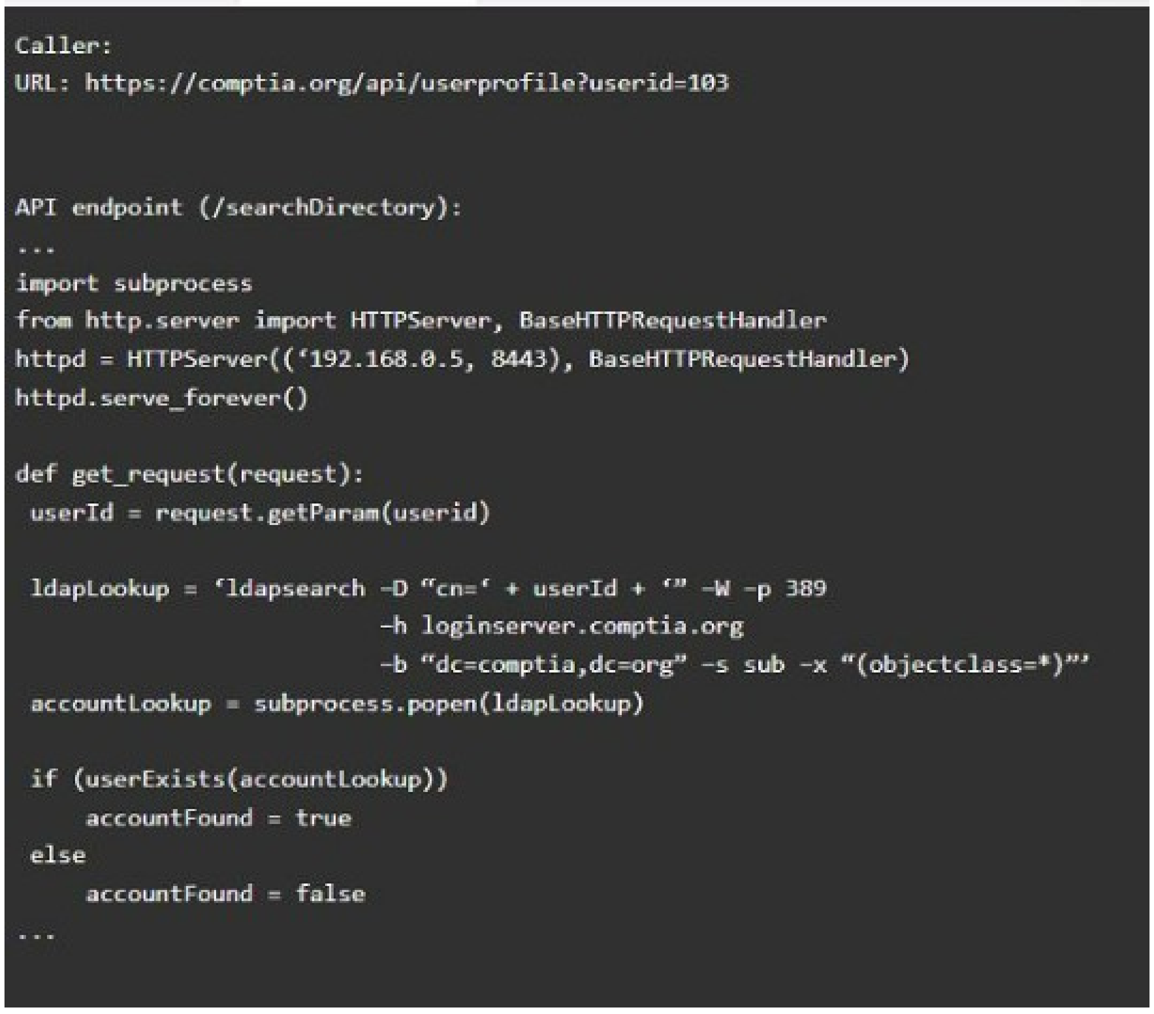


```
Web browser:
URL: https://comptia.org/profiles/userdetails?userid=103



Web server code:
….
String accountQuery = “SELECT * from users WHERE userid = ?”;
PreparedStatement stmt = connection.prepareStatement(accountQuery);
stmt.setString(1, request.getParameter(“userid”));
ResultSet queryResponse = stmt.executeQuery();
….
```

Code Snippet 2



```
Caller:
URL: https://comptia.org/api/userprofile?userid=103


API endpoint (/searchDirectory):
...
import subprocess
from http.server import HTTPServer, BaseHTTPRequestHandler
httpd = HTTPServer(('192.168.0.5, 8443), BaseHTTPRequestHandler)
httpd.serve_forever()

def get_request(request):
 userId = request.getParam(userid)

 ldapLookup = 'ldapsearch -D "cn=' + userId + '" -W -p 389
                         -h loginserver.comptia.org
                         -b "dc=comptia,dc=org" -s sub -x "(objectclass=*)"'
 accountLookup = subprocess.popen(ldapLookup)

 if (userExists(accountLookup))
     accountFound = true
 else
     accountFound = false
...
```

Vulnerability 1:
? SQL injection
? Cross-site request forgery
? Server-side request forgery
? Indirect object reference
? Cross-site scripting
Fix 1:
? Perform input sanitization of the userid field.
? Perform output encoding of queryResponse,
? Ensure usex:ia belongs to logged-in user.
? Inspect URLS and disallow arbitrary requests.
? Implement anti-forgery tokens.
Vulnerability 2
1) Denial of service
2) Command injection
3) SQL injection
4) Authorization bypass
5) Credentials passed via GET
Fix 2
A) Implement prepared statements and bind variables.
B) Remove the serve_forever instruction.
C) Prevent the "authenticated" value from being overridden by a GET parameter.
D) HTTP POST should be used for sensitive parameters.
E) Perform input sanitization of the userid field.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Code Snippet 1
Vulnerability 1: SQL injection
SQL injection is a type of attack that exploits a vulnerability in the code that interacts with a database. An attacker can inject malicious SQL commands into the input fields, such as username or password, and execute them on the database server. This can result in data theft, data corruption, or unauthorized access.
Fix 1: Perform input sanitization of the userid field.
Input sanitization is a technique that prevents SQL injection by validating and filtering the user input values before passing them to the database. The input sanitization should remove any special characters, such as quotes, semicolons, or dashes, that can alter the intended SQL query. Alternatively, the input sanitization can use a whitelist of allowed values and reject any other values.
Code Snippet 2
Vulnerability 2: Cross-site request forgery
Cross-site request forgery (CSRF) is a type of attack that exploits a vulnerability in the code that handles web requests. An attacker can trick a user into sending a malicious web request to a server that performs an action on behalf of the user, such as changing their password, transferring funds, or deleting data. This can result in unauthorized actions, data loss, or account compromise.
Fix 2: Implement anti-forgery tokens.
Anti-forgery tokens are techniques that prevent CSRF by adding a unique and secret value to each web request that is generated by the server and verified by the server before performing the action. The anti-forgery token should be different for each user and each session, and should not be predictable or reusable by an attacker. This way, only legitimate web requests from the user??s browser can be accepted by the server.

NEW QUESTION 77
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 81
An organization is developing on Al-enabled digital worker to help employees complete common tasks such as template development, editing, research, and scheduling. As part of the Al workload the organization wants to Implement guardrails within the platform. Which of the following should the company do to secure the Al environment?

A. Limn the platform's abilities to only non-sensitive functions
B. Enhance the training model's effectiveness.
C. Grant the system the ability to self-govern
D. Require end-user acknowledgement of organizational policies.

Answer: A

Explanation:
Limiting the platform's abilities to only non-sensitive functions helps to mitigate risks associated with AI operations. By ensuring that the AI-enabled digital worker is only allowed to perform tasks that do not involve sensitive or critical data, the organization reduces the potential impact of any security breaches or misuse.
Enhancing the training model's effectiveness (Option B) is important but does not directly address security guardrails. Granting the system the ability to self-govern (Option C) could increase risk as it may act beyond the organization's control. Requiring end-user acknowledgement of organizational policies (Option D) is a good practice but does not implement technical guardrails to secure the AI environment.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-53 Rev. 5, "Security and Privacy Controls for Information Systems and Organizations"
? ISO/IEC 27001, "Information Security Management"

NEW QUESTION 85
A software engineer is creating a CI/CD pipeline to support the development of a web application The DevSecOps team is required to identify syntax errors Which of the following is the most relevant to the DevSecOps team's task'

A. Static application security testing
B. Software composition analysis
C. Runtime application self-protection
D. Web application vulnerability scanning

Answer: A

Explanation:
Static Application Security Testing (SAST) involves analyzing source code or compiled code for security vulnerabilities without executing the program. This method is well-suited for identifying syntax errors, coding standards violations, and potential security issues early in the development lifecycle.
? A. Static application security testing (SAST): SAST tools analyze the source code
to detect syntax errors, vulnerabilities, and other issues before the code is run. This is the most relevant task for the DevSecOps team to identify syntax errors and improve code quality.
? B. Software composition analysis: This focuses on identifying vulnerabilities in
open-source components and libraries used in the application but does not address syntax errors directly.
? C. Runtime application self-protection (RASP): RASP involves monitoring and
protecting applications during runtime, which does not help in identifying syntax errors during the development phase.
? D. Web application vulnerability scanning: This involves scanning the running
application for vulnerabilities but does not address syntax errors in the code.
References:
? CompTIA Security+ Study Guide
? OWASP (Open Web Application Security Project) guidelines on SAST
? NIST SP 800-95, "Guide to Secure Web Services" Top of Form
Bottom of Form

NEW QUESTION 87
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 90
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

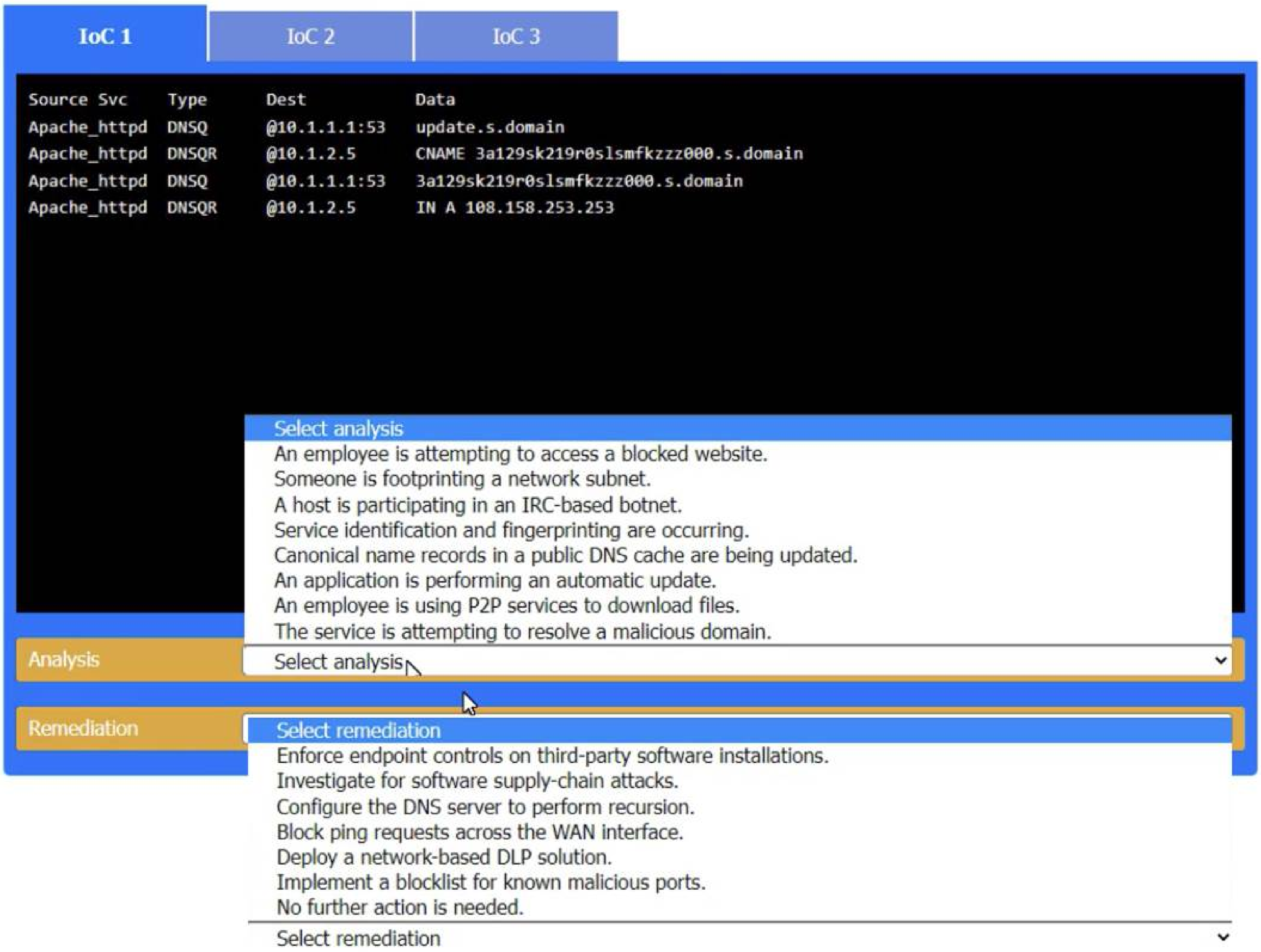
NEW QUESTION 94
While reviewing recent modem reports, a security officer discovers that several employees were contacted by the same individual who impersonated a recruiter. Which of the following best describes this type of correlation?

A. Spear-phishing campaign
B. Threat modeling
C. Red team assessment
D. Attack pattern analysis

Answer: A

Explanation:
The situation where several employees were contacted by the same individual impersonating a recruiter best describes a spear-phishing campaign. Here??s why:
? Targeted Approach: Spear-phishing involves targeting specific individuals within an organization with personalized and convincing messages to trick them into divulging sensitive information or performing actions that compromise security.
? Impersonation: The use of impersonation, in this case, a recruiter, is a common tactic in spear-phishing to gain the trust of the targeted individuals and increase the likelihood of a successful attack.
? Correlated Contacts: The fact that several employees were contacted by the same individual suggests a coordinated effort to breach the organization??s security by targeting multiple points of entry through social engineering.
? References:

NEW QUESTION 97
SIMULATION
During the course of normal SOC operations, three anomalous events occurred and were flagged as potential IoCs. Evidence for each of these potential IoCs is provided.
INSTRUCTIONS
Review each of the events and select the appropriate analysis and remediation options for each IoC.



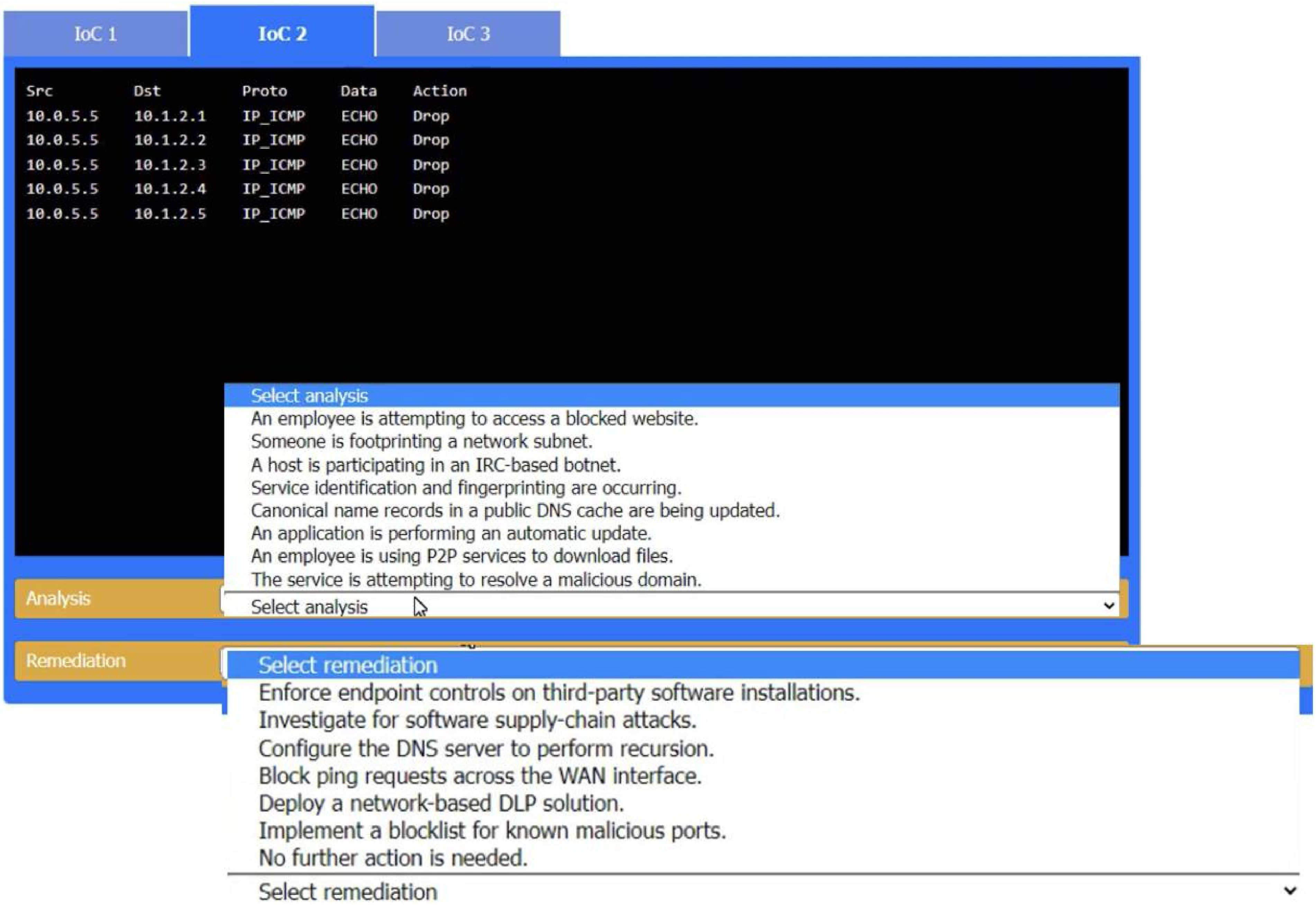
```
Source Svc    Type     Dest          Data
Apache_httpd  DNSQ     @10.1.1.1:53  update.s.domain
Apache_httpd  DNSQR    @10.1.2.5     CNAME 3a129sk219r0slsmfkzzz000.s.domain
Apache_httpd  DNSQ     @10.1.1.1:53  3a129sk219r0slsmfkzzz000.s.domain
Apache_httpd  DNSQR    @10.1.2.5     IN A 108.158.253.253
```

Analysis

Select analysis
An employee is attempting to access a blocked website.
Someone is footprinting a network subnet.
A host is participating in an IRC-based botnet.
Service identification and fingerprinting are occurring.
Canonical name records in a public DNS cache are being updated.
An application is performing an automatic update.
An employee is using P2P services to download files.
The service is attempting to resolve a malicious domain.
Select analysis

Remediation

Select remediation
Enforce endpoint controls on third-party software installations.
Investigate for software supply-chain attacks.
Configure the DNS server to perform recursion.
Block ping requests across the WAN interface.
Deploy a network-based DLP solution.
Implement a blocklist for known malicious ports.
No further action is needed.
Select remediation



```
Src        Dst        Proto    Data   Action
10.0.5.5   10.1.2.1   IP_ICMP  ECHO   Drop
10.0.5.5   10.1.2.2   IP_ICMP  ECHO   Drop
10.0.5.5   10.1.2.3   IP_ICMP  ECHO   Drop
10.0.5.5   10.1.2.4   IP_ICMP  ECHO   Drop
10.0.5.5   10.1.2.5   IP_ICMP  ECHO   Drop
```

Analysis

Select analysis
An employee is attempting to access a blocked website.
Someone is footprinting a network subnet.
A host is participating in an IRC-based botnet.
Service identification and fingerprinting are occurring.
Canonical name records in a public DNS cache are being updated.
An application is performing an automatic update.
An employee is using P2P services to download files.
The service is attempting to resolve a malicious domain.
Select analysis

Remediation

Select remediation
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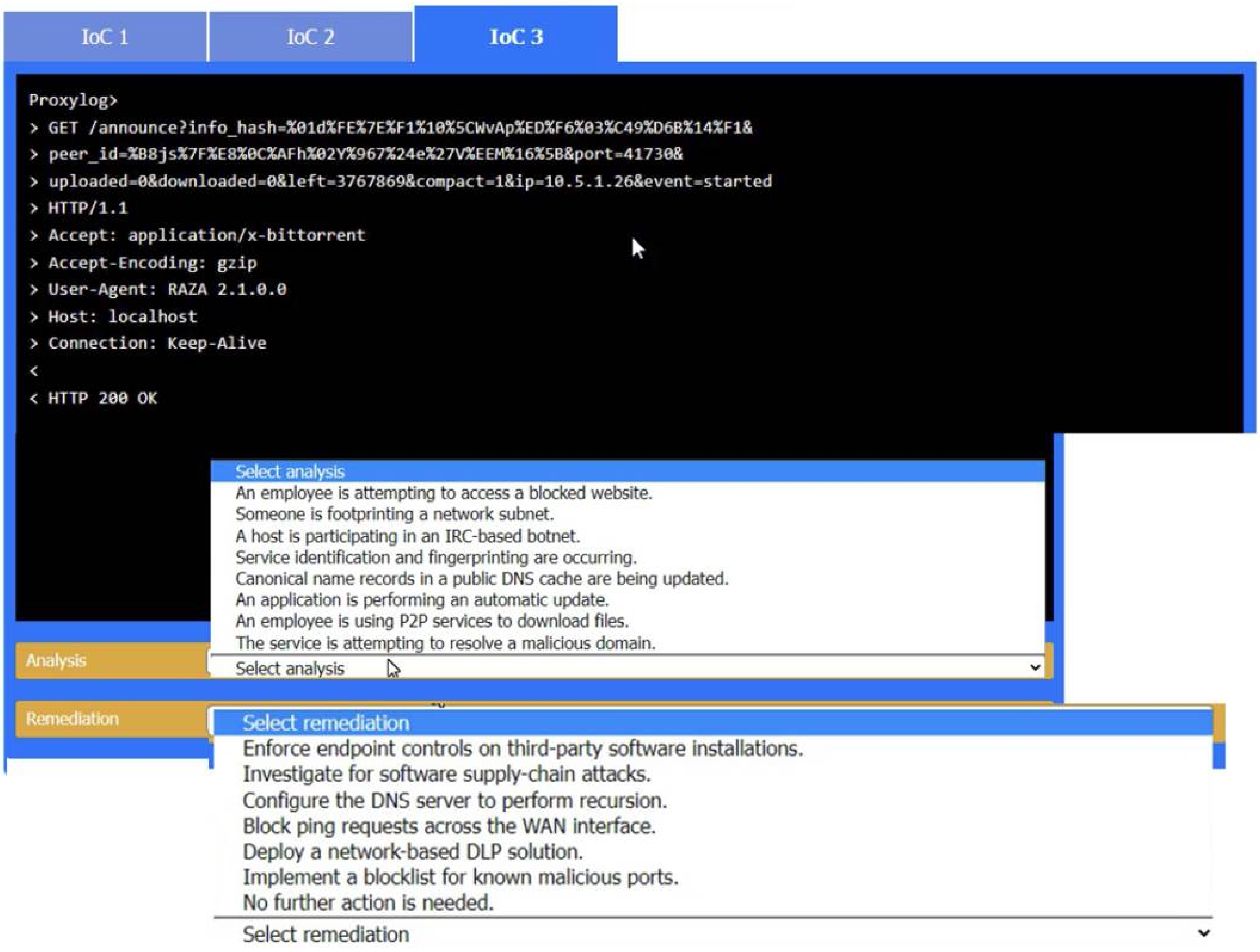
Investigate for software supply-chain attacks.
Configure the DNS server to perform recursion.
Block ping requests across the WAN interface.
Deploy a network-based DLP solution.
Implement a blocklist for known malicious ports.
No further action is needed.
Select remediation


IoC 1
IoC 2
IoC 3
Analysis
Remediation
Select analysis
An employee is attempting to access a blocked website.
Someone is footprinting a network subnet.
A host is participating in an IRC-based botnet.
Service identification and fingerprinting are occurring.
Canonical name records in a public DNS cache are being updated.
An application is performing an automatic update.
An employee is using P2P services to download files.
The service is attempting to resolve a malicious domain.
Select analysis
Select remediation
Enforce endpoint controls on third-party software installations.
Investigate for software supply-chain attacks.
Configure the DNS server to perform recursion.
Block ping requests across the WAN interface.
Deploy a network-based DLP solution.
Implement a blocklist for known malicious ports.
No further action is needed.
Select remediation

```
Proxylog>
> GET /announce?info_hash=%01d%FE%7E%F1%10%5CWvAp%ED%F6%03%C49%D6B%14%F1&
> peer_id=%B8js%7F%E8%0C%AFh%02Y%967%24e%27V%EEM%16%5B&port=41730&
> uploaded=0&downloaded=0&left=3767869&compact=1&ip=10.5.1.26&event=started
> HTTP/1.1
> Accept: application/x-bittorrent
> Accept-Encoding: gzip
> User-Agent: RAZA 2.1.0.0
> Host: localhost
> Connection: Keep-Alive
<
< HTTP 200 OK
```

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Analysis and Remediation Options for Each IoC: IoC 1:
? Evidence:
? Analysis:
? Remediation:
IoC 2:
? Evidence:
? Analysis:
? Remediation:
IoC 3:
? Evidence:
? Analysis:
? Remediation:
References:
? CompTIA Security+ Study Guide: This guide offers detailed explanations on identifying and mitigating various types of Indicators of Compromise (IoCs) and the corresponding analysis and remediation strategies.
? CompTIA Security+ Exam Objectives: These objectives cover key concepts in network security monitoring and incident response, providing guidelines on how to handle different types of security events.
? Security Operations Center (SOC) Best Practices: This resource outlines effective strategies for analyzing and responding to anomalous events within a SOC, including the use of blocklists, endpoint controls, and network configuration
changes.
By accurately analyzing the nature of each IoC and applying the appropriate remediation measures, the organization can effectively mitigate potential security threats and maintain a robust security posture.

NEW QUESTION 102
A security review revealed that not all of the client proxy traffic is being captured. Which of the following architectural changes best enables the capture of traffic for analysis?

A. Adding an additional proxy server to each segmented VLAN
B. Setting up a reverse proxy for client logging at the gateway
C. Configuring a span port on the perimeter firewall to ingest logs
D. Enabling client device logging and system event auditing

Answer: C

Explanation:

Configuring a span port on the perimeter firewall to ingest logs is the best architectural change to ensure that all client proxy traffic is captured for analysis.
Here??s why:
? Comprehensive Traffic Capture: A span port (or mirror port) on the perimeter
firewall can capture all inbound and outbound traffic, including traffic that might bypass the proxy. This ensures that all network traffic is available for analysis.
? Centralized Logging: By capturing logs at the perimeter firewall, the organization
can centralize logging and analysis, making it easier to detect and investigate anomalies.
? Minimal Disruption: Implementing a span port is a non-intrusive method that does
not require significant changes to the network architecture, thus minimizing disruption to existing services.
? References:

NEW QUESTION 104
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