CAS-005 Dumps

CompTIA SecurityX Exam

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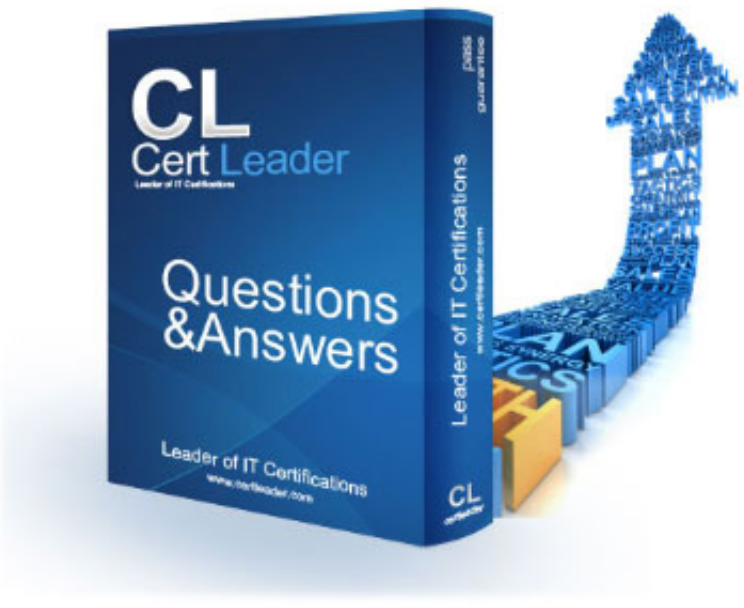


NEW QUESTION 1
The identity and access management team is sending logs to the SIEM for continuous monitoring. The deployed log collector is forwarding logs to the SIEM. However, only false positive alerts are being generated. Which of the following is the most likely reason for the inaccurate alerts?

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

Answer: C

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

NEW QUESTION 2
A security analyst discovered requests associated with IP addresses known for born legitimate 3nd bot-related traffic. Which of the following should the analyst use to determine whether the requests are malicious?

A. User-agent string
B. Byte length of the request
C. Web application headers
D. HTML encoding field

Answer: A

Explanation:
The user-agent string can provide valuable information to distinguish between legitimate and bot-related traffic. It contains details about the browser, device, and sometimes the operating system of the client making the request.
Why Use User-Agent String?
? Identify Patterns: User-agent strings can help identify patterns that are typical of bots or legitimate users.
? Block Malicious Bots: Many bots use known user-agent strings, and identifying these can help block malicious requests.
? Anomalies Detection: Anomalous user-agent strings can indicate spoofing attempts or malicious activity.
Other options provide useful information but may not be as effective for initial determination of the nature of the request:
? B. Byte length of the request: This can indicate anomalies but does not provide
detailed information about the client.
? C. Web application headers: While useful, they may not provide enough distinction between legitimate and bot traffic.
? D. HTML encoding field: This is not typically used for identifying the nature of the request.
References:
? CompTIA SecurityX Study Guide
? "User-Agent Analysis for Security," OWASP
? NIST Special Publication 800-94, "Guide to Intrusion Detection and Prevention Systems (IDPS)"

NEW QUESTION 3
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 4
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 5
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 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 user submits a help desk ticket stating then account does not authenticate sometimes. An analyst reviews the following logs for the user:
Which of the following best explains the reason the user's access is being denied?

A. incorrectly typed password
B. Time-based access restrictions
C. Account compromise
D. Invalid user-to-device bindings

Answer: B

Explanation:
The logs reviewed for the user indicate that access is being denied due to time-based access restrictions. These restrictions are commonly implemented to limit access to systems during specific hours to enhance security. If a user attempts to authenticate outside of the allowed time window, access will be denied. This measure helps prevent unauthorized access during non-business hours, reducing the risk of security incidents.
References:
? CompTIA SecurityX Study Guide: Covers various access control methods, including time-based restrictions, as a means of enhancing security.
? NIST Special Publication 800-53, "Security and Privacy Controls for Information Systems and Organizations": Recommends the use of time-based access restrictions as part of access control policies.
? "Access Control and Identity Management" by Mike Chapple and Aaron French: Discusses the implementation and benefits of time-based access restrictions.

NEW QUESTION 8
A company wants to use loT 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 loT 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 9
SIMULATION
You are a security analyst tasked with interpreting an Nmap scan output from company??s privileged network.
The company??s hardening guidelines indicate the following: There should be one primary server or service per device. Only default ports should be used. Non-secure protocols should be disabled.
INSTRUCTIONS
Using the Nmap output, identify the devices on the network and their roles, and any open ports that should be closed.
For each device found by Nmap, add a device entry to the Devices Discovered list, with the following information:
The IP address of the device
The primary server or service of the device (Note that each IP should by associated with one service/port only)
The protocol(s) that should be disabled based on the hardening guidelines (Note that multiple ports may need to be closed to comply with the hardening guidelines)
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

NMAP Scan Output

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

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

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

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

Devices Discovered (0)

Add Device For

- 10.1.45.65
- 10.1.45.66
- 10.1.45.67
- 10.1.45.68

A. Mastered
B. Not Mastered

Answer: A

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

NEW QUESTION 10
During a security assessment using an CDR solution, a security engineer generates the following report about the assets in me system:

Device	Type	Status
LN002	Linux SE	Enabled (unmanaged)
0WIN23	Windows 7	Enabled
0WIN29	Windows 10	Enabled (bypass)

After five days, the EDR console reports an infection on the host 0WIN23 by a remote access Trojan Which of the following is the most probable cause of the infection?

A. OW1N23 uses a legacy version of Windows that is not supported by the EDR
B. LN002 was not supported by the EDR solution and propagates the RAT
C. The EDR has an unknown vulnerability that was exploited by the attacker.
D. 0W1N29 spreads the malware through other hosts in the network

Answer: A

Explanation:
OWIN23 is running Windows 7, which is a legacy operating system. Many EDR solutions no longer provide full support for outdated operating systems like Windows 7, which has reached its end of life and is no longer receiving security updates from Microsoft. This makes such systems more vulnerable to infections and attacks, including remote access Trojans (RATs).
? A. OWIN23 uses a legacy version of Windows that is not supported by the EDR:
This is the most probable cause because the lack of support means that the EDR solution may not fully protect or monitor this system, making it an easy target for infections.
? B. LN002 was not supported by the EDR solution and propagates the RAT: While LN002 is unmanaged, it is less likely to propagate the RAT to OWIN23 directly without an established vector.
? C. The EDR has an unknown vulnerability that was exploited by the attacker: This is possible but less likely than the lack of support for an outdated OS.
? D. OWIN29 spreads the malware through other hosts in the network: While this could happen, the status indicates OWIN29 is in a bypass mode, which might limit its interactions but does not directly explain the infection on OWIN23.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-53, "Security and Privacy Controls for Information Systems and Organizations"
? Microsoft's Windows 7 End of Support documentation

NEW QUESTION 10
Which of the following is the main reason quantum computing advancements are leading companies and countries to deploy new encryption algorithms?

A. Encryption systems based on large prime numbers will be vulnerable to exploitation
B. Zero Trust security architectures will require homomorphic encryption.
C. Perfect forward secrecy will prevent deployment of advanced firewall monitoring techniques
D. Quantum computers will enable malicious actors to capture IP traffic in real time

Answer: A

Explanation:
Advancements in quantum computing pose a significant threat to current encryption systems, especially those based on the difficulty of factoring large prime numbers, such as RSA. Quantum computers have the potential to solve these problems exponentially faster than classical computers, making current cryptographic systems vulnerable.
Why Large Prime Numbers are Vulnerable:
? Shor's Algorithm: Quantum computers can use Shor's algorithm to factorize large integers efficiently, which undermines the security of RSA encryption.
? Cryptographic Breakthrough: The ability to quickly factor large prime numbers means that encrypted data, which relies on the hardness of this mathematical problem, can be decrypted.
Other options, while relevant, do not capture the primary reason for the shift towards new encryption algorithms:
? B. Zero Trust security architectures: While important, the shift to homomorphic
encryption is not the main driver for new encryption algorithms.
? C. Perfect forward secrecy: It enhances security but is not the main reason for new encryption algorithms.
? D. Real-time IP traffic capture: Quantum computers pose a more significant threat to the underlying cryptographic algorithms than to the real-time capture of traffic.
References:
? CompTIA SecurityX Study Guide
? NIST Special Publication 800-208, "Recommendation for Stateful Hash-Based Signature Schemes"
? "Quantum Computing and Cryptography," MIT Technology Review

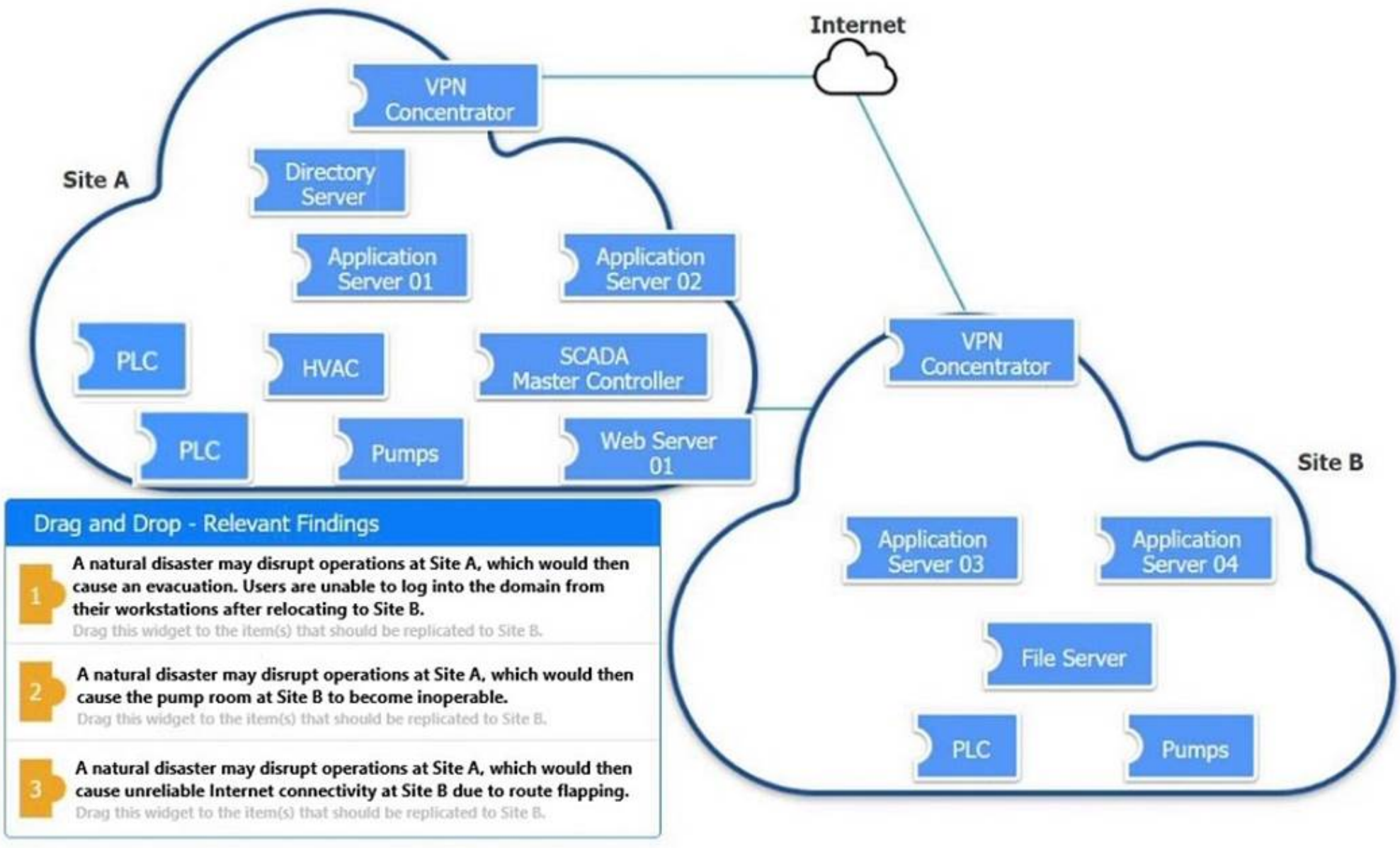
NEW QUESTION 13
A security officer received several complaints from users about excessive MPA push notifications at night The security team investigates and suspects malicious activities regarding user account authentication Which of the following is the best way for the security officer to restrict MI~A notifications"

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

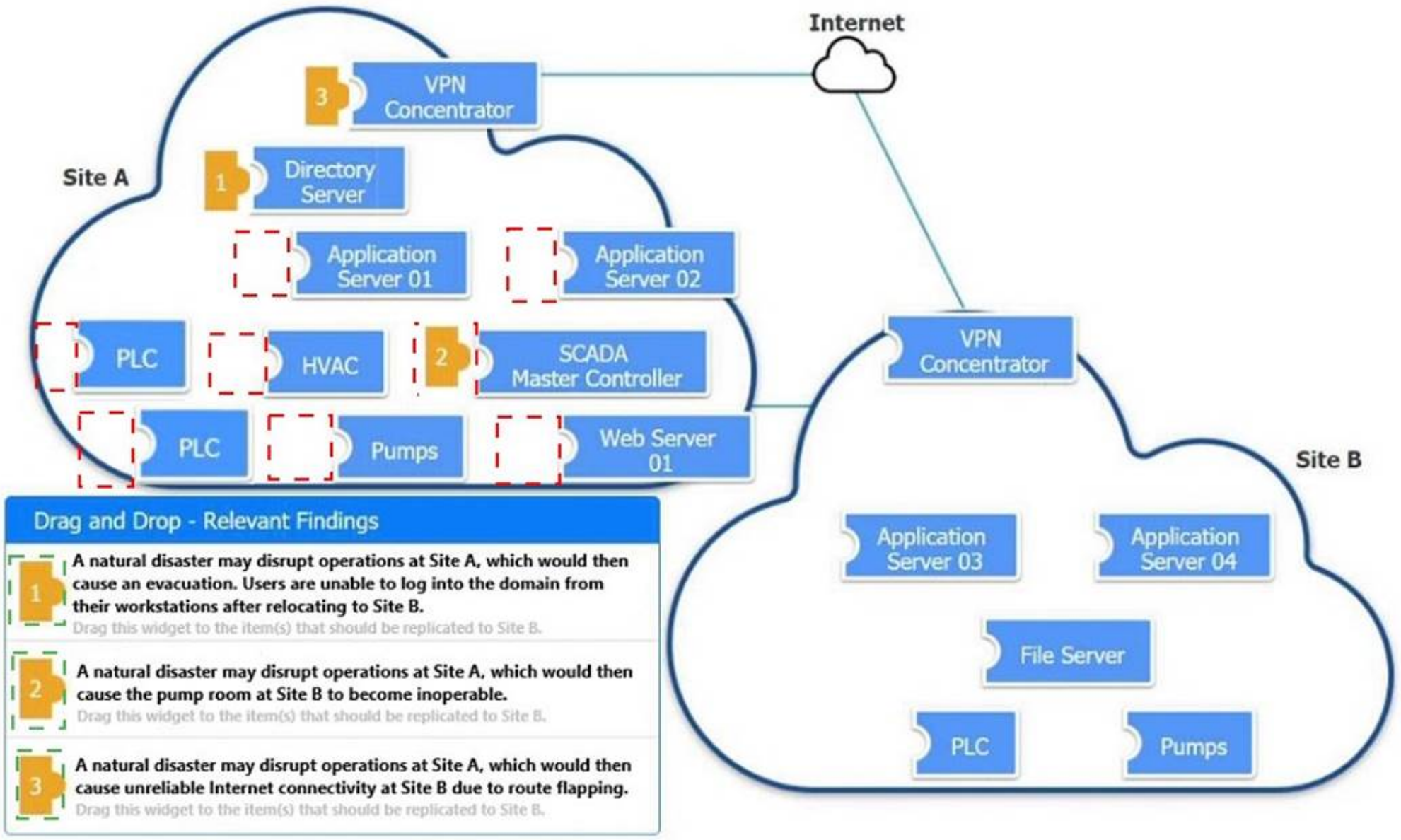
Answer: D

Explanation:
Excessive MFA push notifications can be a sign of an attempted push notification attack, where attackers repeatedly send MFA prompts hoping the user will eventually approve one by mistake. To mitigate this:
? A. Provisioning FIDO2 devices: While FIDO2 devices offer strong authentication,
they may not be practical for all users and do not directly address the issue of excessive push notifications.
? B. Deploying a text message-based MFA: SMS-based MFA can still be vulnerable
to similar spamming attacks and phishing.
? C. Enabling OTP via email: Email-based OTPs add another layer of security but do not directly solve the issue of excessive notifications.
? D. Configuring prompt-driven MFA: This option allows users to respond to prompts in a secure manner, often including features like time-limited approval windows, additional verification steps, or requiring specific actions to approve. This can help prevent users from accidentally approving malicious attempts.
Configuring prompt-driven MFA is the best solution to restrict unnecessary MFA notifications and improve security.
References:
? CompTIA Security+ Study Guide
? NIST SP 800-63B, "Digital Identity Guidelines"
? "Multi-Factor Authentication: Best Practices" by Microsoft

NEW QUESTION 17
DRAG DROP
An organization is planning for disaster recovery and continuity of operations. INSTRUCTIONS



Review the following scenarios and instructions. Match each relevant finding to the affected host.
After associating scenario 3 with the appropriate host(s), click the host to select the appropriate corrective action for that finding.
Each finding may be used more than once.
If at any time you would like to bring back the initial state of the simul-ation, please click the Reset All button.



A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 18
A security configure is building a solution to disable weak CBC configuration for remote access connections lo Linux systems. Which of the following should the security engineer modify?

A. The /etc/openssl.conf file, updating the virtual site parameter
B. The /etc/nsswith.conf file, updating the name server
C. The /etc/hosts file, updating the IP parameter
D. The /etc/etc/sshd, configure file updating the ciphers

Answer: D

Explanation:
The sshd_config file is the main configuration file for the OpenSSH server. To disable weak CBC (Cipher Block Chaining) ciphers for SSH connections, the security engineer should modify the sshd_config file to update the list of allowed ciphers. This file typically contains settings for the SSH daemon, including which encryption algorithms are allowed.
By editing the /etc/ssh/sshd_config file and updating the Ciphers directive, weak ciphers can be removed, and only strong ciphers can be allowed. This change ensures that the

SSH server does not use insecure encryption methods.
References:
? CompTIA Security+ Study Guide
? OpenSSH manual pages (man sshd_config)
? CIS Benchmarks for Linux

NEW QUESTION 22
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 26
A company's security policy states that any publicly available server must be patched within 12 hours after a patch is released A recent IIS 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 29
Which of the following AI concerns is most adequately addressed by input sanitation?

A. Model inversion
B. Prompt Injection
C. Data poisoning
D. Non-explainable model

Answer: B

Explanation:
Input sanitation is a critical process in cybersecurity that involves validating and cleaning data provided by users to prevent malicious inputs from causing harm. In the context of AI concerns:
? A. Model inversion involves an attacker inferring sensitive data from model
outputs, typically requiring sophisticated methods beyond just manipulating input data.
? B. Prompt Injection is a form of attack where an adversary provides malicious input
to manipulate the behavior of AI models, particularly those dealing with natural language processing (NLP). Input sanitation directly addresses this by ensuring that inputs are cleaned and validated to remove potentially harmful commands or instructions that could alter the AI's behavior.
? C. Data poisoning involves injecting malicious data into the training set to
compromise the model. While input sanitation can help by filtering out bad data, data poisoning is typically addressed through robust data validation and monitoring during the model training phase, rather than real-time input sanitation.
? D. Non-explainable model refers to the lack of transparency in how AI models
make decisions. This concern is not addressed by input sanitation, as it relates more to model design and interpretability techniques.
Input sanitation is most relevant and effective for preventing Prompt Injection attacks, where the integrity of user inputs directly impacts the performance and security of AI models.
References:
? CompTIA Security+ Study Guide
? "Security of Machine Learning" by Battista Biggio, Blaine Nelson, and Pavel Laskov
? OWASP (Open Web Application Security Project) guidelines on input validation and injection attacks
Top of Form Bottom of Form

NEW QUESTION 33
Which of the following best explains the importance of determining organization risk appetite when operating with a constrained budget?

A. Risk appetite directly impacts acceptance of high-impact low-likelihood events.
B. Organizational risk appetite varies from organization to organization
C. Budgetary pressure drives risk mitigation planning in all companies
D. Risk appetite directly influences which breaches are disclosed publicly

Answer: A

Explanation:
Risk appetite is the amount of risk an organization is willing to accept to achieve its objectives. When operating with a constrained budget, understanding the organization's risk appetite is crucial because:
? It helps prioritize security investments based on the level of risk the organization is
willing to tolerate.
? High-impact, low-likelihood events may be deemed acceptable if they fall within the organization's risk appetite, allowing for budget allocation to other critical areas.
? Properly understanding and defining risk appetite ensures that limited resources are used effectively to manage risks that align with the organization's strategic goals.
References:
? CompTIA Security+ Study Guide
? NIST Risk Management Framework (RMF) guidelines
? ISO 31000, "Risk Management – Guidelines"

NEW QUESTION 35
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 40
A security analyst reviews the following report:

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

Which of the following assessments is the analyst performing?

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

Answer: B

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

NEW QUESTION 42
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 47
A company that uses containers to run its applications is required to identify vulnerabilities on every container image in a private repository The security team needs to be able to quickly evaluate whether to respond to a given vulnerability Which of the following, will allow the security team to achieve the objective with the last effort?

A. SAST scan reports
B. Centralized SBoM
C. CIS benchmark compliance reports
D. Credentialed vulnerability scan

Answer: B

Explanation:
A centralized Software Bill of Materials (SBoM) is the best solution for identifying vulnerabilities in container images in a private repository. An SBoM provides a comprehensive inventory of all components, dependencies, and their versions within a container image, facilitating quick evaluation and response to vulnerabilities.
Why Centralized SBoM?
? Comprehensive Inventory: An SBoM lists all software components, including their versions and dependencies, allowing for thorough vulnerability assessments.
? Quick Identification: Centralizing SBoM data enables rapid identification of affected containers when a vulnerability is disclosed.
? Automation: SBoMs can be integrated into automated tools for continuous monitoring and alerting of vulnerabilities.
? Regulatory Compliance: Helps in meeting compliance requirements by providing a clear and auditable record of all software components used.
Other options, while useful, do not provide the same level of comprehensive and efficient vulnerability management:
? A. SAST scan reports: Focuses on static analysis of code but may not cover all components in container images.
? C. CIS benchmark compliance reports: Ensures compliance with security benchmarks but does not provide detailed component inventory.
? D. Credentialed vulnerability scan: Useful for in-depth scans but may not be as efficient for quick vulnerability evaluation.
References:
? CompTIA SecurityX Study Guide
? "Software Bill of Materials (SBoM)," NIST Documentation
? "Managing Container Security with SBoM," OWASP

NEW QUESTION 51
A company wants to invest in research capabilities with the goal to operationalize the research output. Which of the following is the best option for a security architect to recommend?

A. Dark web monitoring
B. Threat intelligence platform
C. Honeypots
D. Continuous adversary emulation

Answer: B

Explanation:
Investing in a threat intelligence platform is the best option for a company looking to operationalize research output. A threat intelligence platform helps in collecting, processing, and analyzing threat data to provide actionable insights. These platforms integrate data from various sources, including dark web monitoring, honeypots, and other security tools, to offer a comprehensive view of the threat landscape.
Why a Threat Intelligence Platform?
? Data Integration: It consolidates data from multiple sources, including dark web monitoring and honeypots, making it easier to analyze and derive actionable insights.
? Actionable Insights: Provides real-time alerts and reports on potential threats, helping the organization take proactive measures.
? Operational Efficiency: Streamlines the process of threat detection and response, allowing the security team to focus on critical issues.
? Research and Development: Facilitates the operationalization of research output by providing a platform for continuous monitoring and analysis of emerging threats.
Other options, while valuable, do not offer the same level of integration and operationalization capabilities:
? A. Dark web monitoring: Useful for specific threat intelligence but lacks
comprehensive operationalization.
? C. Honeypots: Effective for detecting and analyzing specific attack vectors but not for broader threat intelligence.
? D. Continuous adversary emulation: Important for testing defenses but not for integrating and operationalizing threat intelligence.
References:
? CompTIA SecurityX Study Guide
? "Threat Intelligence Platforms," Gartner Research
? NIST Special Publication 800-150, "Guide to Cyber Threat Information Sharing"

NEW QUESTION 53
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 55
Third parties notified a company's security team about vulnerabilities in the company's application. The security team determined these vulnerabilities were previously disclosed in third-party libraries. Which of the following solutions best addresses the reported vulnerabilities?

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

Answer: D

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

NEW QUESTION 60
A financial services organization is using Al lo fully automate the process of deciding client loan rates Which of the following should the organization be most concerned about from a privacy perspective?

A. Model explainability
B. Credential Theft
C. Possible prompt Injections
D. Exposure to social engineering

Answer: A

Explanation:
When using AI to fully automate the process of deciding client loan rates, the primary concern from a privacy perspective is model explainability.
Why Model Explainability is Critical:
? Transparency: It ensures that the decision-making process of the AI model can be understood and explained to stakeholders, including clients.
? Accountability: Helps in identifying biases and errors in the model, ensuring that the AI is making fair and unbiased decisions.
? Regulatory Compliance: Various regulations require that decisions, especially those affecting individuals' financial status, can be explained and justified.
? Trust: Builds trust among users and stakeholders by demonstrating that the AI decisions are transparent and justifiable.
Other options, such as credential theft, prompt injections, and social engineering, are significant concerns but do not directly address the privacy and fairness implications of automated decision-making.
References:
? CompTIA SecurityX Study Guide
? "The Importance of Explainability in AI," IEEE Xplore
? GDPR Article 22, "Automated Individual Decision-Making, Including Profiling"

NEW QUESTION 61
A central bank implements strict risk mitigations for the hardware supply chain, including an allow list for specific countries of origin. Which of the following best describes the cyberthreat to the bank?

A. Ability to obtain components during wartime
B. Fragility and other availability attacks
C. Physical Implants and tampering
D. Non-conformance to accepted manufacturing standards

Answer: C

Explanation:
The best description of the cyber threat to a central bank implementing strict risk mitigations for the hardware supply chain, including an allow list for specific countries of origin, is the risk of physical implants and tampering. Here??s why:
? Supply Chain Security: The supply chain is a critical vector for hardware tampering and physical implants, which can compromise the integrity and security of hardware components before they reach the organization.
? Targeted Attacks: Banks and financial institutions are high-value targets, making
them susceptible to sophisticated attacks, including those involving physical implants that can be introduced during manufacturing or shipping processes.
? Strict Mitigations: Implementing an allow list for specific countries aims to mitigate
the risk of supply chain attacks by limiting the sources of hardware. However, the primary concern remains the introduction of malicious components through tampering.
? References:

NEW QUESTION 66
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 68
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 71
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 72
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 74
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 78
Asecuntv administrator is performing a gap assessment against a specific OS benchmark The benchmark requires the following configurations be applied to endpomts:
• Full disk encryption
* Host-based firewall
• Time synchronization
* Password policies
• Application allow listing
* Zero Trust application access
Which of the following solutions best addresses the requirements? (Select two).

A. CASB
B. SBoM
C. SCAP
D. SASE
E. HIDS

Answer: CD

Explanation:
To address the specific OS benchmark configurations, the following solutions are most appropriate:
* C. SCAP (Security Content Automation Protocol): SCAP helps in automating vulnerability management and policy compliance, including configurations like full disk encryption, host-based firewalls, and password policies.
* D. SASE (Secure Access Service Edge): SASE provides a framework for Zero Trust network access and application allow listing, ensuring secure and compliant access to applications and data.
These solutions together cover the comprehensive security requirements specified in the OS benchmark, ensuring a robust security posture for endpoints.
References:
? CompTIA SecurityX Study Guide: Discusses SCAP and SASE as part of security configuration management and Zero Trust architectures.
? NIST Special Publication 800-126, "The Technical Specification for the Security Content Automation Protocol (SCAP)": Details SCAP's role in security automation.
? "Zero Trust Networks: Building Secure Systems in Untrusted Networks" by Evan Gilman and Doug Barth: Covers the principles of Zero Trust and how SASE can implement them.
By implementing SCAP and SASE, the organization ensures that all the specified security configurations are applied and maintained effectively.

NEW QUESTION 80
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 85
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 90
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 95
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 98
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.

IoC 1 | IoC 2 | IoC 3

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

- 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.

Remediation: Select 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.

IoC 1 | IoC 2 | IoC 3

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

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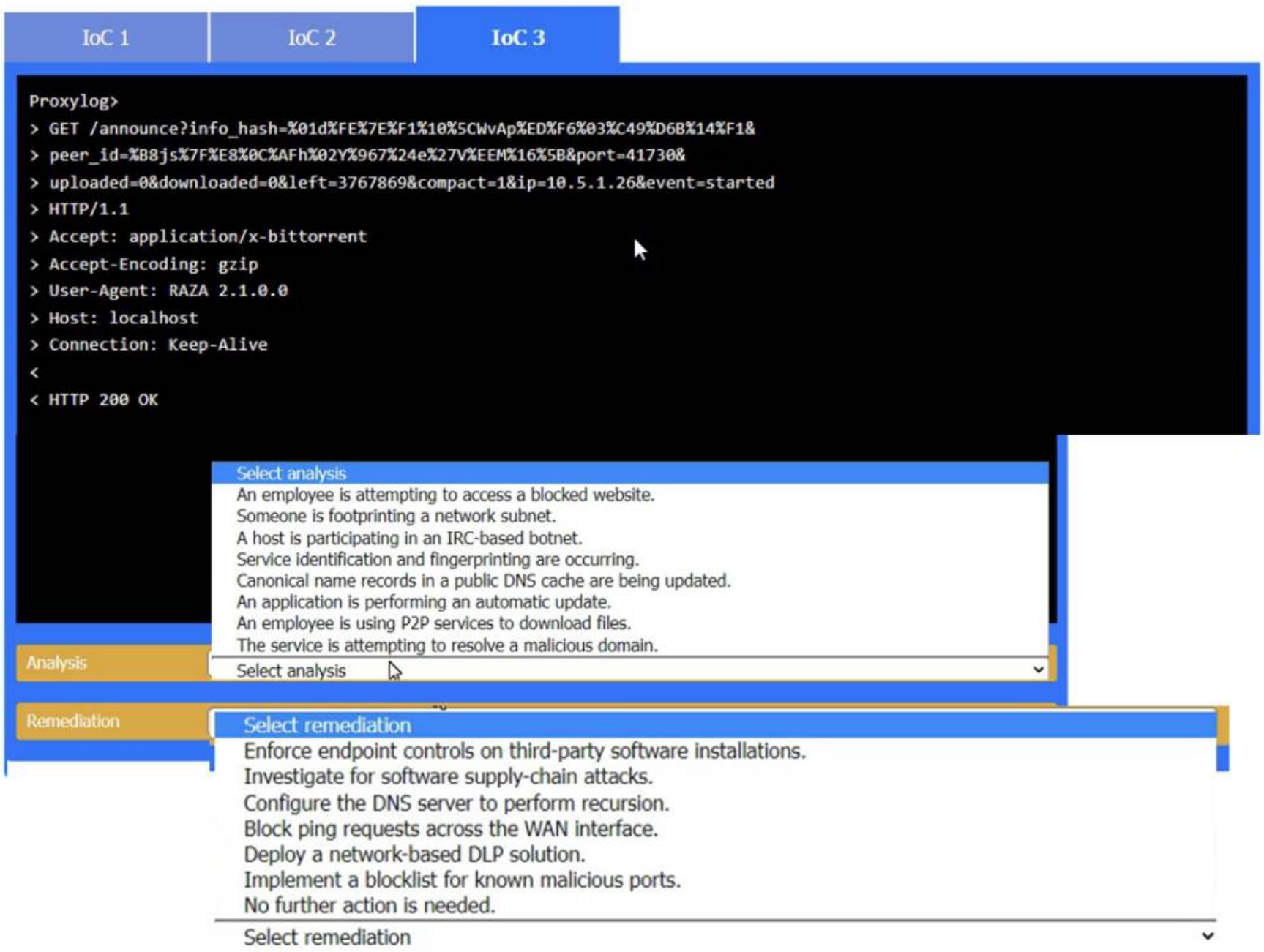
- Investigate for software supply-chain attacks.
- Configure the DNS server to perform recursion.
- Block ping requests across the WAN interface.
- Deploy a network-based DLP solution.
- Implement a blocklist for known malicious ports.
- No further action is needed.



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 101
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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