

Exam Questions CAS-004

CompTIA Advanced Security Practitioner (CASP+) Exam

<https://www.2passeasy.com/dumps/CAS-004/>



NEW QUESTION 1

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

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

Answer: BD

Explanation:

Reference: <https://www.cloudflare.com/learning/cloud/what-is-vendor-lockin/#:~:text=Vendor%20lock%2Din%20can%20become,may%20involve%20reformatting%20the%20data>

NEW QUESTION 2

An enterprise is deploying APIs that utilize a private key and a public key to ensure the connection string is protected. To connect to the API, customers must use the private key.

Which of the following would BEST secure the REST API connection to the database while preventing the use of a hardcoded string in the request string?

- A. Implement a VPN for all APIs.
- B. Sign the key with DSA.
- C. Deploy MFA for the service accounts.
- D. Utilize HMAC for the keys.

Answer: D

Explanation:

Reference: <https://eclipsesource.com/blogs/2016/07/06/keyed-hash-message-authentication-code-in-rest-apis/>

Obviously the specification for the hash calculation must be precise when different implementations on the server and the client are expected. Here's an example:

```
com.eclipsesource.auth.hash.sha256 = AccessKeyId + ":" + Signature

Signature = Base64( HMAC-SHA256( YourSecretAccessKeyID, UTF-8-Encoding-Of( StringToSign ) ) );

StringToSign = HTTP-Verb + "\n" +
    Content-Type + "\n" +
    CanonicalizedResource + "\n" +
    CanonicalizedApplicationHeaders +
    CanonicalizedFormParameters

CanonicalizedResource =
CanonicalizedApplicationHeaders = [ CanonicalizedApplicationHeader + "\n" ]
CanonicalizedApplicationHeader = HeaderName + ":" + HeaderValue + "\n"
CanonicalizedFormParameters = [ CanonicalizedFormParameter + "\n" ]
CanonicalizedFormParameter = ParameterName + ":" + ParameterValue
```

NEW QUESTION 3

An IT administrator is reviewing all the servers in an organization and notices that a server is missing crucial practice against a recent exploit that could gain root access.

Which of the following describes the administrator's discovery?

- A. A vulnerability
- B. A threat
- C. A breach
- D. A risk

Answer: A

Explanation:

Reference: <https://www.beyondtrust.com/blog/entry/privilege-escalation-attack-defense-explained>

NEW QUESTION 4

A threat hunting team receives a report about possible APT activity in the network. Which of the following threat management frameworks should the team implement?

- A. NIST SP 800-53
- B. MITRE ATT&CK
- C. The Cyber Kill Chain
- D. The Diamond Model of Intrusion Analysis

Answer: A

Explanation:

Reference: <https://nvlpubs.nist.gov/nistpubs/legacy/sp/nistspecialpublication800-30r1.pdf>

NEW QUESTION 5

A security architect is implementing a web application that uses a database back end. Prior to the production, the architect is concerned about the possibility of XSS attacks and wants to identify security controls that could be put in place to prevent these attacks. Which of the following sources could the architect consult to address this security concern?

- A. SDLC
- B. OVAL
- C. IEEE
- D. OWASP

Answer: B

Explanation:

Reference: <https://dzone.com/articles/what-is-oval-a-community-driven-vulnerability-mana>

NEW QUESTION 6

An organization recently started processing, transmitting, and storing its customers' credit card information. Within a week of doing so, the organization suffered a massive breach that resulted in the exposure of the customers' information. Which of the following provides the BEST guidance for protecting such information while it is at rest and in transit?

- A. NIST
- B. GDPR
- C. PCI DSS
- D. ISO

Answer: C

Explanation:

Reference: https://en.wikipedia.org/wiki/Payment_Card_Industry_Data_Security_Standard

NEW QUESTION 7

A security engineer needs to implement a solution to increase the security posture of user endpoints by providing more visibility and control over local administrator accounts. The endpoint security team is overwhelmed with alerts and wants a solution that has minimal operational burdens. Additionally, the solution must maintain a positive user experience after implementation. Which of the following is the BEST solution to meet these objectives?

- A. Implement Privileged Access Management (PAM), keep users in the local administrators group, and enable local administrator account monitoring.
- B. Implement PAM, remove users from the local administrators group, and prompt users for explicit approval when elevated privileges are required.
- C. Implement EDR, remove users from the local administrators group, and enable privilege escalation monitoring.
- D. Implement EDR, keep users in the local administrators group, and enable user behavior analytics.

Answer: A

Explanation:

Reference: <https://www.cyberark.com/what-is/privileged-access-management/>

NEW QUESTION 8

Device event logs sources from MDM software as follows:

Device	Date/Time	Location	Event	Description
ANDROID_1022	01JAN21 0255	39.9072N, 77.0369W	PUSH	APPLICATION 1220 INSTALL QUEUED
ANDROID_1022	01JAN21 0301	39.9072N, 77.0369W	INVENTORY	APPLICATION 1220 ADDED
ANDROID_1022	01JAN21 0701	39.0067N, 77.4291W	CHECK-IN	NORMAL
ANDROID_1022	01JAN21 0701	25.2854N, 51.5310E	CHECK-IN	NORMAL
ANDROID_1022	01JAN21 0900	39.0067N, 77.4291W	CHECK-IN	NORMAL
ANDROID_1022	01JAN21 1030	39.0067N, 77.4291W	STATUS	LOCAL STORAGE REPORTING 85% FULL

Which of the following security concerns and response actions would BEST address the risks posed by the device in the logs?

- A. Malicious installation of an application; change the MDM configuration to remove application ID 1220.
- B. Resource leak; recover the device for analysis and clean up the local storage.
- C. Impossible travel; disable the device's account and access while investigating.
- D. Falsified status reporting; remotely wipe the device.

Answer: A

NEW QUESTION 9

A home automation company just purchased and installed tools for its SOC to enable incident identification and response on software the company develops. The company would like to prioritize defenses against the following attack scenarios:

Unauthorized insertions into application development environments

Authorized insiders making unauthorized changes to environment configurations Which of the following actions will enable the data feeds needed to detect these types of attacks on development environments? (Choose two.)

- A. Perform static code analysis of committed code and generate summary reports.
- B. Implement an XML gateway and monitor for policy violations.

- C. Monitor dependency management tools and report on susceptible third-party libraries.
- D. Install an IDS on the development subnet and passively monitor for vulnerable services.
- E. Model user behavior and monitor for deviations from normal.
- F. Continuously monitor code commits to repositories and generate summary logs.

Answer: CD

NEW QUESTION 10

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

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

Answer: B

Explanation:

Reference: <https://www.open.edu/openlearn/ocw/mod/oucontent/view.php?id=48322&ion=1.3>

NEW QUESTION 10

A junior developer is informed about the impact of new malware on an Advanced RISC Machine (ARM) CPU, and the code must be fixed accordingly. Based on the debug, the malware is able to insert itself in another process memory location.

Which of the following technologies can the developer enable on the ARM architecture to prevent this type of malware?

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

Answer: A

Explanation:

Reference: <https://developer.arm.com/documentation/102433/0100/Stack-smashing-and-execution-permissions>

NEW QUESTION 15

A company hired a third party to develop software as part of its strategy to be quicker to market. The company's policy outlines the following requirements: The credentials used to publish production software to the container registry should be stored in a secure location.

Access should be restricted to the pipeline service account, without the ability for the third-party developer to read the credentials directly. Which of the following would be the BEST recommendation for storing and monitoring access to these shared credentials?

- A. TPM
- B. Local secure password file
- C. MFA
- D. Key vault

Answer: A

Explanation:

Reference: <https://docs.microsoft.com/en-us/windows/security/information-protection/tpm/tpm-fundamentals>

NEW QUESTION 17

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

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

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

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

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

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

Answer: C

NEW QUESTION 21

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

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

Answer: C

Explanation:

Reference: <https://www.cynet.com/network-attacks/network-attacks-and-network-security-threats/>

NEW QUESTION 25

A small company recently developed prototype technology for a military program. The company's security engineer is concerned about potential theft of the newly developed, proprietary information.

Which of the following should the security engineer do to BEST manage the threats proactively?

- A. Join an information-sharing community that is relevant to the company.
- B. Leverage the MITRE ATT&CK framework to map the TTR.
- C. Use OSINT techniques to evaluate and analyze the threats.
- D. Update security awareness training to address new threats, such as best practices for data security.

Answer: D

NEW QUESTION 30

A company is preparing to deploy a global service. Which of the following must the company do to ensure GDPR compliance? (Choose two.)

- A. Inform users regarding what data is stored.
- B. Provide opt-in/out for marketing messages.
- C. Provide data deletion capabilities.
- D. Provide optional data encryption.
- E. Grant data access to third parties.
- F. Provide alternative authentication techniques.

Answer: AB

Explanation:

Reference: <https://gdpr.eu/compliance-checklist-us-companies/>

- Conduct an information audit for EU personal data

Confirm that your organization needs to comply with the GDPR. First, determine what personal data you process and whether any of it belongs to people in the EU. If you do process such data, determine whether "The processing activities are related to offering goods or services to such data subjects irrespective of whether connected to a payment." [Recital 23](#) can help you clarify whether your activities qualify as subject to the GDPR. If you are subject to the GDPR, continue to the next steps.

- Inform your customers why you're processing their data

NEW QUESTION 33

A company is looking to fortify its cybersecurity defenses and is focusing on its network infrastructure. The solution cannot affect the availability of the company's services to ensure false positives do not drop legitimate traffic.

Which of the following would satisfy the requirement?

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

Answer: B

Explanation:

Reference: <https://subscription.packtpub.com/book/networking-and-servers/9781782174905/5/ch05lv1sec38/differentiatingbetween-nids-and-nips>

NEW QUESTION 36

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

- A. Importing the availability of messages
- B. Ensuring non-repudiation of messages

- C. Enforcing protocol conformance for messages
- D. Assuring the integrity of messages

Answer: D

NEW QUESTION 38

An organization is considering a BYOD standard to support remote working. The first iteration of the solution will utilize only approved collaboration applications and the ability to move corporate data between those applications. The security team has concerns about the following:

Unstructured data being exfiltrated after an employee leaves the organization

Data being exfiltrated as a result of compromised credentials

Sensitive information in emails being exfiltrated

Which of the following solutions should the security team implement to mitigate the risk of data loss?

- A. Mobile device management, remote wipe, and data loss detection
- B. Conditional access, DoH, and full disk encryption
- C. Mobile application management, MFA, and DRM
- D. Certificates, DLP, and geofencing

Answer: A

NEW QUESTION 41

An application server was recently upgraded to prefer TLS 1.3, and now users are unable to connect their clients to the server. Attempts to reproduce the error are confirmed, and clients are reporting the following:

ERR_SSL_VERSION_OR_CIPHER_MISMATCH

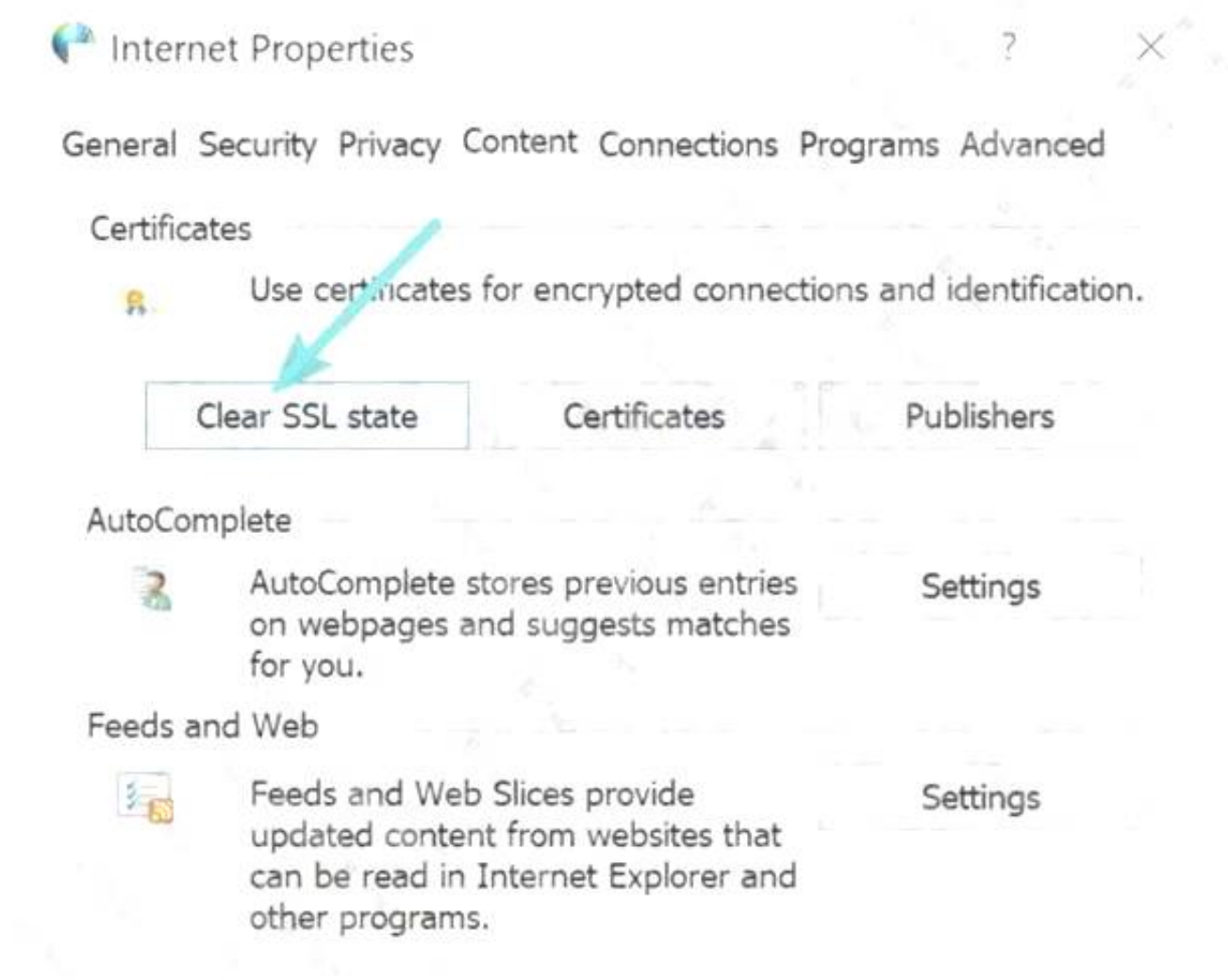
Which of the following is MOST likely the root cause?

- A. The client application is testing PFS.
- B. The client application is configured to use ECDHE.
- C. The client application is configured to use RC4.
- D. The client application is configured to use AES-256 in GCM.

Answer: C

Explanation:

Reference: https://kinsta.com/knowledgebase/err_ssl_version_or_cipher_mismatch/



NEW QUESTION 46

A satellite communications ISP frequently experiences outages and degraded modes of operation over one of its legacy satellite links due to the use of deprecated hardware and software. Three days per week, on average, a contracted company must follow a checklist of 16 different high-latency commands that must be run in serial to restore nominal performance. The ISP wants this process to be automated.

Which of the following techniques would be BEST suited for this requirement?

- A. Deploy SOAR utilities and runbooks.
- B. Replace the associated hardware.
- C. Provide the contractors with direct access to satellite telemetry data.
- D. Reduce link latency on the affected ground and satellite segments.

Answer: A

NEW QUESTION 48

An organization recently experienced a ransomware attack. The security team leader is concerned about the attack reoccurring. However, no further security measures have been implemented.

Which of the following processes can be used to identify potential prevention recommendations?

- A. Detection
- B. Remediation
- C. Preparation
- D. Recovery

Answer: A

NEW QUESTION 49

Clients are reporting slowness when attempting to access a series of load-balanced APIs that do not require authentication. The servers that host the APIs are showing heavy CPU utilization. No alerts are found on the WAFs sitting in front of the APIs. Which of the following should a security engineer recommend to BEST remedy the performance issues in a timely manner?

- A. Implement rate limiting on the API.
- B. Implement geoblocking on the WAF.
- C. Implement OAuth 2.0 on the API.
- D. Implement input validation on the API.

Answer: C

NEW QUESTION 51

A health company has reached the physical and computing capabilities in its datacenter, but the computing demand continues to increase. The infrastructure is fully virtualized and runs custom and commercial healthcare application that process sensitive health and payment information .

Which of the following should the company implement to ensure it can meet the computing demand while complying with healthcare standard for virtualization and cloud computing?

- A. Hybrid IaaS solution in a single-tenancy cloud
- B. PaaS solution in a multi-tenancy cloud
- C. SaaS solution in a community cloud
- D. Private SaaS solution in a single tenancy cloud.

Answer: D

NEW QUESTION 55

Over the last 90 days, many storage services have been exposed in the cloud services environments, and the security team does not have the ability to see is creating these instances. Shadow IT is creating data services and instances faster than the small security team can keep up with them. The Chief information security Officer (CISO) has asked the security officer (CISO) has asked the security lead architect to architect to recommend solutions to this problem.

Which of the following BEST addresses the problem best address the problem with the least amount of administrative effort?

- A. Compile a list of firewall requests and compare them against interesting cloud services.
- B. Implement a CASB solution and track cloud service use cases for greater visibility.
- C. Implement a user-behavior system to associate user events and cloud service creation events.
- D. Capture all logs and feed them to a SIEM and then for cloud service events

Answer: C

NEW QUESTION 59

An application developer is including third-party background security fixes in an application. The fixes seem to resolve a currently identified security issue.

However, when the application is released to the public, reports come in that a previously vulnerability has returned .

Which of the following should the developer integrate into the process to BEST prevent this type of behavior?

- A. Peer review
- B. Regression testing
- C. User acceptance
- D. Dynamic analysis

Answer: A

NEW QUESTION 64

A developer implemented the following code snippet.

```
catch (Exception e)
{
    if(log.isDebugEnabled())
    {
        log.debug("Caught InvalidSQLException Exception --> "
            + e.toString());
    }
}
```

Which of the following vulnerabilities does the code snippet resolve?

- A. SQL inject
- B. Buffer overflow

- C. Missing session limit
- D. Information leakage

Answer: D

NEW QUESTION 66

A company is repeatedly being breached by hackers who valid credentials. The company's Chief information Security Officer (CISO) has installed multiple controls for authenticating users, including biometric and token-based factors. Each successive control has increased overhead and complexity but has failed to stop further breaches. An external consultant is evaluating the process currently in place to support the authentication controls . Which of the following recommendation would MOST likely reduce the risk of unauthorized access?

- A. Implement strict three-factor authentication.
- B. Implement least privilege policies
- C. Switch to one-time or all user authorizations.
- D. Strengthen identify-proofing procedures

Answer: A

NEW QUESTION 69

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