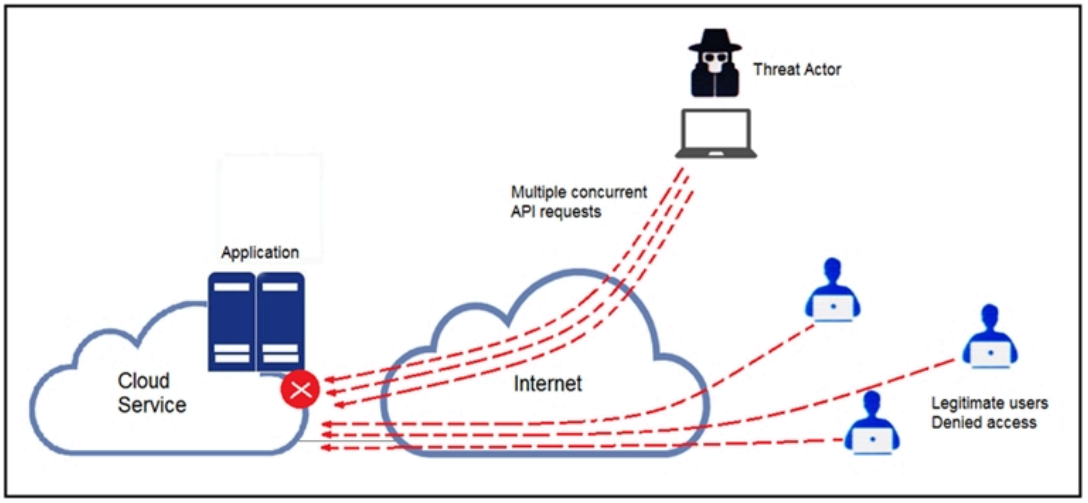
Question #1 *Topic 1*

Refer to the exhibit. A threat actor behind a single computer exploited a cloud-based application by sending multiple concurrent API requests. These requests made the application unresponsive. Which solution protects the application from being overloaded and ensures more equitable application access across the end- user community?



A. Limit the number of API calls that a single client is allowed to make

B. Add restrictions on the edge router on how often a single client can access the API

C. Reduce the amount of data that can be fetched from the total pool of active clients that call the API

D. Increase the application cache of the total pool of active clients that call the API

Suggested Answer: *A*

Community vote distribution

A (100%)

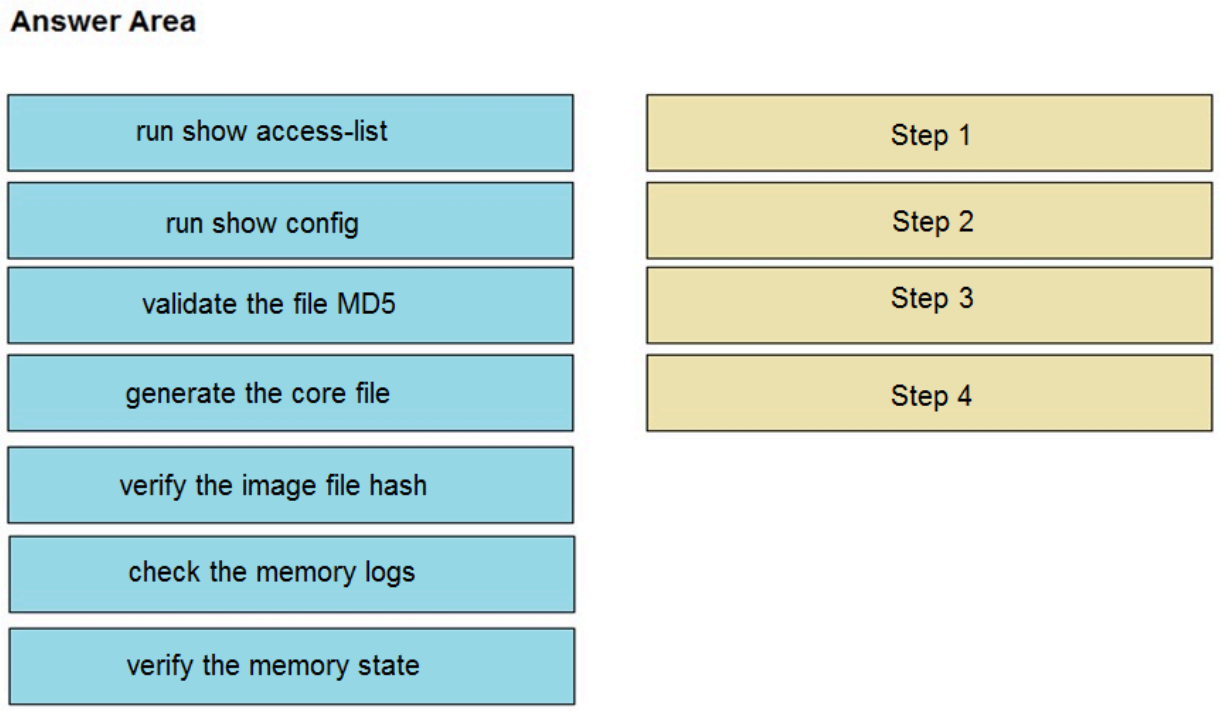
None

Question #2 *Topic 1*

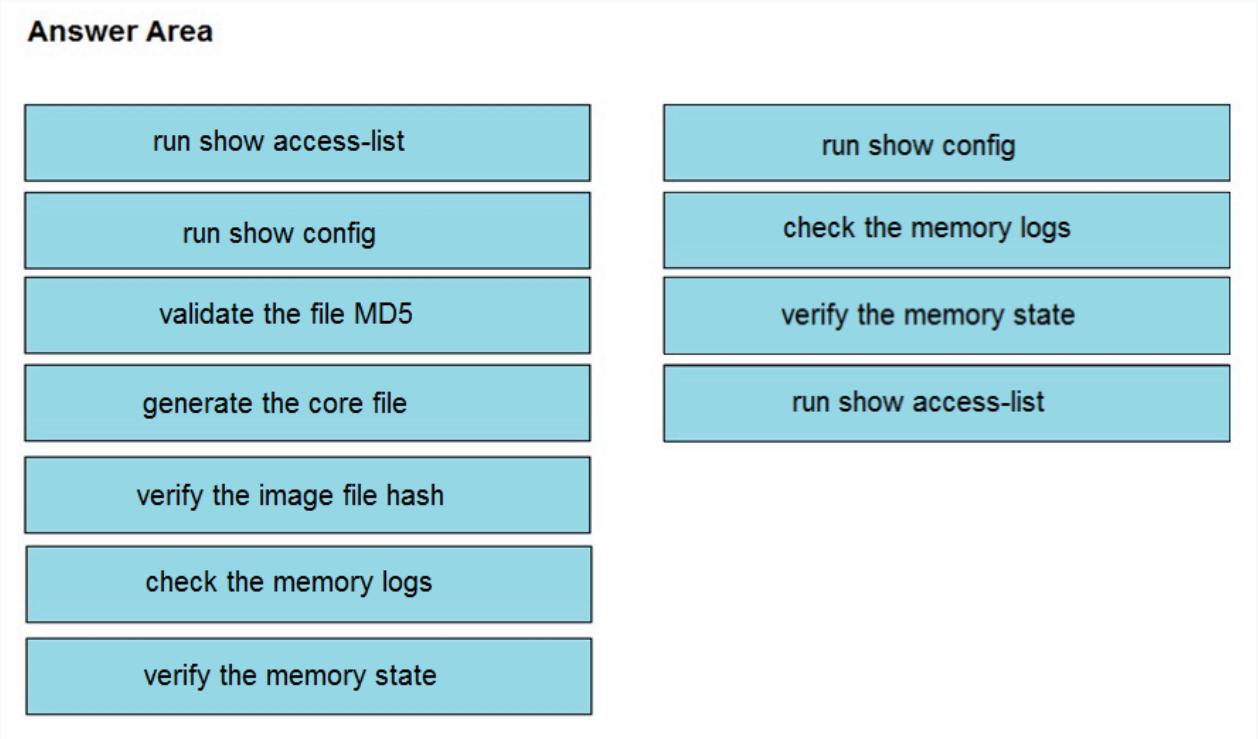
DRAG DROP -

An organization lost connectivity to critical servers, and users cannot access business applications and internal websites. An engineer checks the network devices to investigate the outage and determines that all devices are functioning. Drag and drop the steps from the left into the sequence on the right to continue investigating this issue. Not all options are used.

Select and Place:



Suggested Answer:



None

Question #3 *Topic 1*

A threat actor attacked an organization's Active Directory server from a remote location, and in a thirty-minute timeframe, stole the password for the administrator account and attempted to access 3 company servers. The threat actor successfully accessed the first server that contained sales data, but no files were downloaded. A second server was also accessed that contained marketing information and 11 files were downloaded. When the threat actor accessed the third server that contained corporate financial data, the session was disconnected, and the administrator's account was disabled. Which activity triggered the behavior analytics tool?

A. accessing the Active Directory server

B. accessing the server with financial data

C. accessing multiple servers

D. downloading more than 10 files

Suggested Answer: *C*

Community vote distribution

C (100%)

None

Question #4 *Topic 1*

Refer to the exhibit. A security analyst needs to investigate a security incident involving several suspicious connections with a possible attacker. Which tool should the analyst use to identify the source IP of the offender?

TCP	192.168.1.8:54580	vk-in-f108:imaps	ESTABLISHED
TCP	192.168.1.8:54583	132.245.61.50:https	ESTABLISHED
TCP	192.168.1.8:54916	bay405-m:https	ESTABLISHED
TCP	192.168.1.8:54978	vu-in-f188:5228	ESTABLISHED
TCP	192.168.1.8:55094	72.21.194.109:https	ESTABLISHED
TCP	192.168.1.8:55401	wonderhowto:http	ESTABLISHED
TCP	192.168.1.8:55730	mia07s34-in-f78:https	TIME WAIT
TCP	192.168.1.8:55824	a23-40-191-15:https	CLOSE_WAIT
TCP	192.168.1.8:55825	a23-40-191-15:https	CLOSE_WAIT
TCP	192.168.1.8:55846	mia07s25-in-f14:https	TIME_WAIT
TCP	192.168.1.8:55847	a184-51-150-89:http	CLOSE_WAIT
TCP	192.168.1.8:55853	157.55.56.154:40028	ESTABLISHED
TCP	192.168.1.8:55879	atl14s38-in-f4:https	ESTABLISHED
TCP	192.168.1.8:55884	208-46-117-174:https	ESTABLISHED
TCP	192.168.1.8:55893	vx-in-f95:https	TIME_WAIT
TCP	192.168.1.8:55947	stackoverflow:https	ESTABLISHED
TCP	192.168.1.8:55966	stackoverflow:https	ESTABLISHED
TCP	192.168.1.8:55970	mia07s34-in-f78:https	TIME_WAIT
TCP	192.168.1.8:55972	191.238.241.80:https	TIME_WAIT
TCP	192.168.1.8:55976	54.239.26.242:https	ESTABLISHED
TCP	192.168.1.8:55979	mia07s35-in-f14:https	ESTABLISHED
TCP	192.168.1.8:55986	server11:https	TIME_WAIT
TCP	192.168.1.8:55988	104.16.118.182:http	ESTABLISHED

A. packet sniffer

B. malware analysis

C. SIEM

D. firewall manager

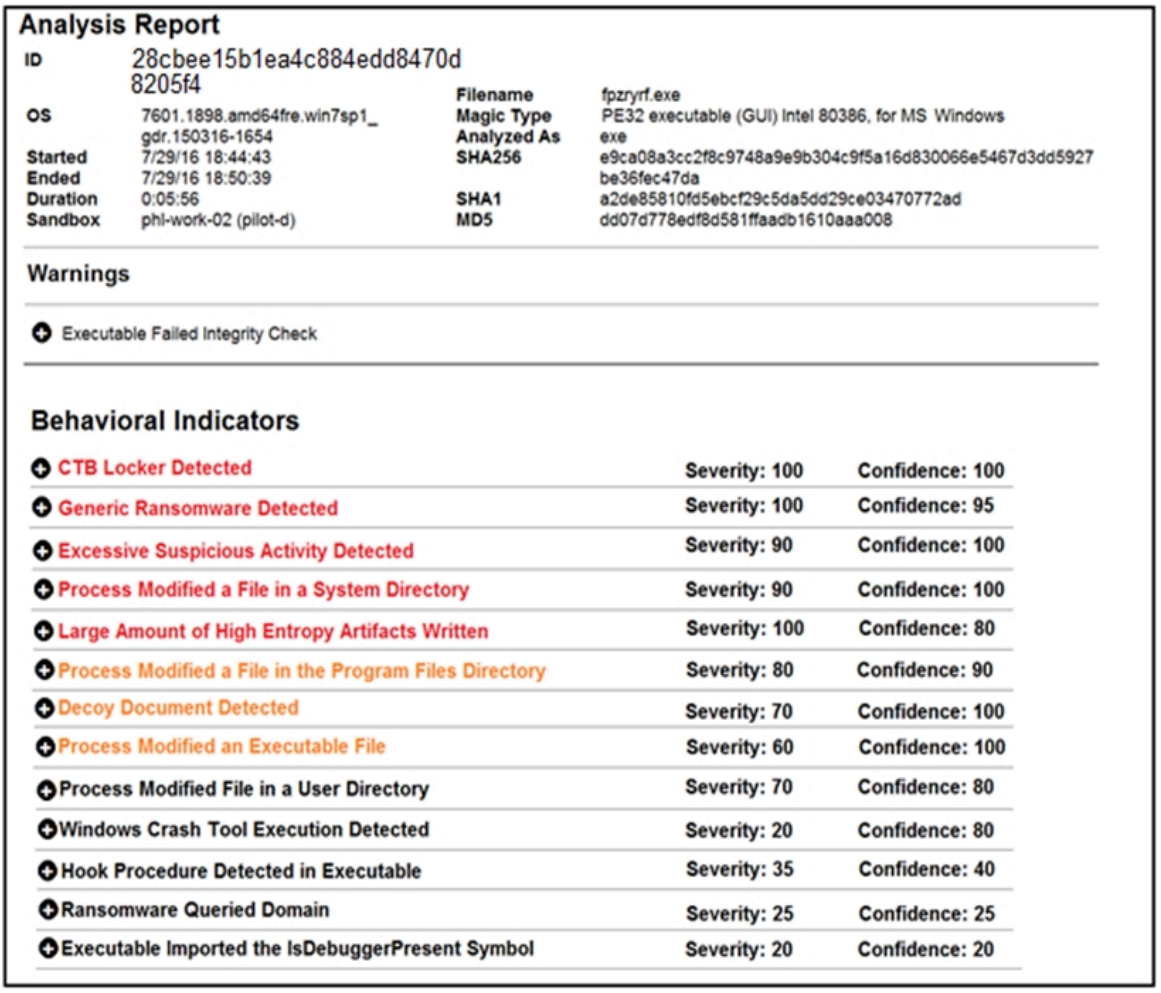
Suggested Answer: *A*

Community vote distribution

A (100%)

None

Question #5 *Topic 1*



Analysis Report

ID	28cbee15b1ea4c884edd8470d8205f4		
		Filename	fpzryrf.exe
OS	7601.1898.amd64fre.win7sp1_gdr.150316-1654	Magic Type	PE32 executable (GUI) Intel 80386, for MS Windows
		Analyzed As	exe
Started	7/29/16 18:44:43	SHA256	e9ca08a3cc2f8c9748a9e9b304c9f5a16d830066e5467d3dd5927be36fec47da
Ended	7/29/16 18:50:39		
Duration	0:05:56	SHA1	a2de85810fd5ebcf29c5da5dd29ce03470772ad
Sandbox	phl-work-02 (pilot-d)	MD5	dd07d778edf8d581ffaadb1610aaa008

Warnings

- Executable Failed Integrity Check

Behavioral Indicators

CTB Locker Detected	Severity: 100	Confidence: 100
Generic Ransomware Detected	Severity: 100	Confidence: 95
Excessive Suspicious Activity Detected	Severity: 90	Confidence: 100
Process Modified a File in a System Directory	Severity: 90	Confidence: 100
Large Amount of High Entropy Artifacts Written	Severity: 100	Confidence: 80
Process Modified a File in the Program Files Directory	Severity: 80	Confidence: 90
Decoy Document Detected	Severity: 70	Confidence: 100
Process Modified an Executable File	Severity: 60	Confidence: 100
Process Modified File in a User Directory	Severity: 70	Confidence: 80
Windows Crash Tool Execution Detected	Severity: 20	Confidence: 80
Hook Procedure Detected in Executable	Severity: 35	Confidence: 40
Ransomware Queried Domain	Severity: 25	Confidence: 25
Executable Imported the IsDebuggerPresent Symbol	Severity: 20	Confidence: 20

Refer to the exhibit. Cisco Advanced Malware Protection installed on an end-user desktop has automatically submitted a low prevalence file to the Threat Grid analysis engine for further analysis. What should be concluded from this report?

A. The prioritized behavioral indicators of compromise do not justify the execution of the ג€ransomwareג€ because the scores do not indicate the likelihood of malicious ransomware.

B. The prioritized behavioral indicators of compromise do not justify the execution of the ג€ransomwareג€ because the scores are high and do not indicate the likelihood of malicious ransomware.

C. The prioritized behavioral indicators of compromise justify the execution of the ג€ransomwareג€ because the scores are high and indicate the likelihood that malicious ransomware has been detected.

D. The prioritized behavioral indicators of compromise justify the execution of the ג€ransomwareג€ because the scores are low and indicate the likelihood that malicious ransomware has been detected.

Suggested Answer: *C*

Community vote distribution

C (100%)

None

Question #6 *Topic 1*

The physical security department received a report that an unauthorized person followed an authorized individual to enter a secured premise. The incident was documented and given to a security specialist to analyze. Which step should be taken at this stage?

A. Determine the assets to which the attacker has access

B. Identify assets the attacker handled or acquired

C. Change access controls to high risk assets in the enterprise

D. Identify movement of the attacker in the enterprise

Suggested Answer: *D*

Community vote distribution

None

Question #7 *Topic 1*

A new malware variant is discovered hidden in pirated software that is distributed on the Internet. Executives have asked for an organizational risk assessment.
The security officer is given a list of all assets. According to NIST, which two elements are missing to calculate the risk assessment? (Choose two.)

A. incident response playbooks

B. asset vulnerability assessment

C. report of staff members with asset relations

D. key assets and executives

E. malware analysis report

Suggested Answer: *BE*
Reference:
https://cloudogre.com/risk-assessment/

Community vote distribution
BE (100%)

None

Question #8 *Topic 1*

URIs:

- /invoker/JMXInvokerServlet
- /CFIDE/adminapi
- /?a=<script>alert%28%22XSS%22%29%3B</script>&b=UNION+SELECT+ALL+FROM+information_schema+AND+%27+or+SLEEP%285%29+or+%27&c=../../../../etc/passwd

Refer to the exhibit. At which stage of the threat kill chain is an attacker, based on these URIs of inbound web requests from known malicious Internet scanners?

A. exploitation

B. actions on objectives

C. delivery

D. reconnaissance

Suggested Answer: *C*

Reference:

https://www2.deloitte.com/content/dam/Deloitte/sg/Documents/risk/sea-risk-cyber-101-july2017.pdf

Community vote distribution

None

Question #9 *Topic 1*

Vulnerability #1	**Vulnerability #2**
A vulnerability in the Command Line Interpreter (CLI) of ACME Super Firewall (all models) could allow an attacker to execute a command which would overflow a buffer in memory. In order to carry out this attack, the attacker needs to fulfill all of the following conditions: a) Be logged in to the device over telnet or SSH, or through the local console b) Be logged in as a high-privileges administrative user In order to trigger the vulnerability, the attacker has to execute a command on the device and supply a specially crafted argument to such command. Once the command is executed, an internal stack-based buffer overflow will be triggered. This buffer overflow may lead to code execution within the process space of the CLI parser, or may crash the device. All software versions are affected Fixes are available now There are no workarounds or mitigations	A vulnerability in the web-based management interface of the ACME Big Router models 1010 and 1020 could allow an attacker to bypass authorization checks and then access sensitive information on the device, modify the device's configuration, impact the availability of the system, create administrative level and regular level users on the device. In order to exploit this vulnerability, the attacker needs to: a) Be able to reach port 80/tcp on an affected device b) The web-based management interface needs to be enabled on the device The attacker would then need to send a specially formed HTTP request to the web-based management interface of an affected system. The attacker does not need to log-in to the device before launching the attack. All software versions are affected There are no fixes available now Customers can disable the web-based management interface to prevent exploitation. Customers will still be able to manage, configure and monitor the device by using the Command Line Interface (CLI), but with reduced capabilities for monitoring.

Refer to the exhibit. How must these advisories be prioritized for handling?

A. The highest priority for handling depends on the type of institution deploying the devices

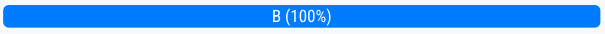
B. Vulnerability #2 is the highest priority for every type of institution

C. Vulnerability #1 and vulnerability #2 have the same priority

D. Vulnerability #1 is the highest priority for every type of institution

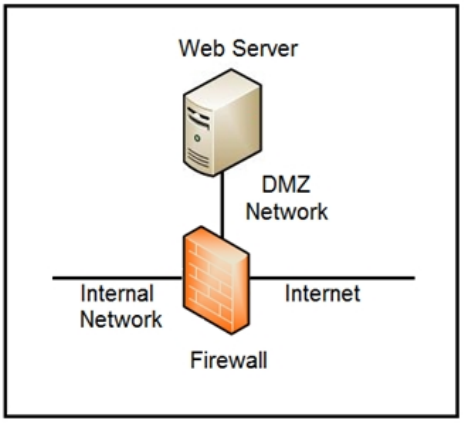
Suggested Answer: *B*

Community vote distribution



None

Question #10 *Topic 1*



Refer to the exhibit. Which two steps mitigate attacks on the webserver from the Internet? (Choose two.)

A. Create an ACL on the firewall to allow only TLS 1.3

B. Implement a reverse server in the DMZ network

C. Create an ACL on the firewall to allow only external connections

D. Move the webserver to the internal network

E. Move the webserver to the external network

Suggested Answer: *AB*

Community vote distribution

AB (83%) BD (17%)

None

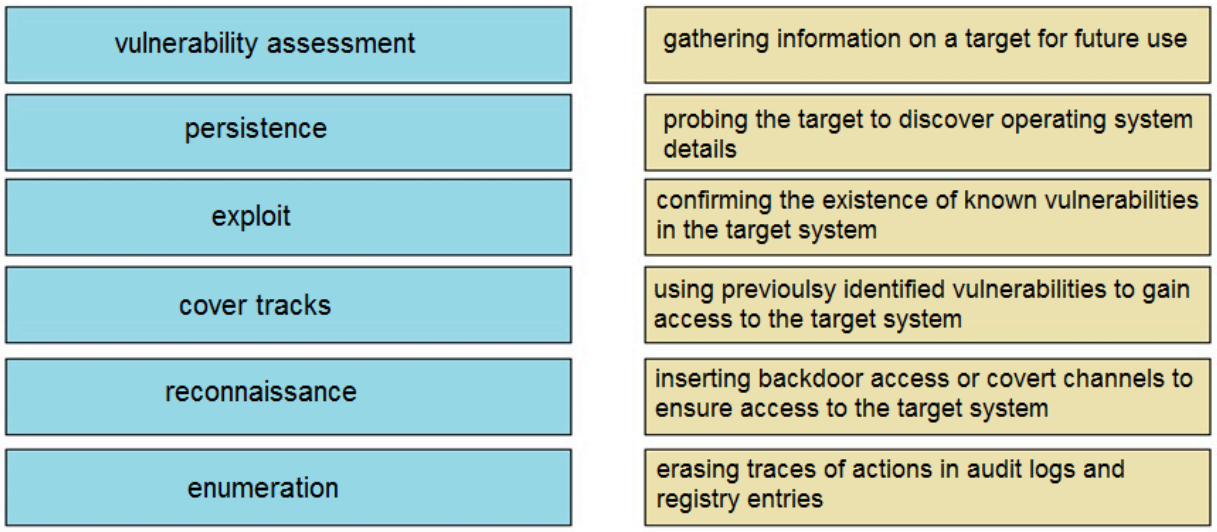
Question #11 *Topic 1*

DRAG DROP -

Drag and drop the phases to evaluate the security posture of an asset from the left onto the activity that happens during the phases on the right.

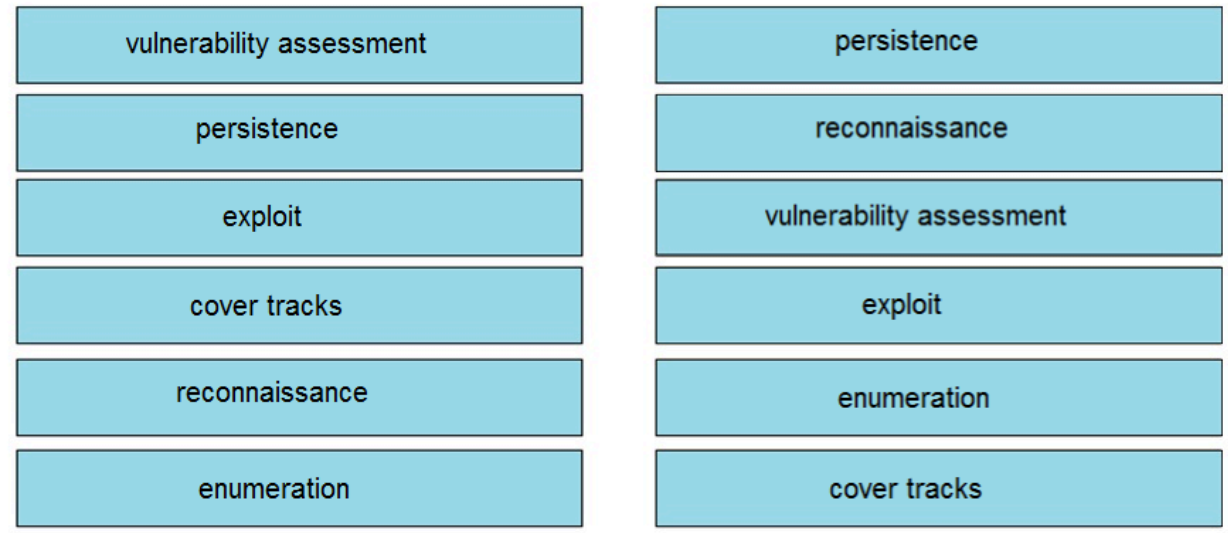
Select and Place:

Answer Area



Suggested Answer:

Answer Area



None

Question #12 *Topic 1*

According to GDPR, what should be done with data to ensure its confidentiality, integrity, and availability?

A. Perform a vulnerability assessment

B. Conduct a data protection impact assessment

C. Conduct penetration testing

D. Perform awareness testing

Suggested Answer: *B*

Community vote distribution

None

Question #13 *Topic 1*

A payroll administrator noticed unexpected changes within a piece of software and reported the incident to the incident response team. Which actions should be taken at this step in the incident response workflow?

A. Classify the criticality of the information, research the attacker's motives, and identify missing patches

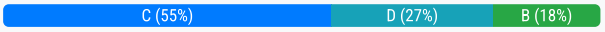
B. Determine the damage to the business, extract reports, and save evidence according to a chain of custody

C. Classify the attack vector, understand the scope of the event, and identify the vulnerabilities being exploited

D. Determine the attack surface, evaluate the risks involved, and communicate the incident according to the escalation plan

Suggested Answer: *C*

Community vote distribution



None

Question #14 *Topic 1*

A company recently completed an internal audit and discovered that there is CSRF vulnerability in 20 of its hosted applications. Based on the audit, which recommendation should an engineer make for patching?

A. Identify the business applications running on the assets

B. Update software to patch third-party software

C. Validate CSRF by executing exploits within Metasploit

D. Fix applications according to the risk scores

Suggested Answer: *D*

Community vote distribution

None

Question #15 *Topic 1*

An engineer is analyzing a possible compromise that happened a week ago when the company database servers unexpectedly went down. The analysis reveals that attackers tampered with Microsoft SQL Server Resolution Protocol and launched a DDoS attack. The engineer must act quickly to ensure that all systems are protected. Which two tools should be used to detect and mitigate this type of future attack? (Choose two.)

A. firewall

B. Wireshark

C. autopsy

D. SHA512

E. IPS

Suggested Answer: *AE*

Community vote distribution

AE (100%)

None

Question #16 *Topic 1*

A European-based advertisement company collects tracking information from partner websites and stores it on a local server to provide tailored ads. Which standard must the company follow to safeguard the resting data?

A. HIPAA

B. PCI-DSS

C. Sarbanes-Oxley

D. GDPR

Suggested Answer: *D*

Reference:

https://www.thesslstore.com/blog/10-data-privacy-and-encryption-laws-every-business-needs-to-know/

Community vote distribution

None

Question #17 *Topic 1*

An organization had a breach due to a phishing attack. An engineer leads a team through the recovery phase of the incident response process. Which action should be taken during this phase?

A. Host a discovery meeting and define configuration and policy updates

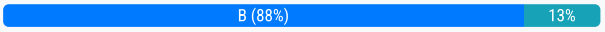
B. Update the IDS/IPS signatures and reimage the affected hosts

C. Identify the systems that have been affected and tools used to detect the attack

D. Identify the traffic with data capture using Wireshark and review email filters

Suggested Answer: *B*

Community vote distribution



None

Question #18 *Topic 1*

An engineer is going through vulnerability triage with company management because of a recent malware outbreak from which 21 affected assets need to be patched or remediated. Management decides not to prioritize fixing the assets and accepts the vulnerabilities. What is the next step the engineer should take?

A. Investigate the vulnerability to prevent further spread

B. Acknowledge the vulnerabilities and document the risk

C. Apply vendor patches or available hot fixes

D. Isolate the assets affected in a separate network

Suggested Answer: *B*

Community vote distribution

B (100%)

None

Question #19 *Topic 1*

The incident response team receives information about the abnormal behavior of a host. A malicious file is found being executed from an external USB flash drive.
The team collects and documents all the necessary evidence from the computing resource. What is the next step?

A. Conduct a risk assessment of systems and applications

B. Isolate the infected host from the rest of the subnet

C. Install malware prevention software on the host

D. Analyze network traffic on the host's subnet

Suggested Answer: *B*

Community vote distribution

B (100%)

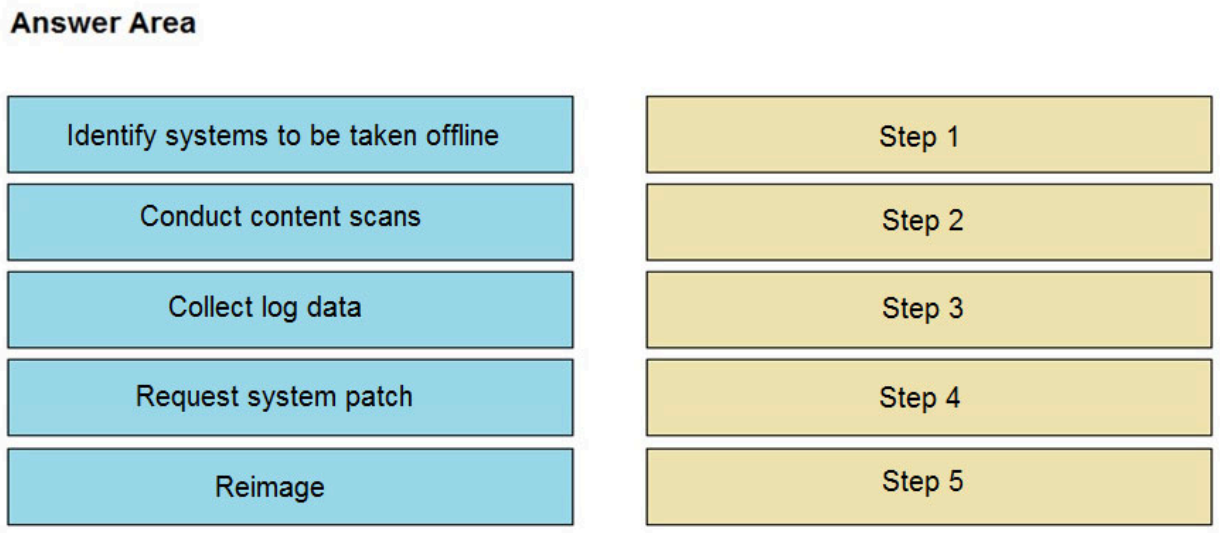
None

Question #20 *Topic 1*

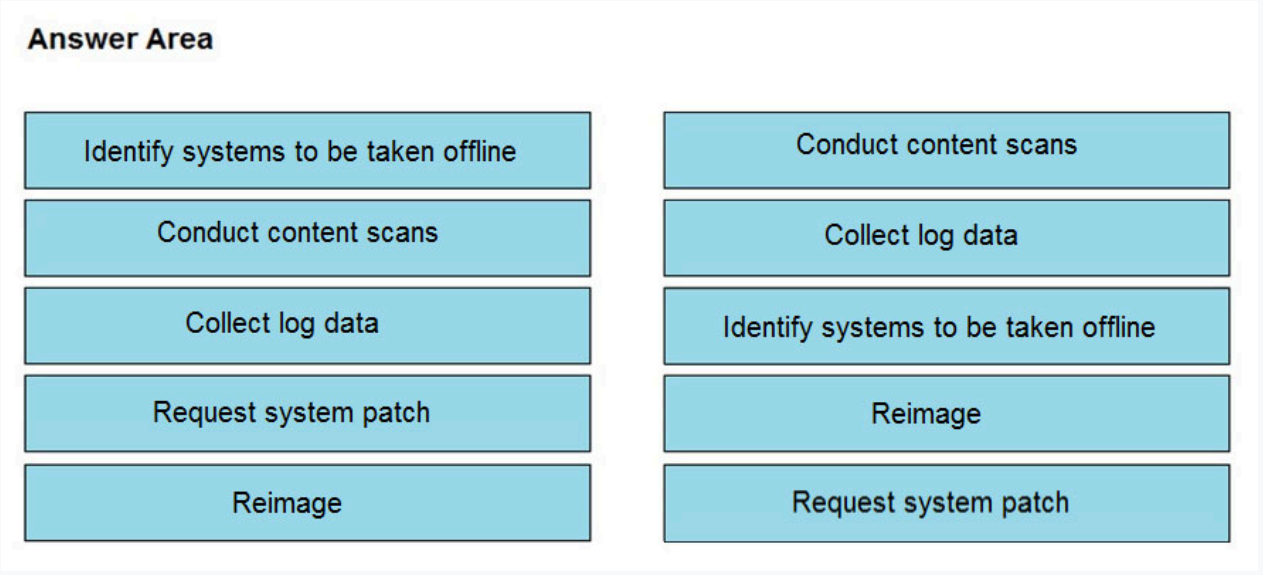
DRAG DROP -

An engineer notices that unauthorized software was installed on the network and discovers that it was installed by a dormant user account. The engineer suspects an escalation of privilege attack and responds to the incident. Drag and drop the activities from the left into the order for the response on the right.

Select and Place:



Suggested Answer:



None

Question #21 *Topic 1*

An organization had several cyberattacks over the last 6 months and has tasked an engineer with looking for patterns or trends that will help the organization anticipate future attacks and mitigate them. Which data analytic technique should the engineer use to accomplish this task?

A. diagnostic

B. qualitative

C. predictive

D. statistical

Suggested Answer: *C*

Reference:

https://insights.principa.co.za/4-types-of-data-analytics-descriptive-diagnostic-predictive-prescriptive

Community vote distribution

None

Question #22 *Topic 1*

A malware outbreak is detected by the SIEM and is confirmed as a true positive. The incident response team follows the playbook to mitigate the threat. What is the first action for the incident response team?

A. Assess the network for unexpected behavior

B. Isolate critical hosts from the network

C. Patch detected vulnerabilities from critical hosts

D. Perform analysis based on the established risk factors

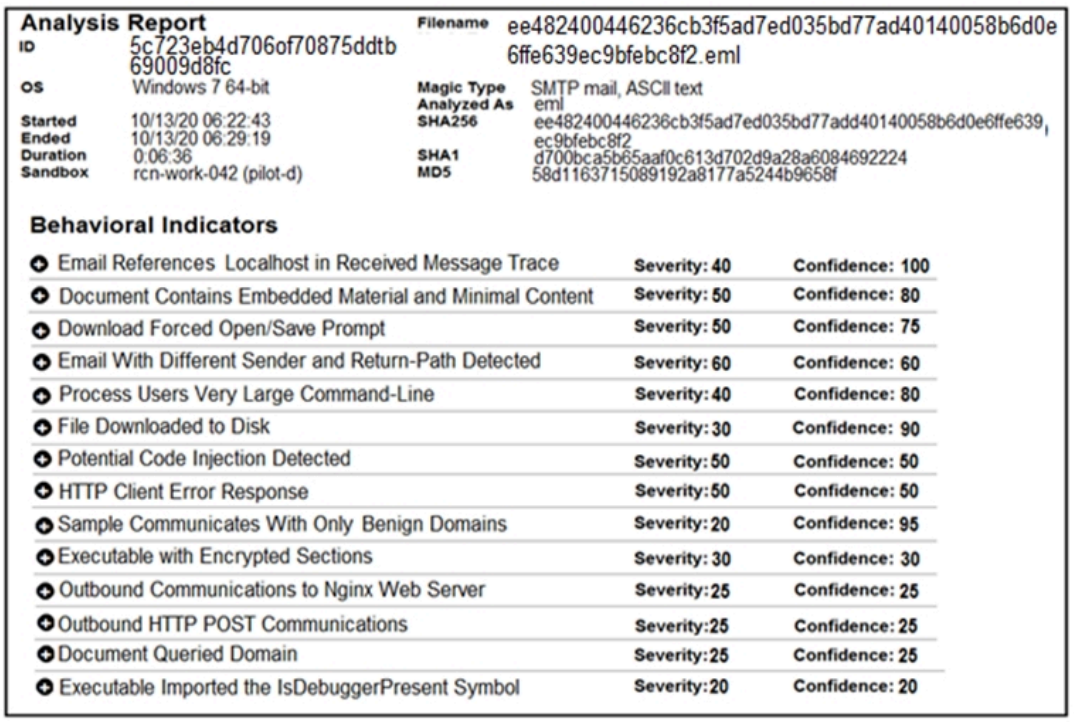
Suggested Answer: *B*

Community vote distribution

B (100%)

None

Question #23 *Topic 1*



Analysis Report

ID	5c723eb4d706of70875ddtb69009d8fc	Filename	ee482400446236cb3f5ad7ed035bd77ad40140058b6d0e6ffe639ec9bfebc8f2.eml
OS	Windows 7 64-bit	Magic Type	SMTP mail, ASCII text
		Analyzed As	eml
Started	10/13/20 06:22:43	SHA256	ee482400446236cb3f5ad7ed035bd77add40140058b6d0e6ffe639, ec9bfebc8f2
Ended	10/13/20 06:29:19		
Duration	0:06:36	SHA1	d700bca5b65aaf0c613d702d9a28a6084692224
Sandbox	rcn-work-042 (pilot-d)	MD5	58d1163715089192a8177a5244b9658f

Behavioral Indicators

Email References Localhost in Received Message Trace	Severity: 40	Confidence: 100
Document Contains Embedded Material and Minimal Content	Severity: 50	Confidence: 80
Download Forced Open/Save Prompt	Severity: 50	Confidence: 75
Email With Different Sender and Return-Path Detected	Severity: 60	Confidence: 60
Process Users Very Large Command-Line	Severity: 40	Confidence: 80
File Downloaded to Disk	Severity: 30	Confidence: 90
Potential Code Injection Detected	Severity: 50	Confidence: 50
HTTP Client Error Response	Severity: 50	Confidence: 50
Sample Communicates With Only Benign Domains	Severity: 20	Confidence: 95
Executable with Encrypted Sections	Severity: 30	Confidence: 30
Outbound Communications to Nginx Web Server	Severity: 25	Confidence: 25
Outbound HTTP POST Communications	Severity: 25	Confidence: 25
Document Queried Domain	Severity: 25	Confidence: 25
Executable Imported the IsDebuggerPresent Symbol	Severity: 20	Confidence: 20

Refer to the exhibit. Cisco Advanced Malware Protection installed on an end-user desktop automatically submitted a low prevalence file to the Threat Grid analysis engine. What should be concluded from this report?

A. Threat scores are high, malicious ransomware has been detected, and files have been modified

B. Threat scores are low, malicious ransomware has been detected, and files have been modified

C. Threat scores are high, malicious activity is detected, but files have not been modified

D. Threat scores are low and no malicious file activity is detected

Suggested Answer: *B*

Community vote distribution

D (100%)

None

Question #24 *Topic 1*

An organization is using a PKI management server and a SOAR platform to manage the certificate lifecycle. The SOAR platform queries a certificate management tool to check all endpoints for SSL certificates that have either expired or are nearing expiration. Engineers are struggling to manage problematic certificates outside of PKI management since deploying certificates and tracking them requires searching server owners manually. Which action will improve workflow automation?

A. Implement a new workflow within SOAR to create tickets in the incident response system, assign problematic certificate update requests to server owners, and register change requests.

B. Integrate a PKI solution within SOAR to create certificates within the SOAR engines to track, update, and monitor problematic certificates.

C. Implement a new workflow for SOAR to fetch a report of assets that are outside of the PKI zone, sort assets by certification management leads and automate alerts that updates are needed.

D. Integrate a SOAR solution with Active Directory to pull server owner details from the AD and send an automated email for problematic certificates requesting updates.

Suggested Answer: *C*

Community vote distribution

None

Question #25 *Topic 1*

DRAG DROP -

Drag and drop the NIST incident response process steps from the left onto the actions that occur in the steps on the right.

Select and Place:

Eradicate	Review and document the breach, and strengthen systems against future attacks.
Contain	Conduct incident response role training for employees.
Post-Incident Handling	Determine where the breach started and prevent the attack from spreading.
Recover	Determine how the breach was discovered and the areas that were impacted.
Analyze	Eliminate the root cause of the breach and apply updates to the system.
Prepare	Get systems and business operations up and running, and ensure that the same type of attack does not occur again.

Suggested Answer:

Eradicate	Contain
Contain	Prepare
Post-Incident Handling	Recover
Recover	Analyze
Analyze	Eradicate
Prepare	Post-Incident Handling

Reference:

https://www.securitymetrics.com/blog/6-phases-incident-response-plan

None

Question #26 *Topic 1*

Which command does an engineer use to set read/write/execute access on a folder for everyone who reaches the resource?

A. chmod 666

B. chmod 774

C. chmod 775

D. chmod 777

Suggested Answer: *D*

Reference:

https://www.pluralsight.com/blog/it-ops/linux-file-permissions

Community vote distribution

None

Question #27 *Topic 1*

A SIEM tool fires an alert about a VPN connection attempt from an unusual location. The incident response team validates that an attacker has installed a remote access tool on a user's laptop while traveling. The attacker has the user's credentials and is attempting to connect to the network.
What is the next step in handling the incident?

A. Block the source IP from the firewall

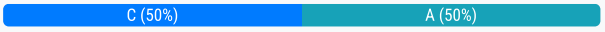
B. Perform an antivirus scan on the laptop

C. Identify systems or services at risk

D. Identify lateral movement

Suggested Answer: *C*

Community vote distribution



None

Question #28 *Topic 1*

A threat actor used a phishing email to deliver a file with an embedded macro. The file was opened, and a remote code execution attack occurred in a company's infrastructure. Which steps should an engineer take at the recovery stage?

A. Determine the systems involved and deploy available patches

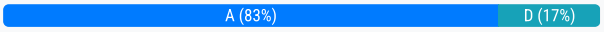
B. Analyze event logs and restrict network access

C. Review access lists and require users to increase password complexity

D. Identify the attack vector and update the IDS signature list

Suggested Answer: *A*

Community vote distribution



None

Question #29 *Topic 1*

A patient views information that is not theirs when they sign in to the hospital's online portal. The patient calls the support center at the hospital but continues to be put on hold because other patients are experiencing the same issue. An incident has been declared, and an engineer is now on the incident bridge as the
CyberOps Tier 3 Analyst. There is a concern about the disclosure of PII occurring in real-time. What is the first step the analyst should take to address this incident?

A. Evaluate visibility tools to determine if external access resulted in tampering

B. Contact the third-party handling provider to respond to the incident as critical

C. Turn off all access to the patient portal to secure patient records

D. Review system and application logs to identify errors in the portal code

Suggested Answer: *C*

Community vote distribution

None

Question #30 *Topic 1*

```
def map_to_lowercase_letter(s):
  return ord('a') + ((s-ord('a')) % 26)
def next_domain(domain):
  dl = [ord(x) for x in list(domain)]
  dl[0] = map_to_lowercase_letter(dl[0] + dl[3])
  dl[1] = map_to_lowercase_letter(dl[0] + 2*dl[1])
  dl[2] = map_to_lowercase_letter(dl[0] + dl[2] - 1)
  dl[3] = map_to_lowercase_letter(dl[1] + dl[2] + dl[3])
  return ''.join([chr(x) for x in dl])
def isBanjoriTail(seed):
 for c0 in xrange(97,123):
  for c1 in xrange(97, 123):
   for c2 in xrange(97,123):
    for c3 in xrange (97,123):
        domain = chr(c0)+chr(c1)+chr(c2)+chr(c3)
        domain = next_domain(domain)
        if seed.startswith(domain):
         return False
 return True
seeds = {
"nhcisatformalisticirekb.com",
"egfesatformalisticirekb.com",
"qwfusatformalisticirekb.com",
"eijhsatformalisticirekb.com",
"siowsatformalisticirekb.com",
"dhansatformalisticirekb.com",
"zvogsatformalisticirekb.com",
"yaewsatformalisticirekb.com",
"wgxfsatformalisticirekb.com",
"vfxlsatformalisticirekb.com",
"usjssatformalisticirekb.com",
"selzsatformalisticirekb.com",
"nzjqsatformalisticirekb.com",
```

Refer to the exhibit. What results from this script?

A. Seeds for existing domains are checked

B. A search is conducted for additional seeds

C. Domains are compared to seed rules

D. A list of domains as seeds is blocked

Suggested Answer: *B*

Community vote distribution

C (67%) B (33%)

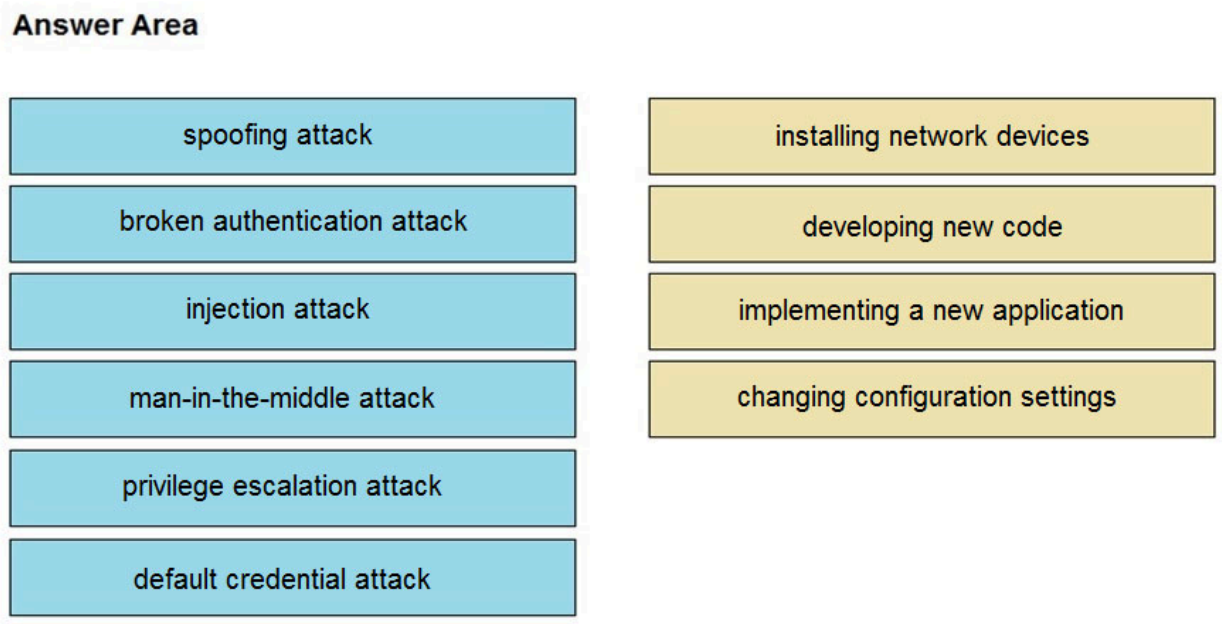
None

Question #31 *Topic 1*

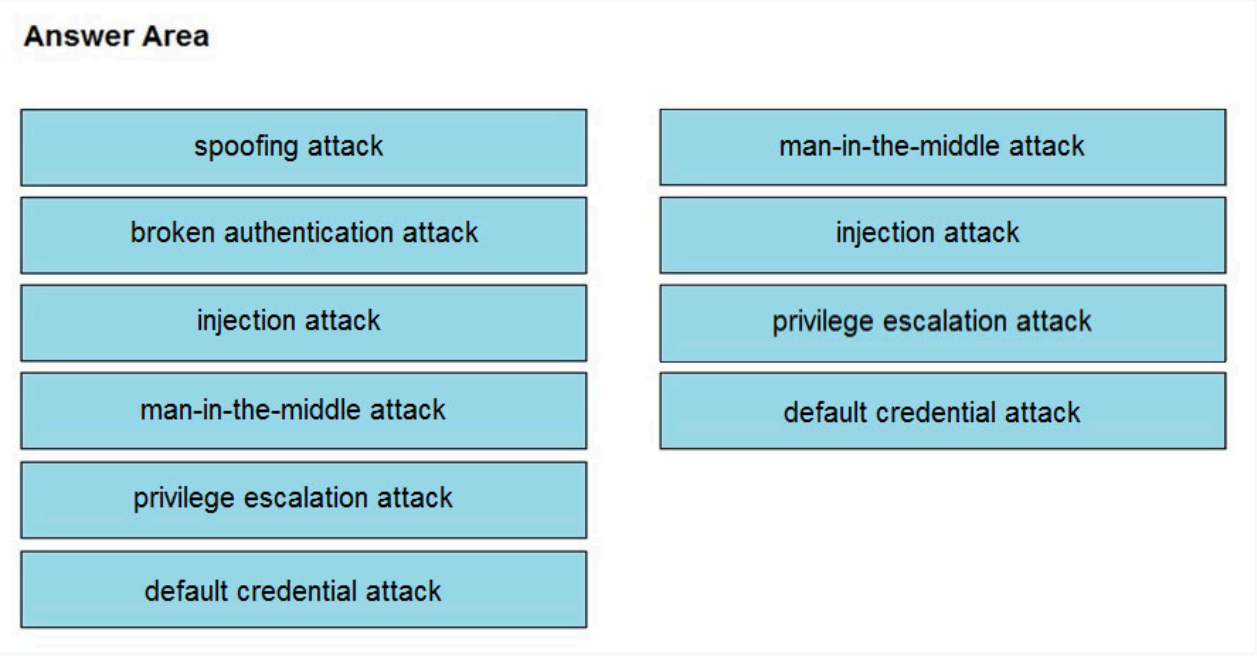
DRAG DROP -

Drag and drop the threat from the left onto the scenario that introduces the threat on the right. Not all options are used.

Select and Place:



Suggested Answer:



None

Question #32 *Topic 1*

```
<employees>
  <employee>
    <lastname>Smith</lastname>
    <firstname>Richard</firstname>
  </employee>
  <employee>
    <lastname>Witzel</lastname>
    <firstname>Sevan</firstname>
  </employee>
</employees>
```

Refer to the exhibit. Which data format is being used?

A. JSON

B. HTML

C. XML

D. CSV

Suggested Answer: *B*

Community vote distribution

C (100%)

None

Question #33 *Topic 1*

The incident response team was notified of detected malware. The team identified the infected hosts, removed the malware, restored the functionality and data of infected systems, and planned a company meeting to improve the incident handling capability. Which step was missed according to the NIST incident handling guide?

A. Contain the malware

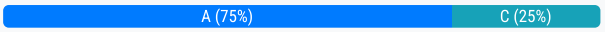
B. Install IPS software

C. Determine the escalation path

D. Perform vulnerability assessment

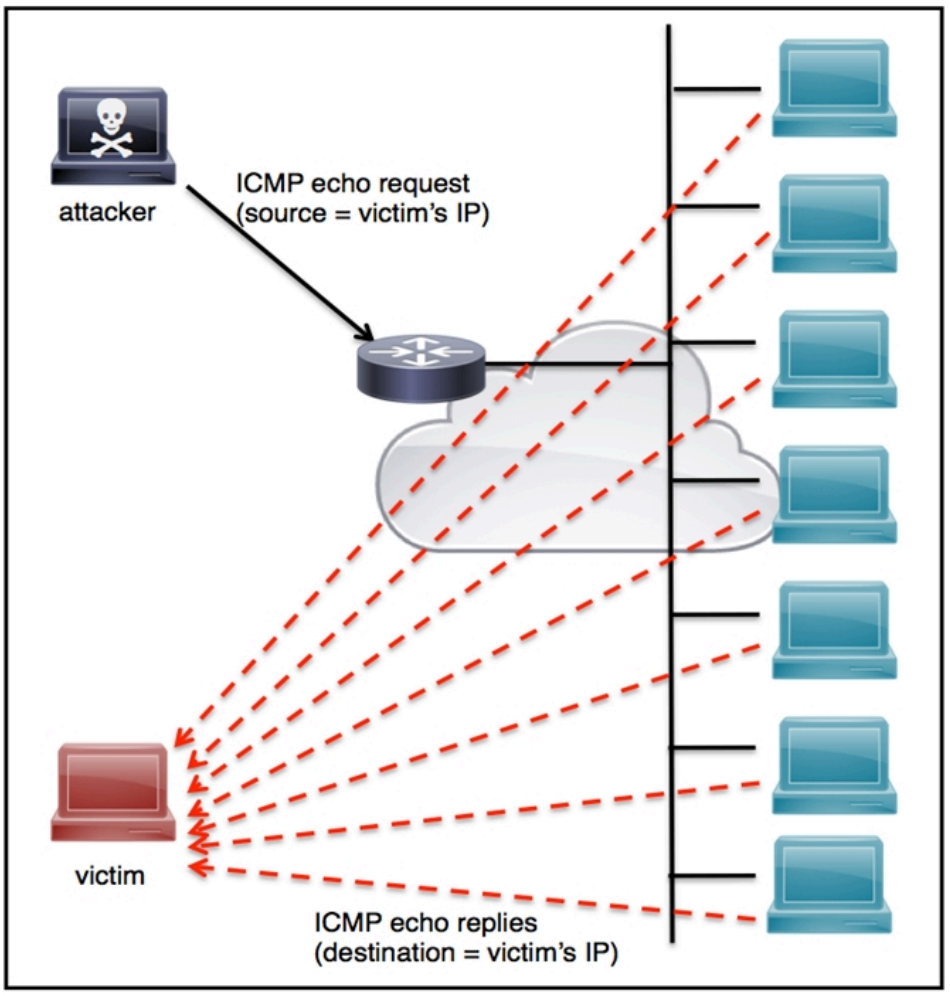
Suggested Answer: *D*

Community vote distribution



None

Question #34 *Topic 1*



Refer to the exhibit. An engineer must tune the Cisco IOS device to mitigate an attack that is broadcasting a large number of ICMP packets. The attack is sending the victim's spoofed source IP to a network using an IP broadcast address that causes devices in the network to respond back to the source IP address. Which action does the engineer recommend?

A. Use command ip verify reverse-path interface

B. Use global configuration command service tcp-keepalives-out

C. Use subinterface command no ip directed-broadcast

D. Use logging trap 6

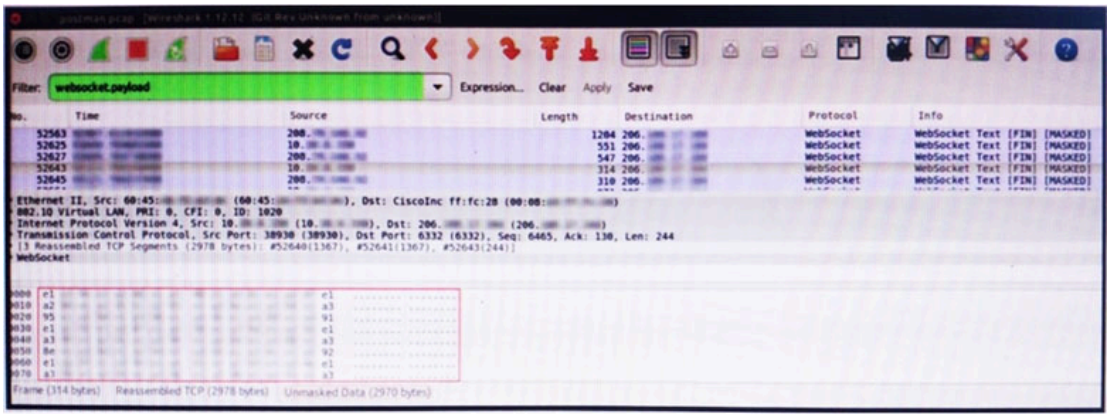
Suggested Answer: *C*

Community vote distribution

C (80%) A (20%)

None

Question #35 *Topic 1*



Refer to the exhibit. An engineer is analyzing this Vlan0392-int12-239.pcap file in Wireshark after detecting a suspicious network activity. The origin header for the direct IP connections in the packets was initiated by a google chrome extension on a WebSocket protocol. The engineer checked message payloads to determine what information was being sent off-site but the payloads are obfuscated and unreadable. What does this STIX indicate?

A. The extension is not performing as intended because of restrictions since ports 80 and 443 should be accessible

B. The traffic is legitimate as the google chrome extension is reaching out to check for updates and fetches this information

C. There is a possible data leak because payloads should be encoded as UTF-8 text

D. There is a malware that is communicating via encrypted channels to the command and control server

Suggested Answer: *C*

Community vote distribution

C (50%) D (50%)

None

Question #36 *Topic 1*

What do 2xx HTTP response codes indicate for REST APIs?

A. additional action must be taken by the client to complete the request

B. the server takes responsibility for error status codes

C. communication of transfer protocol-level information

D. successful acceptance of the client's request

Suggested Answer: *D*

Reference:

https://restfulapi.net/http-status-codes/#:~:text=HTTP%20defines%20these%20standard%20status,results%20of%20a%20client%27s%20request.&text=2xx%3A%20Success%20%20"€¸Indicates%20that%20the,order%20to%20complete%20their%20request

.

Community vote distribution

D (100%)

None

Question #37 *Topic 1*

An engineer received an alert of a zero-day vulnerability affecting desktop phones through which an attacker sends a crafted packet to a device, resets the credentials, makes the device unavailable, and allows a default administrator account login. Which step should an engineer take after receiving this alert?

A. Initiate a triage meeting to acknowledge the vulnerability and its potential impact

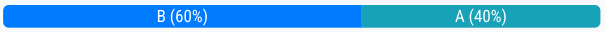
B. Determine company usage of the affected products

C. Search for a patch to install from the vendor

D. Implement restrictions within the VoIP VLANS

Suggested Answer: *C*

Community vote distribution



None

Question #38 *Topic 1*

```
def get_umbrella_dispos(domains):
     # put in right format to pass as argument in POST request
     values = str(json.dumps(domains))
     req = requests.post(investigate_url, data=values, headers=headers)
     # time for timestamp of verdict domain
     time = datetime.now().isoformat()
     # error handling if true then the request was HTTP 200, so successful
     if(req.status_code == 200):
       print("SUCCESS: request has the following code: 200\n")
       output = req.json()

       if(domain_status == -1):
         print("The domain %(domain)s is found MALICIOUS at %(time)s\n" % {'domain': domain, 'time': time})
       elif(domain_status == 1):
         print("The domain %(domain)s is found CLEAN at %(time)s\n" %
          {'domain': domain, 'time': time})
       else:
         print("The domain %(domain)s is found UNDEFINED / RISKY at %(time)s\n" %
          {'domain': domain, 'time': time})
    else:
      print("An error has occurred with the following code %(error)s, please consult the following link:
      https://docs.umbrella.com/investigate-api/"%
           {'error': req.status_code})
```

Refer to the exhibit. Which code snippet will parse the response to identify the status of the domain as malicious, clean or undefined?

A.

```
for domain in domains[]:
          domain_status = domain_output[“status”]
```

B.

```
while domain in domains:
     domain_status = domain_output[“status”]
```

C.

```
for domain in domains:
     domain_output = output[domain]
     domain_status = domain_output[“status”]
```

D.

```
while domains in domains:
     domain_output = output[domain]
     domain_status = domain_output[“status”]
```

Suggested Answer: *C*

None

Question #39 *Topic 1*

An engineer receives an incident ticket with hundreds of intrusion alerts that require investigation. An analysis of the incident log shows that the alerts are from trusted IP addresses and internal devices. The final incident report stated that these alerts were false positives and that no intrusions were detected. What action should be taken to harden the network?

A. Move the IPS to after the firewall facing the internal network

B. Move the IPS to before the firewall facing the outside network

C. Configure the proxy service on the IPS

D. Configure reverse port forwarding on the IPS

Suggested Answer: *B*

Community vote distribution

B (100%)

None

Question #40 *Topic 1*

A SOC team is informed that a UK-based user will be traveling between three countries over the next 60 days. Having the names of the 3 destination countries and the user's working hours, what must the analyst do next to detect an abnormal behavior?

A. Create a rule triggered by 3 failed VPN connection attempts in an 8-hour period

B. Create a rule triggered by 1 successful VPN connection from any nondestination country

C. Create a rule triggered by multiple successful VPN connections from the destination countries

D. Analyze the logs from all countries related to this user during the traveling period

Suggested Answer: *B*

Community vote distribution

None

Question #41 *Topic 1*

An engineer receives a report that indicates a possible incident of a malicious insider sending company information to outside parties. What is the first action the engineer must take to determine whether an incident has occurred?

A. Analyze environmental threats and causes

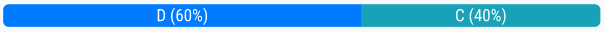
B. Inform the product security incident response team to investigate further

C. Analyze the precursors and indicators

D. Inform the computer security incident response team to investigate further

Suggested Answer: *D*

Community vote distribution



None

Question #42 *Topic 1*

An employee abused PowerShell commands and script interpreters, which lead to an indicator of compromise (IOC) trigger. The IOC event shows that a known malicious file has been executed, and there is an increased likelihood of a breach. Which indicator generated this IOC event?

A. ExecutedMalware.ioc

B. Crossrider.ioc

C. ConnectToSuspiciousDomain.ioc

D. W32.AccesschkUtility.ioc

Suggested Answer: *D*

Community vote distribution

A (100%)

None

Question #43 *Topic 1*

Refer to the exhibit. Which command was executed in PowerShell to generate this log?

Max (K)	Retain	OverflowAction	Entries	Log
15,168	0	OverwriteAsNeeded	20,792	Application
15,168	0	OverwriteAsNeeded	12,559	System
15,360	0	OverwriteAsNeeded	11,173	Windows PowerShell

A. Get-EventLog -LogName*

B. Get-EventLog -List

C. Get-WinEvent -ListLog* -ComputerName localhost

D. Get-WinEvent -ListLog*

Suggested Answer: *A*

Reference:

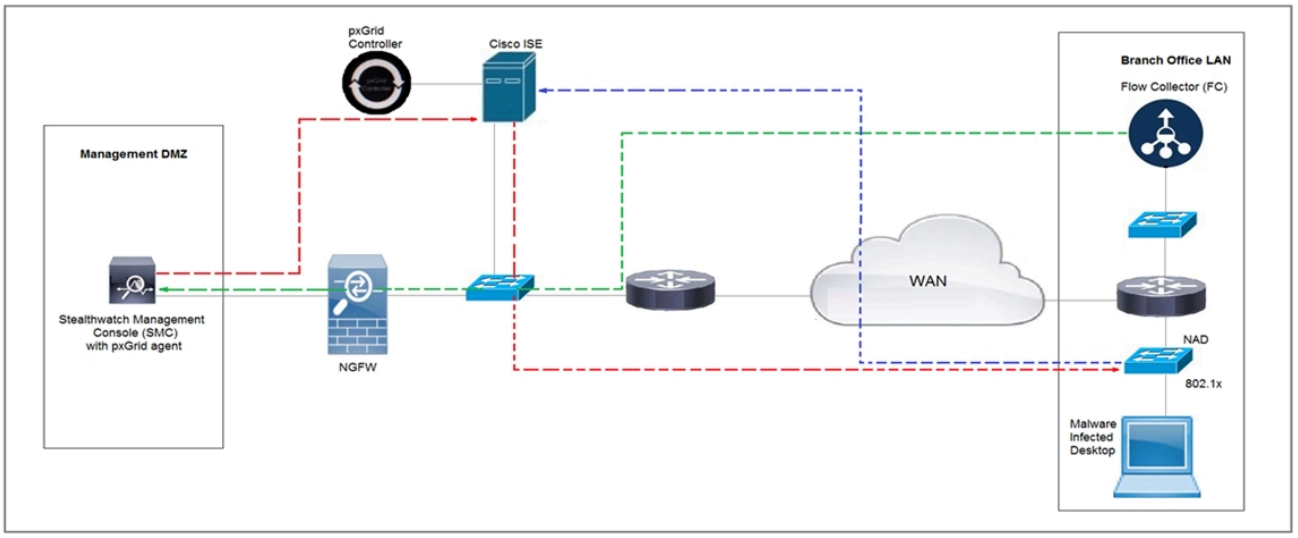
https://lists.xymon.com/archive/2019-March/046125.html

Community vote distribution

B (100%)

None

Question #44 *Topic 1*



Refer to the exhibit. Cisco Rapid Threat Containment using Cisco Secure Network Analytics (Stealthwatch) and ISE detects the threat of malware-infected 802.1x authenticated endpoints and places that endpoint into a Quarantine VLAN using Adaptive Network Control policy. Which telemetry feeds were correlated with
SMC to identify the malware?

A. NetFlow and event data

B. event data and syslog data

C. SNMP and syslog data

D. NetFlow and SNMP

Suggested Answer: *B*

Community vote distribution

D (50%) A (50%)

None

Question #45 *Topic 1*

A security architect is working in a processing center and must implement a DLP solution to detect and prevent any type of copy and paste attempts of sensitive data within unapproved applications and removable devices. Which technical architecture must be used?

A. DLP for data in motion

B. DLP for removable data

C. DLP for data in use

D. DLP for data at rest

Suggested Answer: *C*

Reference:

https://www.endpointprotector.com/blog/what-is-data-loss-prevention-dlp/

Community vote distribution

C (100%)

None

Question #46 *Topic 1*

A security analyst receives an escalation regarding an unidentified connection on the Accounting A1 server within a monitored zone. The analyst pulls the logs and discovers that a Powershell process and a WMI tool process were started on the server after the connection was established and that a PE format file was created in the system directory. What is the next step the analyst should take?

A. Isolate the server and perform forensic analysis of the file to determine the type and vector of a possible attack

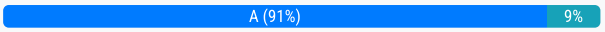
B. Identify the server owner through the CMDB and contact the owner to determine if these were planned and identifiable activities

C. Review the server backup and identify server content and data criticality to assess the intrusion risk

D. Perform behavioral analysis of the processes on an isolated workstation and perform cleaning procedures if the file is malicious

Suggested Answer: *A*

Community vote distribution



None

Question #47 *Topic 1*

A security expert is investigating a breach that resulted in a $32 million loss from customer accounts. Hackers were able to steal API keys and two-factor codes due to a vulnerability that was introduced in a new code a few weeks before the attack. Which step was missed that would have prevented this breach?

A. use of the Nmap tool to identify the vulnerability when the new code was deployed

B. implementation of a firewall and intrusion detection system

C. implementation of an endpoint protection system

D. use of SecDevOps to detect the vulnerability during development

Suggested Answer: *D*

Reference:

https://securityintelligence.com/how-to-prioritize-security-vulnerabilities-in-secdevops/

Community vote distribution

D (100%)

None

Question #48 *Topic 1*

An API developer is improving an application code to prevent DDoS attacks. The solution needs to accommodate instances of a large number of API requests coming for legitimate purposes from trustworthy services. Which solution should be implemented?

A. Restrict the number of requests based on a calculation of daily averages. If the limit is exceeded, temporarily block access from the IP address and return a 402 HTTP error code.

B. Implement REST API Security Essentials solution to automatically mitigate limit exhaustion. If the limit is exceeded, temporarily block access from the service and return a 409 HTTP error code.

C. Increase a limit of replies in a given interval for each API. If the limit is exceeded, block access from the API key permanently and return a 450 HTTP error code.

D. Apply a limit to the number of requests in a given time interval for each API. If the rate is exceeded, block access from the API key temporarily and return a 429 HTTP error code.

Suggested Answer: *D*

Reference:

https://www.whoishostingthis.com/resources/http-status-codes/

Community vote distribution

None

Question #49 *Topic 1*

```
alert tcp $EXTERNAL_NET any -> $HOME_NET 143 ( msg:"PROTOCOL-
IMAP login brute force attempt";
flow:to_server,established,no_stream;
content:"LOGIN",fast_pattern,nocase; detection_filter:track
by_dst, count 5, seconds 900; metadata:ruleset community;
service:imap; reference:url,attack.mitre.org/techniques/T1110;
classtype:suspicious-login; sid:2273; rev:12; )
```

Refer to the exhibit. IDS is producing an increased amount of false positive events about brute force attempts on the organization's mail server. How should the
Snort rule be modified to improve performance?

A. Block list of internal IPs from the rule

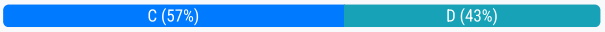
B. Change the rule content match to case sensitive

C. Set the rule to track the source IP

D. Tune the count and seconds threshold of the rule

Suggested Answer: *C*

Community vote distribution



None

Question #50 *Topic 1*

Where do threat intelligence tools search for data to identify potential malicious IP addresses, domain names, and URLs?

A. customer data

B. internal database

C. internal cloud

D. Internet

Suggested Answer: *D*

Community vote distribution

D (100%)

None

Question #51 *Topic 1*

An engineer wants to review the packet overviews of SNORT alerts. When printing the SNORT alerts, all the packet headers are included, and the file is too large to utilize. Which action is needed to correct this problem?

A. Modify the alert rule to ƛ€output alert_syslog: output logƛ€

B. Modify the output module rule to ƛ€output alert_quick: output filenameƛ€

C. Modify the alert rule to ƛ€output alert_syslog: output headerƛ€

D. Modify the output module rule to ƛ€output alert_fast: output filenameƛ€

Suggested Answer: *D*

Community vote distribution

D (100%)

None

Question #52 *Topic 1*

DRAG DROP -

Drag and drop the type of attacks from the left onto the cyber kill chain stages at which the attacks are seen on the right.

Select and Place:

Answer Area

not visible to the victim	reconnaissance
virus scanner turning off	weaponization
malware placed on the targeted system	delivery
open port scans and multiple failed logins from the website	exploitation
large amount of data leaving the network through unusual ports	installation
system phones connecting to countries where no staff are located	command & control
USB with infected files inserted into company laptop	actions on objectives

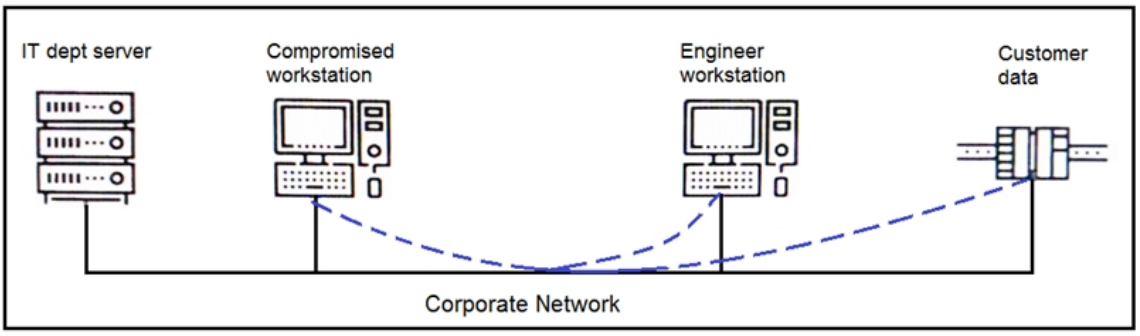
Suggested Answer:

Answer Area

not visible to the victim	system phones connecting to countries where no staff are located
virus scanner turning off	malware placed on the targeted system
malware placed on the targeted system	not visible to the victim
open port scans and multiple failed logins from the website	large amount of data leaving the network through unusual ports
large amount of data leaving the network through unusual ports	USB with infected files inserted into company laptop
system phones connecting to countries where no staff are located	virus scanner turning off
USB with infected files inserted into company laptop	open port scans and multiple failed logins from the website

None

Question #53 *Topic 1*



Refer to the exhibit. An engineer received a report that an attacker has compromised a workstation and gained access to sensitive customer data from the network using insecure protocols. Which action prevents this type of attack in the future?

A. Use VLANs to segregate zones and the firewall to allow only required services and secured protocols

B. Deploy a SOAR solution and correlate log alerts from customer zones

C. Deploy IDS within sensitive areas and continuously update signatures

D. Use syslog to gather data from multiple sources and detect intrusion logs for timely responses

Suggested Answer: *A*

Community vote distribution

A (100%)

None

Question #54 *Topic 1*

How does Wireshark decrypt TLS network traffic?

A. with a key log file using per-session secrets

B. using an RSA public key

C. by observing DH key exchange

D. by defining a user-specified decode-as

Suggested Answer: *A*

Community vote distribution

A (100%)

None

Question #55 *Topic 1*

```
#!/usr/bin/env python3

import re

def (username, minlen):
  if type(username) != str:
          raise TypeError
  if minlen < 3:
          raise ValueError
  if len(username) < minlen:
          return False
  if not re.match('^[a-z0-9._]*$', username):
          return False
  if username[0].isnumeric():
          return False
  return True
```

Refer to the exhibit. An organization is using an internal application for printing documents that requires a separate registration on the website. The application allows format-free user creation, and users must match these required conditions to comply with the company's user creation policy:

⇨ minimum length: 3

⇨ usernames can only use letters, numbers, dots, and underscores

⇨ usernames cannot begin with a number

The application administrator has to manually change and track these daily to ensure compliance. An engineer is tasked to implement a script to automate the process according to the company user creation policy. The engineer implemented this piece of code within the application, but users are still able to create format-free usernames. Which change is needed to apply the restrictions?

A. modify code to return error on restrictions def return false_user(username, minlen)

B. automate the restrictions def automate_user(username, minlen)

C. validate the restrictions, def validate_user(username, minlen)

D. modify code to force the restrictions, def force_user(username, minlen)

Suggested Answer: *B*

Community vote distribution

C (100%)

None

Question #56 *Topic 1*

An engineer implemented a SOAR workflow to detect and respond to incorrect login attempts and anomalous user behavior. Since the implementation, the security team has received dozens of false positive alerts and negative feedback from system administrators and privileged users. Several legitimate users were tagged as a threat and their accounts blocked, or credentials reset because of unexpected login times and incorrectly typed credentials. How should the workflow be improved to resolve these issues?

A. Meet with privileged users to increase awareness and modify the rules for threat tags and anomalous behavior alerts

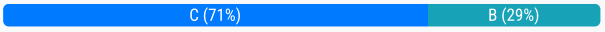
B. Change the SOAR configuration flow to remove the automatic remediation that is increasing the false positives and triggering threats

C. Add a confirmation step through which SOAR informs the affected user and asks them to confirm whether they made the attempts

D. Increase incorrect login tries and tune anomalous user behavior not to affect privileged accounts

Suggested Answer: *C*

Community vote distribution



None

Question #57 *Topic 1*

```
pragma: no-cache
server: Apache
status: 200
strict-transport-security: max-age=31536000
vary: Accept-Encoding
x-content-type-options: nosniff
x-frame-options: SAMEORIGIN
x-test-debug: nURL=www.cisco.com, realm-0, isRealm=0, realmDomain=0, shortrealm=0
x-xss-protection: 1; mode=block
```

Refer to the exhibit. Where does it signify that a page will be stopped from loading when a scripting attack is detected?

A. x-frame-options

B. x-content-type-options

C. x-xss-protection

D. x-test-debug

Suggested Answer: *C*

Reference:

https://docs.microsoft.com/en-us/windows-server/identity/ad-fs/operations/customize-http-security-headers-ad-fs

Community vote distribution

C (100%)

None

Question #58 *Topic 1*

What is the HTTP response code when the REST API information requested by the authenticated user cannot be found?

A. 401

B. 402

C. 403

D. 404

E. 405

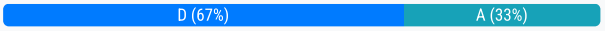
Suggested Answer: *A*

Reference:

https://airbrake.io/blog/http-errors/401-unauthorized-error#:~:text=The%20401%20Unauthorized%20Error%20is,client%20could%20not%20be%20authenticated

.

Community vote distribution



None

Question #59 *Topic 1*

What is a principle of Infrastructure as Code?

A. System maintenance is delegated to software systems

B. Comprehensive initial designs support robust systems

C. Scripts and manual configurations work together to ensure repeatable routines

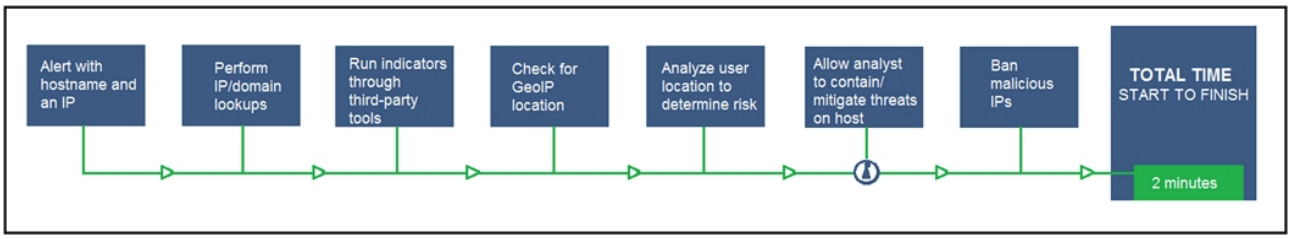
D. System downtime is grouped and scheduled across the infrastructure

Suggested Answer: *A*

Community vote distribution

None

Question #60 *Topic 1*



Refer to the exhibit. An engineer configured this SOAR solution workflow to identify account theft threats and privilege escalation, evaluate risk, and respond by resolving the threat. This solution is handling more threats than Security analysts have time to analyze. Without this analysis, the team cannot be proactive and anticipate attacks. Which action will accomplish this goal?

A. Exclude the step ɹ€BAN malicious IPɹ€ to allow analysts to conduct and track the remediation

B. Include a step ɹ€Take a Snapshotɹ€ to capture the endpoint state to contain the threat for analysis

C. Exclude the step ɹ€Check for GeoIP locationɹ€ to allow analysts to analyze the location and the associated risk based on asset criticality

D. Include a step ɹ€Reportingɹ€ to alert the security department of threats identified by the SOAR reporting engine

Suggested Answer: *A*

Community vote distribution

B (67%) D (33%)

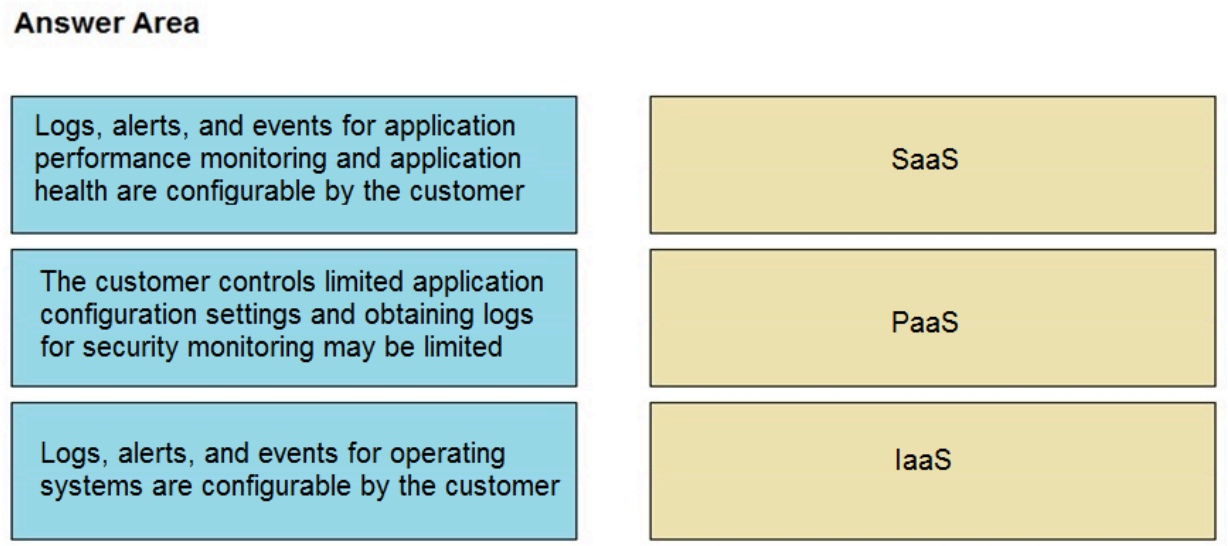
None

Question #61 *Topic 1*

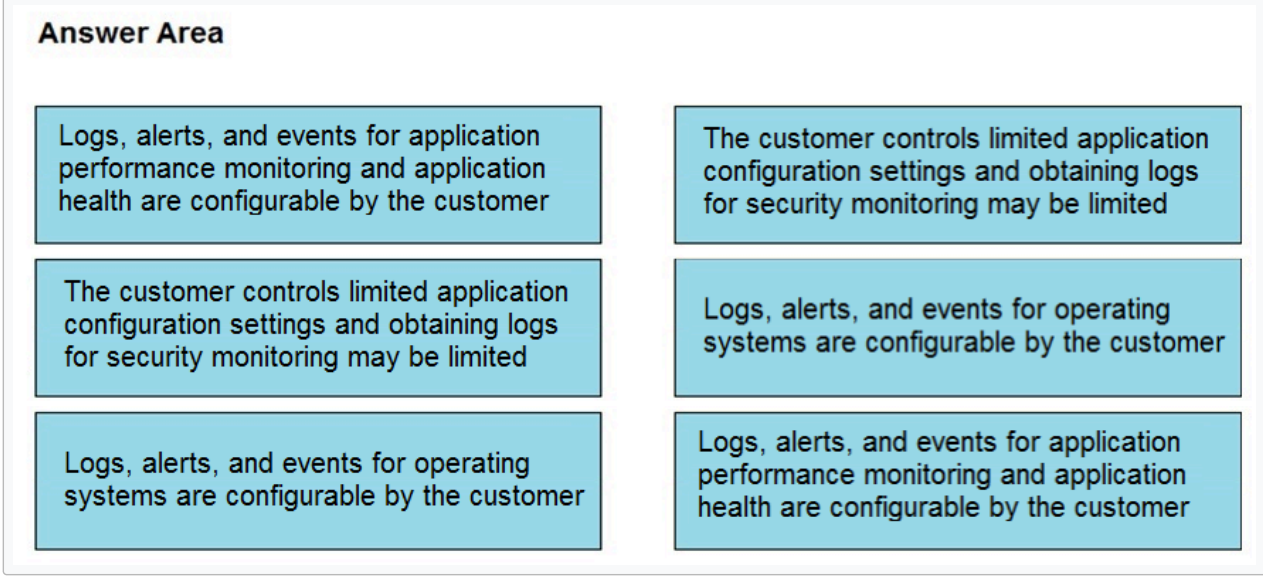
DRAG DROP -

Drag and drop the telemetry-related considerations from the left onto their cloud service models on the right.

Select and Place:



Suggested Answer:



None

Question #62 *Topic 1*

A company's web server availability was breached by a DDoS attack and was offline for 3 hours because it was not deemed a critical asset in the incident response playbook. Leadership has requested a risk assessment of the asset. An analyst conducted the risk assessment using the threat sources, events, and vulnerabilities. Which additional element is needed to calculate the risk?

A. assessment scope

B. event severity and likelihood

C. incident response playbook

D. risk model framework

Suggested Answer: *D*

Community vote distribution

B (100%)

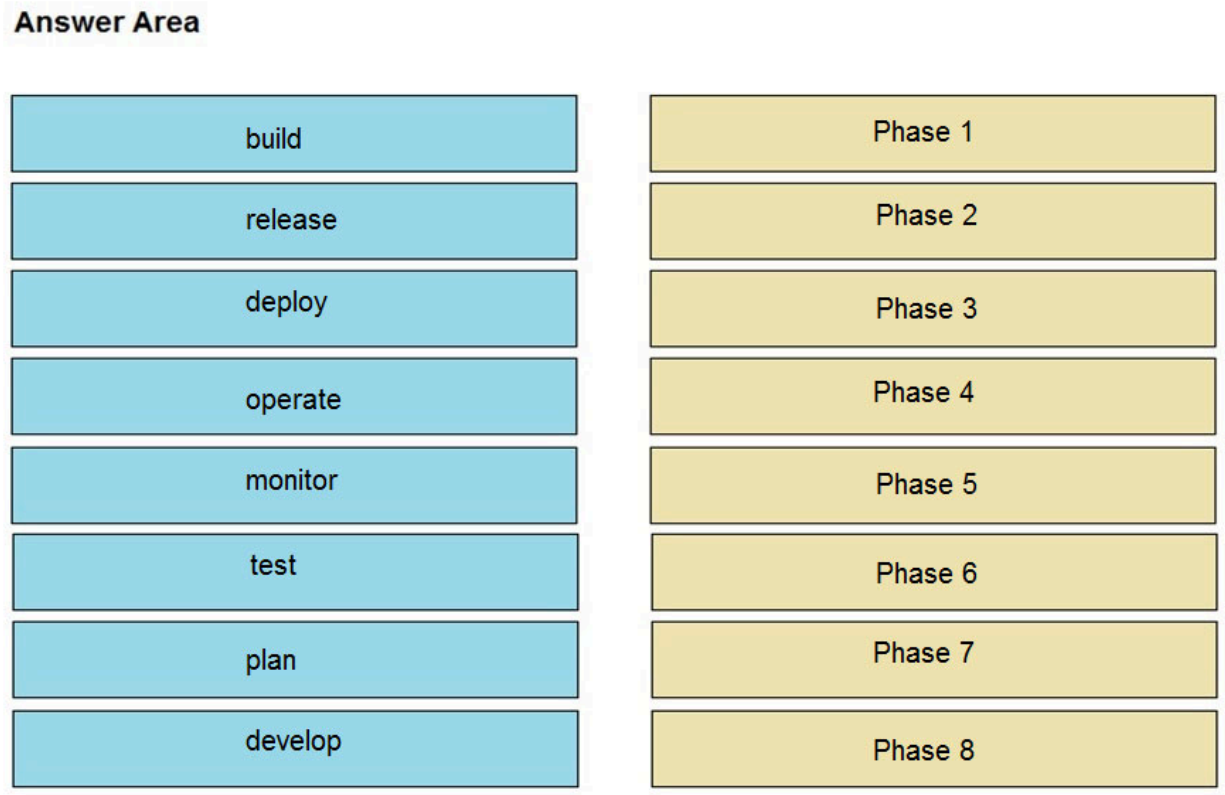
None

Question #63 *Topic 1*

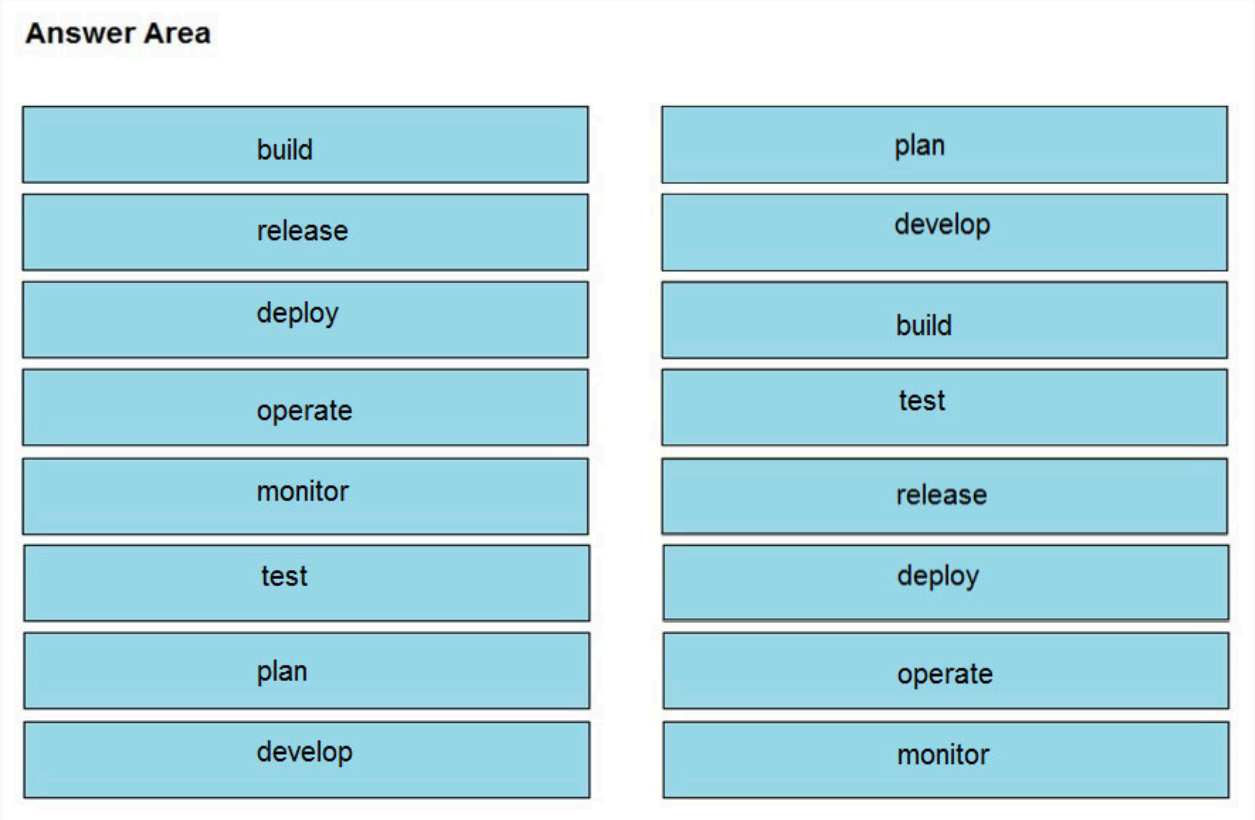
DRAG DROP -

Drag and drop the components from the left onto the phases of the CI/CD pipeline on the right.

Select and Place:



Suggested Answer:



Reference:

https://www.densify.com/resources/continuous-integration-delivery-phases

None

Question #64 *Topic 1*

An employee who often travels abroad logs in from a first-seen country during non-working hours. The SIEM tool generates an alert that the user is forwarding an increased amount of emails to an external mail domain and then logs out. The investigation concludes that the external domain belongs to a competitor. Which two behaviors triggered UEBA? (Choose two.)

A. domain belongs to a competitor

B. log in during non-working hours

C. email forwarding to an external domain

D. log in from a first-seen country

E. increased number of sent mails

Suggested Answer: *BD*

Community vote distribution

BD (100%)

None

Question #65 *Topic 1*

How is a SIEM tool used?

A. To collect security data from authentication failures and cyber attacks and forward it for analysis

B. To search and compare security data against acceptance standards and generate reports for analysis

C. To compare security alerts against configured scenarios and trigger system responses

D. To collect and analyze security data from network devices and servers and produce alerts

Suggested Answer: *D*

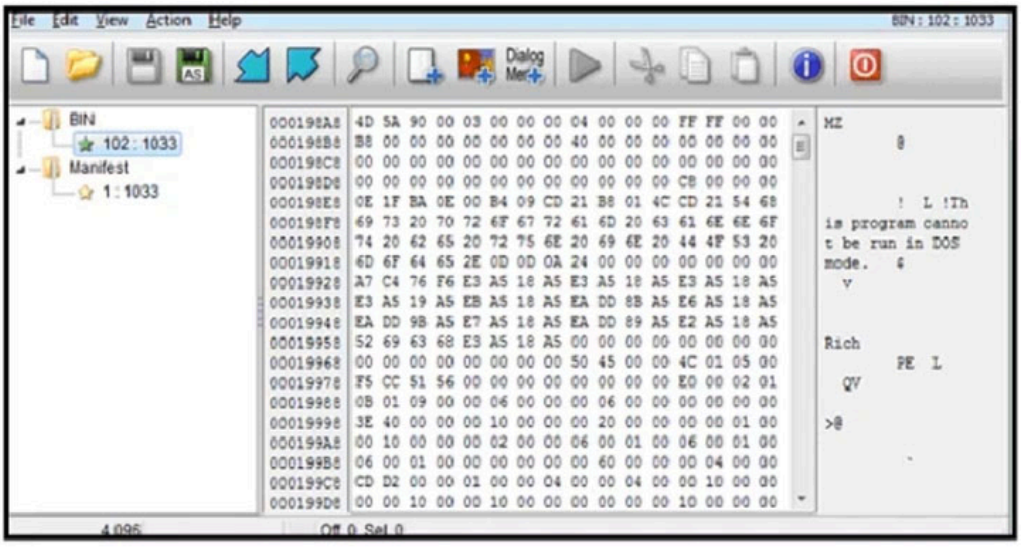
Reference:

https://www.varonis.com/blog/what-is-siem/

Community vote distribution

None

Question #66 *Topic 1*



Refer to the exhibit. An engineer is reverse engineering a suspicious file by examining its resources. What does this file indicate?

A. a DOS MZ executable format

B. a MS-DOS executable archive

C. an archived malware

D. a Windows executable file

Suggested Answer: *A*

Community vote distribution

A (57%) D (43%)

None

Question #67 *Topic 1*

```
try
{
   using (MemoryStream memoryStream = new MemoryStream())
   {
         memoryStream.Position = 32L;
         using (AesCryptoServiceProvider aesCryptoServiceProvider = new AesCryptoServiceProvider())
         {
            aesCryptoServiceProvider.KeySize = 128;
            aesCryptoServiceProvider.BlockSize = 128;
            aesCryptoServiceProvider.Mode = CipherMode.CBC;
            aesCryptoServiceProvider.Padding = PaddingMode.PKCS7;
            aesCryptoServiceProvider.Key = key;
            aesCryptoServiceProvider.GenerateIV();
            using (CryptoStream cryptoSream = new CryptoStream(memoryStream, aesCryptoServiceProvider.CreateEncryptor(), CryptoStreamMode.Write))
            {
                  memoryStream.Write(aesCryptoServiceProvider.IV, 0, aesCryptoServiceProvider.IV.Length);
                  cryptoStream.Write(input, 0, input.Length);
                  cryptoStream.FlushFinalBlock();
                  using (HMACSHA256 hMACSHA = new HMACSHA256(bytes))
                  {
                     byte[] array = hMACSHA.ComputeHash(memoryStream.ToArray(), 32, memoryStream.ToArray().Length - 32);
                     memoryStream.Position = 0L;
                     memoryStream.Write(array, 0, array.Length);
                  }
            }
         }
         result = memoryStream.ToArray();
   }
}
catch
{
}
```

Refer to the exhibit. An engineer is performing a static analysis on a malware and knows that it is capturing keys and webcam events on a company server. What is the indicator of compromise?

A. The malware is performing comprehensive fingerprinting of the host, including a processor, motherboard manufacturer, and connected removable storage.

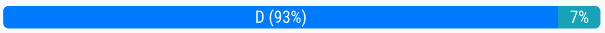
B. The malware is a ransomware querying for installed anti-virus products and operating systems to encrypt and render unreadable until payment is made for file decryption.

C. The malware has moved to harvesting cookies and stored account information from major browsers and configuring a reverse proxy for intercepting network activity.

D. The malware contains an encryption and decryption routine to hide URLs/IP addresses and is storing the output of loggers and webcam captures in locally encrypted files for retrieval.

Suggested Answer: *D*

Community vote distribution



None

Question #68 *Topic 1*

An audit is assessing a small business that is selling automotive parts and diagnostic services. Due to increased customer demands, the company recently started to accept credit card payments and acquired a POS terminal. Which compliance regulations must the audit apply to the company?

A. HIPAA

B. FISMA

C. COBIT

D. PCI DSS

Suggested Answer: *D*

Reference:

https://upserve.com/restaurant-insider/restaurant-pos-pci-compliance-checklist/

Community vote distribution

None

Question #69 *Topic 1*

A customer is using a central device to manage network devices over SNMPv2. A remote attacker caused a denial of service condition and can trigger this vulnerability by issuing a GET request for the ciscoFlashMIB OID on an affected device. Which should be disabled to resolve the issue?

A. SNMPv2

B. TCP small services

C. port UDP 161 and 162

D. UDP small services

Suggested Answer: *A*

Reference:

https://nvd.nist.gov/vuln/detail/CVE-2018-0161

Community vote distribution

None

Question #70 *Topic 1*

DRAG DROP -

Drag and drop the mitigation steps from the left onto the vulnerabilities they mitigate on the right.

Select and Place:

Answer Area

Restrict administrative access to operating systems and applications in accordance with job duties	End-user desktops allow the execution of non-approved applications that include malicious code
Use multifactor authentication for remote access or accessing sensitive information	Application security vulnerabilities can be used to execute malicious code
Change backup and store software and configuration settings for at least three months	Privilege accounts have full rights to information systems
Patch applications including flash, web browsers, and PDF viewers	User verification is weak and based on a single factor
Utilize application control to stop malware delivery and execution	Data or access loss occurs due to cybersecurity incidents

Suggested Answer:

Answer Area

Restrict administrative access to operating systems and applications in accordance with job duties	Utilize application control to stop malware delivery and execution
Use multifactor authentication for remote access or accessing sensitive information	Patch applications including flash, web browsers, and PDF viewers
Change backup and store software and configuration settings for at least three months	Restrict administrative access to operating systems and applications in accordance with job duties
Patch applications including flash, web browsers, and PDF viewers	Use multifactor authentication for remote access or accessing sensitive information
Utilize application control to stop malware delivery and execution	Change backup and store software and configuration settings for at least three months

None