



## **EC-Council**

### **Exam Questions 312-50v12**

Certified Ethical Hacker Exam (CEHv12)

### NEW QUESTION 1

- (Exam Topic 3)

What useful information is gathered during a successful Simple Mail Transfer Protocol (SMTP) enumeration?

- A. The two internal commands VRFY and EXPN provide a confirmation of valid users, email addresses, aliases, and mailing lists.
- B. Reveals the daily outgoing message limits before mailboxes are locked
- C. The internal command RCPT provides a list of ports open to message traffic.
- D. A list of all mail proxy server addresses used by the targeted host

**Answer:** A

### NEW QUESTION 2

- (Exam Topic 3)

Juliet, a security researcher in an organization, was tasked with checking for the authenticity of images to be used in the organization's magazines. She used these images as a search query and tracked the original source and details of the images, which included photographs, profile pictures, and memes. Which of the following footprinting techniques did Rachel use to finish her task?

- A. Reverse image search
- B. Meta search engines
- C. Advanced image search
- D. Google advanced search

**Answer:** C

### NEW QUESTION 3

- (Exam Topic 3)

You want to do an ICMP scan on a remote computer using hping2. What is the proper syntax?

- A. hping2 host.domain.com
- B. hping2 --set-ICMP host.domain.com
- C. hping2 -i host.domain.com
- D. hping2 -1 host.domain.com

**Answer:** D

#### Explanation:

<http://www.carnal0wnage.com/papers/LSO-Hping2-Basics.pdf>

Most ping programs use ICMP echo requests and wait for echo replies to come back to test connectivity. Hping2 allows us to do the same testing using any IP packet, including ICMP, UDP, and TCP. This can be helpful since nowadays most firewalls or routers block ICMP. Hping2, by default, will use TCP, but, if you still want to send an ICMP scan, you can. We send ICMP scans using the -1 (one) mode. Basically the syntax will be hping2 -1 IPADDRESS

```
> [root@localhost hping2-rc3]# hping2 -1 192.168.0.100
> HPING 192.168.0.100 (eth0 192.168.0.100): icmp mode set, 28 headers + 0 data bytes
> len=46 ip=192.168.0.100 ttl=128 id=27118 icmp_seq=0 rtt=14.9 ms
> len=46 ip=192.168.0.100 ttl=128 id=27119 icmp_seq=1 rtt=0.5 ms
> len=46 ip=192.168.0.100 ttl=128 id=27120 icmp_seq=2 rtt=0.5 ms
> len=46 ip=192.168.0.100 ttl=128 id=27121 icmp_seq=3 rtt=1.5 ms
> len=46 ip=192.168.0.100 ttl=128 id=27122 icmp_seq=4 rtt=0.9 ms
> — 192.168.0.100 hping statistic —
> 5 packets tramitted, 5 packets received, 0% packet loss
> round-trip min/avg/max = 0.5/3.7/14.9 ms
> [root@localhost hping2-rc3]#
```

### NEW QUESTION 4

- (Exam Topic 3)

What is the following command used for?

```
sqlmap.py-u
„http://10.10.1.20/?p=1
&forumaction=search" -dbs
```

- A. Creating backdoors using SQL injection
- B. A Enumerating the databases in the DBMS for the URL
- C. Retrieving SQL statements being executed on the database
- D. Searching database statements at the IP address given

**Answer:** A

### NEW QUESTION 5

- (Exam Topic 3)

Shiela is an information security analyst working at HiTech Security Solutions. She is performing service version discovery using Nmap to obtain information about the running services and their versions on a target system.

Which of the following Nmap options must she use to perform service version discovery on the target host?

- A. -SN

- B. -SX
- C. -sV
- D. -SF

**Answer:** C

#### NEW QUESTION 6

- (Exam Topic 3)

A post-breach forensic investigation revealed that a known vulnerability in Apache Struts was to blame for the Equifax data breach that affected 143 million customers. A fix was available from the software vendor for several months prior to the intrusion. This is likely a failure in which of the following security processes?

- A. vendor risk management
- B. Security awareness training
- C. Secure deployment lifecycle
- D. Patch management

**Answer:** D

#### Explanation:

Patch management is that the method that helps acquire, test and install multiple patches (code changes) on existing applications and software tools on a pc, enabling systems to remain updated on existing patches and determining that patches are the suitable ones. Managing patches so becomes simple and simple. Patch Management is usually done by software system firms as a part of their internal efforts to mend problems with the various versions of software system programs and also to assist analyze existing software system programs and discover any potential lack of security features or different upgrades. Software patches help fix those problems that exist and are detected solely once the software's initial unharness. Patches mostly concern security while there are some patches that concern the particular practicality of programs as well.

#### NEW QUESTION 7

- (Exam Topic 3)

By performing a penetration test, you gained access under a user account. During the test, you established a connection with your own machine via the SMB service and occasionally entered your login and password in plaintext.

Which file do you have to clean to clear the password?

- A. .X session-log
- B. .bashrc
- C. .profile
- D. .bash\_history

**Answer:** D

#### Explanation:

File created by Bash, a Unix-based shell program commonly used on Mac OS X and Linux operating systems; stores a history of user commands entered at the command prompt; used for viewing old commands that are executed. BASH\_HISTORY files are hidden files with no filename prefix. They always use the filename .bash\_history. NOTE: Bash is that the shell program employed by Apple Terminal. Our goal is to assist you understand what a file with a \*.bash\_history suffix is and the way to open it. The Bash History file type, file format description, and Mac and Linux programs listed on this page are individually researched and verified by the FileInfo team. We attempt for 100% accuracy and only publish information about file formats that we've tested and validated.

#### NEW QUESTION 8

- (Exam Topic 3)

Dorian is sending a digitally signed email to Polly, with which key is Dorian signing this message and how is Polly validating it?

- A. Dorian is signing the message with his public key
- B. and Polly will verify that the message came from Dorian by using Dorian's private key.
- C. Dorian is signing the message with Polly's public key
- D. and Polly will verify that the message came from Dorian by using Dorian's public key.
- E. Dorian is signing the message with his private key
- F. and Polly will verify that the message came from Dorian by using Dorian's public key.
- G. Dorian is signing the message with Polly's private key
- H. and Polly will verify that the message came from Dorian by using Dorian's public key.

**Answer:** C

#### Explanation:

<https://blog.mailfence.com/how-do-digital-signatures-work/> [https://en.wikipedia.org/wiki/Digital\\_signature](https://en.wikipedia.org/wiki/Digital_signature)

A digital signature is a mathematical technique used to validate the authenticity and integrity of a message, software, or digital document. It's the digital equivalent of a handwritten signature or stamped seal, but it offers far more inherent security. A digital signature is intended to solve the problem of tampering and impersonation in digital communications.

Digital signatures can provide evidence of origin, identity, and status of electronic documents, transactions, or digital messages. Signers can also use them to acknowledge informed consent.

Digital signatures are based on public-key cryptography, also known as asymmetric cryptography. Two keys are generated using a public key algorithm, such as RSA (Rivest-Shamir-Adleman),

mathematically linked pair of keys, one private and one public.

Creating digital signatures work through public-key cryptography's two mutually authenticating cryptographic keys.

The individual who creates the digital signature uses a private key

only way to decrypt that data is with the signer's public key.

to encrypt signature-related data, while the

#### NEW QUESTION 9

- (Exam Topic 3)

Jude, a pen tester working in Keiltech Ltd., performs sophisticated security testing on his company's network infrastructure to identify security loopholes. In this process, he started to circumvent the network protection tools and firewalls used in the company. He employed a technique that can create forged TCP sessions by carrying out multiple SYN, ACK, and RST or FIN packets. Further, this process allowed Jude to execute DDoS attacks that can exhaust the network resources. What is the attack technique used by Jude for finding loopholes in the above scenario?

- A. UDP flood attack
- B. Ping-of-death attack
- C. Spoofed session flood attack
- D. Peer-to-peer attack

**Answer: C**

#### NEW QUESTION 10

- (Exam Topic 3)

Stella, a professional hacker, performs an attack on web services by exploiting a vulnerability that provides additional routing information in the SOAP header to support asynchronous communication. This further allows the transmission of web-service requests and response messages using different TCP connections. Which of the following attack techniques is used by Stella to compromise the web services?

- A. XML injection
- B. WS-Address spoofing
- C. SOAPAction spoofing
- D. Web services parsing attacks

**Answer: B**

#### Explanation:

WS-Address provides additional routing information in the SOAP header to support asynchronous communication. This technique allows the transmission of web service requests and response messages using different TCP connections

<https://www.google.com/search?client=firefox-b-d&q=WS-Address+spoofing> CEH V11 Module 14 Page 1896

#### NEW QUESTION 10

- (Exam Topic 3)

An organization decided to harden its security against web-application and web-server attacks. John, a security personnel in the organization, employed a security scanner to automate web-application security testing and to guard the organization's web infrastructure against web-application threats. Using that tool, he also wants to detect XSS, directory transversal problems, fault injection, SQL injection, attempts to execute commands, and several other attacks. Which of the following security scanners will help John perform the above task?

- A. AlienVault@OSSIM™
- B. Syhunt Hybrid
- C. Saleae Logic Analyzer
- D. Cisco ASA

**Answer: B**

#### NEW QUESTION 13

- (Exam Topic 3)

BitLocker encryption has been implemented for all the Windows-based computers in an organization. You are concerned that someone might lose their cryptographic key. Therefore, a mechanism was implemented to recover the keys from Active Directory. What is this mechanism called in cryptography?

- A. Key archival
- B. Key escrow.
- C. Certificate rollover
- D. Key renewal

**Answer: B**

#### NEW QUESTION 18

- (Exam Topic 3)

Tony wants to integrate a 128-bit symmetric block cipher with key sizes of 128,192, or 256 bits into a software program, which involves 32 rounds of computational operations that include substitution and permutation operations on four 32-bit word blocks using 8-variable S-boxes with 4-bit entry and 4-bit exit. Which of the following algorithms includes all the above features and can be integrated by Tony into the software program?

- A. TEA
- B. CAST-128
- C. RC5
- D. serpent

**Answer: D**

#### NEW QUESTION 21

- (Exam Topic 3)

Ben purchased a new smartphone and received some updates on it through the OTA method. He received two messages: one with a PIN from the network operator and another asking him to enter the PIN received from the operator. As soon as he entered the PIN, the smartphone started functioning in an abnormal manner. What is the type of attack performed on Ben in the above scenario?

- A. Advanced SMS phishing
- B. Bypass SSL pinning

- C. Phishing
- D. Tap 'n ghost attack

**Answer:** A

#### NEW QUESTION 24

- (Exam Topic 3)

When configuring wireless on his home router, Javik disables SSID broadcast. He leaves authentication "open" but sets the SSID to a 32-character string of random letters and numbers.

What is an accurate assessment of this scenario from a security perspective?

- A. Since the SSID is required in order to connect, the 32-character string is sufficient to prevent brute-force attacks.
- B. Disabling SSID broadcast prevents 802.11 beacons from being transmitted from the access point, resulting in a valid setup leveraging "security through obscurity".
- C. It is still possible for a hacker to connect to the network after sniffing the SSID from a successful wireless association.
- D. Javik's router is still vulnerable to wireless hacking attempts because the SSID broadcast setting can be enabled using a specially crafted packet sent to the hardware address of the access point.

**Answer:** C

#### NEW QUESTION 25

- (Exam Topic 3)

Which of the following scanning method splits the TCP header into several packets and makes it difficult for packet filters to detect the purpose of the packet?

- A. ACK flag probe scanning
- B. ICMP Echo scanning
- C. SYN/FIN scanning using IP fragments
- D. IPID scanning

**Answer:** C

#### Explanation:

SYN/FIN scanning using IP fragments is a process of scanning that was developed to avoid false positives generated by other scans because of a packet filtering device on the target system. The TCP header splits into several packets to evade the packet filter. For any transmission, every TCP header must have the source and destination port for the initial packet (8-octet, 64-bit). The initialized flags in the next packet allow the remote host to reassemble the packets upon receipt via an Internet protocol module that detects the fragmented data packets using field-equivalent values of the source, destination, protocol, and identification.

#### NEW QUESTION 29

- (Exam Topic 3)

John, a professional hacker, performs a network attack on a renowned organization and gains unauthorized access to the target network. He remains in the network without being detected for a long time and obtains sensitive information without sabotaging the organization. Which of the following attack techniques is used by John?

- A. Advanced persistent theft
- B. threat Diversion theft
- C. Spear-phishing sites
- D. insider threat

**Answer:** A

#### Explanation:

An advanced persistent threat (APT) may be a broad term used to describe an attack campaign within which an intruder, or team of intruders, establishes a bootleg, long presence on a network so as to mine sensitive knowledge. The targets of those assaults, that square measure terribly fastidiously chosen and researched, usually embrace massive enterprises or governmental networks. the implications of such intrusions square measure huge, and include:

- Intellectual property thieving (e.g., trade secrets or patents)
- Compromised sensitive info (e.g., worker and user personal data)
- The sabotaging of essential structure infrastructures (e.g., information deletion)
- Total website takeovers

Executing an APT assault needs additional resources than a regular internet application attack. The perpetrators square measure typically groups of intimate cybercriminals having substantial resource. Some APT attacks square measure government-funded and used as cyber warfare weapons.

APT attacks dissent from ancient internet application threats, in that:

- They're considerably additional advanced.
- They're not hit and run attacks—once a network is infiltrated, the culprit remains so as to realize the maximum amount info as potential.
- They're manually dead (not automated) against a selected mark and indiscriminately launched against an outsized pool of targets.
- They typically aim to infiltrate a complete network, as opposition one specific half.

More common attacks, like remote file inclusion (RFI), SQL injection and cross-site scripting (XSS), square measure oftentimes employed by perpetrators to ascertain a footing in a very targeted network. Next, Trojans and backdoor shells square measure typically wont to expand that foothold and make a persistent presence inside the targeted perimeter.

#### NEW QUESTION 31

- (Exam Topic 3)

Peter, a system administrator working at a reputed IT firm, decided to work from his home and login remotely. Later, he anticipated that the remote connection could be exposed to session hijacking. To curb this possibility, he implemented a technique that creates a safe and encrypted tunnel over a public network to securely send and receive sensitive information and prevent hackers from decrypting the data flow between the endpoints. What is the technique followed by Peter to send files securely through a remote connection?

- A. DMZ
- B. SMB signing
- C. VPN
- D. Switch network

**Answer: C**

#### NEW QUESTION 34

- (Exam Topic 3)

Roma is a member of a security team. She was tasked with protecting the internal network of an organization from imminent threats. To accomplish this task, Roma fed threat intelligence into the security devices in a digital format to block and identify inbound and outbound malicious traffic entering the organization's network.

Which type of threat intelligence is used by Roma to secure the internal network?

- A. Technical threat intelligence
- B. Operational threat intelligence
- C. Tactical threat intelligence
- D. Strategic threat intelligence

**Answer: A**

#### NEW QUESTION 35

- (Exam Topic 3)

Which of these is capable of searching for and locating rogue access points?

- A. HIDS
- B. WISS
- C. WIPS
- D. NIDS

**Answer: C**

#### Explanation:

A Wireless Intrusion Prevention System (WIPS) is a network device that monitors the radio spectrum for the presence of unauthorized access points (intrusion detection), and can automatically take countermeasures (intrusion prevention).

#### NEW QUESTION 36

- (Exam Topic 3)

To create a botnet, the attacker can use several techniques to scan vulnerable machines. The attacker first collects information about a large number of vulnerable machines to create a list. Subsequently, they infect the machines. The list is divided by assigning half of the list to the newly compromised machines. The scanning process runs simultaneously. This technique ensures the spreading and installation of malicious code in little time.

Which technique is discussed here?

- A. Hit-list-scanning technique
- B. Topological scanning technique
- C. Subnet scanning technique
- D. Permutation scanning technique

**Answer: A**

#### Explanation:

One of the biggest problems a worm faces in achieving a very fast rate of infection is "getting off the ground." although a worm spreads exponentially throughout the early stages of infection, the time needed to infect say the first 10,000 hosts dominates the infection time.

There is a straightforward way for an active worm to solve this obstacle, that we term hit-list scanning. Before the worm is free, the worm author collects a listing of say ten,000 to 50,000 potentially vulnerable machines, ideally ones with sensible network connections. The worm, when released onto an initial machine on this hit-list, begins scanning down the list. once it infects a machine, it divides the hit-list in half, communicating half to the recipient worm, keeping the other half.

This fast division ensures that even if only 10-20% of the machines on the hit-list are actually vulnerable, an active worm can quickly bear the hit-list and establish itself on all vulnerable machines in only some seconds. though the hit-list could begin at 200 kilobytes, it quickly shrinks to nothing during the partitioning. This provides a great benefit in constructing a quick worm by speeding the initial infection.

The hit-list needn't be perfect: a simple list of machines running a selected server sort could serve, though larger accuracy can improve the unfold. The hit-list itself is generated victimization one or many of the following techniques, ready well before, typically with very little concern of detection.

➤ Stealthy scans. Portscans are so common and then wide ignored that even a quick scan of the whole net would be unlikely to attract law enforcement attention or over gentle comment within the incident response community. However, for attackers wish to be particularly careful, a randomised sneaky scan taking many months would be not possible to attract much attention, as most intrusion detection systems are not currently capable of detecting such low-profile scans. Some portion of the scan would be out of date by the time it had been used, however abundant of it'd not.

➤ Distributed scanning. an assailant might scan the web using a few dozen to some thousand already-compromised "zombies," the same as what DDOS attackers assemble in a very fairly routine fashion. Such distributed scanning has already been seen within the wild—Lawrence Berkeley National Laboratory received ten throughout the past year.

➤ DNS searches. Assemble a list of domains (for example, by using wide offered spam mail lists, or trolling the address registries). The DNS will then be searched for the science addresses of mail-servers (via mx records) or net servers (by looking for www.domain.com).

➤ Spiders. For net server worms (like Code Red), use Web-crawling techniques the same as search engines so as to produce a list of most Internet-connected web sites. this would be unlikely to draw in serious attention.

➤ Public surveys. for many potential targets there may be surveys available listing them, like the Netcraft survey.

➤ Just listen. Some applications, like peer-to-peer networks, wind up advertising many of their servers.

Similarly, many previous worms effectively broadcast that the infected machine is vulnerable to further attack. easy, because of its widespread scanning, during the Code Red I infection it was easy to select up the addresses of upwards of 300,000 vulnerable IIS servers—because each came knock on everyone's door!

### NEW QUESTION 39

- (Exam Topic 3)

Samuel, a professional hacker, monitored and intercepted already established traffic between Bob and a host machine to predict Bob's ISN. Using this ISN, Samuel sent spoofed packets with Bob's IP address to the host machine. The host machine responded with a packet having an incremented ISN. Consequently, Bob's connection got hung, and Samuel was able to communicate with the host machine on behalf of Bob. What is the type of attack performed by Samuel in the above scenario?

- A. UDP hijacking
- B. Blind hijacking
- C. TCP/IP hacking
- D. Forbidden attack

**Answer: C**

#### Explanation:

A TCP/IP hijack is an attack that spoofs a server into thinking it's talking with a sound client, once actually it's communication with an assaulter that has condemned (or hijacked) the tcp session. Assume that the client has administrator-level privileges, which the attacker needs to steal that authority so as to form a brand new account with root-level access of the server to be used afterward. A tcp Hijacking is sort of a two-phased man-in-the-middle attack. The man-in-the-middle assaulter lurks within the circuit between a shopper and a server so as to work out what port and sequence numbers are being employed for the conversation.

First, the attacker knocks out the client with an attack, like Ping of Death, or ties it up with some reasonably ICMP storm. This renders the client unable to transmit any packets to the server. Then, with the client crashed, the attacker assumes the client's identity so as to talk with the server. By this suggests, the attacker gains administrator-level access to the server.

One of the most effective means of preventing a hijack attack is to want a secret, that's a shared secret between the shopper and also the server. Looking on the strength of security desired, the key may be used for random exchanges. This is often once a client and server periodically challenge each other, or it will occur with each exchange, like Kerberos.

### NEW QUESTION 44

- (Exam Topic 3)

A "Server-Side Includes" attack refers to the exploitation of a web application by injecting scripts in HTML pages or executing arbitrary code remotely. Which web-page file type, if it exists on the web server, is a strong indication that the server is vulnerable to this kind of attack?

- A. .stm
- B. .html
- C. .rss
- D. .cms

**Answer: A**

### NEW QUESTION 47

- (Exam Topic 3)

Jack, a professional hacker, targets an organization and performs vulnerability scanning on the target web server to identify any possible weaknesses, vulnerabilities, and misconfigurations. In this process, Jack uses an automated tool that eases his work and performs vulnerability scanning to find hosts, services, and other vulnerabilities in the target server. Which of the following tools is used by Jack to perform vulnerability scanning?

- A. Infoga
- B. WebCopier Pro
- C. Netsparker
- D. NCollector Studio

**Answer: C**

### NEW QUESTION 52

- (Exam Topic 3)

How can rainbow tables be defeated?

- A. Use of non-dictionary words
- B. All uppercase character passwords
- C. Password salting
- D. Lockout accounts under brute force password cracking attempts

**Answer: C**

#### Explanation:

[https://en.wikipedia.org/wiki/Salt\\_\(cryptography\)](https://en.wikipedia.org/wiki/Salt_(cryptography))

A salt is random data that is used as an additional input to a one-way function that hashes data, a password, or passphrase. Salts are used to safeguard passwords in storage. Historically a password was stored in plaintext on a system, but over time additional safeguards were developed to protect a user's password against being read from the system. A salt is one of those methods.

A new salt is randomly generated for each password. In a typical setting, the salt and the password (or its version after key stretching) are concatenated and processed with a cryptographic hash function, and the output hash value (but not the original password) is stored with the salt in a database. Hashing allows for later authentication without keeping and therefore risking exposure of the plaintext password in the event that the authentication data store is compromised. Salts defend against a pre-computed hash attack, e.g. rainbow tables. Since salts do not have to be memorized by humans they can make the size of the hash table required for a successful attack prohibitively large without placing a burden on the users. Since salts are different in each case, they also protect commonly used passwords, or those users who use the same password on several sites, by making all salted hash instances for the same password different from each other.

### NEW QUESTION 57

- (Exam Topic 3)

Which protocol is used for setting up secure channels between two devices, typically in VPNs?

- A. PEM
- B. ppp
- C. IPSEC
- D. SET

**Answer:** C

#### NEW QUESTION 58

- (Exam Topic 3)

Henry is a penetration tester who works for XYZ organization. While performing enumeration on a client organization, he queries the DNS server for a specific cached DNS record. Further, by using this cached record, he determines the sites recently visited by the organization's user. What is the enumeration technique used by Henry on the organization?

- A. DNS zone walking
- B. DNS cache snooping
- C. DNS SEC zone walking
- D. DNS cache poisoning

**Answer:** B

#### NEW QUESTION 62

- (Exam Topic 3)

Chandler works as a pen-tester in an IT-firm in New York. As a part of detecting viruses in the systems, he uses a detection method where the anti-virus executes the malicious codes on a virtual machine to simulate CPU and memory activities. Which type of virus detection method did Chandler use in this context?

- A. Heuristic Analysis
- B. Code Emulation
- C. Scanning
- D. Integrity checking

**Answer:** B

#### NEW QUESTION 65

- (Exam Topic 3)

Which of the following is a passive wireless packet analyzer that works on Linux-based systems?

- A. Burp Suite
- B. OpenVAS
- C. tshark
- D. Kismet

**Answer:** C

#### NEW QUESTION 67

- (Exam Topic 3)

Which Metasploit Framework tool can help penetration tester for evading Anti-virus Systems?

- A. msfpayload
- B. msfcli
- C. msfd
- D. msfencode

**Answer:** D

#### Explanation:

<https://www.offensive-security.com/metasploit-unleashed/msfencode/>

One of the best ways to avoid being stopped by antivirus software is to encode our payload with msfencode. Msfencode is a useful tool that alters the code in an executable so that it looks different to antivirus software but will still run the same way. Much as the binary attachment in email is encoded in Base64, msfencode encodes the original executable in a new binary. Then, when the executable is run, msfencode decodes the original code into memory and executes it.

#### NEW QUESTION 72

- (Exam Topic 3)

Mirai malware targets IoT devices. After infiltration, it uses them to propagate and create botnets that then used to launch which types of attack?

- A. MITM attack
- B. Birthday attack
- C. DDoS attack
- D. Password attack

**Answer:** C

#### NEW QUESTION 74

- (Exam Topic 3)

You want to analyze packets on your wireless network. Which program would you use?

- A. Wireshark with Airpcap
- B. Aircrack-ng with Airpcap

- C. Wireshark with Winpcap
- D. Ethereal with Winpcap

**Answer:** A

**Explanation:**

<https://support.riverbed.com/content/support/software/steelcentral-npm/airpcap.html>

Since this question refers specifically to analyzing a wireless network, it is obvious that we need an option with AirPcap (Riverbed AirPcap USB-based adapters capture 802.11 wireless traffic for analysis). Since it works with two traffic analyzers SteelCentral Packet Analyzer (Cascade Pilot) or Wireshark, the correct option would be "Wireshark with Airpcap."

NOTE: AirPcap adapters no longer available for sale effective January 1, 2018, but a question on this topic may occur on your exam.

**NEW QUESTION 78**

- (Exam Topic 3)

Which of the following types of SQL injection attacks extends the results returned by the original query, enabling attackers to run two or more statements if they have the same structure as the original one?

- A. Error-based injection
- B. Boolean-based blind SQL injection
- C. Blind SQL injection
- D. Union SQL injection

**Answer:** D

**NEW QUESTION 83**

- (Exam Topic 3)

Jane is working as a security professional at CyberSol Inc. She was tasked with ensuring the authentication and integrity of messages being transmitted in the corporate network. To encrypt the messages, she implemented a security model in which every user in the network maintains a ring of public keys. In this model, a user needs to encrypt a message using the receiver's public key, and only the receiver can decrypt the message using their private key. What is the security model implemented by Jane to secure corporate messages?

- A. Zero trust network
- B. Transport Layer Security (TLS)
- C. Secure Socket Layer (SSL)
- D. Web of trust (WOT)

**Answer:** D

**NEW QUESTION 85**

- (Exam Topic 3)

Josh has finished scanning a network and has discovered multiple vulnerable services. He knows that several of these usually have protections against external sources but are frequently susceptible to internal users. He decides to draft an email, spoof the sender as the internal IT team, and attach a malicious file disguised as a financial spreadsheet. Before Josh sends the email, he decides to investigate other methods of getting the file onto the system. For this particular attempt, what was the last stage of the cyber kill chain that Josh performed?

- A. Exploitation
- B. Weaponization
- C. Delivery
- D. Reconnaissance

**Answer:** B

**NEW QUESTION 89**

- (Exam Topic 3)

Upon establishing his new startup, Tom hired a cloud service provider (CSP) but was dissatisfied with their service and wanted to move to another CSP. What part of the contract might prevent him from doing so?

- A. Virtualization
- B. Lock-in
- C. Lock-down
- D. Lock-up

**Answer:** B

**NEW QUESTION 90**

- (Exam Topic 3)

Which rootkit is characterized by its function of adding code and/or replacing some of the operating-system kernel code to obscure a backdoor on a system?

- A. User-mode rootkit
- B. Library-level rootkit
- C. Kernel-level rootkit
- D. Hypervisor-level rootkit

**Answer:** C

**NEW QUESTION 93**

- (Exam Topic 3)

Which tool can be used to silently copy files from USB devices?

- A. USB Grabber
- B. USB Snoopy
- C. USB Sniffer
- D. Use Dumper

**Answer: D**

#### NEW QUESTION 94

- (Exam Topic 3)

Which wireless security protocol replaces the personal pre-shared key (PSK) authentication with Simultaneous Authentication of Equals (SAE) and is therefore resistant to offline dictionary attacks?

- A. WPA3-Personal
- B. WPA2-Enterprise
- C. Bluetooth
- D. ZigBee

**Answer: A**

#### NEW QUESTION 99

- (Exam Topic 3)

Richard, an attacker, targets an MNC. In this process, he uses a footprinting technique to gather as much information as possible. Using this technique, he gathers domain information such as the target domain name, contact details of its owner, expiry date, and creation date. With this information, he creates a map of the organization's network and misleads domain owners with social engineering to obtain internal details of its network. What type of footprinting technique is employed by Richard?

- A. VoIP footprinting
- B. VPN footprinting
- C. Whois footprinting
- D. Email footprinting

**Answer: C**

#### Explanation:

WHOIS (pronounced because the phrase who is) may be a query and response protocol and whois footprinting may be a method for glance information about ownership of a website name as following:• name details• Contact details contain phone no. and email address of the owner• Registration date for the name• Expire date for the name• name servers

#### NEW QUESTION 103

- (Exam Topic 3)

Dayn, an attacker, wanted to detect if any honeypots are installed in a target network. For this purpose, he used a time-based TCP fingerprinting method to validate the response to a normal computer and the response of a honeypot to a manual SYN request. Which of the following techniques is employed by Dayn to detect honeypots?

- A. Detecting honeypots running on VMware
- B. Detecting the presence of Honeyd honeypots
- C. Detecting the presence of Snort\_inline honeypots
- D. Detecting the presence of Sebek-based honeypots

**Answer: C**

#### NEW QUESTION 104

- (Exam Topic 3)

CyberTech Inc. recently experienced SQL injection attacks on its official website. The company appointed Bob, a security professional, to build and incorporate defensive strategies against such attacks. Bob adopted a practice whereby only a list of entities such as the data type, range, size, and value, which have been approved for secured access, is accepted. What is the defensive technique employed by Bob in the above scenario?

- A. Output encoding
- B. Enforce least privileges
- C. Whitelist validation
- D. Blacklist validation

**Answer: C**

#### NEW QUESTION 106

- (Exam Topic 3)

What information security law or standard aims at protecting stakeholders and the general public from accounting errors and fraudulent activities within organizations?

- A. PCI-DSS
- B. FISMA
- C. SOX
- D. ISO/IEC 27001:2013

**Answer: C**

#### NEW QUESTION 109

- (Exam Topic 3)

You are a security officer of a company. You had an alert from IDS that indicates that one PC on your Intranet is connected to a blacklisted IP address (C2 Server) on the Internet. The IP address was blacklisted just before the alert. You are starting an investigation to roughly analyze the severity of the situation. Which of the following is appropriate to analyze?

- A. IDS log
- B. Event logs on domain controller
- C. Internet Firewall/Proxy log.
- D. Event logs on the PC

**Answer: C**

#### NEW QUESTION 112

- (Exam Topic 3)

George, an employee of an organization, is attempting to access restricted websites from an official computer. For this purpose, he used an anonymizer that masked his real IP address and ensured complete and continuous anonymity for all his online activities. Which of the following anonymizers helps George hide his activities?

- A. <https://www.baidu.com>
- B. <https://www.guardster.com>
- C. <https://www.wolframalpha.com>
- D. <https://karmadecay.com>

**Answer: B**

#### NEW QUESTION 113

- (Exam Topic 3)

Stephen, an attacker, targeted the industrial control systems of an organization. He generated a fraudulent email with a malicious attachment and sent it to employees of the target organization. An employee who manages the sales software of the operational plant opened the fraudulent email and clicked on the malicious attachment. This resulted in the malicious attachment being downloaded and malware being injected into the sales software maintained in the victim's system. Further, the malware propagated itself to other networked systems, finally damaging the industrial automation components. What is the attack technique used by Stephen to damage the industrial systems?

- A. Spear-phishing attack
- B. SMishing attack
- C. Reconnaissance attack
- D. HMI-based attack

**Answer: A**

#### NEW QUESTION 117

- (Exam Topic 3)

Which Nmap switch helps evade IDS or firewalls?

- A. -n/-R
- B. -0N/-0X/-0G
- C. -T
- D. -D

**Answer: C**

#### NEW QUESTION 120

- (Exam Topic 3)

Robert, a professional hacker, is attempting to execute a fault injection attack on a target IoT device. In this process, he injects faults into the power supply that can be used for remote execution, also causing the skipping of key instructions. He also injects faults into the clock network used for delivering a synchronized signal across the chip.

Which of the following types of fault injection attack is performed by Robert in the above scenario?

- A. Frequency/voltage tampering
- B. Optical, electromagnetic fault injection (EMFI)
- C. Temperature attack
- D. Power/clock/reset glitching

**Answer: D**

#### Explanation:

These types of attacks occur when faults or glitches are INJECTED into the Power supply that can be used for remote execution.

#### NEW QUESTION 122

- (Exam Topic 3)

Leverox Solutions hired Arnold, a security professional, for the threat intelligence process. Arnold collected information about specific threats against the organization. From this information, he retrieved contextual information about security events and incidents that helped him disclose potential risks and gain insight into attacker methodologies. He collected the information from sources such as humans, social media, and chat rooms as well as from events that resulted in cyberattacks. In this process, he also prepared a report that includes identified malicious activities, recommended courses of action, and warnings for emerging attacks. What is the type of threat intelligence collected by Arnold in the above scenario?

- A. Strategic threat intelligence

- B. Tactical threat intelligence
- C. Operational threat intelligence
- D. Technical threat intelligence

**Answer:** C

#### NEW QUESTION 126

- (Exam Topic 3)

You are tasked to configure the DHCP server to lease the last 100 usable IP addresses in subnet to. 1.4.0/23. Which of the following IP addresses could be teased as a result of the new configuration?

- A. 210.1.55.200
- B. 10.1.4.254
- C. 10.1.5.200
- D. 10.1.4.156

**Answer:** C

#### Explanation:

<https://en.wikipedia.org/wiki/Subnetwork>

As we can see, we have an IP address of 10.1.4.0 with a subnet mask of /23. According to the question, we need to determine which IP address will be included in the range of the last 100 IP addresses.

The available addresses for hosts start with 10.1.4.1 and end with 10.1.5.254. Now you can clearly see that the last 100 addresses include the address 10.1.5.200.

#### NEW QUESTION 128

- (Exam Topic 3)

From the following table, identify the wrong answer in terms of Range (ft). Standard Range (ft)

- \* 802.11a 150-150
- \* 802.11b 150-150
- \* 802.11g 150-150
- \* 802.16 (WiMax) 30 miles

- A. 802.16 (WiMax)
- B. 802.11g
- C. 802.11b
- D. 802.11a

**Answer:** A

#### NEW QUESTION 133

- (Exam Topic 3)

if you send a TCP ACK segment to a known closed port on a firewall but it does not respond with an RST. what do you know about the firewall you are scanning?

- A. There is no firewall in place.
- B. This event does not tell you encrypting about the firewall.
- C. It is a stateful firewall
- D. It is a non-stateful firewall.

**Answer:** B

#### NEW QUESTION 134

- (Exam Topic 3)

Attacker Simon targeted the communication network of an organization and disabled the security controls of NetNTLMv1 by modifying the values of LMCompatibilityLevel, NTLMMinClientSec, and RestrictSendingNTLMTraffic. He then extracted all the non-network logon tokens from all the active processes to masquerade as a legitimate user to launch further attacks. What is the type of attack performed by Simon?

- A. Internal monologue attack
- B. Combinator attack
- C. Rainbow table attack
- D. Dictionary attack

**Answer:** A

#### NEW QUESTION 135

- (Exam Topic 3)

A group of hackers were roaming around a bank office building in a city, driving a luxury car. They were using hacking tools on their laptop with the intention to find a free-access wireless network. What is this hacking process known as?

- A. GPS mapping
- B. Spectrum analysis
- C. Wardriving
- D. Wireless sniffing

**Answer:** C

#### NEW QUESTION 137

- (Exam Topic 3)

The network users are complaining because their system are slowing down. Further, every time they attempt to go a website, they receive a series of pop-ups with advertisements. What types of malware have the system been infected with?

- A. Virus
- B. Spyware
- C. Trojan
- D. Adware

**Answer: D**

**Explanation:**

Adware, or advertising supported computer code, is computer code that displays unwanted advertisements on your pc. Adware programs can tend to serve you pop-up ads, will modification your browser's homepage, add spyware and simply bombard your device with advertisements. Adware may be a additional summary name for doubtless unwanted programs. It's roughly a virulent disease and it's going to not be as clearly malicious as a great deal of different problematic code floating around on the net. create no mistake concerning it, though, that adware has to return off of no matter machine it's on. Not solely will adware be extremely annoying whenever you utilize your machine, it might additionally cause semipermanent problems for your device.

Adware a network users the browser to gather your internet browsing history so as to 'target' advertisements that appear tailored to your interests. At their most innocuous, adware infections square measure simply annoying. as an example, adware barrages you with pop-up ads that may create your net expertise markedly slower and additional labor intensive.

**NEW QUESTION 141**

- (Exam Topic 3)

What would be the purpose of running "wget 192.168.0.15 -q -S" against a web server?

- A. Performing content enumeration on the web server to discover hidden folders
- B. Using wget to perform banner grabbing on the webserver
- C. Flooding the web server with requests to perform a DoS attack
- D. Downloading all the contents of the web page locally for further examination

**Answer: B**

**Explanation:**

-q, --quiet quiet (no output)  
-S, --server-response print server response

**NEW QUESTION 146**

- (Exam Topic 3)

Attempting an injection attack on a web server based on responses to True/False QUESTION NO:s is called which of the following?

- A. Compound SQLi
- B. Blind SQLi
- C. Classic SQLi
- D. DMS-specific SQLi

**Answer: B**

**Explanation:**

[https://en.wikipedia.org/wiki/SQL\\_injection#Blind\\_SQL\\_injection](https://en.wikipedia.org/wiki/SQL_injection#Blind_SQL_injection)

Blind SQL injection is used when a web application is vulnerable to an SQL injection but the results of the injection are not visible to the attacker. The page with the vulnerability may not be one that displays data but will display differently depending on the results of a logical statement injected into the legitimate SQL statement called for that page. This type of attack has traditionally been considered time-intensive because a new statement needed to be crafted for each bit recovered, and depending on its structure, the attack may consist of many unsuccessful requests. Recent advancements have allowed each request to recover multiple bits, with no unsuccessful requests, allowing for more consistent and efficient extraction.

**NEW QUESTION 151**

- (Exam Topic 3)

Bob wants to ensure that Alice can check whether his message has been tampered with. He creates a checksum of the message and encrypts it using asymmetric cryptography. What key does Bob use to encrypt the checksum for accomplishing this goal?

- A. Alice's private key
- B. Alice's public key
- C. His own private key
- D. His own public key

**Answer: B**

**NEW QUESTION 152**

- (Exam Topic 3)

Which access control mechanism allows for multiple systems to use a central authentication server (CAS) that permits users to authenticate once and gain access to multiple systems?

- A. Role Based Access Control (RBAC)
- B. Discretionary Access Control (DAC)
- C. Single sign-on
- D. Windows authentication

**Answer: C**

#### NEW QUESTION 155

- (Exam Topic 3)

In an attempt to damage the reputation of a competitor organization, Hailey, a professional hacker, gathers a list of employee and client email addresses and other related information by using various search engines, social networking sites, and web spidering tools. In this process, she also uses an automated tool to gather a list of words from the target website to further perform a brute-force attack on the previously gathered email addresses.

What is the tool used by Hailey for gathering a list of words from the target website?

- A. Shadowsocks
- B. CeWL
- C. Psiphon
- D. Orbot

**Answer: B**

#### NEW QUESTION 158

- (Exam Topic 3)

You are logged in as a local admin on a Windows 7 system and you need to launch the Computer Management Console from command line.

Which command would you use?

- A. c:\compmgmt.msc
- B. c:\services.msc
- C. c:\ncpa.cp
- D. c:\gpedit

**Answer: A**

#### Explanation:

To start the Computer Management Console from command line just type compmgmt.msc

/computer:computername in your run box or at the command line and it should automatically open the Computer Management console.

References:

<http://www.waynezim.com/tag/compmgmtmsc/>

#### NEW QUESTION 160

- (Exam Topic 3)

Attacker Rony installed a rogue access point within an organization's perimeter and attempted to intrude into its internal network. Johnson, a security auditor, identified some unusual traffic in the internal network that is aimed at cracking the authentication mechanism. He immediately turned off the targeted network and tested for any weak and outdated security mechanisms that are open to attack. What is the type of vulnerability assessment performed by Johnson in the above scenario?

- A. Host-based assessment
- B. Wireless network assessment
- C. Application assessment
- D. Distributed assessment

**Answer: B**

#### Explanation:

Wireless network assessment determines the vulnerabilities in an organization's wireless networks. In the past, wireless networks used weak and defective data encryption mechanisms. Now, wireless network standards have evolved, but many networks still use weak and outdated security mechanisms and are open to attack. Wireless network assessments try to attack wireless authentication mechanisms and gain unauthorized access. This type of assessment tests wireless networks and identifies rogue networks that may exist within an organization's perimeter. These assessments audit client-specified sites with a wireless network. They sniff wireless network traffic and try to crack encryption keys. Auditors test other network access if they gain access to the wireless network.

#### NEW QUESTION 164

- (Exam Topic 3)

On performing a risk assessment, you need to determine the potential impacts when some of the critical business processes of the company interrupt its service. What is the name of the process by which you can determine those critical businesses?

- A. Emergency Plan Response (EPR)
- B. Business Impact Analysis (BIA)
- C. Risk Mitigation
- D. Disaster Recovery Planning (DRP)

**Answer: B**

#### NEW QUESTION 166

- (Exam Topic 3)

Which tier in the N-tier application architecture is responsible for moving and processing data between the tiers?

- A. Presentation tier
- B. Application Layer
- C. Logic tier
- D. Data tier

**Answer: C**

#### NEW QUESTION 171

- (Exam Topic 3)

An organization has automated the operation of critical infrastructure from a remote location. For this purpose, all the industrial control systems are connected to the Internet. To empower the manufacturing process, ensure the reliability of industrial networks, and reduce downtime and service disruption, the organization decided to install an OT security tool that further protects against security incidents such as cyber espionage, zero-day attacks, and malware. Which of the following tools must the organization employ to protect its critical infrastructure?

- A. Robotium
- B. BalenaCloud
- C. Flowmon
- D. IntentFuzzer

**Answer: C**

**Explanation:**

Source: <https://www.flowmon.com>

Flowmon empowers manufacturers and utility companies to ensure the reliability of their industrial networks confidently to avoid downtime and disruption of service continuity. This can be achieved by continuous monitoring and anomaly detection so that malfunctioning devices or security incidents, such as cyber espionage, zero-days, or malware, can be reported and remedied as quickly as possible.

**NEW QUESTION 176**

- (Exam Topic 3)

Calvin, a software developer, uses a feature that helps him auto-generate the content of a web page without manual involvement and is integrated with SSI directives. This leads to a vulnerability in the developed web application as this feature accepts remote user inputs and uses them on the page. Hackers can exploit this feature and pass malicious SSI directives as input values to perform malicious activities such as modifying and erasing server files. What is the type of injection attack Calvin's web application is susceptible to?

- A. Server-side template injection
- B. Server-side JS injection
- C. CRLF injection
- D. Server-side includes injection

**Answer: D**

**NEW QUESTION 179**

- (Exam Topic 3)

Your organization has signed an agreement with a web hosting provider that requires you to take full responsibility of the maintenance of the cloud-based resources. Which of the following models covers this?

- A. Platform as a service
- B. Software as a service
- C. Functions as a
- D. service Infrastructure as a service

**Answer: C**

**NEW QUESTION 183**

- (Exam Topic 3)

When considering how an attacker may exploit a web server, what is web server footprinting?

- A. When an attacker implements a vulnerability scanner to identify weaknesses
- B. When an attacker creates a complete profile of the site's external links and file structures
- C. When an attacker gathers system-level data, including account details and server names
- D. When an attacker uses a brute-force attack to crack a web-server password

**Answer: B**

**NEW QUESTION 186**

- (Exam Topic 3)

Geena, a cloud architect, uses a master component in the Kubernetes cluster architecture that scans newly generated pods and allocates a node to them. This component can also assign nodes based on factors such as the overall resource requirement, data locality, software/hardware/policy restrictions, and internal workload interventions.

Which of the following master components is explained in the above scenario?

- A. Kube-controller-manager
- B. Kube-scheduler
- C. Kube-apiserver
- D. Etd cluster

**Answer: B**

**NEW QUESTION 189**

- (Exam Topic 3)

Bill has been hired as a penetration tester and cyber security auditor for a major credit card company. Which information security standard is most applicable to his role?

- A. FISMA
- B. HITECH
- C. PCI-DSS
- D. Sarbanes-OxleyAct

**Answer:** C

**NEW QUESTION 190**

- (Exam Topic 3)

What is the least important information when you analyze a public IP address in a security alert?

- A. DNS
- B. Whois
- C. Geolocation
- D. ARP

**Answer:** D

**NEW QUESTION 195**

- (Exam Topic 3)

Which of the following provides a security professional with most information about the system's security posture?

- A. Phishing, spamming, sending trojans
- B. Social engineering, company site browsing tailgating
- C. Wardriving, warchalking, social engineering
- D. Port scanning, banner grabbing service identification

**Answer:** D

**NEW QUESTION 198**

- (Exam Topic 3)

Websites and web portals that provide web services commonly use the Simple Object Access Protocol (SOAP). Which of the following is an incorrect definition or characteristics of the protocol?

- A. Exchanges data between web services
- B. Only compatible with the application protocol HTTP
- C. Provides a structured model for messaging
- D. Based on XML

**Answer:** B

**NEW QUESTION 201**

- (Exam Topic 3)

You are a penetration tester and are about to perform a scan on a specific server. The agreement that you signed with the client contains the following specific condition for the scan: "The attacker must scan every port on the server several times using a set of spoofed sources IP addresses." Suppose that you are using Nmap to perform this scan. What flag will you use to satisfy this requirement?

- A. The -A flag
- B. The -g flag
- C. The -f flag
- D. The -D flag

**Answer:** D

**Explanation:**

flags `--source-port` and `-g` are equivalent and instruct nmap to send packets through a selected port. this option is used to try to cheat firewalls whitelisting traffic from specific ports. the following example can scan the target from the port twenty to ports eighty, 22, 21,23 and 25 sending fragmented packets to LinuxHint.

**NEW QUESTION 202**

- (Exam Topic 3)

A Security Engineer at a medium-sized accounting firm has been tasked with discovering how much information can be obtained from the firm's public facing web servers. The engineer decides to start by using netcat to port 80.

The engineer receives this output: HTTP/1.1 200 OK

Server: Microsoft-IIS/6

Expires: Tue, 17 Jan 2011 01:41:33 GMT

Date: Mon, 16 Jan 2011 01:41:33 GMT

Content-Type: text/html Accept-Ranges: bytes

Last Modified: Wed, 28 Dec 2010 15:32:21 GMT ETag:"b0aac0542e25c31:89d"

Content-Length: 7369

Which of the following is an example of what the engineer performed?

- A. Banner grabbing
- B. SQL injection
- C. Whois database query
- D. Cross-site scripting

**Answer:** A

**NEW QUESTION 207**

- (Exam Topic 3)

An Internet Service Provider (ISP) has a need to authenticate users connecting via analog modems, Digital Subscriber Lines (DSL), wireless data services, and Virtual Private Networks (VPN) over a Frame Relay network.

Which AAA protocol is the most likely able to handle this requirement?

- A. TACACS+
- B. DIAMETER
- C. Kerberos
- D. RADIUS

**Answer: D**

**Explanation:**

<https://en.wikipedia.org/wiki/RADIUS>

Remote Authentication Dial-In User Service (RADIUS) is a networking protocol that provides centralized authentication, authorization, and accounting (AAA) management for users who connect and use a network service.

RADIUS is a client/server protocol that runs in the application layer, and can use either TCP or UDP. Network access servers, which control access to a network, usually contain a RADIUS client component that communicates with the RADIUS server. RADIUS is often the back-end of choice for 802.1X authentication. A RADIUS server is usually a background process running on UNIX or Microsoft Windows.

**Authentication and authorization**

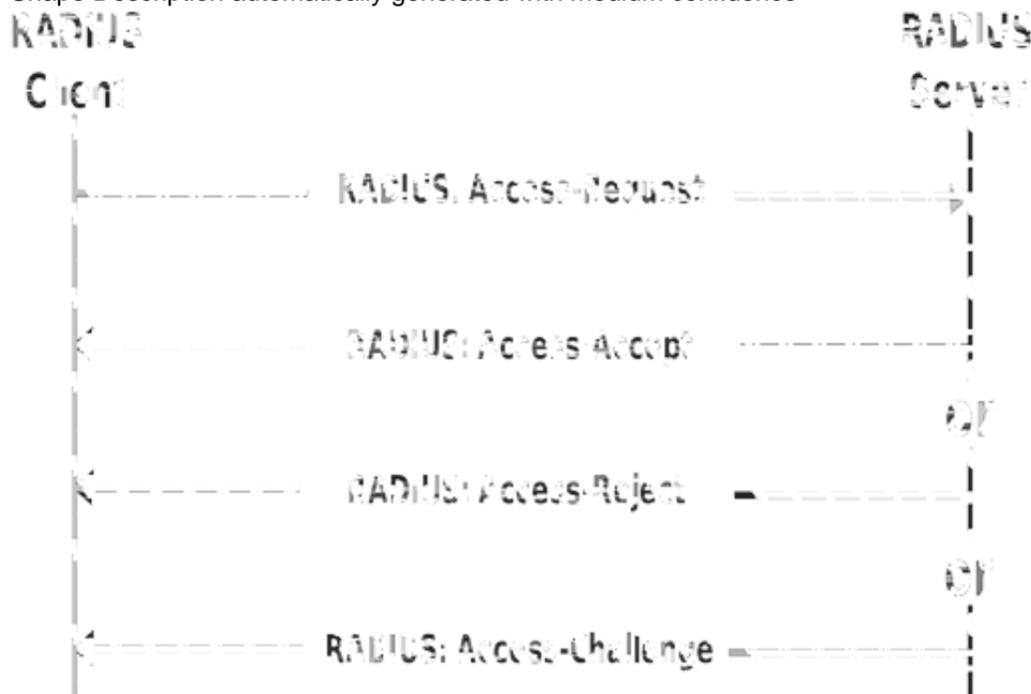
The user or machine sends a request to a Network Access Server (NAS) to gain access to a particular network resource using access credentials. The credentials are passed to the NAS device via the link-layer protocol—for example, Point-to-Point Protocol (PPP) in the case of many dialup or DSL providers or posted in an HTTPS secure web form.

In turn, the NAS sends a RADIUS Access Request message to the RADIUS server, requesting authorization to grant access via the RADIUS protocol.

This request includes access credentials, typically in the form of username and password or security certificate provided by the user. Additionally, the request may contain other information which the NAS knows about the user, such as its network address or phone number, and information regarding the user's physical point of attachment to the NAS.

The RADIUS server checks that the information is correct using authentication schemes such as PAP, CHAP or EAP. The user's proof of identification is verified, along with, optionally, other information related to the request, such as the user's network address or phone number, account status, and specific network service access privileges. Historically, RADIUS servers checked the user's information against a locally stored flat-file database. Modern RADIUS servers can do this or can refer to external sources—commonly SQL, Kerberos, LDAP, or Active Directory servers—to verify the user's credentials.

Shape Description automatically generated with medium confidence



The RADIUS server then returns one of three responses to the NAS:

- 1) Access-Reject,
- 2) Access-Challenge,
- 3) Access-Accept.

**Access-Reject**

The user is unconditionally denied access to all requested network resources. Reasons may include failure to provide proof of identification or an unknown or inactive user account.

**Access-Challenge**

Requests additional information from the user such as a secondary password, PIN, token, or card.

Access-Challenge is also used in more complex authentication dialogs where a secure tunnel is established between the user machine and the Radius Server in a way that the access credentials are hidden from the NAS.

**Access-Accept**

The user is granted access. Once the user is authenticated, the RADIUS server will often check that the user is authorized to use the network service requested. A given user may be allowed to use a company's wireless network, but not its VPN service, for example. Again, this information may be stored locally on the RADIUS server or may be looked up in an external source such as LDAP or Active Directory.

**NEW QUESTION 209**

- (Exam Topic 2)

At what stage of the cyber kill chain theory model does data exfiltration occur?

- A. Actions on objectives
- B. Weaponization
- C. installation
- D. Command and control

**Answer: A**

**Explanation:**

The longer an adversary has this level of access, the greater the impact. Defenders must detect this stage as quickly as possible and deploy tools which can enable them to gather forensic evidence. One example would come with network packet captures, for damage assessment. Only now, after progressing through the primary six phases, can intruders take actions to realize their original objectives. Typically, the target of knowledge exfiltration involves collecting, encrypting

and extracting information from the victim(s) environment; violations of knowledge integrity or availability are potential objectives also. Alternatively, and most ordinarily, the intruder may only desire access to the initial victim box to be used as a hop point to compromise additional systems and move laterally inside the network. Once this stage is identified within an environment, the implementation of prepared reaction plans must be initiated. At a minimum, the plan should include a comprehensive communication plan, detailed evidence must be elevated to the very best ranking official or board, the deployment of end-point security tools to dam data loss and preparation for briefing a CIRT Team. Having these resources well established beforehand may be a "MUST" in today's quickly evolving landscape of cybersecurity threats

#### NEW QUESTION 211

- (Exam Topic 2)

Alice, a professional hacker, targeted an organization's cloud services. She infiltrated the targets MSP provider by sending spear-phishing emails and distributed custom-made malware to compromise user accounts and gain remote access to the cloud service. Further, she accessed the target customer profiles with her MSP account, compressed the customer data, and stored them in the MSP. Then, she used this information to launch further attacks on the target organization. Which of the following cloud attacks did Alice perform in the above scenario?

- A. Cloud hopper attack
- B. Cloud cryptojacking
- C. Cloudborne attack
- D. Man-in-the-cloud (MITC) attack

**Answer:** A

#### Explanation:

Operation Cloud Hopper was an in depth attack and theft of data in 2017 directed at MSP within the uk (U.K.), us (U.S.), Japan, Canada, Brazil, France, Switzerland, Norway, Finland, Sweden, South Africa, India, Thailand, South Korea and Australia. The group used MSP as intermediaries to accumulate assets and trade secrets from MSP client engineering, MSP industrial manufacturing, retail, energy, pharmaceuticals, telecommunications, and government agencies. Operation Cloud Hopper used over 70 variants of backdoors, malware and trojans. These were delivered through spear-phishing emails. The attacks scheduled tasks or leveraged services/utilities to continue Microsoft Windows systems albeit the pc system was rebooted. It installed malware and hacking tools to access systems and steal data.

#### NEW QUESTION 214

- (Exam Topic 2)

What does the following command in netcat do? `nc -l -u -p55555 < /etc/passwd`

- A. logs the incoming connections to /etc/passwd file
- B. loads the /etc/passwd file to the UDP port 55555
- C. grabs the /etc/passwd file when connected to UDP port 55555
- D. deletes the /etc/passwd file when connected to the UDP port 55555

**Answer:** C

#### NEW QUESTION 217

- (Exam Topic 2)

Gerard, a disgruntled ex-employee of Sunglass IT Solutions, targets this organization to perform sophisticated attacks and bring down its reputation in the market. To launch the attacks process, he performed DNS footprinting to gather information about DNS servers and to identify the hosts connected in the target network. He used an automated tool that can retrieve information about DNS zone data including DNS domain names, computer names, IP addresses, DNS records, and network Whois records. He further exploited this information to launch other sophisticated attacks. What is the tool employed by Gerard in the above scenario?

- A. Knative
- B. zANTI
- C. Towelroot
- D. Bluto

**Answer:** D

#### Explanation:

<https://www.darknet.org.uk/2017/07/bluto-dns-recon-zone-transfer-brute-forcer/>

"Attackers also use DNS lookup tools such as DNSdumpster.com, Bluto, and Domain Dossier to retrieve DNS records for a specified domain or hostname. These tools retrieve information such as domains and IP addresses, domain Whois records, DNS records, and network Whois records." CEH Module 02 Page 138

#### NEW QUESTION 218

- (Exam Topic 2)

What piece of hardware on a computer's motherboard generates encryption keys and only releases a part of the key so that decrypting a disk on a new piece of hardware is not possible?

- A. CPU
- B. GPU
- C. UEFI
- D. TPM

**Answer:** D

#### Explanation:

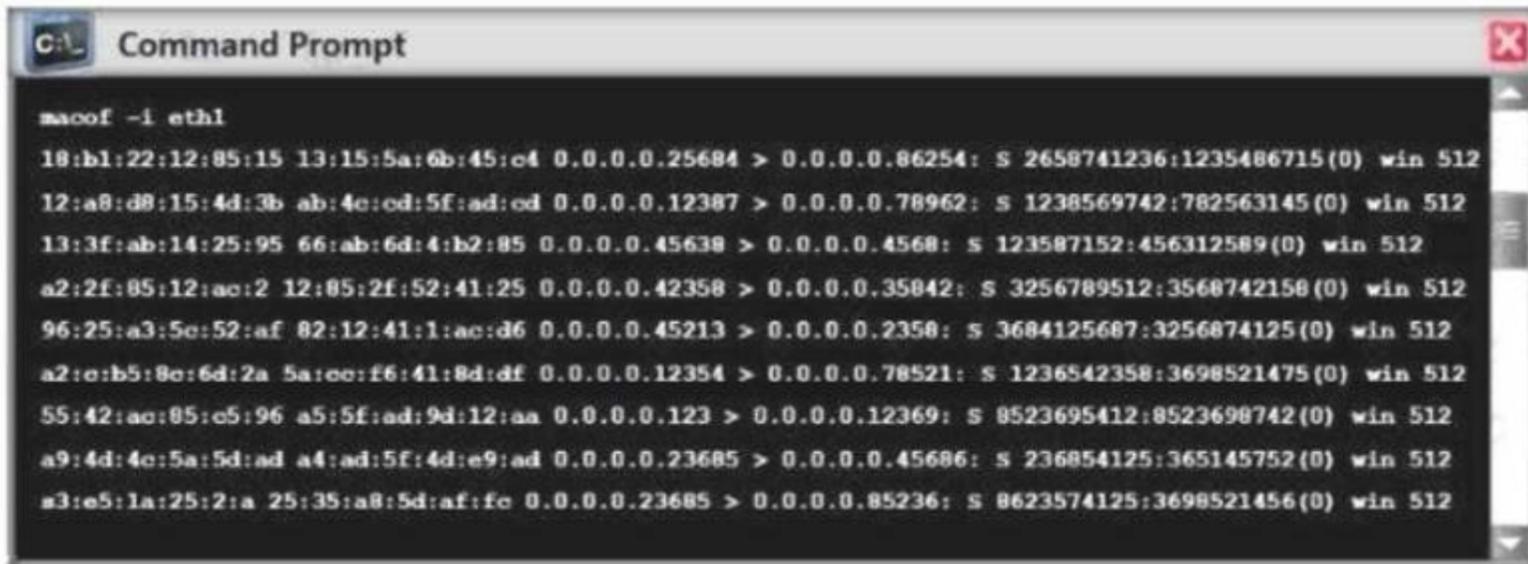
The TPM is a chip that's part of your computer's motherboard

— if you bought an off-the-shelf PC, it's soldered onto the motherboard. If you built your own computer, you can buy one as an add-on module if your motherboard supports it. The TPM generates encryption keys, keeping part of the key to itself

#### NEW QUESTION 221

- (Exam Topic 2)

Switches maintain a CAM Table that maps individual MAC addresses on the network to physical ports on the switch.



```

C:\> macof -i eth1
18:b1:22:12:85:15 13:15:5a:6b:45:c4 0.0.0.0.25684 > 0.0.0.0.86254: s 2658741236:1235486715(0) win 512
12:a8:d8:15:4d:3b ab:4c:ed:5f:ad:ed 0.0.0.0.12387 > 0.0.0.0.78962: s 1238569742:782563145(0) win 512
13:3f:ab:14:25:95 66:ab:6d:4:b2:85 0.0.0.0.45638 > 0.0.0.0.4568: s 123587152:456312589(0) win 512
a2:2f:85:12:ac:2 12:85:2f:52:41:25 0.0.0.0.42358 > 0.0.0.0.35842: s 3256789512:3568742158(0) win 512
96:25:a3:5c:52:af 82:12:41:1:ac:d6 0.0.0.0.45213 > 0.0.0.0.2358: s 3684125687:3256874125(0) win 512
a2:c:b5:8c:6d:2a 5a:0c:f6:41:8d:df 0.0.0.0.12354 > 0.0.0.0.78521: s 1236542358:3698521475(0) win 512
55:42:ac:85:c5:96 a5:5f:ad:9d:12:aa 0.0.0.0.123 > 0.0.0.0.12369: s 8523695412:8523698742(0) win 512
a9:4d:4c:5a:5d:ad a4:ad:5f:4d:e9:ad 0.0.0.0.23685 > 0.0.0.0.45686: s 236854125:365145752(0) win 512
a3:e5:1a:25:2:a 25:35:a8:5d:af:fc 0.0.0.0.23685 > 0.0.0.0.85236: s 8623574125:3698521456(0) win 512
  
```

In MAC flooding attack, a switch is fed with many Ethernet frames, each containing different source MAC addresses, by the attacker. Switches have a limited memory for mapping various MAC addresses to physical ports. What happens when the CAM table becomes full?

- A. Switch then acts as hub by broadcasting packets to all machines on the network
- B. The CAM overflow table will cause the switch to crash causing Denial of Service
- C. The switch replaces outgoing frame switch factory default MAC address of FF:FF:FF:FF:FF:FF
- D. Every packet is dropped and the switch sends out SNMP alerts to the IDS port

Answer: A

**NEW QUESTION 225**

- (Exam Topic 2)

This TCP flag instructs the sending system to transmit all buffered data immediately.

- A. SYN
- B. RST
- C. PSH
- D. URG
- E. FIN

Answer: C

**NEW QUESTION 229**

- (Exam Topic 2)

An attacker runs netcat tool to transfer a secret file between two hosts.

```

Machine A: netcat -l -p 1234 < secretfile
Machine B: netcat 192.168.3.4 > 1234
  
```

He is worried about information being sniffed on the network.

How would the attacker use netcat to encrypt the information before transmitting onto the wire?

- A. Machine A: netcat -l -p -s password 1234 < testfileMachine B: netcat <machine A IP> 1234
- B. Machine A: netcat -l -e magickey -p 1234 < testfileMachine B: netcat <machine A IP> 1234
- C. Machine A: netcat -l -p 1234 < testfile -pw passwordMachine B: netcat <machine A IP> 1234 -pw password
- D. Use cryptcat instead of netcat

Answer: D

**NEW QUESTION 233**

- (Exam Topic 2)

John wants to send Marie an email that includes sensitive information, and he does not trust the network that he is connected to. Marie gives him the idea of using PGP. What should John do to communicate correctly using this type of encryption?

- A. Use his own public key to encrypt the message.
- B. Use Marie's public key to encrypt the message.
- C. Use his own private key to encrypt the message.
- D. Use Marie's private key to encrypt the message.

Answer: B

**Explanation:**

When a user encrypts plaintext with PGP, PGP first compresses the plaintext. The session key works with a very secure, fast conventional encryption algorithm to encrypt the plaintext; the result is ciphertext. Once the data is encrypted, the session key is then encrypted to the recipient's public key

[https://en.wikipedia.org/wiki/Pretty\\_Good\\_Privacy](https://en.wikipedia.org/wiki/Pretty_Good_Privacy)

Pretty Good Privacy (PGP) is an encryption program that provides cryptographic privacy and authentication for data communication. PGP is used for signing, encrypting, and decrypting texts, e-mails, files, directories, and whole disk partitions and to increase the security of e-mail communications.

PGP encryption uses a serial combination of hashing, data compression, symmetric-key cryptography, and finally public-key cryptography; each step uses one of several supported algorithms. Each public key is bound to a username or an e-mail address.

[https://en.wikipedia.org/wiki/Public-key\\_cryptography](https://en.wikipedia.org/wiki/Public-key_cryptography)

Public key encryption uses two different keys. One key is used to encrypt the information and the other is used to decrypt the information. Sometimes this is referred to as asymmetric encryption because two keys are required to make the system and/or process work securely. One key is known as the public key and

should be shared by the owner with anyone who will be securely communicating with the key owner. However, the owner's secret key is not to be shared and considered a private key. If the private key is shared with unauthorized recipients, the encryption mechanisms protecting the information must be considered compromised.

**NEW QUESTION 236**

- (Exam Topic 2)

You receive an e-mail like the one shown below. When you click on the link contained in the mail, you are redirected to a website seeking you to download free Anti-Virus software.

Dear valued customers,

We are pleased to announce the newest version of Antivirus 2010 for Windows which will probe you with total security against the latest spyware, malware, viruses, Trojans and other online threats. Simply visit the link below and enter your antivirus code:

Antivirus code: 5014

<http://www.juggyboy/virus/virus.html>

Thank you for choosing us, the worldwide leader Antivirus solutions.

Mike Robertson

PDF Reader Support

Copyright Antivirus 2010 ?All rights reserved

If you want to stop receiving mail, please go to:

<http://www.juggyboy.com>

or you may contact us at the following address: Media Internet Consultants, Edif. Neptuno, Planta

Baja, Ave. Ricardo J. Alfaro, Tumba Muerto, n/a Panama

How will you determine if this is Real Anti-Virus or Fake Anti-Virus website?

- A. Look at the website design, if it looks professional then it is a Real Anti-Virus website
- B. Connect to the site using SSL, if you are successful then the website is genuine
- C. Search using the URL and Anti-Virus product name into Google and lookout for suspicious warnings against this site
- D. Download and install Anti-Virus software from this suspicious looking site, your Windows 7 will prompt you and stop the installation if the downloaded file is a malware
- E. Download and install Anti-Virus software from this suspicious looking site, your Windows 7 will prompt you and stop the installation if the downloaded file is a malware

**Answer: C**

**NEW QUESTION 239**

- (Exam Topic 2)

in the Common Vulnerability Scoring System (CVSS) v3.1 severity ratings, what range does medium vulnerability fall in?

- A. 3.0-6.9
- B. 4.0-6.0
- C. 4.0-6.9
- D. 3.9-6.9

**Answer: C**

**Explanation:**

CVSS v2.0 Ratings

CVSS v3.0 Ratings

Severity	Base Score Range	Severity	Base Score Range
		None	0.0
Low	0.0-3.9	Low	0.1-3.9
Medium	4.0-6.9	Medium	4.0-6.9
High	7.0-10.0	High	7.0-8.9
		Critical	9.0-10.0

**NEW QUESTION 242**

- (Exam Topic 2)

This is an attack that takes advantage of a web site vulnerability in which the site displays content that includes un-sanitized user-provided data.

```
<a href="http://foobar.com/index.html?id=%3Cscript%20src=%22
http://baddomain.com/badscript.js %22%3E%3C/script%3E">See foobar</a>
```

What is this attack?

- A. Cross-site-scripting attack
- B. SQL Injection
- C. URL Traversal attack
- D. Buffer Overflow attack

**Answer: A**

**NEW QUESTION 246**

- (Exam Topic 2)

Fred is the network administrator for his company. Fred is testing an internal switch.

From an external IP address, Fred wants to try and trick this switch into thinking it already has established a session with his computer. How can Fred accomplish this?

- A. Fred can accomplish this by sending an IP packet with the RST/SIN bit and the source address of his computer.
- B. He can send an IP packet with the SYN bit and the source address of his computer.
- C. Fred can send an IP packet with the ACK bit set to zero and the source address of the switch.
- D. Fred can send an IP packet to the switch with the ACK bit and the source address of his machine.

**Answer: D**

**NEW QUESTION 250**

- (Exam Topic 2)

Harry, a professional hacker, targets the IT infrastructure of an organization. After preparing for the attack, he attempts to enter the target network using techniques such as sending spear-phishing emails and exploiting vulnerabilities on publicly available servers. Using these techniques, he successfully deployed malware on the target system to establish an outbound connection. What is the APT lifecycle phase that Harry is currently executing?

- A. Preparation
- B. Cleanup
- C. Persistence
- D. initial intrusion

**Answer: D**

**Explanation:**

After the attacker completes preparations, subsequent step is an effort to realize an edge within the target's environment. a particularly common entry tactic is that the use of spearphishing emails containing an internet link or attachment. Email links usually cause sites where the target's browser and related software are subjected to varied exploit techniques or where the APT actors plan to social engineer information from the victim which will be used later. If a successful exploit takes place, it installs an initial malware payload on the victim's computer. Figure 2 illustrates an example of a spearphishing email that contains an attachment. Attachments are usually executable malware, a zipper or other archive containing malware, or a malicious Office or Adobe PDF (Portable Document Format) document that exploits vulnerabilities within the victim's applications to ultimately execute malware on the victim's computer. Once the user has opened a malicious file using vulnerable software, malware is executing on the target system. These phishing emails are often very convincing and difficult to differentiate from legitimate email messages. Tactics to extend their believability include modifying legitimate documents from or associated with the organization. Documents are sometimes stolen from the organization or their collaborators during previous exploitation operations. Actors modify the documents by adding exploits and malicious code then send them to the victims. Phishing emails are commonly sent through previously compromised email servers, email accounts at organizations associated with the target or public email services. Emails also can be sent through mail relays with modified email headers to form the messages appear to possess originated from legitimate sources. Exploitation of vulnerabilities on public-facing servers is another favorite technique of some APT groups. Though this will be accomplished using exploits for known vulnerabilities, 0-days are often developed or purchased to be used in intrusions as required .

Gaining an edge within the target environment is that the primary goal of the initial intrusion. Once a system is exploited, the attacker usually places malware on the compromised system and uses it as a jump point or proxy for further actions. Malware placed during the initial intrusion phase is usually an easy downloader, basic

Remote Access Trojan or an easy shell. Figure 3 illustrates a newly infected system initiating an outbound connection to notify the APT actor that the initial intrusion attempt was successful which it's able to accept commands.



Figure 2. APT actor sends spearphishing email to target with malicious content

**NEW QUESTION 253**

- (Exam Topic 2)

Jane invites her friends Alice and John over for a LAN party. Alice and John access Jane's wireless network without a password. However, Jane has a long, complex password on her router. What attack has likely occurred?

- A. Wireless sniffing
- B. Piggybacking
- C. Evil twin
- D. Wardriving

**Answer: C**

**Explanation:**

An evil twin may be a fraudulent Wi-Fi access point that appears to be legitimate but is about up to pay attention to wireless communications.[1] The evil twin is that the wireless LAN equivalent of the phishing scam. This type of attack could also be used to steal the passwords of unsuspecting users, either by monitoring their connections or by phishing, which involves fixing a fraudulent internet site and luring people there. The attacker snoops on Internet traffic employing a bogus wireless access point. Unwitting web users could also be invited to log into the attacker's server, prompting them to enter sensitive information like usernames and passwords. Often, users are unaware they need been duped until well after the incident has occurred. When users log into unsecured (non-HTTPS) bank or e-mail accounts, the attacker intercepts the transaction, since it's sent through their equipment. The attacker is additionally ready to hook up with other networks related to the users' credentials. Fake access points are found out by configuring a wireless card to act as an access point (known as HostAP). They're hard to trace since they will be shut off instantly. The counterfeit access point could also be given an equivalent SSID and BSSID as a close-by Wi-Fi network. The evil twin are often configured to pass Internet traffic through to the legitimate access point while monitoring the victim's connection, or it can simply say the system is temporarily unavailable after obtaining a username and password.

#### NEW QUESTION 254

- (Exam Topic 2)

You are tasked to configure the DHCP server to lease the last 100 usable IP addresses in subnet to. 1.4.0/23. Which of the following IP addresses could be leased as a result of the new configuration?

- A. 210.1.55.200
- B. 10.1.4.254
- C. 10.1.5.200
- D. 10.1.4.156

**Answer:** C

#### NEW QUESTION 258

- (Exam Topic 2)

Which of the following are well known password-cracking programs?

- A. L0phtcrack
- B. NetCat
- C. Jack the Ripper
- D. Netbus
- E. John the Ripper

**Answer:** AE

#### NEW QUESTION 262

- (Exam Topic 2)

When a security analyst prepares for the formal security assessment - what of the following should be done in order to determine inconsistencies in the secure assets database and verify that system is compliant to the minimum security baseline?

- A. Data items and vulnerability scanning
- B. Interviewing employees and network engineers
- C. Reviewing the firewalls configuration
- D. Source code review

**Answer:** A

#### NEW QUESTION 265

- (Exam Topic 2)

When discussing passwords, what is considered a brute force attack?

- A. You attempt every single possibility until you exhaust all possible combinations or discover the password
- B. You threaten to use the rubber hose on someone unless they reveal their password
- C. You load a dictionary of words into your cracking program
- D. You create hashes of a large number of words and compare it with the encrypted passwords
- E. You wait until the password expires

**Answer:** A

#### NEW QUESTION 269

- (Exam Topic 2)

Steve, an attacker, created a fake profile on a social media website and sent a request to Stella. Stella was enthralled by Steve's profile picture and the description given for his profile, and she initiated a conversation with him soon after accepting the request. After a few days, Steve started asking about her company details and eventually gathered all the essential information regarding her company. What is the social engineering technique Steve employed in the above scenario?

- A. Diversion theft
- B. Baiting
- C. Honey trap
- D. Piggybacking

**Answer:** C

#### Explanation:

The honey trap is a technique where an attacker targets a person online by pretending to be an attractive person and then begins a fake online relationship to obtain confidential information about the target company. In this technique, the victim is an insider who possesses critical information about the target organization. Baiting is a technique in which attackers offer end users something alluring in exchange for important information such as login details and other sensitive data. This technique relies on the curiosity and greed of the end-users. Attackers perform this technique by leaving a physical device such as a USB flash drive containing malicious files in locations where people can easily find them, such as parking lots, elevators, and bathrooms. This physical device is labeled with a legitimate company's logo, thereby tricking end-users into trusting it and opening it on their systems. Once the victim connects and opens the device, a malicious file downloads. It infects the system and allows the attacker to take control.

For example, an attacker leaves some bait in the form of a USB drive in the elevator with the label "Employee Salary Information 2019" and a legitimate company's logo. Out of curiosity and greed, the victim picks up the device and opens it up on their system, which downloads the bait. Once the bait is downloaded, a piece of malicious software installs on the victim's system, giving the attacker access.

#### NEW QUESTION 270

- (Exam Topic 2)

In an attempt to increase the security of your network, you implement a solution that will help keep your wireless network undiscoverable and accessible only to those that know it. How do you accomplish this?

- A. Delete the wireless network
- B. Remove all passwords
- C. Lock all users
- D. Disable SSID broadcasting

**Answer: D**

**Explanation:**

The SSID (service set identifier) is the name of your wireless network. SSID broadcast is how your router transmits this name to surrounding devices. Its primary function is to make your network visible and easily accessible. Most routers broadcast their SSIDs automatically. To disable or enable SSID broadcast, you need to change your router's settings.

Disabling SSID broadcast will make your Wi-Fi network name invisible to other users. However, this only hides the name, not the network itself. You cannot disguise the router's activity, so hackers can still attack it.

With your network invisible to wireless devices, connecting becomes a bit more complicated. Just giving a Wi-Fi password to your guests is no longer enough. They have to configure their settings manually by including the network name, security mode, and other relevant info.

Disabling SSID might be a small step towards online security, but by no means should it be your final one. Before considering it as a security measure, consider the following aspects:

- Disabling SSID broadcast will not hide your network completely

Disabling SSID broadcast only hides the network name, not the fact that it exists. Your router constantly transmits so-called beacon frames to announce the presence of a wireless network. They contain essential information about the network and help the device connect.

- Third-party software can easily trace a hidden network

Programs such as NetStumbler or Kismet can easily locate hidden networks. You can try using them yourself to see how easy it is to find available networks – hidden or not.

- You might attract unwanted attention.

Disabling your SSID broadcast could also raise suspicion. Most of us assume that when somebody hides something, they have a reason to do so. Thus, some hackers might be attracted to your network.

**NEW QUESTION 274**

- (Exam Topic 2)

Robin, a professional hacker, targeted an organization's network to sniff all the traffic. During this process. Robin plugged in a rogue switch to an unused port in the LAN with a priority lower than any other switch in the network so that he could make it a root bridge that will later allow him to sniff all the traffic in the network.

What is the attack performed by Robin in the above scenario?

- A. ARP spoofing attack
- B. VLAN hopping attack
- C. DNS poisoning attack
- D. STP attack

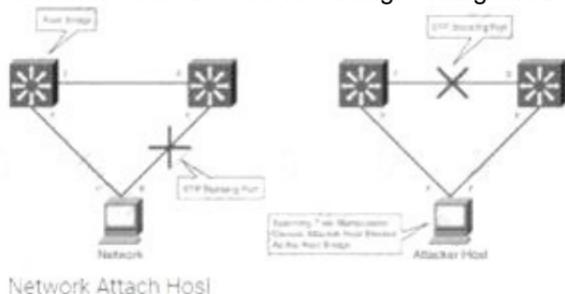
**Answer: D**

**Explanation:**

STP prevents bridging loops in a redundant switched network environment. By avoiding loops, you can ensure that broadcast traffic does not become a traffic storm.

STP is a hierarchical tree-like topology with a "root" switch at the top. A switch is elected as root based on the lowest configured priority of any switch (0 through 65,535). When a switch boots up, it begins a process of identifying other switches and determining the root bridge. After a root bridge is elected, the topology is established from its perspective of the connectivity. The switches determine the path to the root bridge, and all redundant paths are blocked. STP sends configuration and topology change notifications and acknowledgments (TCN/TCA) using bridge protocol data units (BPDU).

An STP attack involves an attacker spoofing the root bridge in the topology. The attacker broadcasts out an STP configuration/topology change BPDU in an attempt to force an STP recalculation. The BPDU sent out announces that the attacker's system has a lower bridge priority. The attacker can then see a variety of frames forwarded from other switches to it. STP recalculation may also cause a denial-of-service (DoS) condition on the network by causing an interruption of 30 to 45 seconds each time the root bridge changes. An attacker using STP network topology changes to force its host to be elected as the root bridge.



switch

**NEW QUESTION 275**

- (Exam Topic 2)

In the context of Windows Security, what is a 'null' user?

- A. A user that has no skills
- B. An account that has been suspended by the admin
- C. A pseudo account that has no username and password
- D. A pseudo account that was created for security administration purpose

**Answer: C**

**NEW QUESTION 279**

- (Exam Topic 2)

An attacker redirects the victim to malicious websites by sending them a malicious link by email. The link appears authentic but redirects the victim to a malicious web page, which allows the attacker to steal the victim's data. What type of attack is this?

- A. Phishing
- B. Vishing
- C. Spoofing
- D. DDoS

**Answer:** A

**Explanation:**

<https://en.wikipedia.org/wiki/Phishing>

Phishing is a type of social engineering attack often used to steal user data, including login credentials and credit card numbers. It occurs when an attacker, masquerading as a trusted entity, dupes a victim into opening an email, instant message, or text message. The recipient is then tricked into clicking a malicious link, which can lead to the installation of malware, the freezing of the system as part of a ransomware attack, or the revealing of sensitive information.

An attack can have devastating results. For individuals, this includes unauthorized purchases, the stealing of funds, or identity theft.

Moreover, phishing is often used to gain a foothold in corporate or governmental networks as a part of a larger attack, such as an advanced persistent threat (APT) event. In this latter scenario, employees are compromised in order to bypass security perimeters, distribute malware inside a closed environment, or gain privileged access to secured data.

An organization succumbing to such an attack typically sustains severe financial losses in addition to declining market share, reputation, and consumer trust. Depending on the scope, a phishing attempt might escalate into a security incident from which a business will have a difficult time recovering.

**NEW QUESTION 281**

- (Exam Topic 2)

George is a security professional working for iTech Solutions. He was tasked with securely transferring sensitive data of the organization between industrial systems. In this process, he used a short-range communication protocol based on the IEEE 203.15.4 standard. This protocol is used in devices that transfer data infrequently at a low rate in a restricted area, within a range of 10-100 m. What is the short-range wireless communication technology George employed in the above scenario?

- A. MQTT
- B. LPWAN
- C. Zigbee
- D. NB-IoT

**Answer:** C

**Explanation:**

Zigbee could be a wireless technology developed as associate open international normal to deal with the unique desires of affordable, low-power wireless IoT networks. The Zigbee normal operates on the IEEE 802.15.4 physical radio specification and operates in unauthorised bands as well as a pair of 4 GHz, 900 MHz and 868 MHz.

The 802.15.4 specification upon that the Zigbee stack operates gained confirmation by the Institute of Electrical and physical science Engineers (IEEE) in 2003.

The specification could be a packet-based radio protocol supposed for affordable, battery-operated devices. The protocol permits devices to speak in an exceedingly kind of network topologies and may have battery life lasting many years.

The Zigbee three.0 Protocol

The Zigbee protocol has been created and ratified by member corporations of the Zigbee Alliance. Over three hundred leading semiconductor makers, technology corporations, OEMs and repair corporations comprise the Zigbee Alliance membership. The Zigbee protocol was designed to supply associate easy-to-use wireless information answer characterised by secure, reliable wireless network architectures.

**THE ZIGBEE ADVANTAGE**

The Zigbee 3.0 protocol is intended to speak information through rip-roaring RF environments that area unit common in business and industrial applications. Version 3.0 builds on the prevailing Zigbee normal however unifies the market-specific application profiles to permit all devices to be wirelessly connected within the same network, no matter their market designation and performance. what is more, a Zigbee 3.0 certification theme ensures the ability of product from completely different makers. Connecting Zigbee three.0 networks to the information science domain unveil observance and management from devices like smartphones and tablets on a local area network or WAN, as well as the web, and brings verity net of Things to fruition.

Zigbee protocol options include:

- > Support for multiple network topologies like point-to-point, point-to-multipoint and mesh networks
- > Low duty cycle – provides long battery life
- > Low latency
- > Direct Sequence unfold Spectrum (DSSS)
- > Up to 65,000 nodes per network
- > 128-bit AES encryption for secure information connections
- > Collision avoidance, retries and acknowledgements

This is another short-range communication protocol based on the IEEE 203.15.4 standard. Zig-Bee is used in devices that transfer data infrequently at a low rate in a restricted area and within a range of 10–100 m.

**NEW QUESTION 286**

- (Exam Topic 2)

OpenSSL on Linux servers includes a command line tool for testing TLS. What is the name of the tool and the correct syntax to connect to a web server?

- A. openssl s\_client -site www.website.com:443
- B. openssl\_client -site www.website.com:443
- C. openssl s\_client -connect www.website.com:443
- D. openssl\_client -connect www.website.com:443

**Answer:** C

**NEW QUESTION 288**

- (Exam Topic 2)

Allen, a professional pen tester, was hired by xpertTech solutWns to perform an attack simulation on the organization's network resources. To perform the attack, he took advantage of the NetBIOS API and targeted the NetBIOS service. B/enumerating NetBIOS, he found that port 139 was open and could see the resources that could be accessed or viewed on a remote system. He came across many NetBIOS codes during enumeration.

identify the NetBIOS code used for obtaining the messenger service running for the logged-in user?

- A. <1B>
- B. <00>
- C. <03>
- D. <20>

**Answer: C**

**Explanation:**

<03>Windows Messenger administration Courier administration is an organization based framework notice Windows administration by Microsoft that was remembered for some prior forms of Microsoft Windows.

This resigned innovation, despite the fact that it has a comparable name, isn't connected in any capacity to the later, Internet-based Microsoft Messenger administration for texting or to Windows Messenger and Windows Live Messenger (earlier named MSN Messenger) customer programming.

The Messenger Service was initially intended for use by framework managers to tell Windows clients about their networks.[1] It has been utilized malevolently to introduce spring up commercials to clients over the Internet (by utilizing mass-informing frameworks which sent an ideal message to a predetermined scope of IP addresses). Despite the fact that Windows XP incorporates a firewall, it isn't empowered naturally. Along these lines, numerous clients got such messages. Because of this maltreatment, the Messenger Service has been debilitated as a matter of course in Windows XP Service Pack 2.

**NEW QUESTION 293**

- (Exam Topic 2)

Johnson, an attacker, performed online research for the contact details of reputed cybersecurity firms. He found the contact number of sibertech.org and dialed the number, claiming himself to represent a technical support team from a vendor. He warned that a specific server is about to be compromised and requested sibertech.org to follow the provided instructions. Consequently, he prompted the victim to execute unusual commands and install malicious files, which were then used to collect and pass critical Information to Johnson's machine. What is the social engineering technique Steve employed in the above scenario?

- A. Quid pro quo
- B. Diversion theft
- C. Elicitation
- D. Phishing

**Answer: A**

**Explanation:**

<https://www.eccouncil.org/what-is-social-engineering/>

This Social Engineering scam involves an exchange of information that can benefit both the victim and the trickster. Scammers would make the prey believe that a fair exchange will be present between both sides, but in reality, only the fraudster stands to benefit, leaving the victim hanging on to nothing. An example of a Quid Pro Quo is a scammer pretending to be an IT support technician. The con artist asks for the login credentials of the company's computer saying that the company is going to receive technical support in return. Once the victim has provided the credentials, the scammer now has control over the company's computer and may possibly load malware or steal personal information that can be a motive to commit identity theft.

"A quid pro quo attack (aka something for something) attack) is a variant of baiting. Instead of baiting a target with the promise of a good, a quid pro quo attack promises a service or a benefit based on the execution of a specific action."

<https://resources.infosecinstitute.com/topic/common-social-engineering-attacks/#:~:text=A%20quid%20pro%20>

**NEW QUESTION 296**

- (Exam Topic 2)

Windows LAN Manager (LM) hashes are known to be weak.

Which of the following are known weaknesses of LM? (Choose three.)

- A. Converts passwords to uppercase.
- B. Hashes are sent in clear text over the network.
- C. Makes use of only 32-bit encryption.
- D. Effective length is 7 characters.

**Answer: ABD**

**NEW QUESTION 298**

- (Exam Topic 2)

Study the snort rule given below and interpret the rule. alert tcp any any --> 192.168.1.0/24 111 (content:"|00 01 86 a5|"; msG. "mountd access");

- A. An alert is generated when a TCP packet is generated from any IP on the 192.168.1.0 subnet and destined to any IP on port 111
- B. An alert is generated when any packet other than a TCP packet is seen on the network and destined for the 192.168.1.0 subnet
- C. An alert is generated when a TCP packet is originated from port 111 of any IP address to the 192.168.1.0 subnet
- D. An alert is generated when a TCP packet originating from any IP address is seen on the network and destined for any IP address on the 192.168.1.0 subnet on port 111

**Answer: D**

**NEW QUESTION 302**

- (Exam Topic 2)

John, a professional hacker, targeted an organization that uses LDAP for accessing distributed directory services. He used an automated tool to anonymously query the IDAP service for sensitive information such as usernames, addresses, departmental details, and server names to launch further attacks on the target organization.

What is the tool employed by John to gather information from the IDAP service?

- A. jxplorer
- B. Zabasearch
- C. EarthExplorer
- D. Ike-scan

**Answer:** A

**Explanation:**

JXplorer could be a cross platform LDAP browser and editor. it's a standards compliant general purpose LDAP client which will be used to search, scan and edit any commonplace LDAP directory, or any directory service with an LDAP or DSML interface.

It is extremely flexible and can be extended and custom in a very number of the way. JXplorer is written in java, and also the source code and source code build system ar obtainable via svn or as a packaged build for users who wish to experiment or any develop the program.

JX is is available in 2 versions; the free open source version under an OSI Apache two style licence, or within the JXWorkBench Enterprise bundle with inbuilt reporting, administrative and security tools.

JX has been through a number of different versions since its creation in 1999; the foremost recent stable release is version 3.3.1, the August 2013 release.

JXplorer could be a absolutely useful LDAP consumer with advanced security integration and support for the harder and obscure elements of the LDAP protocol. it's been tested on Windows, Solaris, linux and OSX, packages are obtainable for HPUX, AIX, BSD and it should run on any java supporting OS.

**NEW QUESTION 307**

- (Exam Topic 2)

Which file is a rich target to discover the structure of a website during web-server footprinting?

- A. Document root
- B. Robots.txt
- C. domain.txt
- D. index.html

**Answer:** B

**NEW QUESTION 309**

- (Exam Topic 2)

While testing a web application in development, you notice that the web server does not properly ignore the "dot dot slash" (../) character string and instead returns the file listing of a folder structure of the server.

What kind of attack is possible in this scenario?

- A. Cross-site scripting
- B. Denial of service
- C. SQL injection
- D. Directory traversal

**Answer:** D

**Explanation:**

Appropriately controlling admittance to web content is significant for running a safe web worker. Index crossing or Path Traversal is a HTTP assault which permits aggressors to get to limited catalogs and execute orders outside of the web worker's root registry.

Web workers give two primary degrees of security instruments

- > Access Control Lists (ACLs)
- > Root index

An Access Control List is utilized in the approval cycle. It is a rundown which the web worker's manager uses to show which clients or gatherings can get to, change or execute specific records on the worker, just as other access rights.

The root registry is a particular index on the worker record framework in which the clients are kept. Clients can't get to anything over this root.

For instance: the default root registry of IIS on Windows is C:\inetpub\wwwroot and with this arrangement, a client doesn't approach C:\Windows yet approaches C:\inetpub\wwwroot\news and some other indexes and documents under the root catalog (given that the client is confirmed by means of the ACLs).

The root index keeps clients from getting to any documents on the worker, for example, C:\WINDOWS\system32/win.ini on Windows stages and the/and so on/passwd record on Linux/UNIX stages.

This weakness can exist either in the web worker programming itself or in the web application code.

To play out a registry crossing assault, all an assailant requires is an internet browser and some information on where to aimlessly discover any default documents and registries on the framework.

What an assailant can do if your site is defenselessWith a framework defenseless against index crossing, an aggressor can utilize this weakness to venture out of the root catalog and access different pieces of the record framework. This may enable the assailant to see confined documents, which could give the aggressor more data needed to additional trade off the framework.

Contingent upon how the site access is set up, the aggressor will execute orders by mimicking himself as the client which is related with "the site". Along these lines everything relies upon what the site client has been offered admittance to in the framework.

Illustration of a Directory Traversal assault by means of web application codeIn web applications with dynamic pages, input is generally gotten from programs through GET or POST solicitation techniques. Here is an illustration of a HTTP GET demand URL

GET  
 http://test.webarticles.com/show.asp?view=oldarchive.html HTTP/1.1 Host: test.webarticles.com

With this URL, the browser requests the dynamic page show.asp from the server and with it also sends the parameter view with the value of oldarchive.html. When this request is executed on the web

server, show.asp retrieves the file oldarchive.html from the server's file system, renders it and then sends back to the browser which displays it to the user. The attacker would assume that show.asp can retrieve files from the file system and sends the following custom URL.

GET  
 http://test.webarticles.com/show.asp?view=../..../Windows/system.ini HTTP/1.1 Host: test.webarticles.com

This will cause the dynamic page to retrieve the file system.ini from the file system and display it to the user The expression ../ instructs the system to go one directory up which is commonly used as an operating system directive. The attacker has to guess how many directories he has to go up to find the Windows folder on the system, but this is easily done by trial and error.

Example of a Directory Traversal attack via web serverApart from vulnerabilities in the code, even the web server itself can be open to directory traversal attacks. The problem can either be incorporated into the web server software or inside some sample script files left available on the server.

The vulnerability has been fixed in the latest versions of web server software, but there are web servers online which are still using older versions of IIS and Apache which might be open to directory traversal attacks. Even though you might be using a web server software version that has fixed this vulnerability, you might still have some sensitive default script directories exposed which are well known to hackers.

For example, a URL request which makes use of the scripts directory of IIS to traverse directories and execute a command can be

GET  
 http://server.com/scripts/..%5c../Windows/System32/cmd.exe?/c+dir+c:\ HTTP/1.1 Host: server.com

The request would return to the user a list of all files in the C:\ directory by executing the cmd.exe comm shell file and run the command dir c:\ in the shell. The

%5c expression that is in the URL request is a we server escape code which is used to represent normal characters. In this case %5c represents the character \. Newer versions of modern web server software check for these escape codes and do not let them through. Some older versions however, do not filter out these codes in the root directory enforcer and will let the attackers execute such commands.

#### NEW QUESTION 312

- (Exam Topic 2)

The tools which receive event logs from servers, network equipment, and applications, and perform analysis and correlation on those logs, and can generate alarms for security relevant issues, are known as what?

- A. network Sniffer
- B. Vulnerability Scanner
- C. Intrusion prevention Server
- D. Security incident and event Monitoring

**Answer: D**

#### NEW QUESTION 314

- (Exam Topic 2)

You are performing a penetration test for a client and have gained shell access to a Windows machine on the internal network. You intend to retrieve all DNS records for the internal domain, if the DNS server is at 192.168.10.2 and the domain name is abccorp.local, what command would you type at the nslookup prompt to attempt a zone transfer?

- A. list server=192.168.10.2 type=all
- B. is-d abccorp.local
- C. lserver 192.168.10.2-t all
- D. List domain=Abccorp.local type=zone

**Answer: B**

#### NEW QUESTION 317

- (Exam Topic 2)

Which command can be used to show the current TCP/IP connections?

- A. Netsh
- B. Netstat
- C. Net use connection
- D. Net use

**Answer: A**

#### NEW QUESTION 319

- (Exam Topic 2)

This wireless security protocol allows 192-bit minimum-strength security protocols and cryptographic tools to protect sensitive data, such as GCMP-256, MMAC-SHA384, and ECDSA using a 384-bit elliptic curve. Which is this wireless security protocol?

- A. WPA2 Personal
- B. WPA3-Personal
- C. WPA2-Enterprise
- D. WPA3-Enterprise

**Answer: D**

#### Explanation:

Enterprise, governments, and financial institutions have greater security with WPA3-Enterprise.

WPA3-Enterprise builds upon WPA2 and ensures the consistent application of security protocol across the network. WPA3-Enterprise also offers an optional mode using 192-bit minimum-strength security protocols and cryptographic tools to raised protect sensitive data:

- Authenticated encryption: 256-bit Galois/Counter Mode Protocol (GCMP-256)
- Key derivation and confirmation: 384-bit Hashed Message Authentication Mode (HMAC) with Secure Hash Algorithm (HMAC-SHA384)
- Key establishment and authentication: Elliptic Curve Diffie-Hellman (ECDH) exchange and Elliptic Curve Digital Signature Algorithm (ECDSA) employing a 384-bit elliptic curve
- Robust management frame protection: 256-bit Broadcast/Multicast Integrity Protocol

Galois Message Authentication Code (BIP-GMAC-256)The 192-bit security mode offered by

WPA3-Enterprise ensures the proper combination of cryptographic tools are used and sets a uniform baseline of security within a WPA3 network.

It protects sensitive data using many cryptographic algorithms It provides authenticated encryption using GCMP-256 It uses HMAC-SHA-384 to generate cryptographic keys It uses ECDSA-384 for exchanging keys

#### NEW QUESTION 320

- (Exam Topic 2)

To invisibly maintain access to a machine, an attacker utilizes a toolkit that sits undetected In the core components of the operating system. What is this type of rootkit an example of?

- A. Myervisor rootkit
- B. Kernel toolkit
- C. Hardware rootkit
- D. Firmware rootkit

**Answer: B**

#### Explanation:

Kernel-mode rootkits run with the best operating system privileges (Ring 0) by adding code or replacement parts of the core operating system, as well as each the

kernel and associated device drivers. Most operative systems support kernel-mode device drivers, that execute with a similar privileges because the software itself. As such, several kernel-mode rootkits square measure developed as device drivers or loadable modules, like loadable kernel modules in Linux or device drivers in Microsoft Windows. This category of rootkit has unrestricted security access, however is tougher to jot down. The quality makes bugs common, and any bugs in code operative at the kernel level could seriously impact system stability, resulting in discovery of the rootkit. one amongst the primary wide familiar kernel rootkits was developed for Windows NT four.0 and discharged in Phrack magazine in 1999 by Greg Hoglund. Kernel rootkits is particularly tough to observe and take away as a result of they operate at a similar security level because the software itself, and square measure therefore able to intercept or subvert the foremost sure software operations. Any package, like antivirus package, running on the compromised system is equally vulnerable. during this scenario, no a part of the system is sure.

#### NEW QUESTION 322

- (Exam Topic 2)

Password cracking programs reverse the hashing process to recover passwords. (True/False.)

- A. True
- B. False

**Answer: B**

#### NEW QUESTION 326

- (Exam Topic 2)

Daniel Is a professional hacker who Is attempting to perform an SQL injection attack on a target website. www.movlescope.com. During this process, he encountered an IDS that detects SQL Injection attempts based on predefined signatures. To evade any comparison statement, he attempted placing characters such as "or '1'='1" In any bask injection statement such as "or 1=1." Identify the evasion technique used by Daniel in the above scenario.

- A. Null byte
- B. IP fragmentation
- C. Char encoding
- D. Variation

**Answer: D**

#### Explanation:

One may append the comment “—” operator along with the String for the username and whole avoid executing the password segment of the SQL query. Everything when the — operator would be considered as comment and not dead.

To launch such an attack, the value passed for name could be 'OR '1'='1' ; —Statement = “SELECT \* FROM 'CustomerDB' WHERE 'name' = ‘ ”+ userName + “ ‘ AND 'password' = ‘ ” + passwd + “ ‘ ; ”

Statement = “SELECT \* FROM 'CustomerDB' WHERE 'name' = ‘ ’ OR '1'='1';— + “ ‘ AND 'password' = ‘ ” + passwd + “ ‘ ; ”

All the records from the customer database would be listed.

Yet, another variation of the SQL Injection Attack can be conducted in dbms systems that allow multiple SQL injection statements. Here, we will also create use of the vulnerability in sure dbms whereby a user provided field isn't strongly used in or isn't checked for sort constraints.

This could take place once a numeric field is to be employed in a SQL statement; but, the programmer makes no checks to validate that the user supplied input is numeric.

Variation is an evasion technique whereby the attacker can easily evade any comparison statement. The attacker does this by placing characters such as “” or '1'='1" in any basic injection statement such as “or 1=1” or with other accepted SQL comments.

Evasion Technique: Variation Variation is an evasion technique whereby the attacker can easily evade any comparison statement. The attacker does this by placing characters such as “” or '1'='1" in any basic injection statement such as “or 1=1” or with other accepted SQL comments. The SQL interprets this as a comparison between two strings or characters instead of two numeric values. As the evaluation of two strings yields a true statement, similarly, the evaluation of two numeric values yields a true statement, thus rendering the evaluation of the complete query unaffected. It is also possible to write many other signatures; thus, there are infinite possibilities of variation as well. The main aim of the attacker is to have a WHERE statement that is always evaluated as “true” so that any mathematical or string comparison can be used, where the SQL can perform the same.

#### NEW QUESTION 328

- (Exam Topic 2)

You are programming a buffer overflow exploit and you want to create a NOP sled of 200 bytes in the program exploit.c

```
char shellcode[] =
"\x31\xc0\xb0\x46\x31\xdb\x31\xc9\xcd\x80\xeb\x16\x5b\x31\xc0"
"\x88\x43\x07\x89\x5b\x08\x89\x43\x0c\xb0\x0b\x8d\x4b\x08\x8d"
"\x53\x0c\xcd\x80\xe8\xe5\xff\xff\xff\x2f\x62\x69\x6e\x2f\x73"
"\x68";
```

What is the hexadecimal value of NOP instruction?

- A. 0x60
- B. 0x80
- C. 0x70
- D. 0x90

**Answer: D**

#### NEW QUESTION 332

- (Exam Topic 2)

Ralph, a professional hacker, targeted Jane, who had recently bought new systems for her company. After a few days, Ralph contacted Jane while masquerading as a legitimate customer support executive, informing that her systems need to be serviced for proper functioning and that customer support will send a computer technician. Jane promptly replied positively. Ralph entered Jane's company using this opportunity and gathered sensitive information by scanning terminals for passwords, searching for important documents in desks, and rummaging bins. What is the type of attack technique Ralph used on jane?

- A. Dumpster diving
- B. Eavesdropping

- C. Shoulder surfing
- D. impersonation

**Answer:** D

#### NEW QUESTION 337

- (Exam Topic 2)

Nathan is testing some of his network devices. Nathan is using Macof to try and flood the ARP cache of these switches. If these switches' ARP cache is successfully flooded, what will be the result?

- A. The switches will drop into hub mode if the ARP cache is successfully flooded.
- B. If the ARP cache is flooded, the switches will drop into pix mode making it less susceptible to attacks.
- C. Depending on the switch manufacturer, the device will either delete every entry in its ARP cache or reroute packets to the nearest switch.
- D. The switches will route all traffic to the broadcast address created collisions.

**Answer:** A

#### NEW QUESTION 339

- (Exam Topic 2)

What is the common name for a vulnerability disclosure program opened by companies in platforms such as HackerOne?

- A. Vulnerability hunting program
- B. Bug bounty program
- C. White-hat hacking program
- D. Ethical hacking program

**Answer:** B

#### Explanation:

Bug bounty programs allow independent security researchers to report bugs to an companies and receive rewards or compensation. These bugs area unit sometimes security exploits and vulnerabilities, although they will additionally embody method problems, hardware flaws, and so on.

The reports area unit usually created through a program travel by associate degree freelance third party (like Bugcrowd or HackerOne). The companies can get wind of (and run) a program curated to the organization's wants.

Programs is also non-public (invite-only) wherever reports area unit unbroken confidential to the organization or public (where anyone will sign in and join). they will happen over a collection timeframe or with without stopping date (though the second possibility is a lot of common).

Who uses bug bounty programs? Many major organizations use bug bounties as an area of their security program, together with AOL, Android, Apple, Digital Ocean, and goldman Sachs. you'll read an inventory of all the programs offered by major bug bounty suppliers, Bugcrowd and HackerOne, at these links.

Why do corporations use bug bounty programs? Bug bounty programs provide corporations the flexibility to harness an outsized cluster of hackers so as to seek out bugs in their code.

This gives them access to a bigger variety of hackers or testers than they'd be able to access on a one-on-one basis. It {can also|also will|can even|may also|may} increase the probabilities that bugs area unit found and reported to them before malicious hackers can exploit them.

It may also be an honest publicity alternative for a firm. As bug bounties became a lot of common, having a bug bounty program will signal to the general public and even regulators that a corporation incorporates a mature security program.

This trend is likely to continue, as some have began to see bug bounty programs as an business normal that all companies ought to invest in.

Why do researchers and hackers participate in bug bounty programs? Finding and news bugs via a bug bounty program may end up in each money bonuses and recognition. In some cases, it will be a good thanks to show real-world expertise once you are looking for employment, or will even facilitate introduce you to parents on the protection team within an companies.

This can be full time income for a few of us, income to supplement employment, or the way to point out off your skills and find a full time job.

It may also be fun! it is a nice (legal) probability to check out your skills against huge companies and government agencies.

What area unit the disadvantages of a bug bounty program for independent researchers and hackers? A lot of hackers participate in these varieties of programs, and it will be tough to form a major quantity of cash on the platform.

In order to say the reward, the hacker has to be the primary person to submit the bug to the program. meaning that in apply, you may pay weeks searching for a bug to use, solely to be the person to report it and build no cash.

Roughly ninety seven of participants on major bug bounty platforms haven't sold-out a bug.

In fact, a 2019 report from HackerOne confirmed that out of quite three hundred,000 registered users, solely around two.5% received a bounty in their time on the platform.

Essentially, most hackers are not creating a lot of cash on these platforms, and really few square measure creating enough to switch a full time wage (plus they do not have advantages like vacation days, insurance, and retirement planning).

What square measure the disadvantages of bug bounty programs for organizations? These programs square measure solely helpful if the program ends up in the companies realizeing issues that they weren't able to find themselves (and if they'll fix those problems)!

If the companies is not mature enough to be able to quickly rectify known problems, a bug bounty program is not the right alternative for his or her companies.

Also, any bug bounty program is probably going to draw in an outsized range of submissions, several of which can not be high-quality submissions. a corporation must be ready to cope with the exaggerated volume of alerts, and also the risk of a coffee signal to noise magnitude relation (essentially that it's probably that they're going to receive quite few unhelpful reports for each useful report).

Additionally, if the program does not attract enough participants (or participants with the incorrect talent set, and so participants are not able to establish any bugs), the program is not useful for the companies.

The overwhelming majority of bug bounty participants consider web site vulnerabilities (72%, per HackerOn), whereas solely a number of (3.5%) value more highly to seek for package vulnerabilities.

This is probably because of the actual fact that hacking in operation systems (like network hardware and memory) needs a big quantity of extremely specialised experience. this implies that firms may even see vital come on investment for bug bounties on websites, and not for alternative applications, notably those that need specialised experience.

This conjointly implies that organizations which require to look at AN application or web site among a selected time-frame may not need to rely on a bug bounty as there is no guarantee of once or if they receive reports.

Finally, it are often probably risky to permit freelance researchers to try to penetrate your network. this could end in public speech act of bugs, inflicting name harm within the limelight (which could end in individuals not eager to purchase the organizations' product or service), or speech act of bugs to additional malicious third parties, United Nations agency may use this data to focus on the organization.

#### NEW QUESTION 344

- (Exam Topic 2)

Sam is working as a system administrator in an organization. He captured the principal characteristics of a vulnerability and produced a numerical score to reflect

Its severity using CVSS v3.0 to property assess and prioritize the organization's vulnerability management processes. The base score that Sam obtained after performing cvss rating was 4.0. What is the CVSS severity level of the vulnerability discovered by Sam in the above scenario?

- A. Medium
- B. Low
- C. Critical
- D. High

**Answer:** A

**Explanation:**

Rating CVSS Score None 0.0

Low 0.1 - 3.9

Medium 4.0 - 6.9

High 7.0 - 8.9

Critical 9.0 - 10.0

<https://www.first.org/cvss/v3.0/specification-document>

The Common Vulnerability Scoring System (CVSS) is an open framework for communicating the characteristics and severity of software vulnerabilities. CVSS consists of three metric groups: Base, Temporal, and Environmental. The Base metrics produce a score ranging from 0 to 10, which can then be modified by scoring the Temporal and Environmental metrics. A CVSS score is also represented as a vector string, a compressed textual representation of the values used to derive the score. Thus, CVSS is well suited as a standard measurement system for industries, organizations, and governments that need accurate and consistent vulnerability severity scores. Two common uses of CVSS are calculating the severity of vulnerabilities discovered on one's systems and as a factor in prioritization of vulnerability remediation activities. The National Vulnerability Database (NVD) provides CVSS scores for almost all known vulnerabilities.

**Qualitative Severity Rating Scale**

For some purposes, it is useful to have a textual representation of the numeric Base, Temporal and Environmental scores.

Table Description automatically generated

Rating	CVSS Score
None	0.0
Low	0.1 - 3.9
Medium	4.0 - 6.9
High	7.0 - 8.9
Critical	9.0 - 10.0

**NEW QUESTION 345**

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