

312-50v12 Dumps

Certified Ethical Hacker Exam (CEHv12)

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NEW QUESTION 1

- (Exam Topic 3)

Jack, a disgruntled ex-employee of Incalsol Ltd., decided to inject fileless malware into Incalsol's systems. To deliver the malware, he used the current employees' email IDs to send fraudulent emails embedded with malicious links that seem to be legitimate. When a victim employee clicks on the link, they are directed to a fraudulent website that automatically loads Flash and triggers the exploit. What is the technique used byjack to launch the fileless malware on the target systems?

- A. In-memory exploits
- B. Phishing
- C. Legitimate applications
- D. Script-based injection

Answer: B

NEW QUESTION 2

- (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 trammed, 5 packets received, 0% packet loss
> round-trip min/avg/max = 0.5/3.7/14.9 ms
> [root@localhost hping2-rc3]#
```

NEW QUESTION 3

- (Exam Topic 3)

Based on the below log, which of the following sentences are true?

```
Mar 1, 2016, 7:33:28 AM 10.240.250.23 - 54373 10.249.253.15 - 22 tcp_ip
```

- A. Application is FTP and 10.240.250.23 is the client and 10.249.253.15 is the server.
- B. Application is SSH and 10.240.250.23 is the server and 10.249.253.15 is the client.
- C. SSH communications are encrypted; it's impossible to know who is the client or the server.
- D. Application is SSH and 10.240.250.23 is the client and 10.249.253.15 is the server.

Answer: D

Explanation:

```
Mar 1, 2016, 7:33:28 AM 10.240.250.23 - 54373 10.249.253.15 - 22 tcp_ip
```

Let's just disassemble this entry.

```
Mar 1, 2016, 7:33:28 AM - time of the request 10.240.250.23 - 54373 - client's IP and port 10.249.253.15 - server IP - 22 - SSH port
```

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)

Which among the following is the best example of the third step (delivery) in the cyber kill chain?

- A. An intruder sends a malicious attachment via email to a target.
- B. An intruder creates malware to be used as a malicious attachment to an email.
- C. An intruder's malware is triggered when a target opens a malicious email attachment.
- D. An intruder's malware is installed on a target's machine.

Answer: A

NEW QUESTION 6

- (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 7

- (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 8

- (Exam Topic 3)

Alex, a cloud security engineer working in Eyecloud Inc. is tasked with isolating applications from the underlying infrastructure and stimulating communication via well-defined channels. For this purpose, he used an open-source technology that helped him in developing, packaging, and running applications; further, the technology provides PaaS through OS-level visualization, delivers containerized software packages, and promotes fast software delivery. What is the cloud technology employed by Alex in the above scenario?

- A. Virtual machine
- B. Serverless computing
- C. Docker
- D. Zero trust network

Answer: C

NEW QUESTION 9

- (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)

You have been authorized to perform a penetration test against a website. You want to use Google dorks to footprint the site but only want results that show file extensions. What Google dork operator would you use?

- A. filetype
- B. ext
- C. inurl
- D. site

Answer: A

Explanation:

Restrict results to those of a certain filetype. E.g., PDF, DOCX, TXT, PPT, etc. Note: The "ext:" operator can also be used—the results are identical.

Example: apple filetype:pdf / apple ext:pdf

NEW QUESTION 10

- (Exam Topic 3)

Calvin, a grey-hat hacker, targets a web application that has design flaws in its authentication mechanism. He enumerates usernames from the login form of the web application, which requests users to feed data and specifies the incorrect field in case of invalid credentials. Later, Calvin uses this information to perform social engineering.

Which of the following design flaws in the authentication mechanism is exploited by Calvin?

- A. Insecure transmission of credentials
- B. Verbose failure messages
- C. User impersonation
- D. Password reset mechanism

Answer: D

NEW QUESTION 15

- (Exam Topic 3)

Lewis, a professional hacker, targeted the IoT cameras and devices used by a target venture-capital firm. He used an information-gathering tool to collect information about the IoT devices connected to a network, open ports and services, and the attack surface area. Using this tool, he also generated statistical reports on broad usage patterns and trends. This tool helped Lewis continually monitor every reachable server and device on the Internet, further allowing him to exploit these devices in the network. Which of the following tools was employed by Lewis in the above scenario?

- A. Censys
- B. Wapiti
- C. NeuVector
- D. Lacework

Answer: A

Explanation:

Censys scans help the scientific community accurately study the Internet. The data is sometimes used to detect security problems and to inform operators of vulnerable systems so that they can be fixed.

NEW QUESTION 17

- (Exam Topic 3)

An attacker changes the profile information of a particular user (victim) on the target website. The attacker uses this string to update the victim's profile to a text file and then submit the data to the attacker's database.

```
<
iframe src=""http://www.vulnweb.com/updateif.php"" style=""display:none""
> < /iframe >
```

What is this type of attack (that can use either HTTP GET or HTTP POST) called?

- A. Browser Hacking
- B. Cross-Site Scripting
- C. SQL Injection
- D. Cross-Site Request Forgery

Answer: D

Explanation:

<https://book.hacktricks.xyz/pentesting-web/csrf-cross-site-request-forgery>

Cross-site request forgery (also known as CSRF) is a web security vulnerability that allows an attacker to induce users to perform actions that they do not intend to perform.

This is done by making a logged in user in the victim platform access an attacker controlled website and from there execute malicious JS code, send forms or retrieve "images" to the victims account.

In order to be able to abuse a CSRF vulnerability you first need to find a relevant action to abuse (change password or email, make the victim follow you on a social network, give you more privileges...). The session must rely only on cookies or HTTP Basic Authentication header, any other header can't be used to handle the session. An finally, there shouldn't be unpredictable parameters on the request.

Several counter-measures could be in place to avoid this vulnerability. Common defenses:

- SameSite cookies: If the session cookie is using this flag, you may not be able to send the cookie from arbitrary web sites.
- Cross-origin resource sharing: Depending on which kind of HTTP request you need to perform to abuse the relevant action, you may take into account the CORS policy of the victim site. Note that the CORS policy won't affect if you just want to send a GET request or a POST request from a form and you don't need to read the response.
- Ask for the password user to authorise the action.
- Resolve a captcha
- Read the Referrer or Origin headers. If a regex is used it could be bypassed for example with:

<http://mal.net?orig=http://example.com> (ends with the url) <http://example.com.mal.net>
(starts with the url)

- Modify the name of the parameters of the Post or Get request

- Use a CSRF token in each session. This token has to be send inside the request to confirm the action. This token could be protected with CORS.

Diagram Description automatically generated

NEW QUESTION 22

- (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 23

- (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 26

- (Exam Topic 3)

You have compromised a server and successfully gained a root access. You want to pivot and pass traffic undetected over the network and evade any possible Intrusion Detection System. What is the best approach?

- A. Use Alternate Data Streams to hide the outgoing packets from this server.
- B. Use HTTP so that all traffic can be routed vis a browser, thus evading the internal Intrusion Detection Systems.
- C. Install Cryptcat and encrypt outgoing packets from this server.
- D. Install and use Telnet to encrypt all outgoing traffic from this server.

Answer: C

Explanation:

<https://linuxsecurityblog.com/2018/12/23/create-a-backdoor-with-cryptcat/>

Cryptcat enables us to communicate between two systems and encrypts the communication between them with twofish, one of many excellent encryption algorithms from Bruce Schneier et al. Twofish's encryption is on par with AES encryption, making it nearly bulletproof. In this way, the IDS can't detect the malicious behavior taking place even when its traveling across normal HTTP ports like 80 and 443.

NEW QUESTION 30

- (Exam Topic 3)

Which of the following allows attackers to draw a map or outline the target organization's network infrastructure to know about the actual environment that they are going to hack.

- A. Enumeration
- B. Vulnerability analysis
- C. Malware analysis
- D. Scanning networks

Answer: D

NEW QUESTION 35

- (Exam Topic 3)

A hacker has successfully infected an internet-facing server which he will then use to send junk mail, take part in coordinated attacks, or host junk email content. Which sort of trojan infects this server?

- A. Botnet Trojan
- B. Banking Trojans
- C. Turtle Trojans
- D. Ransomware Trojans

Answer: A

NEW QUESTION 40

- (Exam Topic 3)

Cross-site request forgery involves:

- A. A request sent by a malicious user from a browser to a server
- B. Modification of a request by a proxy between client and server
- C. A browser making a request to a server without the user's knowledge
- D. A server making a request to another server without the user's knowledge

Answer: C

Explanation:

<https://owasp.org/www-community/attacks/csrf>

Cross-Site Request Forgery (CSRF) is an attack that forces an end user to execute unwanted actions on a web application in which they're currently authenticated. With a little help of social engineering (such as sending a link via email or chat), an attacker may trick the users of a web application into executing actions of the attacker's choosing. If the victim is a normal user, a successful CSRF attack can force the user to perform state changing requests like transferring funds, changing their email address, and so forth. If the victim is an administrative account, CSRF can compromise the entire web application.

CSRF is an attack that tricks the victim into submitting a malicious request. It inherits the identity and privileges of the victim to perform an undesired function on the victim's behalf. For most sites, browser requests automatically include any credentials associated with the site, such as the user's session cookie, IP address, Windows domain credentials, and so forth. Therefore, if the user is currently authenticated to the site, the site will have no way to distinguish between the forged request sent by the victim and a legitimate request sent by the victim.

CSRF attacks target functionality that causes a state change on the server, such as changing the victim's email address or password, or purchasing something. Forcing the victim to retrieve data doesn't benefit an attacker because the attacker doesn't receive the response, the victim does. As such, CSRF attacks target state-changing requests.

It's sometimes possible to store the CSRF attack on the vulnerable site itself. Such vulnerabilities are called "stored CSRF flaws". This can be accomplished by simply storing an IMG or IFRAME tag in a field that accepts HTML, or by a more complex cross-site scripting attack. If the attack can store a CSRF attack in the site, the severity of the attack is amplified. In particular, the likelihood is increased because the victim is more likely to view the page containing the attack than some random page on the Internet. The likelihood is also increased because the victim is sure to be authenticated to the site already.

NEW QUESTION 42

- (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 wont 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 43

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

Answer: B

NEW QUESTION 46

- (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 50

- (Exam Topic 3)

You start performing a penetration test against a specific website and have decided to start from grabbing all the links from the main page. What is the best Linux pipe to achieve your milestone?

- A. `dirb https://site.com | grep "site"`
- B. `curl -s https://site.com | grep "< a href='http" | grep "Site-com- | cut -d "V" -f 2`
- C. `wget https://site.com | grep "< a href=*http" | grep "site.com"`
- D. `wgethttps://site.com | cut-d"http`

Answer: C

NEW QUESTION 54

- (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 overcome 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 using 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 widely ignored that even a quick scan of the whole net would be unlikely to attract law enforcement attention or even gentle comment within the incident response community. However, for attackers who wish to be particularly careful, a randomized 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 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 widely offered spam mail lists, or trolling the address registries). The DNS will then be searched for the IP 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 57

- (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 62

- (Exam Topic 3)

Clark, a professional hacker, attempted to perform a Btlejacking attack using an automated tool, Btlejack, and hardware tool, micro:bit. This attack allowed Clark to hijack, read, and export sensitive information shared between connected devices. To perform this attack, Clark executed various btlejack commands. Which of the following commands was used by Clark to hijack the connections?

- A. btlejack-f 0x129f3244-j
- B. btlejack -c any
- C. btlejack -d /dev/ttyACM0 -d /dev/ttyACM2 -s
- D. btlejack -f 0x9c68fd30 -t -m 0x1 ffffffff

Answer: D

NEW QUESTION 67

- (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 72

- (Exam Topic 3)

Kevin, an encryption specialist, implemented a technique that enhances the security of keys used for encryption and authentication. Using this technique, Kevin input an initial key to an algorithm that generated an enhanced key that is resistant to brute-force attacks. What is the technique employed by Kevin to improve the security of encryption keys?

- A. Key derivation function
- B. Key reinstallation
- C. A Public key infrastructure
- D. Key stretching

Answer: D

NEW QUESTION 75

- (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 79

- (Exam Topic 3)

Which of the following Metasploit post-exploitation modules can be used to escalate privileges on Windows systems?

- A. getsystem
- B. getuid
- C. keylogrecorder
- D. autoroute

Answer: A

NEW QUESTION 83

- (Exam Topic 3)

An attacker can employ many methods to perform social engineering against unsuspecting employees, including scareware. What is the best example of a scareware attack?

- A. A pop-up appears to a user stating, "You have won a free cruise! Click here to claim your prize!"
- B. A banner appears to a user stating, "Your account has been locked."
- C. Click here to reset your password and unlock your account."
- D. A banner appears to a user stating, "Your Amazon order has been delayed."
- E. Click here to find out your new delivery date."
- F. A pop-up appears to a user stating, "Your computer may have been infected with spyware."
- G. Click here to install an anti-spyware tool to resolve this issue."

Answer: D

NEW QUESTION 87

- (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 91

- (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 95

- (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 99

- (Exam Topic 3)

Firewall has just completed the second phase (the scanning phase) and a technician receives the output shown below. What conclusions can be drawn based on these scan results?

TCP port 21 no response TCP port 22 no response
TCP port 23 Time-to-live exceeded

- A. The lack of response from ports 21 and 22 indicate that those services are not running on the destination server
- B. The scan on port 23 was able to make a connection to the destination host prompting the firewall to respond with a TTL error
- C. The scan on port 23 passed through the filtering device
- D. This indicates that port 23 was not blocked at the firewall
- E. The firewall itself is blocking ports 21 through 23 and a service is listening on port 23 of the target host

Answer: C

NEW QUESTION 104

- (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 105

- (Exam Topic 3)

James is working as an ethical hacker at Technix Solutions. The management ordered James to discover how vulnerable its network is towards footprinting attacks. James took the help of an open-source framework for performing automated reconnaissance activities. This framework helped James in gathering information using free tools and resources. What is the framework used by James to conduct footprinting and reconnaissance activities?

- A. WebSploit Framework
- B. Browser Exploitation Framework
- C. OSINT framework
- D. SpeedPhish Framework

Answer: C

NEW QUESTION 106

- (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 110

- (Exam Topic 3)

An attacker scans a host with the below command. Which three flags are set?

```
# nmap -sX host.domain.com
```

- A. This is SYN sca
- B. SYN flag is set.
- C. This is Xmas sca
- D. URG, PUSH and FIN are set.
- E. This is ACK sca
- F. ACK flag is set.
- G. This is Xmas sca
- H. SYN and ACK flags are set.

Answer: B

NEW QUESTION 115

- (Exam Topic 3)

Which of the following Google advanced search operators helps an attacker in gathering information about websites that are similar to a specified target URL?

- A. [inurl:]
- B. [related:]
- C. [info:]
- D. [site:]

Answer: B

Explanation:

related:This operator displays websites that are similar or related to the URL specified.

NEW QUESTION 120

- (Exam Topic 3)

If executives are found liable for not properly protecting their company's assets and information systems, what type of law would apply in this situation?

- A. Criminal
- B. International
- C. Common
- D. Civil

Answer: D

NEW QUESTION 123

- (Exam Topic 3)

To hide the file on a Linux system, you have to start the filename with a specific character. What is the character?

- A. Exclamation mark (!)
- B. Underscore (_)
- C. Tilde H
- D. Period (.)

Answer: D

NEW QUESTION 127

- (Exam Topic 3)

Kevin, a professional hacker, wants to penetrate CyberTech Inc.'s network. He employed a technique, using which he encoded packets with Unicode characters. The company's IDS cannot recognize the packet, but the target web server can decode them.

What is the technique used by Kevin to evade the IDS system?

- A. Desynchronization
- B. Obfuscating
- C. Session splicing
- D. Urgency flag

Answer: B

Explanation:

Adversaries could decide to build an possible or file difficult to find or analyze by encrypting, encoding, or otherwise obfuscating its contents on the system or in transit. this is often common behavior which will be used across totally different platforms and therefore the network to evade defenses.

Payloads may be compressed, archived, or encrypted so as to avoid detection. These payloads may be used throughout Initial Access or later to mitigate detection. typically a user's action could also be needed to open and Deobfuscate/Decode Files or info for User Execution. The user can also be needed to input a parole to open a parole protected compressed/encrypted file that was provided by the mortal. Adversaries can also used compressed or archived scripts, like JavaScript.

Portions of files can even be encoded to cover the plain-text strings that will otherwise facilitate defenders

with discovery. Payloads can also be split into separate, ostensibly benign files that solely reveal malicious practicality once reassembled.

Adversaries can also modify commands dead from payloads or directly via a Command and Scripting Interpreter. surroundings variables, aliases, characters, and different platform/language specific linguistics may be wont to evade signature based mostly detections and application management mechanisms.

NEW QUESTION 129

- (Exam Topic 3)

An attacker identified that a user and an access point are both compatible with WPA2 and WPA3 encryption. The attacker installed a rogue access point with only WPA2 compatibility in the vicinity and forced the victim to go through the WPA2 four-way handshake to get connected. After the connection was established, the attacker used automated tools to crack WPA2-encrypted messages. What is the attack performed in the above scenario?

- A. Timing-based attack
- B. Side-channel attack
- C. Downgrade security attack
- D. Cache-based attack

Answer: B

NEW QUESTION 134

- (Exam Topic 3)

Miley, a professional hacker, decided to attack a target organization's network. To perform the attack, she used a tool to send fake ARP messages over the target network to link her MAC address with the target system's IP address. By performing this, Miley received messages directed to the victim's MAC address and further used the tool to intercept, steal, modify, and block sensitive communication to the target system. What is the tool employed by Miley to perform the above attack?

- A. Gobbler
- B. KDerpNSpoof
- C. BetterCAP
- D. Wireshark

Answer: C

NEW QUESTION 137

- (Exam Topic 3)

You have compromised a server on a network and successfully opened a shell. You aimed to identify all operating systems running on the network. However, as you attempt to fingerprint all machines in the network using the nmap syntax below, it is not going through.

```
invictus@victim_server.~$ nmap -T4 -O 10.10.0.0/24 TCP/IP fingerprinting (for OS scan) xxxxxxx xxxxxx
```

```
xc. QUITTING!
```

What seems to be wrong?

- A. The nmap syntax is wrong.
- B. This is a common behavior for a corrupted nmap application.
- C. The outgoing TCP/IP fingerprinting is blocked by the host firewall.
- D. OS Scan requires root privileges.

Answer: D

NEW QUESTION 140

- (Exam Topic 3)

A penetration tester is performing the footprinting process and is reviewing publicly available information about an organization by using the Google search engine. Which of the following advanced operators would allow the pen tester to restrict the search to the organization's web domain?

- A. [allinurl:]
- B. [location:]
- C. [site:]
- D. [link:]

Answer: C

Explanation:

Google hacking or Google dorking https://en.wikipedia.org/wiki/Google_hacking

It is a hacker technique that uses Google Search and other Google applications to find security holes in the configuration and computer code that websites are using. Google dorking could also be used for OSINT.

Search syntax https://en.wikipedia.org/wiki/Google_Search

Google's search engine has its own built-in query language. The following list of queries can be run to find a list of files, find information about your competition, track people, get information about SEO backlinks, build email lists, and of course, discover web vulnerabilities.

- [site:] - Search within a specific website

NEW QUESTION 145

- (Exam Topic 3)

Mary, a penetration tester, has found password hashes in a client system she managed to breach. She needs to use these passwords to continue with the test, but she does not have time to find the passwords that correspond to these hashes. Which type of attack can she implement in order to continue?

- A. LLMNR/NBT-NS poisoning
- B. Internal monologue attack
- C. Pass the ticket
- D. Pass the hash

Answer: D

NEW QUESTION 148

- (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 150

- (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 151

- (Exam Topic 3)

Which of the following options represents a conceptual characteristic of an anomaly-based IDS over a signature-based IDS?

- A. Produces less false positives
- B. Can identify unknown attacks
- C. Requires vendor updates for a new threat
- D. Cannot deal with encrypted network traffic

Answer: B

Explanation:

An anomaly-based intrusion detection system is an intrusion detection system for detecting both network and computer intrusions and misuse by monitoring system activity and classifying it as either normal or anomalous. The classification is based on heuristics or rules, rather than patterns or signatures, and attempts to detect any type of misuse that falls out of normal system operation. This is as opposed to signature-based systems, which can only detect attacks for which a signature has previously been created.

In order to positively identify attack traffic, the system must be taught to recognize normal system activity. The two phases of a majority of anomaly detection systems consist of the training phase (where a profile of normal behaviors is built) and the testing phase (where current traffic is compared with the profile created in the training phase). Anomalies are detected in several ways, most often with artificial intelligence type techniques. Systems using artificial neural networks have been used to great effect. Another method is to define what normal usage of the system comprises using a strict mathematical model, and flag any deviation from this as an attack. This is known as strict anomaly detection.[3] Other techniques used to detect anomalies include data mining methods, grammar-based methods, and the Artificial Immune System.

Network-based anomalous intrusion detection systems often provide a second line of defense to detect anomalous traffic at the physical and network layers after it has passed through a firewall or other security appliance on the border of a network. Host-based anomalous intrusion detection systems are one of the last layers of defense and reside on computer endpoints. They allow for fine-tuned, granular protection of endpoints at the application level.

Anomaly-based Intrusion Detection at both the network and host levels have a few shortcomings; namely a high false-positive rate and the ability to be fooled by a correctly delivered attack. Attempts have been made to address these issues through techniques used by PAYL and MCPAD.

NEW QUESTION 156

- (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 161

- (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 anything about the firewall.
- C. It is a stateful firewall
- D. It is a non-stateful firewall.

Answer: B

NEW QUESTION 165

- (Exam Topic 3)

Which of the following statements is TRUE?

- A. Packet Sniffers operate on the Layer 1 of the OSI model.
- B. Packet Sniffers operate on Layer 2 of the OSI model.
- C. Packet Sniffers operate on both Layer 2 & Layer 3 of the OSI model.
- D. Packet Sniffers operate on Layer 3 of the OSI model.

Answer: B

NEW QUESTION 166

- (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 169

- (Exam Topic 3)

Eric, a cloud security engineer, implements a technique for securing the cloud resources used by his organization. This technique assumes by default that a user attempting to access the network is not an authentic entity and verifies every incoming connection before allowing access to the network. Using this technique, he also imposed conditions such that employees can access only the resources required for their role.

What is the technique employed by Eric to secure cloud resources?

- A. Serverless computing
- B. Demilitarized zone
- C. Container technology
- D. Zero trust network

Answer: D

NEW QUESTION 174

- (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 179

- (Exam Topic 3)

Mike, a security engineer, was recently hired by BigFox Ltd. The company recently experienced disastrous DoS attacks. The management had instructed Mike to build defensive strategies for the company's IT infrastructure to thwart DoS/DDoS attacks. Mike deployed some countermeasures to handle jamming and scrambling attacks. What is the countermeasure Mike applied to defend against jamming and scrambling attacks?

- A. Allow the usage of functions such as gets and strcpy
- B. Allow the transmission of all types of addressed packets at the ISP level
- C. Implement cognitive radios in the physical layer
- D. A Disable TCP SYN cookie protection

Answer: D

NEW QUESTION 183

- (Exam Topic 3)

Jude, a pen tester, examined a network from a hacker's perspective to identify exploits and vulnerabilities accessible to the outside world by using devices such as firewalls, routers, and servers. In this process, he also estimated the threat of network security attacks and determined the level of security of the corporate network.

What is the type of vulnerability assessment that Jude performed on the organization?

- A. External assessment
- B. Passive assessment
- C. Host-based assessment
- D. Application assessment

Answer: A

NEW QUESTION 188

- (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 190

- (Exam Topic 3)

Mason, a professional hacker, targets an organization and spreads Emotet malware through malicious script. After infecting the victim's device. Mason further used Emotet to spread the infection across local networks and beyond to compromise as many machines as possible. In this process, he used a tool, which is a self-extracting RAR file, to retrieve information related to network resources such as writable share drives. What is the tool employed by Mason in the above scenario?

- A. NetPass.exe
- B. Outlook scraper
- C. WebBrowserPassView
- D. Credential enumerator

Answer: D

NEW QUESTION 192

- (Exam Topic 3)

in this form of encryption algorithm, every Individual block contains 64-bit data, and three keys are used, where each key consists of 56 bits. Which is this encryption algorithm?

- A. IDEA
- B. Triple Data Encryption standard
- C. MDS encryption algorithm
- D. AES

Answer: B

Explanation:

Triple DES is another mode of DES operation. It takes three 64-bit keys, for an overall key length of 192 bits. In Stealth, you merely type within the entire 192-bit (24 character) key instead of entering each of the three keys individually. The Triple DES DLL then breaks the user-provided key into three subkeys, padding the keys if necessary in order that they are each 64 bits long. The procedure for encryption is strictly an equivalent as regular DES, but it's repeated 3 times, hence the name Triple DES. the info is encrypted with the primary key, decrypted with the second key, and eventually encrypted again with the third key. Triple DES runs 3 times slower than DES, but is far safer if used properly. The procedure for decrypting something is that the same because the procedure for encryption, except it's executed in reverse. Like DES, data is encrypted and decrypted in 64-bit chunks. Although the input key for DES is 64 bits long, the particular key employed by DES is merely 56 bits long. the smallest amount significant (right-most) bit in each byte may be a parity, and will be set in order that there are always an odd

number of 1s in every byte. These parity bits are ignored, so only the seven most vital bits of every byte are used, leading to a key length of 56 bits. This suggests that the effective key strength for Triple DES is really 168 bits because each of the three keys contains 8 parity bits that aren't used during the encryption process.

Triple DES Modes

- **Triple ECB (Electronic Code Book)**• This variant of Triple DES works precisely the same way because the ECB mode of DES. • this is often the foremost commonly used mode of operation.
- **Triple CBC (Cipher Block Chaining)**• This method is extremely almost like the quality DES CBC mode. • like Triple ECB, the effective key length is 168 bits and keys are utilized in an equivalent manner, as described above, but the chaining features of CBC mode also are employed. • the primary 64-bit key acts because the Initialization Vector to DES. • Triple ECB is then executed for one 64-bit block of plaintext. • The resulting ciphertext is then XORed with subsequent plaintext block to be encrypted, and therefore the procedure is repeated. • This method adds an additional layer of security to Triple DES and is therefore safer than Triple ECB, although it's not used as widely as Triple ECB.

NEW QUESTION 196

- (Exam Topic 3)

You are using a public Wi-Fi network inside a coffee shop. Before surfing the web, you use your VPN to prevent intruders from sniffing your traffic. If you did not have a VPN, how would you identify whether someone is performing an ARP spoofing attack on your laptop?

- A. You should check your ARP table and see if there is one IP address with two different MAC addresses.
- B. You should scan the network using Nmap to check the MAC addresses of all the hosts and look for duplicates.
- C. You should use netstat to check for any suspicious connections with another IP address within the LAN.
- D. You cannot identify such an attack and must use a VPN to protect your traffic, r

Answer: A

NEW QUESTION 199

- (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 203

- (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 205

- (Exam Topic 3)

Mary found a high vulnerability during a vulnerability scan and notified her server team. After analysis, they sent her proof that a fix to that issue had already been applied. The vulnerability that Mary found is called what?

- A. False-negative
- B. False-positive
- C. Brute force attack
- D. Backdoor

Answer: B

Explanation:

<https://www.infocyte.com/blog/2019/02/16/cybersecurity-101-what-you-need-to-know-about-false-positives-an>

False positives are mislabeled security alerts, indicating there is a threat when in actuality, there isn't. These false/non-malicious alerts (SIEM events) increase noise for already over-worked security teams and can include software bugs, poorly written software, or unrecognized network traffic.

False negatives are uncaught cyber threats — overlooked by security tooling because they're dormant, highly sophisticated (i.e. file-less or capable of lateral movement) or the security infrastructure in place lacks the technological ability to detect these attacks.

NEW QUESTION 207

- (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 208

- (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 213

- (Exam Topic 3)

Morris, an attacker, wanted to check whether the target AP is in a locked state. He attempted using different utilities to identify WPS-enabled APs in the target wireless network. Ultimately, he succeeded with one special command-line utility. Which of the following command-line utilities allowed Morris to discover the WPS-enabled APs?

- A. wash
- B. ntptrace
- C. macof
- D. net View

Answer: A

NEW QUESTION 216

- (Exam Topic 3)

In both pharming and phishing attacks, an attacker can create websites that look similar to legitimate sites with the intent of collecting personal identifiable information from its victims.

What is the difference between pharming and phishing attacks?

- A. In a pharming attack, a victim is redirected to a fake website by modifying their host configuration file or by exploiting vulnerabilities in DN
- B. In a phishing attack, an attacker provides the victim with a URL that is either misspelled or looks similar to the actual websites domain name
- C. In a phishing attack, a victim is redirected to a fake website by modifying their host configuration file or by exploiting vulnerabilities in DN
- D. In a pharming attack, an attacker provides the victim with a URL that is either misspelled or looks very similar to the actual websites domain name
- E. Both pharming and phishing attacks are purely technical and are not considered forms of social engineering
- F. Both pharming and phishing attacks are identical

Answer: A

NEW QUESTION 219

- (Exam Topic 3)

Becky has been hired by a client from Dubai to perform a penetration test against one of their remote offices. Working from her location in Columbus, Ohio, Becky runs her usual reconnaissance scans to obtain basic information about their network. When analyzing the results of her Whois search, Becky notices that the IP was allocated to a location in Le Havre, France. Which regional Internet registry should Becky go to for detailed information?

- A. ARIN
- B. APNIC
- C. RIPE
- D. LACNIC

Answer: C

Explanation:

Regional Internet Registries (RIRs):

ARIN (American Registry for Internet Numbers) AFRINIC (African Network Information Center) APNIC (Asia Pacific Network Information Center)

RIPE (Réseaux IP Européens Network Coordination Centre)

LACNIC (Latin American and Caribbean Network Information Center)

NEW QUESTION 220

- (Exam Topic 3)

A computer science student needs to fill some information into a secured Adobe PDF job application that was received from a prospective employer. Instead of requesting a new document that allowed the forms to be completed, the student decides to write a script that pulls passwords from a list of commonly used passwords to try against the secured PDF until the correct password is found or the list is exhausted.

Which cryptography attack is the student attempting?

- A. Man-in-the-middle attack
- B. Brute-force attack
- C. Dictionary attack
- D. Session hijacking

Answer: C

NEW QUESTION 222

- (Exam Topic 3)

Ron, a security professional, was pen testing web applications and SaaS platforms used by his company. While testing, he found a vulnerability that allows hackers to gain unauthorized access to API objects and perform actions such as view, update, and delete sensitive data of the company. What is the API vulnerability revealed in the above scenario?

- A. Code injections
- B. Improper use of CORS
- C. No ABAC validation
- D. Business logic flaws

Answer: B

NEW QUESTION 224

- (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 226

- (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

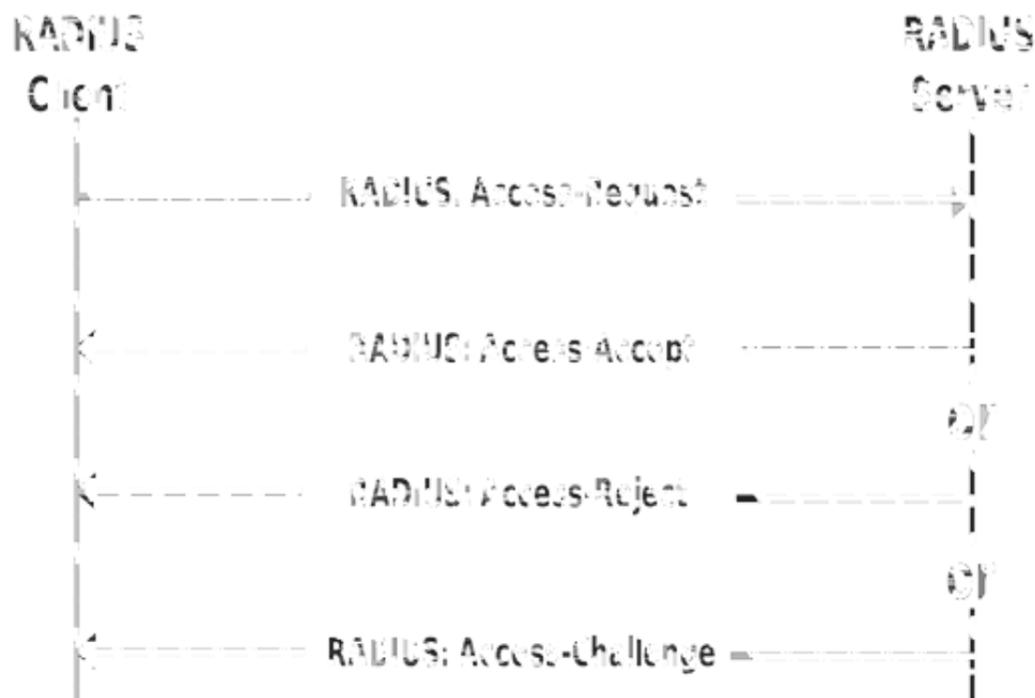
The user or machine sends a request to a Network Access Server (NAS) to gain access to a particular network resource using access credentials. The credentials are passed to the NAS device via the link-layer protocol—for example, Point-to-Point Protocol (PPP) in the case of many dialup or DSL providers 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 230

- (Exam Topic 3)

A security analyst uses Zenmap to perform an ICMP timestamp ping scan to acquire information related to the current time from the target host machine. Which of the following Zenmap options must the analyst use to perform the ICMP timestamp ping scan?

- A. -PY
- B. -PU
- C. -PP
- D. -Pn

Answer: C

NEW QUESTION 231

- (Exam Topic 3)

Which type of attack attempts to overflow the content-addressable memory (CAM) table in an Ethernet switch?

- A. Evil twin attack
- B. DNS cache flooding
- C. MAC flooding
- D. DDoS attack

Answer: C

NEW QUESTION 236

- (Exam Topic 3)

Which iOS jailbreaking technique patches the kernel during the device boot so that it becomes jailbroken after each successive reboot?

- A. Tethered jailbreaking
- B. Semi-tethered jailbreaking
- C. Untethered jailbreaking
- D. Semi-Untethered jailbreaking

Answer: C

Explanation:

An untethered jailbreak is one that allows a telephone to finish a boot cycle when being pwned with none interruption to jailbreak-oriented practicality.

Untethered jailbreaks are the foremost sought-after of all, however they're additionally the foremost difficult to attain due to the powerful exploits and organic process talent they need. associate unbound jailbreak is sent over a physical USB cable association to a laptop or directly on the device itself by approach of associate application-based exploit, like a web site in campaign.

Upon running associate unbound jailbreak, you'll be able to flip your pwned telephone off and on once more while not running the jailbreak tool once more. all of your jailbreak tweaks and apps would then continue in operation with none user intervention necessary.

It's been an extended time since IOS has gotten the unbound jailbreak treatment. the foremost recent example was the computer-based Pangu break, that

supported most handsets that ran IOS nine.1. We've additionally witnessed associate unbound jailbreak within the kind of JailbreakMe, that allowed users to pwn their handsets directly from the mobile campaign applications programme while not a laptop.

NEW QUESTION 238

- (Exam Topic 2)

what are common files on a web server that can be misconfigured and provide useful Information for a hacker such as verbose error messages?

- A. httpd.conf
- B. administration.config
- C. idq.dll
- D. php.ini

Answer: D

Explanation:

The php.ini file may be a special file for PHP. it's where you declare changes to your PHP settings. The server is already configured with standard settings for PHP, which your site will use by default. Unless you would like to vary one or more settings, there's no got to create or modify a php.ini file. If you'd wish to make any changes to settings, please do so through the MultiPHP INI Editor.

NEW QUESTION 240

- (Exam Topic 2)

Larry, a security professional in an organization, has noticed some abnormalities In the user accounts on a web server. To thwart evolving attacks, he decided to harden the security of the web server by adopting a countermeasures to secure the accounts on the web server.

Which of the following countermeasures must Larry implement to secure the user accounts on the web server?

- A. Enable unused default user accounts created during the installation of an OS
- B. Enable all non-interactive accounts that should exist but do not require interactive login
- C. Limit the administrator or toot-level access to the minimum number of users
- D. Retain all unused modules and application extensions

Answer: C

NEW QUESTION 245

- (Exam Topic 2)

Bella, a security professional working at an it firm, finds that a security breach has occurred while transferring important files. Sensitive data, employee usernames. and passwords are shared In plaintext, paving the way for hackers 10 perform successful session hijacking. To address this situation. Bella Implemented a protocol that sends data using encryption and digital certificates. Which of the following protocols Is used by Bella?

- A. FTP
- B. HTTPS
- C. FTPS
- D. IP

Answer: C

Explanation:

The File Transfer Protocol (FTP) is a standard organization convention utilized for the exchange of PC records from a worker to a customer on a PC organization. FTP is based on a customer worker model engineering utilizing separate control and information associations between the customer and the server.[1] FTP clients may validate themselves with an unmistakable book sign-in convention, ordinarily as a username and secret key, however can interface namelessly if the worker is designed to permit it. For secure transmission that ensures the username and secret phrase, and scrambles the substance, FTP is frequently made sure about with SSL/TLS (FTPS) or supplanted with SSH File Transfer Protocol (SFTP).

The primary FTP customer applications were order line programs created prior to working frameworks had graphical UIs, are as yet dispatched with most Windows, Unix, and Linux working systems.[2][3] Many FTP customers and mechanization utilities have since been created for working areas, workers, cell phones, and equipment, and FTP has been fused into profitability applications, for example, HTML editors.

NEW QUESTION 248

- (Exam Topic 2)

Henry Is a cyber security specialist hired by BlackEye - Cyber security solutions. He was tasked with discovering the operating system (OS) of a host. He used the Unkornscan tool to discover the OS of the target system. As a result, he obtained a TTL value, which Indicates that the target system is running a Windows OS. Identify the TTL value Henry obtained, which indicates that the target OS is Windows.

- A. 64
- B. 128
- C. 255
- D. 138

Answer: B

Explanation:

Windows TTL 128, Linux TTL 64, OpenBSD 255 ... <https://subinsb.com/default-device-ttl-values/> Time to Live (TTL) represents to number of 'hops' a packet can take before it is considered invalid. For Windows/Windows Phone, this value is 128. This value is 64 for Linux/Android.

NEW QUESTION 250

- (Exam Topic 2)

joe works as an it administrator in an organization and has recently set up a cloud computing service for the organization. To implement this service, he reached out to a telecom company for providing Internet connectivity and transport services between the organization and the cloud service provider, in the NIST cloud deployment reference architecture, under which category does the telecom company fall in the above scenario?

- A. Cloud booker
- B. Cloud consumer
- C. Cloud carrier
- D. Cloud auditor

Answer: C

Explanation:

A cloud carrier acts as an intermediary that provides connectivity and transport of cloud services between cloud consumers and cloud providers. Cloud carriers provide access to consumers through network, telecommunication and other access devices. For instance, cloud consumers will obtain cloud services through network access devices, like computers, laptops, mobile phones, mobile web devices (MIDs), etc. The distribution of cloud services is often provided by network and telecommunication carriers or a transport agent, wherever a transport agent refers to a business organization that provides physical transport of storage media like high-capacity hard drives. Note that a cloud provider can start SLAs with a cloud carrier to provide services consistent with the level of SLAs offered to cloud consumers, and will require the cloud carrier to provide dedicated and secure connections between cloud consumers and cloud providers.

NEW QUESTION 251

- (Exam Topic 2)

A pen tester is configuring a Windows laptop for a test. In setting up Wireshark, what driver and library are required to allow the NIC to work in promiscuous mode?

- A. Libpcap
- B. Awinpcap
- C. Winprom
- D. Winpcap

Answer: D

NEW QUESTION 255

- (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

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

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 256

- (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 258

- (Exam Topic 2)

John is an incident handler at a financial institution. His steps in a recent incident are not up to the standards of the company. John frequently forgets some steps and procedures while handling responses as they are very stressful to perform. Which of the following actions should John take to overcome this problem with the least administrative effort?

- A. Create an incident checklist.
- B. Select someone else to check the procedures.
- C. Increase his technical skills.
- D. Read the incident manual every time it occurs.

Answer: C

NEW QUESTION 260

- (Exam Topic 2)

Which of the following commands checks for valid users on an SMTP server?

- A. RCPT
- B. CHK
- C. VRFY
- D. EXPN

Answer: C

Explanation:

The VRFY command enables SMTP clients to send an invitation to an SMTP server to verify that mail for a selected user name resides on the server. The VRFY command is defined in RFC 821. The server sends a response indicating whether the user is local or not, whether mail are going to be forwarded, and so on. A response of 250 indicates that the user name is local; a response of 251 indicates that the user name isn't local, but the server can forward the message. The server response includes the mailbox name.

NEW QUESTION 264

- (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 267

- (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 272

- (Exam Topic 2)

You went to great lengths to install all the necessary technologies to prevent hacking attacks, such as expensive firewalls, antivirus software, anti-spam systems and intrusion detection/prevention tools in your company's network. You have configured the most secure policies and tightened every device on your network. You are confident that hackers will never be able to gain access to your network with complex security system in place.

Your peer, Peter Smith who works at the same department disagrees with you.

He says even the best network security technologies cannot prevent hackers gaining access to the network because of presence of "weakest link" in the security chain.

What is Peter Smith talking about?

- A. Untrained staff or ignorant computer users who inadvertently become the weakest link in your security chain
- B. "zero-day" exploits are the weakest link in the security chain since the IDS will not be able to detect these attacks
- C. "Polymorphic viruses" are the weakest link in the security chain since the Anti-Virus scanners will not be able to detect these attacks
- D. Continuous Spam e-mails cannot be blocked by your security system since spammers use different techniques to bypass the filters in your gateway

Answer: A

NEW QUESTION 276

- (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 278

- (Exam Topic 2)

Which of the following is the primary objective of a rootkit?

- A. It opens a port to provide an unauthorized service
- B. It creates a buffer overflow
- C. It replaces legitimate programs
- D. It provides an undocumented opening in a program

Answer: C

NEW QUESTION 279

- (Exam Topic 2)

What port number is used by LDAP protocol?

- A. 110
- B. 389
- C. 464
- D. 445

Answer: B

NEW QUESTION 284

- (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 286

- (Exam Topic 2)

In the field of cryptanalysis, what is meant by a "rubber-hose" attack?

- A. Attempting to decrypt cipher text by making logical assumptions about the contents of the original plain text.
- B. Extraction of cryptographic secrets through coercion or torture.
- C. Forcing the targeted key stream through a hardware-accelerated device such as an ASIC.
- D. A backdoor placed into a cryptographic algorithm by its creator.

Answer: B

NEW QUESTION 289

- (Exam Topic 2)

Taylor, a security professional, uses a tool to monitor her company's website, analyze the website's traffic, and track the geographical location of the users visiting the company's website. Which of the following tools did Taylor employ in the above scenario?

- A. WebSite Watcher
- B. web-Stat
- C. Webroot
- D. WAFW00F

Answer: B

Explanation:

Increase your web site's performance and grow! Add Web-Stat to your site (it's free!) and watch individuals act together with your pages in real time. Learn how individuals realize your web site. Get details concerning every visitor's path through your web site and track pages that flip browsers into consumers. One-click install. observe locations, in operation systems, browsers and screen sizes and obtain alerts for new guests and conversions

NEW QUESTION 293

- (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 295

- (Exam Topic 2)

How is the public key distributed in an orderly, controlled fashion so that the users can be sure of the sender's identity?

- A. Hash value
- B. Private key
- C. Digital signature
- D. Digital certificate

Answer: D

NEW QUESTION 296

- (Exam Topic 2)

which of the following Bluetooth hacking techniques refers to the theft of information from a wireless device through Bluetooth?

- A. Bluesmacking
- B. Bluebugging
- C. Bluejacking
- D. Bluesnarfing

Answer: D

Explanation:

Bluesnarfing is the unauthorized access of information from a wireless device through Bluetooth connection, often between phones, desktops, laptops, and PDAs (personal digital assistant).

NEW QUESTION 299

- (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 300

- (Exam Topic 2)

Bobby, an attacker, targeted a user and decided to hijack and intercept all their wireless communications. He installed a fake communication tower between two authentic endpoints to mislead the victim. Bobby used this virtual tower to interrupt the data transmission between the user and real tower, attempting to hijack an active session, upon receiving the users request. Bobby manipulated the traffic with the virtual tower and redirected the victim to a malicious website. What is the attack performed by Bobby in the above scenario?

- A. Wardriving
- B. KRACK attack
- C. jamming signal attack
- D. aLTER attack

Answer: D

Explanation:

aLTER attacks are usually performed on LTE devices Attacker installs a virtual (fake) communication tower between two authentic endpoints intending to mislead the victim This virtual tower is used to interrupt the data transmission between the user and real tower attempting to hijack the active session.

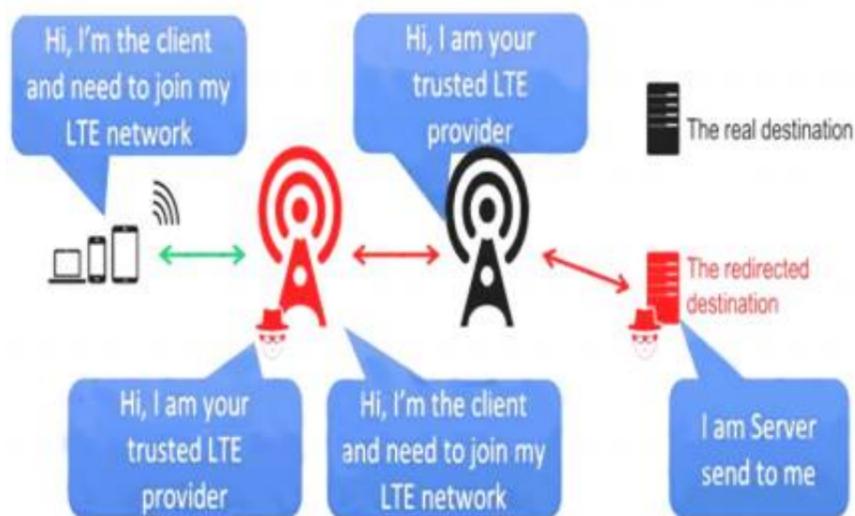
https://alter-attack.net/media/breaking_lte_on_layer_two.pdf

The new aLTER attack can be used against nearly all LTE connected endpoints by intercepting traffic and redirecting it to malicious websites together with a particular approach for Apple iOS devices.

This attack works by taking advantage of a style flaw among the LTE network — the information link layer (aka: layer-2) of the LTE network is encrypted with AES-CTR however it's not integrity-protected, that is why an offender will modify the payload.

As a result, the offender is acting a classic man-in-the-middle wherever they're movement as a cell tower to the victim.

Diagram Description automatically generated



NEW QUESTION 302

- (Exam Topic 2)

What is the purpose of DNS AAAA record?

- A. Authorization, Authentication and Auditing record
- B. Address prefix record
- C. Address database record
- D. IPv6 address resolution record

Answer: D

NEW QUESTION 303

- (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 LDAP 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 LDAP 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 are obtainable via svn or as a packaged build for users who wish to experiment or any develop the program.

JX 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 HP-UX, AIX, BSD and it should run on any java supporting OS.

NEW QUESTION 305

- (Exam Topic 2)

Jason, an attacker, targeted an organization to perform an attack on its Internet-facing web server with the intention of gaining access to backend servers, which are protected by a firewall. In this process, he used a URL <https://xyz.com/feed.php?url:externalsile.com/feed/to> to obtain a remote feed and altered the URL input to the local host to view all the local resources on the target server. What is the type of attack Jason performed in the above scenario?

- A. website defacement
- B. Server-side request forgery (SSRF) attack
- C. Web server misconfiguration
- D. web cache poisoning attack

Answer: B

Explanation:

Server-side request forgery (also called SSRF) is a net security vulnerability that allows an assaulter to induce the server-side application to make http requests to associate arbitrary domain of the attacker's choosing.

In typical SSRF examples, the attacker might cause the server to make a connection back to itself, or to other web-based services among the organization's infrastructure, or to external third-party systems.

Another type of trust relationship that often arises with server-side request forgery is where the application server is able to interact with different back-end systems that aren't directly reachable by users. These systems typically have non-routable private informatics addresses. Since the back-end systems normally ordinarily protected by the topology, they typically have a weaker security posture. In several cases, internal back-end systems contain sensitive functionality that may be accessed while not authentication by anyone who is able to act with the systems.

In the preceding example, suppose there's an body interface at the back-end url <https://192.168.0.68/admin>. Here, an attacker will exploit the SSRF vulnerability to access the executive interface by submitting the following request:

```
POST /product/stock HTTP/1.0
```

```
Content-Type: application/x-www-form-urlencoded Content-Length: 118 stockApi=http://192.168.0.68/admin
```

NEW QUESTION 308

- (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 310

- (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 313

- (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 318

- (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 323

- (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 324

- (Exam Topic 2)

Bob, your senior colleague, has sent you a mail regarding a deal with one of the clients. You are requested to accept the offer and you oblige. After 2 days, Bob denies that he had ever sent a mail. What do you want to "know" to prove yourself that it was Bob who had sent a mail?

- A. Authentication
- B. Confidentiality
- C. Integrity
- D. Non-Repudiation

Answer: D

Explanation:

Non-repudiation is the assurance that someone cannot deny the validity of something. Non-repudiation is a legal concept that is widely used in information security and refers to a service, which provides proof of the origin of data and the integrity of the data. In other words, non-repudiation makes it very difficult to successfully deny who/where a message came from as well as the authenticity and integrity of that message.

NEW QUESTION 328

- (Exam Topic 2)

Log monitoring tools performing behavioral analysis have alerted several suspicious logins on a Linux server occurring during non-business hours. After further examination of all login activities, it is noticed that none of the logins have occurred during typical work hours. A Linux administrator who is investigating this problem realizes the system time on the Linux server is wrong by more than twelve hours. What protocol used on Linux servers to synchronize the time has stopped working?

- A. Time Keeper
- B. NTP
- C. PPP
- D. OSPP

Answer: B

NEW QUESTION 332

- (Exam Topic 2)

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

- A. True
- B. False

Answer: B

NEW QUESTION 336

- (Exam Topic 2)

What is the main security service a cryptographic hash provides?

- A. Integrity and ease of computation
- B. Message authentication and collision resistance
- C. Integrity and collision resistance
- D. Integrity and computational in-feasibility

Answer: D

NEW QUESTION 338

- (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 340

- (Exam Topic 2)

Trempe is an IT Security Manager, and he is planning to deploy an IDS in his small company. He is looking for an IDS with the following characteristics: - Verifies success or failure of an attack - Monitors system activities Detects attacks that a network-based IDS fails to detect - Near real-time detection and response - Does not require additional hardware - Lower entry cost Which type of IDS is best suited for Trempe's requirements?

- A. Gateway-based IDS
- B. Network-based IDS

- C. Host-based IDS
- D. Open source-based

Answer: C

NEW QUESTION 344

- (Exam Topic 2)

Techno Security Inc. recently hired John as a penetration tester. He was tasked with identifying open ports in the target network and determining whether the ports are online and any firewall rule sets are encountered. John decided to perform a TCP SYN ping scan on the target network. Which of the following Nmap commands must John use to perform the TCP SYN ping scan?

- A. `nmap -sn -pp < target ip address >`
- B. `nmap -sn -PO < target IP address >`
- C. `nmap -sn -PS < target IP address >`
- D. `nmap -sn -PA < target IP address >`

Answer: C

Explanation:

<https://hub.packtpub.com/discovering-network-hosts-with-tcp-syn-and-tcp-ack-ping-scans-in-nmaptutorial/>

NEW QUESTION 346

- (Exam Topic 2)

What is GINA?

- A. Gateway Interface Network Application
- B. GUI Installed Network Application CLASS
- C. Global Internet National Authority (G-USA)
- D. Graphical Identification and Authentication DLL

Answer: D

NEW QUESTION 349

- (Exam Topic 2)

You are analysing traffic on the network with Wireshark. You want to routinely run a cron job which will run the capture against a specific set of IPs - 192.168.8.0/24. What command you would use?

- A. `wireshark --fetch "192.168.8"`
- B. `wireshark --capture --local masked 192.168.8.0 ---range 24`
- C. `tshark -net 192.255.255.255 mask 192.168.8.0`
- D. `sudo tshark -f"net 192 .68.8.0/24"`

Answer: D

NEW QUESTION 354

- (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 got 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 realizing 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 356

- (Exam Topic 2)

An LDAP directory can be used to store information similar to a SQL database. LDAP uses a database structure instead of SQL's structure. Because of this, LDAP has difficulty representing many-to-one relationships.

- A. Relational, Hierarchical
- B. Strict, Abstract
- C. Hierarchical, Relational
- D. Simple, Complex

Answer: C

NEW QUESTION 359

- (Exam Topic 2)

David is a security professional working in an organization, and he is implementing a vulnerability management program in the organization to evaluate and control the risks and vulnerabilities in its IT infrastructure. He is currently executing the process of applying fixes on vulnerable systems to reduce the impact and severity of vulnerabilities. Which phase of the vulnerability-management life cycle is David currently in?

- A. verification
- B. Risk assessment
- C. Vulnerability scan
- D. Remediation

Answer: D

NEW QUESTION 360

- (Exam Topic 2)

Vlady works in a fishing company where the majority of the employees have very little understanding of IT let alone IT Security. Several information security issues that Vlady often found includes, employees sharing password, writing his/her password on a post it note and stick it to his/her desk, leaving the computer unlocked, didn't log out from emails or other social media accounts, and etc.

After discussing with his boss, Vlady decided to make some changes to improve the security environment in his company. The first thing that Vlady wanted to do is to make the employees understand the importance of keeping confidential information, such as password, a secret and they should not share it with other persons. Which of the following steps should be the first thing that Vlady should do to make the employees in his company understand to importance of keeping confidential information a secret?

- A. Warning to those who write password on a post it note and put it on his/her desk
- B. Developing a strict information security policy
- C. Information security awareness training
- D. Conducting a one to one discussion with the other employees about the importance of information security

Answer: A

NEW QUESTION 362

- (Exam Topic 2)

You have retrieved the raw hash values from a Windows 2000 Domain Controller. Using social engineering, you come to know that they are enforcing strong passwords. You understand that all users are required to use passwords that are at least 8 characters in length. All passwords must also use 3 of the 4 following categories: lower case letters, capital letters, numbers and special characters. With your existing knowledge of users, likely user account names and the possibility that they will choose the easiest passwords possible, what would be the fastest type of password cracking attack you can run against these hash values and still get results?

- A. Online Attack
- B. Dictionary Attack
- C. Brute Force Attack
- D. Hybrid Attack

Answer: D

NEW QUESTION 363

- (Exam Topic 2)

While browsing his Facebook feed, Matt sees a picture one of his friends posted with the caption. "Learn more about your friends!", as well as a number of personal questions. Matt is suspicious and texts his friend, who confirms that he did indeed post it. With assurance that the post is legitimate. Matt responds to the questions on the post, a few days later. Matt's bank account has been accessed, and the password has been changed. What most likely happened?

- A. Matt inadvertently provided the answers to his security questions when responding to the post.
- B. Matt's bank-account login information was brute forced.
- C. Matt inadvertently provided his password when responding to the post.
- D. Matt's computer was infected with a keylogger.

Answer: A

NEW QUESTION 366

- (Exam Topic 2)

Nedved is an IT Security Manager of a bank in his country. One day, he found out that there is a security breach to his company's email server based on analysis of a suspicious connection from the email server to an unknown IP Address.

What is the first thing that Nedved needs to do before contacting the incident response team?

- A. Leave it as it is and contact the incident response team right away
- B. Block the connection to the suspicious IP Address from the firewall
- C. Disconnect the email server from the network
- D. Migrate the connection to the backup email server

Answer: C

NEW QUESTION 370

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