EC-Council

Exam Questions 312-50v12

Certified Ethical Hacker Exam (CEHv12)

NEW QUESTION 1
Johnson, an attacker, performed online research for the contact details of reputed cybersecurity firms. He found the contact number of sibertech.org and dialed the number, claiming himself to represent a technical support team from a vendor. He warned that a specific server is about to be compromised and requested sibertech.org to follow the provided instructions. Consequently, he prompted the victim to execute unusual commands and install malicious files, which were then used to collect and pass critical Information to Johnson's machine. What is the social engineering technique Steve employed in the above scenario?

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

Answer: A

Explanation:
https://www.eccouncil.org/what-is-social-engineering/
This Social Engineering scam involves an exchange of information that can benefit both the victim and the trickster. Scammers would make the prey believe that a fair exchange will be present between both sides, but in reality, only the fraudster stands to benefit, leaving the victim hanging on to nothing. An example of a Quid Pro Quo is a scammer pretending to be an IT support technician.
The con artist asks for the login credentials of the company's computer saying that the company is going to receive technical support in return. Once the victim has provided the credentials, the scammer now has control over the company's computer and may possibly load malware or steal personal information that can be a motive to commit identity theft.
"A quid pro quo attack (aka something for something" attack) is a variant of baiting. Instead of baiting a target with the promise of a good, a quid pro quo attack promises a service or a benefit based on the execution of a specific action." https://resources.infosecinstitute.com/topic/commonsocial- engineeringattacks/#:~: text=A%20quid%20pro%20quo%20attack,execution%20of%20a%20specific%20action.

NEW QUESTION 2
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 3
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 4
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 5
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 6
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, someof the essential cryptographic protocols for net security. These protocols allow everyone on the netto browse the net, use email, look on-line, and send instant messages while not third-parties beingable 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 endusers 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.

A server is vulnerable to DROWN if:

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 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 7

John, a disgruntled ex-employee of an organization, contacted a professional hacker to exploit the organization. In the attack process, the professional hacker Installed a scanner on a machine belonging to one of the vktims and scanned several machines on the same network to Identify vulnerabilities to perform further exploitation. What is the type of vulnerability assessment tool employed by John in the above scenario?

A. Proxy scanner
B. Agent-based scanner
C. Network-based scanner
D. Cluster scanner

Answer: C

Explanation:

Network-based scanner

A network-based vulnerability scanner, in simplistic terms, is the process of identifying loopholes on a computer's network or IT assets, which hackers and threat actors can exploit. By implementing this process, one can successfully identify their organization's current risk(s). This is not where the buck stops; one can also verify the effectiveness of your system's security measures while improving internal and external defenses. Through this review, an organization is well equipped to take an extensive inventory of all systems, including operating systems, installed software, security patches, hardware, firewalls, anti-virus software, and much more.

Agent-based scanner

Agent-based scanners make use of software scanners on each and every device; the results of the scans are reported back to the central server. Such scanners are well equipped to find and report out on a range of vulnerabilities. NOTE: This option is not suitable for us, since for it to work, you need to install a special agent

on each computer before you start collecting data from them.

NEW QUESTION 8
Clark is a professional hacker. He created and configured multiple domains pointing to the same host to switch quickly between the domains and avoid detection. Identify the behavior of the adversary In the above scenario.

A. use of command-line interface
B. Data staging
C. Unspecified proxy activities
D. Use of DNS tunneling

Answer: C

Explanation:
A proxy server acts as a gateway between you and therefore the internet. It's an intermediary server separating end users from the websites they browse. Proxy servers provide varying levels of functionality, security, and privacy counting on your use case, needs, or company policy.
If you're employing a proxy server, internet traffic flows through the proxy server on its thanks to the address you requested. A proxy server is essentially a computer on the web with its own IP address that your computer knows. once you send an internet request, your request goes to the proxy server first. The proxy server then makes your web request on your behalf, collects the response from the online server, and forwards you the online page data so you'll see the page in your browser.

NEW QUESTION 9
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/PHI
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 10
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 realizeing issues that they weren't able to find themselves (and if they'll fix those problems)! If the companies is not mature enough to be able to quickly rectify known problems, a bug bounty program is not the right alternative for his or her companies.

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

Additionally, if the program does not attract enough participants (or participants with the incorrect talent set, and so participants are not able to establish any bugs), the program is not useful for the companies. The overwhelming majority of bug bounty participants consider web site vulnerabilities (72%, per HackerOn), whereas solely a number of (3.5%) value more highly to seek for package vulnerabilities.

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

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

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

NEW QUESTION 10

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, emails, 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 14

Wilson, a professional hacker, targets an organization for financial benefit and plans to compromise its systems by sending malicious emails. For this purpose, he uses a tool to track the emails of the target and extracts information such as sender identities, mall servers, sender IP addresses, and sender locations from different public sources. He also checks if an email address was leaked using the haveibeenpwned.com API. Which of the following tools is used by Wilson in the above scenario?

A. Factiva
B. Netcraft
C. infoga
D. Zoominfo

Answer: C

Explanation:

Infoga may be a tool gathering email accounts informations (ip,hostname,country,…) from completely different public supply (search engines, pgp key servers and shodan) and check if email was leaked using haveibeenpwned.com API. is a really simple tool, however very effective for the first stages of a penetration test or just to know the visibility of your company within the net.

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 19
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. ForWindows/Windows Phone, this value is 128. This value is 64 for Linux/Android.

NEW QUESTION 23
what is the port to block first in case you are suspicious that an IoT device has been compromised?

A. 22
B. 443
C. 48101
D. 80

Answer: C

Explanation:
TCP port 48101 uses the Transmission management Protocol. transmission control protocol is one in all the most protocols in TCP/IP networks. transmission

control protocol could be a connectionoriented protocol, it needs acknowledgement to line up end-to-end communications. only a association is about up user's knowledge may be sent bi-directionally over the association.

Attention! transmission control protocol guarantees delivery of knowledge packets on port 48101 within the same order during which they were sent. bonded communication over transmission control protocol port 48101 is that the main distinction between transmission control protocol and UDP. UDP port 48101 wouldn't have bonded communication as transmission control protocol.

UDP on port 48101 provides Associate in Nursing unreliable service and datagrams might arrive duplicated, out of order, or missing unexpectedly. UDP on port 48101 thinks that error checking and correction isn't necessary or performed within the application, avoiding the overhead of such process at the network interface level.

UDP (User Datagram Protocol) could be a borderline message-oriented Transport Layer protocol (protocol is documented in IETF RFC 768).

Application examples that always use UDP: vocalisation IP (VoIP), streaming media and period multiplayer games. several internet applications use UDP, e.g. the name System (DNS), the Routing info Protocol (RIP), the Dynamic Host Configuration Protocol (DHCP), the straightforward Network Management Protocol (SNMP).

NEW QUESTION 28

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 30

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 31

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 33

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

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

Answer: C

Explanation:
https://blog.mailfence.com/how-do-digital-signatures-work/ https://en.wikipedia.org/wiki/Digital_signature
A digital signature is a mathematical technique used to validate the authenticity and integrity of a message, software, or digital document. It's the digital equivalent of a handwritten signature or stamped seal, but it offers far more inherent security. A digital signature is intended to solve the problem of tampering and impersonation in digital communications.
Digital signatures can provide evidence of origin, identity, and status of electronic documents, transactions, or digital messages. Signers can also use them to acknowledge informed consent. Digital signatures are based on public-key cryptography, also known as asymmetric cryptography.
Two keys are generated using a public key algorithm, such as RSA (Rivest-Shamir-Adleman), creating a mathematically linked pair of keys, one private and one public.
Digital signatures work through public-key cryptography's two mutually authenticating cryptographic keys. The individual who creates the digital signature uses a private key to encrypt signature-related data, while the only way to decrypt that data is with the signer's public key.

NEW QUESTION 37

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 deckled 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 39

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 40

A new wireless client is configured to join a 802.11 network. This client uses the same hardware and software as many of the other clients on the network. The client can see the network, but cannot connect. A wireless packet sniffer shows that the Wireless Access Point (WAP) is not responding to the association requests being sent by the wireless client. What is a possible source of this problem?

A. The WAP does not recognize the client's MAC address
B. The client cannot see the SSID of the wireless network
C. Client is configured for the wrong channel
D. The wireless client is not configured to use DHCP

Answer: A

Explanation:
https://en.wikipedia.org/wiki/MAC_filtering
MAC filtering is a security method based on access control. Each address is assigned a 48-bit address, which is used to determine whether we can access a network or not. It helps in listing a set of allowed devices that you need on your Wi-Fi and the list of denied devices that you don't want on your Wi-Fi. It helps in preventing unwanted access to the network. In a way, we can blacklist or white list certain computers based on their MAC address. We can configure the filter to allow connection only to those devices included in the white list. White lists provide greater security than blacklists because the router grants access only to selected devices.
It is used on enterprise wireless networks having multiple access points to prevent clients from communicating with each other. The access point can be configured only to allow clients to talk to the default gateway, but not other wireless clients. It increases the efficiency of access to a network. The router allows configuring a list of allowed MAC addresses in its web interface, allowing you to choose which devices can connect to your network. The router has several functions designed to improve the network's security, but not all are useful. Media access control may seem advantageous, but there are certain flaws.
On a wireless network, the device with the proper credentials such as SSID and password can authenticate with the router and join the network, which gets an IP address and access to the internet and any shared resources.
MAC address filtering adds an extra layer of security that checks the device's MAC address against a list of agreed addresses. If the client's address matches one on the router's list, access is granted; otherwise, it doesn't join the network.

NEW QUESTION 45
If a tester is attempting to ping a target that exists but receives no response or a response that states the destination is unreachable, ICMP may be disabled and the network may be using TCP. Which other option could the tester use to get a response from a host using TCP?

A. Traceroute
B. Hping
C. TCP ping
D. Broadcast ping

Answer: B

Explanation:
https://tools.kali.org/information-gathering/hping3
http://www.carnal0wnage.com/papers/LSO-Hping2-Basics.pdf

NEW QUESTION 49
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 54
Garry is a network administrator in an organization. He uses SNMP to manage networked devices from a remote location. To manage nodes in the network, he uses MIB. which contains formal descriptions of all network objects managed by SNMP. He accesses the contents of MIB by using a web browser either by entering the IP address and Lseries.mlb or by entering the DNS library name and Lseries.mlb. He is currently retrieving information from an MIB that contains object types for workstations and server services. Which of the following types of MIB is accessed by Garry in the above scenario?

A. LNMIB2.MIB
B. WINS.MIB
C. DHCP.MIS
D. MIB_II.MIB

Answer: A

Explanation:
DHCP.MIB: Monitors network traffic between DHCP servers and remote hosts HOSTMIB.MIB: Monitors and manages host resources
LNMIB2.MIB: Contains object types for workstation and server services MIBJI.MIB: Manages TCP/IP-based Internet using a simple architecture and system
WINS.MIB: For the Windows Internet Name Service (WINS)

NEW QUESTION 59
which of the following protocols can be used to secure an LDAP service against anonymous queries?

A. SSO
B. RADIUS
C. WPA
D. NTLM

Answer: D

Explanation:
In a Windows network, nongovernmental organization (New Technology) local area network Manager (NTLM) could be a suite of Microsoft security protocols supposed to produce authentication, integrity, and confidentiality to users.NTLM is that the successor to the authentication protocol in Microsoft local area network Manager (LANMAN), Associate in Nursing older Microsoft product. The NTLM protocol suite is enforced in an exceedingly Security Support supplier, which mixes the local area network Manager authentication protocol, NTLMv1, NTLMv2 and NTLM2 Session protocols in an exceedingly single package. whether or not these protocols area unit used or will be used on a system is ruled by cluster Policy settings, that totally different|completely different} versions of Windows have different default settings. NTLM passwords area unit thought-about weak as a result of they will be brute-forced very simply with fashionable hardware.
NTLM could be a challenge-response authentication protocol that uses 3 messages to authenticate a consumer in an exceedingly affiliation orientating setting (connectionless is similar), and a fourth extra message if integrity is desired.
First, the consumer establishes a network path to the server and sends a NEGOTIATE_MESSAGE advertising its capabilities.
Next, the server responds with CHALLENGE_MESSAGE that is employed to determine the identity of the consumer.
Finally, the consumer responds to the challenge with Associate in Nursing AUTHENTICATE_MESSAGE.
The NTLM protocol uses one or each of 2 hashed word values, each of that are keep on the server (or domain controller), and that through a scarcity of seasoning area unit word equivalent, that means that if you grab the hash price from the server, you'll evidence while not knowing the particular word. the 2 area unit the lm Hash (a DES-based operate applied to the primary fourteen chars of the word born-again to the standard eight bit laptop charset for the language), and also the nt Hash (MD4 of the insufficient endian UTF-16 Unicode password). each hash values area unit sixteen bytes (128 bits) every.
The NTLM protocol additionally uses one among 2 a method functions, looking on the NTLM version. National Trust LanMan and NTLM version one use the DES primarily based LanMan a method operate (LMOWF), whereas National TrustLMv2 uses the NT MD4 primarily based a method operate (NTOWF).

NEW QUESTION 64
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 66
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 70
Which rootkit is characterized by its function of adding code and/or replacing some of the operating-system kernel code to obscure a backdoor on a system?

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

Answer: C

NEW QUESTION 73
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 77
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 82
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 87
What does the –oX flag do in an Nmap scan?

A. Perform an eXpress scan

B. Output the results in truncated format to the screen
C. Output the results in XML format to a file
D. Perform an Xmas scan

Answer: C

Explanation:
https://nmap.org/book/man-output.html
-oX <filespec> - Requests that XML output be directed to the given filename.

NEW QUESTION 90
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
A server is vulnerable to DROWN if:SSLv2
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 91
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 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 92
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 94
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 99
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 103
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