Task-2

Name: akash gp

Date: 2/03/2023

1. Perform IP address spoofing

In IP spoofing, a hacker uses tools to modify the source address in the packet header to make the receiving computer system think the packet is from a trusted source, such as another computer on a legitimate network, and accept it. This occurs at the network level, so there are no external signs of tampering.

- \$ ifconfig eth0 192.168.209.15
- \$ ifconfig

```
cth0: flex*(416) = 10.

ifconts*(416) = 192.168.88.128 netmask 255.255.255.0 broadcast 192.168.88.255 inet 192.168.88.128 netmask 255.255.255.0 broadcast 192.168.88.255 inet 192.168.88.128 netmask 255.255.255.0 broadcast 192.168.88.255 inet 6.00.

RX packets 1221219 bytes 287724762 (274.3 MiB)

RX packets 2121219 bytes 287724762 (274.3 MiB)

TX errors 0 dropped 0 overruns 0 frame 0 frame
```

2.Perform MAC address spoofing

An attacker can mimic your MAC address and redirect data sent to your device to another and access your data. A MAC spoofing attack is when a hacker changes the MAC address of their device to match the MAC address of another on a network in order to gain unauthorized access or launch a Man- in-the-Middle attack.

- \$ macchanger –s eth0
- \$ ifconfig \$ macchanger -r eth0
- \$ ifconfig

```
-$ sudo macchanger -s eth0
[sudo] password for kali:
Current MAC: 00:0c:29:f4:b7:72 (VMware, Inc.)
Permanent MAC: 00:0c:29:f4:b7:72 (VMware, Inc.)
—$ <u>sudo</u> macchanger -r eth0
Current MAC: 00:0c:29:f4:b7:72 (VMware, Inc.)
Permanent MAC: 00:0c:29:f4:b7:72 (VMware, Inc.)
             4e:50:62:21:0f:94 (unknown)
  —(kali⊛kali)-[~]
_$ ifconfig
eth0: flags=4163<UP, BROADCAST, RUNNING, MULTICAST> mtu 1500
        inet 192.168.88.129 netmask 255.255.255.0 broadcast 192.168.88.255
        inet6 fe80::b131:3625:f9e0:14c6 prefixlen 64 scopeid 0×20<link>
        ether 4e:50:62:21:0f:94 txqueuelen 1000 (Ethernet)
        RX packets 1222359 bytes 287927774 (274.5 MiB)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 786426 bytes 160700563 (153.2 MiB)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
        inet 127.0.0.1 netmask 255.0.0.0
inet6 ::1 prefixlen 128 scopeid 0×10<host>
        loop txqueuelen 1000 (Local Loopback)
        RX packets 8 bytes 440 (440.0 B)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 8 bytes 440 (440.0 B)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
___(kali⊕ kali)-[~]
$ echo akash gp
akash gp
```

3. Any 5 whatweb commands

Basic scanning: The most basic command to scan a website with WhatWeb is

\$ whatweb mitkundapura.com

```
(kali@kali)=[~]
$ whatweb mitkundapura.com
http://mitkundapura.com [301 Moved Permanently] Country[UNITED KINGDOM][GE], HTML5, HTTPServer[LiteSpeed], IP[217.2
1.87.244], LiteSpeed, RedirectLocation[https://mitkundapura.com/], Title[301 Moved Permanently][Title element contains newline(s)], UncommonHeaders[platform,content-security-policy]
https://mitkundapura.com/ [200 OK] Bootstrap, Country[UNITED KINGDOM][GE], Email[office@mitkundapura.com], HTML5, H
TTPServer[LiteSpeed], IP[217.21.87.244], JQuery, LiteSpeed, PHP[7.4.33], PoweredBy[Kedige], Script, Title[MITK- Mooddlakatte Institute of Technology & Management, Kundapura Home], UncommonHeaders[platform,content-security-policy,alt-svc], X-Powered-By[PHP/7.4.33]
(kali@kali)=[~]
$ echo akash gp
akash gp
```

This will perform a default scan of the website and display the identified technologies.

<u>Verbose scanning</u>: If you want more detailed information about the website, you can use the verbose flag (-v)

\$ whatweb -v [website URL] This will perform a more thorough scan a

```
swhatweb -v mitkundapura.com
WhatWeb report for http://mitkundapura.com
Status : 301 Moved Permanently
          : ,301 Moved Permanently
: 217.21.87.244
Country
Summary : HTML5, HTTPServer[LiteSpeed], LiteSpeed, RedirectLocation[https://mitkundapura.com/], UncommonHeaders[p
latform, content-security-policy]
Detected Plugins:
        HTML version 5, detected by the doctype declaration
[ HTTPServer ]
        HTTP server header string. This plugin also attempts to
        identify the operating system from the server header.
                      : LiteSpeed (from server string)
[ LiteSpeed ]
        LiteSpeed web server, which is able to read Apache configuration directly and used together with web hosting control panels by replacing Apache
[ RedirectLocation ]
        HTTP Server string location. used with http-status 301 and
                      : https://mitkundapura.com/ (from location)
        String
[ UncommonHeaders ]
        Uncommon HTTP server headers. The blacklist includes all
        the standard headers and many non standard but common ones.
        Interesting but fairly common headers should have their own
        plugins, eg. x-powered-by, server and x-aspnet-version.
        Info about headers can be found at www.http-stats.com
        String
                      : platform, content-security-policy (from headers)
HTTP Headers:
        HTTP/1.1 301 Moved Permanently
        Connection: close
        content-type: text/html
        content-length: 707
        date: Mon, 06 Mar 2023 05:37:09 GMT
        server: LiteSpeed
        location: https://mitkundapura.com/
        platform: hostinger
        content-security-policy: upgrade-insecure-requests
WhatWeb report for https://mitkundapura.com/
```

```
that is especially suited for Web development and can be
                       embedded into HTML. This plugin identifies PHP errors, modules and versions and extracts the local file path and
                       username if present.
                       Version : 7.4.33
Google Dorks: (2)
                                                      : http://www.php.net/
[ PoweredBy ]
This plugin identifies instances of 'Powered by x' text and
                       attempts to extract the value for x.
                       String
                                                           Kedige
[ Script ]
                        This plugin detects instances of script HTML elements and
                        returns the script language/type.
[ UncommonHeaders ]
Uncommon HTTP server headers. The blacklist includes all
                        the standard headers and many non standard but common ones.
                        Interesting but fairly common headers should have their own
                       plugins, eg. x-powered-by, server and x-aspnet-version. Info about headers can be found at www.http-stats.com
                                                             : platform,content-security-policy,alt-svc (from headers)
[ X-Powered-By ]
                       X-Powered-By HTTP header
                                                       : PHP/7.4.33 (from x-powered-by string)
HTTP Headers:
                       HTTP/1.1 200 OK
                       Connection: close
                       x-powered-by: PHP/7.4.33
                        content-type: text/html; charset=UTF-8
                       content-length: 10470
                       content-encoding: gzip
                       vary: Accept-Encoding
date: Mon, 06 Mar 2023 05:37:10 GMT
server: LiteSpeed
                       platform: hostinger
content-security-policy: upgrade-insecure-requests
alt-svc: h3=":443"; ma=2592000, h3-29=":443"; ma=2592000, h3-Q050=":443"; ma=2592000, h3-Q046=":443"; ma=2592000, h3-Q043=":443"; ma=2592000, pa=2592000, pa=25
     —(kali⊗kali)-[~]
-$ echo akash gp
akash gp
```

This will perform a more thorough scan and provide additional details, such as HTTP headers and server information.

<u>\$ whatweb –a 3 mitkundapura.com</u>

```
(kali@ kali)-[~]
$ whatweb -a 3 mitkundapura.com
http://mitkundapura.com [301 Moved Permanently] Country[UNITED KINGDOM][GB], HTML5, HTTPServer[LiteSpeed], IP[217.2
1.87.244], LiteSpeed, RedirectLocation[https://mitkundapura.com/], Title[301 Moved Permanently][Title element conta
ins newline(s)!], UncommonHeaders[platform,content-security-policy]
ERROR: Plugin Bootstrap failed for https://mitkundapura.com/ execution expired
https://mitkundapura.com/ [200 OK] Country[UNITED KINGDOM][GB], Email[office@mitkundapura.com], HTML5, HTTPServer[LiteSpeed], IP[217.21.87.244], JQuery, LiteSpeed, PHP[7.4.33], PoweredBy[Kedige], Script, Title[MITK- Moodlakatte In
stitute of Technology & Management, Kundapura Home], UncommonHeaders[platform,content-security-policy,alt-svc], X-P
owered-By[PHP/7.4.33]
(kali@ kali)-[~]
$ echo akash gp
akash gp
```

\$ whatweb --max -redirect 2 mitkundapura.com

\$ whatweb -a 3 mitkundapura.com

4.Any 5 nslookup commands

\$ nslookup google.com

• \$ nslookup -type=mx example.com

This command will perform a DNS lookup for the mail exchange (MX) records associated with the domain name "mitkundapura.com".

\$ nslookup -type=ns mitkundapura.com

This command will perform a DNS lookup for the name server (NS) records associated with the domain name "mitkundapura.com"

\$ nslookup -type=a www.mitkundapura.com This command will perform a DNS lookup for the IPv4 address associated with the subdomain www.mitkundapura.com.

\$ nslookup -type=aaa www.mitkundapura.com This command will perform a DNS lookup for the IPv6 address associated with the subdomain www.mitkundapura.com

5.whois Commands

The whois command is a protocol used to look up information about domain names, IP addresses, and other network-related information. Here are some common WHOIS commands:

\$ whois mitkundapura.com

This command will display information about the domain name, such as the name of the registrant, the name servers, and the date of registration

```
[kali⊕kali]-[~
 -$ whois mitkundapura.com
   Domain Name: MITKUNDAPURA.COM
   Registry Domain ID: 1656001143_DOMAIN_COM-VRSN
   Registrar WHOIS Server: whois.registrar.eu
   Registrar URL: http://www.openprovider.com
   Updated Date: 2022-02-22T08:46:34Z
   Creation Date: 2011-05-13T20:28:43Z
   Registry Expiry Date: 2023-05-13T20:28:43Z
   Registrar: Hosting Concepts B.V. d/b/a Registrar.eu
   Registrar IANA ID: 1647
   Registrar Abuse Contact Email: abuse@registrar.eu
   Registrar Abuse Contact Phone: +31.104482297
   Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
   Name Server: NS1.DNS-PARKING.COM
   Name Server: NS2.DNS-PARKING.COM
   DNSSEC: unsigned
URL of the ICANN Whois Inaccuracy Complaint Form: https://www.icann.org/wicf/
>>> Last update of whois database: 2023-03-06T05:56:20Z <<<
For more information on Whois status codes, please visit https://icann.org/epp
NOTICE: The expiration date displayed in this record is the date the
registrar's sponsorship of the domain name registration in the registry is
currently set to expire. This date does not necessarily reflect the expiration date of the domain name registrant's agreement with the sponsoring
registrar. Users may consult the sponsoring registrar's Whois database to
view the registrar's reported date of expiration for this registration.
TERMS OF USE: You are not authorized to access or query our Whois
database through the use of electronic processes that are high-volume and
automated except as reasonably necessary to register domain names or modify existing registrations; the Data in VeriSign Global Registry
Services' ("VeriSign") Whois database is provided by VeriSign for
information purposes only, and to assist persons in obtaining information
about or related to a domain name registration record. VeriSign does not
guarantee its accuracy. By submitting a Whois query, you agree to abide
by the following terms of use: You agree that you may use this Data only
for lawful purposes and that under no circumstances will you use this Data
to: (1) allow, enable, or otherwise support the transmission of mass
unsolicited, commercial advertising or solicitations via e-mail, telephone,
or facsimile; or (2) enable high volume, automated, electronic processes
that apply to VeriSign (or its computer systems). The compilation, repackaging, dissemination or other use of this Data is expressly
prohibited without the prior written consent of VeriSign. You agree not to
use electronic processes that are automated and high-volume to access or
query the Whois database except as reasonably necessary to register
domain names or modify existing registrations. VeriSign reserves the right
to restrict your access to the Whois database in its sole discretion to ensure
operational stability. VeriSign may restrict or terminate your access to the Whois database for failure to abide by these terms of use. VeriSign
reserves the right to modify these terms at any time.
The Registry database contains ONLY .COM, .NET, .EDU domains and
```

```
URL of the ICANN WHOIS Data Problem Reporting System: http://wdprs.internic.net/
>>> Last update of WHOIS database: 2023-03-06T05:56:38Z <<</td>

; The data in this registrar whois database is provided to you for ; information purposes only, and may be used to assist you in obtaining ; information about or related to domain name registration records. ; We do not guarantee its accuracy. ; By submitting a WHOIS query, you agree that you will use this data ; only for lawful purposes and that, under no circumstances, you will ; use this data to ; a) allow, enable, or otherwise support the transmission by e-mail, ; telephone, or facsimile of mass, unsolicited, commercial advertising ; or solicitations to entities other than the data recipient's own ; existing customers; or ; b) enable high volume, automated, electronic processes that send queries ; or data to the systems of any Registry Operator or ICANN-Accredited ; registrar, except as reasonably necessary to register domain names ; or modify existing registrations. ; The compilation, repackaging, dissemination or other use of this data ; is expressly prohibited without prior written consent. ; These terms may be changed without prior notice. By submitting this ; query, you agree to abide by this policy.

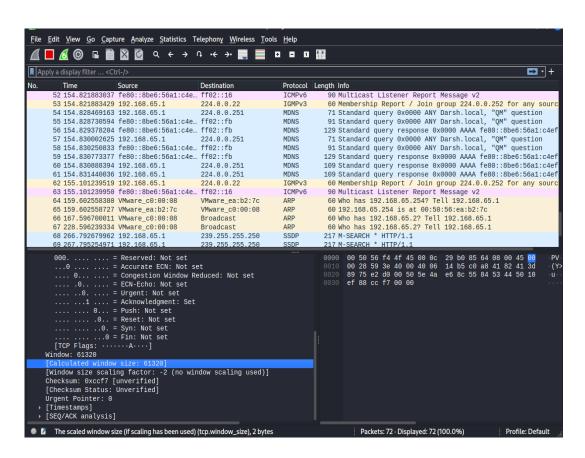
(kali@ kali)-[~]

$ echo akash gp
```

Registrars.

6.Data packet using wireshark:

Wireshark is an open source packet analyser, which is used for education, analysis, software development, communication protocol development and network troubleshooting. Wireshark is a network protocol analyzer, or an application that captures packets from a network connection.



7. Any 5 netdiscover command

Netdiscover is a network scanning tool used for discovering hosts and gathering information about them on a local network. Here are some of the basic commands:

\$ netdiscover -i eth0

\$ netdiscover -p

\$ netdiscover -r 192.168.0.15

```
Currently scanning: Finished! | Screen View: Unique Hosts
3 Captured ARP Req/Rep packets, from 3 hosts. Total size: 180
  ΙP
               At MAC Address
                                 Count
                                         Len MAC Vendor / Hostname
192.168.88.1
              00:50:56:c0:00:08
                                          60 VMware, Inc.
 192.168.88.2
              00:50:56:ed:dd:96
                                          60 VMware, Inc.
 192.168.88.254 00:50:56:fc:8e:da
                                    1
                                          60 VMware, Inc.
zsh: suspended sudo netdiscover -r 192.168.88.129
  -(kali⊛kali)-[~]
└$ echo akash gp
akash gp
```

• \$ netdiscover -i eth0 -f

\$ netdiscover –s 0.5

```
Currently scanning: 172.26.86.0/16 | Screen View: Unique Hosts
3 Captured ARP Req/Rep packets, from 3 hosts. Total size: 180
  TP
               At MAC Address
                                 Count
                                           Len MAC Vendor / Hostname
192.168.88.1
               00:50:56:c0:00:08
                                            60 VMware, Inc.
192.168.88.2 00:50:56:ed:dd:96
                                           60 VMware, Inc.
192.168.88.254 00:50:56:fc:8e:da 1
                                           60 VMware, Inc.
zsh: suspended sudo netdiscover -s 0.5
  -(kali⊛kali)-[~]
_s echo akash gp
akash gp
```

8. CryptoConfiguration Flaw:

CryptoConfiguration typically refers to the configuration of cryptographic protocols and algorithms used to protect sensitive data and communications. A flaw is context could refers to a weakness or vulnarabilty in the configuration that could potentially be exploited by the attackers.



9. Nikto commands:

Nikto is a popular web server scanner that can help you identify potential vulnerabilities on a web server. Here are some common Nikto commands

\$ nikto -host kali.org

```
-$ nikto -host mitkundapura.com
- Nikto v2.1.6
+ Target IP:
                       217.21.87.244
 Target Hostname: mitkundapura.com
 Target Port:
                       80
+ Start Time:
                       2023-03-06 05:44:53 (GMT-5)
+ Server: LiteSpeed
+ The anti-clickjacking X-Frame-Options header is not present.
+ The X-XSS-Protection header is not defined. This header can hint to the user agent to protect against
- Uncommon header 'platform' found, with contents: hostinger
+ The X-Content-Type-Options header is not set. This could allow the user agent to render the content o
f the site in a different fashion to the MIME type
+ Root page / redirects to: https://mitkundapura.com/
+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ Server may leak inodes via ETags, header found with file /images, inode: 999, size: 61cb51cf, mtime:
7630b837fa8dd3cc;;;
+ ERROR: Error limit (20) reached for host, giving up. Last error: error reading HTTP response
+ Scan terminated: 19 error(s) and 5 item(s) reported on remote host
                      2023-03-06 05:45:54 (GMT-5) (61 seconds)
+ End Time:
+ 1 host(s) tested
  -(kali⊗kali)-[~]
└$ echo akash gp
akash gp
```

10. Find Xml pages in website using dirbuster:

DirBuster is a multi threaded java application designed to brute force directories and files names on web/application servers.

DirBuster is a tool created to discover, by brute force, the existing files and directories in a web server. We will use it in this recipe to search for a specific list of files and directories.

