



Habu

Information Security Inc.

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About Habu

- Habu is a Network Hacking Toolkit
- It provides basic functions that help with some tasks for Ethical Hacking and Penetration Testing

Dependencies

- Click
- Delegator.py
- Python (3.x),
- Scapy-Python3
- Matplotlib (Optional, only needed if you want to make some graphs)

```
apt-get install python3-click  
pip3 install delegator.py  
  
apt-get install python3-scapy  
apt-get install python3-matplotlib
```

Techniques implemented

- ARP Poisoning
- ARP Sniffing
- DHCP Discover
- DHCP Starvation
- LAND Attack
- SNMP Cracking
- SYN Flooding
- TCP Flags Analysis
- TCP ISN Analysis
- TCP Port Scan

Demo Setup

- Setup > Kali Linux 2017

```
root@LUCKY64:/opt3# cat /etc/*rel*
DISTRIB_ID=Kali
DISTRIB_RELEASE=kali-rolling
DISTRIB_CODENAME=kali-rolling
DISTRIB_DESCRIPTION="Kali GNU/Linux Rolling"
PRETTY_NAME="Kali GNU/Linux Rolling"
NAME="Kali GNU/Linux"
ID=kali
VERSION="2017.1"
VERSION_ID="2017.1"
ID_LIKE=debian
ANSI_COLOR="1;31"
HOME_URL="http://www.kali.org/"
SUPPORT_URL="http://forums.kali.org/"
BUG_REPORT_URL="http://bugs.kali.org/"
```

Installing Habu

- Install using pip3

```
root@LUCKY64:/opt3# pip3 search habu
habu (0.0.35) - Network Hacking Toolkit
phabulous (0.1.2) - Pythonic abstraction for python-habricator library.
root@LUCKY64:/opt3# pip3 install habu
Collecting habu
  Downloading habu-0.0.35.tar.gz (585kB)
    100% |#####| 593kB 2.7MB/s
Requirement already satisfied: click in /usr/lib/python3/dist-packages (from habu)
Requirement already satisfied: delegator.py in /usr/local/lib/python3.5/dist-packages (from habu)
Requirement already satisfied: requests in /usr/lib/python3/dist-packages (from habu)
Requirement already satisfied: scrapy-python3 in /usr/lib/python3/dist-packages (from habu)
Requirement already satisfied: pexpect>=4.1.0 in /usr/local/lib/python3.5/dist-packages (from delegator.py->habu)
Requirement already satisfied: ptyprocess>=0.5 in /usr/local/lib/python3.5/dist-packages (from pexpect>=4.1.0->delegator.py->habu)
Building wheels for collected packages: habu
  Running setup.py bdist_wheel for habu ... done
  Stored in directory: /root/.cache/pip/wheels/1f/ce/ed/d41e51a89f046adea3df871b857f813af2258c896afce31fd6
Successfully built habu
Installing collected packages: habu
Successfully installed habu-0.0.35
```

Using Habu

- Habu help

```
root@LUCKY64:/opt3# habu.help
* = Need root privileges
habu.arpoison      ARP cache poisoner *
habu.arpsniff     ARP sniffer *
habu.contest      Check internet connection capabilities
habu.eicar        Print EICAR antimalware test data
habu.forkbomb     Show various forkbomb examples
habu.hasher       Calculate hashes using various algorithms
habu.help         Print this help message
habu.ip           Show your public IP
habu.update       Update data files
habu.xor          XOR cipher
```


Using Habu

- habu.eicar => Prints the EICAR test string

```
root@LUCKY64:/opt# habu.eicar  
X5O!P%@AP[4\PZX54(P^)7CC)7}$EICAR-STANDARD-ANTIVIRUS-TEST-FILE!$H+H*
```

Using Habu

- `habu.ping IP -v` => “-v” Pinging with verbose information

```
root@LUCKY64:/opt3# habu.ping 8.8.8.8 -v
###[ IP ]###
version    = 4
ihl        = 5
tos        = 0x0
len        = 28
id         = 20114
flags      =
frag       = 0
ttl        = 54
proto      = icmp
chksum     = 0xf42
src        = 8.8.8.8
dst        = 192.168.86.85
\options   \
###[ ICMP ]###
type       = echo-reply
code       = 0
chksum     = 0x0
id         = 0x0
seq        = 0x0
###[ Padding ]###
load       = '\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00'
```

Using Habu

- habu.arping IP => arping

```
root@LUCKY64:/opt# habu.arping 192.168.86.86
0000 Ether / ARP who has 192.168.86.86 says 192.168.86.85 ==> Ether / ARP is at 00:0c:29:c9:71:12 says 192.168.86.86 / Padding
root@LUCKY64:/opt# habu.arping 192.168.86.87
0000 Ether / ARP who has 192.168.86.87 says 192.168.86.85 ==> Ether / ARP is at 00:0c:29:73:aa:38 says 192.168.86.87 / Padding
```

Using Habu

- `habu.forkbomb` => Show various forkbomb examples

```
root@LUCKY64:/opt3# habu.forkbomb
Usage: habu.forkbomb [OPTIONS] BOMB

Error: Missing argument "bomb". Choose from bash, batch, c, haskell, perl, php, python, ruby.
root@LUCKY64:/opt3# habu.forkbomb python
import os

while True:
    os.fork()

root@LUCKY64:/opt3# habu.forkbomb php
while(pcntl_fork() | 1);

root@LUCKY64:/opt3# habu.forkbomb c
#include <unistd.h>

int main()
{
    while(1)
    {
        fork();
    }
    return 0;
}
```

Using Habu

- `habu.isn` => This command creates TCP connections and prints the TCP initial sequence numbers for each connections

```
root@LUCKY64:/opt3# habu.isn 192.168.86.86
1006686996
2161755148
1743070245
3140675018
1657839336
root@LUCKY64:/opt3# habu.isn 192.168.86.86
370034279
1339916502
2211652807
2555681787
3967168140
```

Using Habu

- `habu.tcpflags =>` This command send TCP packets with different flags and tells what responses receives
- It can be used to analyze how the different TCP/IP stack implementations and configurations responds to packet with various flag combinations

```
root@LUCKY64:/opt/ # habu.tcpflags 192.168.86.86
S -> SA
SP -> SA
A -> R
FA -> R
SA -> R
FSA -> R
PA -> R
FPA -> R
SPA -> R
FSPA -> R
SU -> SA
SPU -> SA
AU -> R
FAU -> R
SAU -> R
FSAU -> R
```

References

- Kitploit

<http://www.kitploit.com/2017/10/habu-network-hacking-toolkit.html>

- Kali Linux

<https://www.kali.org/downloads/>

- LAND attack

<https://security.radware.com/ddos-knowledge-center/ddospedia/land-attack/>

- ARP poisoning (spoofing)

https://en.wikipedia.org/wiki/ARP_spoofing

- SYN flood

https://en.wikipedia.org/wiki/SYN_flood

- Forkbomb

https://en.wiktionary.org/wiki/fork_bomb