

untitled52-1

February 14, 2025

```
[1]: pip install scapy
```

```
Collecting scapy
  Downloading scapy-2.6.1-py3-none-any.whl.metadata (5.6 kB)
  Downloading scapy-2.6.1-py3-none-any.whl (2.4 MB)
    2.4/2.4 MB
    17.6 MB/s eta 0:00:00
Installing collected packages: scapy
Successfully installed scapy-2.6.1
```

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[2]: import scapy.all as scapy
```

```
[7]: import scapy.all as scapy

def process_packet(packet):
    print(packet.summary()) # Print a brief packet summary

def sniffing(interface):
    scapy.sniff(iface=interface, store=False, prn=process_packet)

# Start sniffing on eth0
sniffing("eth0")
```

```
Ether / IP / TCP 172.28.0.1:37048 > 172.28.0.12:8080 PA / Raw
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:37048 A
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:37048 PA / Raw
Ether / IP / TCP 172.28.0.1:37048 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:37048 FA
Ether / IP / TCP 172.28.0.1:37048 > 172.28.0.12:8080 FA
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:37048 A
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:44834 PA / Raw
Ether / IP / TCP 172.28.0.1:44834 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.1:37012 > 172.28.0.12:8080 PA / Raw
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:37012 PA / Raw
Ether / IP / TCP 172.28.0.1:37012 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.1:44834 > 172.28.0.12:8080 PA / Raw
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:44834 A
Ether / IP / TCP 172.28.0.1:37012 > 172.28.0.12:8080 PA / Raw
```

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]


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Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:56594 PA / Raw
Ether / IP / TCP 172.28.0.1:56594 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.1:56594 > 172.28.0.12:8080 PA / Raw
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:56594 PA / Raw
Ether / IP / TCP 172.28.0.1:56594 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.1:56594 > 172.28.0.12:8080 PA / Raw
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:56594 PA / Raw
Ether / IP / TCP 172.28.0.1:56594 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.1:56594 > 172.28.0.12:8080 PA / Raw
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:56594 PA / Raw
Ether / IP / TCP 172.28.0.1:56594 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:56594 FA
Ether / IP / TCP 172.28.0.1:56594 > 172.28.0.12:8080 FA
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:56594 A
Ether / IP / TCP 172.28.0.1:47614 > 172.28.0.12:8080 S
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:47614 SA
Ether / IP / TCP 172.28.0.1:47614 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.1:47614 > 172.28.0.12:8080 PA / Raw
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:47614 A
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:47614 PA / Raw
Ether / IP / TCP 172.28.0.1:47614 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.1:47614 > 172.28.0.12:8080 PA / Raw
Ether / IP / TCP 172.28.0.12:8080 > 172.28.0.1:47614 PA / Raw
Ether / IP / TCP 172.28.0.1:47614 > 172.28.0.12:8080 A
Ether / IP / TCP 172.28.0.1:47614 > 172.28.0.12:8080 PA / Raw

```

```
[11]: !apt-get install libpcap-dev -y
```

```

Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libdbus-1-dev libpcap0.8 libpcap0.8-dev
The following NEW packages will be installed:
  libdbus-1-dev libpcap-dev libpcap0.8 libpcap0.8-dev
0 upgraded, 4 newly installed, 0 to remove and 20 not upgraded.
Need to get 607 kB of archives.
After this operation, 2,238 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpcap0.8 amd64
1.10.1-4ubuntu1.22.04.1 [145 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libdbus-1-dev
amd64 1.12.20-2ubuntu4.1 [188 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpcap0.8-dev
amd64 1.10.1-4ubuntu1.22.04.1 [270 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpcap-dev
amd64 1.10.1-4ubuntu1.22.04.1 [3,326 B]
Fetched 607 kB in 2s (299 kB/s)
Selecting previously unselected package libpcap0.8:amd64.

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(Reading database ... 124926 files and directories currently installed.)
Preparing to unpack .../libpcap0.8_1.10.1-4ubuntu1.22.04.1_amd64.deb ...
Unpacking libpcap0.8:amd64 (1.10.1-4ubuntu1.22.04.1) ...
Selecting previously unselected package libdbus-1-dev:amd64.
Preparing to unpack .../libdbus-1-dev_1.12.20-2ubuntu4.1_amd64.deb ...
Unpacking libdbus-1-dev:amd64 (1.12.20-2ubuntu4.1) ...
Selecting previously unselected package libpcap0.8-dev:amd64.
Preparing to unpack .../libpcap0.8-dev_1.10.1-4ubuntu1.22.04.1_amd64.deb ...
Unpacking libpcap0.8-dev:amd64 (1.10.1-4ubuntu1.22.04.1) ...
Selecting previously unselected package libpcap-dev:amd64.
Preparing to unpack .../libpcap-dev_1.10.1-4ubuntu1.22.04.1_amd64.deb ...
Unpacking libpcap-dev:amd64 (1.10.1-4ubuntu1.22.04.1) ...
Setting up libpcap0.8:amd64 (1.10.1-4ubuntu1.22.04.1) ...
Setting up libdbus-1-dev:amd64 (1.12.20-2ubuntu4.1) ...
Setting up libpcap0.8-dev:amd64 (1.10.1-4ubuntu1.22.04.1) ...
Setting up libpcap-dev:amd64 (1.10.1-4ubuntu1.22.04.1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.8) ...
/sbin/ldconfig.real: /usr/local/lib/libtcm_debug.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libhwloc.so.15 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_loader.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_level_zero.so.0 is not a
symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc.so.2 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libumf.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_opencl.so.0 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libtcm.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbb.so.12 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_5.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_0.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc_proxy.so.2 is not a symbolic
link

```

```
[12]: !apt-get install libpcap-dev -y # Install libpcap-dev package

from scapy.all import sniff
from scapy.layers import http

def process_packet(packet):
    if packet.haslayer(http.HTTPRequest):
        host = packet[http.HTTPRequest].Host.decode() if packet[http.
↪HTTPRequest].Host else "No Host"
        print(f"HTTP Request Host: {host}")

def sniffing(interface):
    sniff(iface=interface, store=False, prn=process_packet, filter="tcp")

# Start sniffing on eth0
sniffing("eth0")
```

```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
libpcap-dev is already the newest version (1.10.1-4ubuntu1.22.04.1).
0 upgraded, 0 newly installed, 0 to remove and 20 not upgraded.
HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
HTTP Request Host: m-s-1m73gmxu0tfy0.asia-east1-a.c.codatalab-user-
runtimes.internal:8007
HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
HTTP Request Host: m-s-1m73gmxu0tfy0.asia-east1-a.c.codatalab-user-
runtimes.internal:8007
HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
HTTP Request Host: example.com
HTTP Request Host: colab.research.google.com
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HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
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HTTP Request Host: m-s-1m73gmXu0tfy0.asia-east1-a.c.codatalab-user-runtimes.internal:8007

[illegible]

HTTP Request Host: colab.research.google.com
HTTP Request Host: colab.research.google.com
HTTP Request Host: example.com
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