

Peter Sanford
IT 2700
NetLab Lab 18
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1.1.2 Step 6:

The image shows the Wireshark network protocol analyzer interface. The main window displays a packet capture of an HTTP GET request for the file 'httpcapture.cap'. The packet list on the left shows frame 1798 selected, which is an HTTP GET request. The packet details pane on the right shows the structure of the HTTP request, including the Ethernet II, Internet Protocol, and Hypertext Transfer Protocol layers. The packet bytes pane at the bottom shows the raw data of the selected packet, which is the HTTP request body.

File System

Computer

kali

Desktop

File Edit View Go

tcp.stream eq 9

No. Time

1761 30.253786

1763 30.254302

1765 30.254656

1766 30.255115

1788 30.313596

1795 30.320188

1798 30.322077

Frame 1798: 1532 bytes on wire (12256 bits) captured (1532 bytes) from 10.0.2.15:8080 to 10.0.2.15:8080

IEEE 802.11 Data, Src: Realtek-USB (88:6b:67:fe:0e:9e), Dst: Realtek-USB (88:6b:67:fe:0e:9e)

Logical-Link Control Protocol, Src MAC: Realtek-USB (88:6b:67:fe:0e:9e), Dst MAC: Realtek-USB (88:6b:67:fe:0e:9e)

Internet Protocol Version 4, Src: 10.0.2.15, Dst: 10.0.2.15

Transmission Control Protocol, Src Port: 8080, Dst Port: 8080, Seq: 322077, Len: 0

FTP Data (1448 bytes)

[Setup frame: 1]

[Setup method: GET]

0000 08 42 2c 00

0010 d8 07 b6 71

0020 8c 63 12 05

0030 55 7e f8 b5

0040 78 3d 72 33

0050 a6 cb 65 0d

0060 4c 97 df 6c

0070 c2 3e e6 bf

0080 be 7f ef 97

57 client pkts, 0 server pkts, 0 turns.

Entire conversation (80kB)

Show data as Raw

Stream 9

Find:

Filter Out This Stream

Print

Save as...

Back

Close

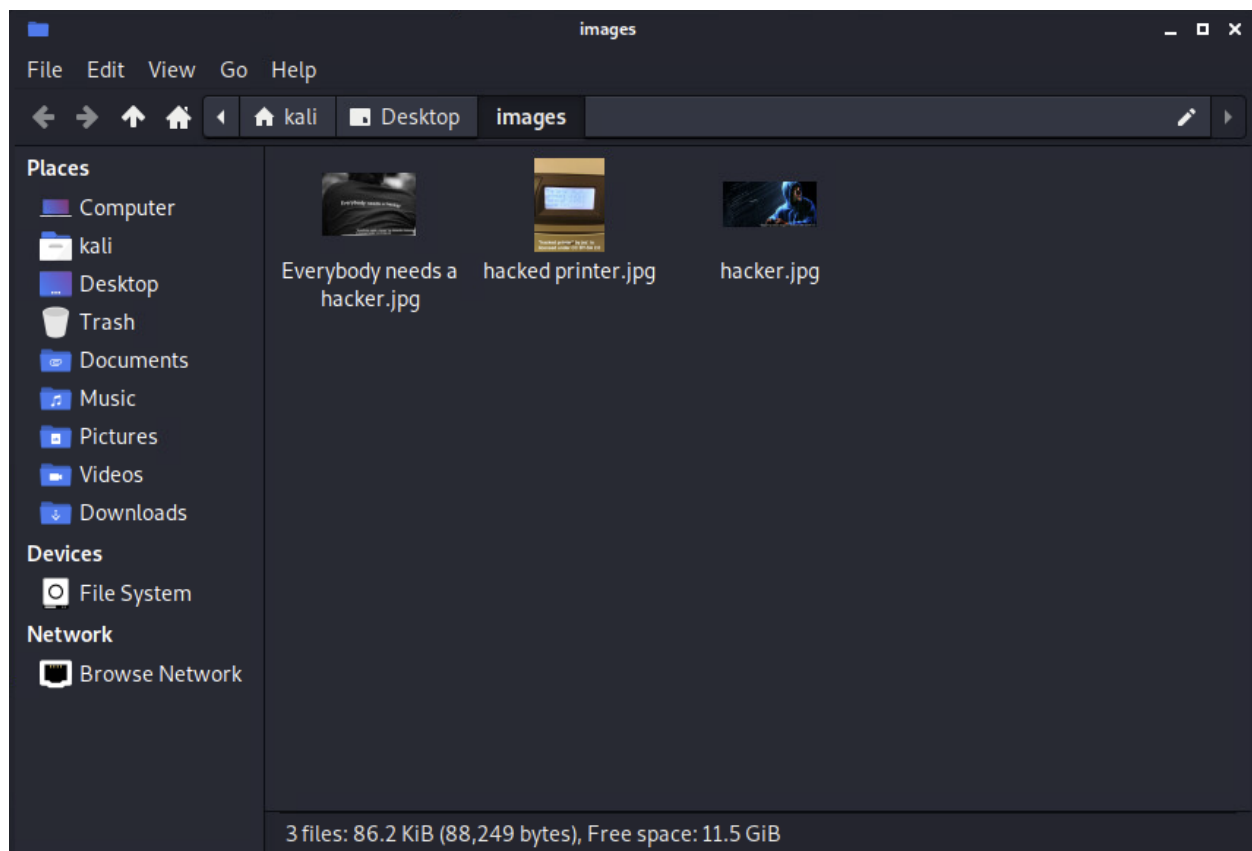
Help

Frame (1532 bytes) Decrypted TKIP data (1488 bytes)

httpcapture.cap

Packets: 8320 · Displayed: 103 (1.2%)

Step 10:



2.1

Step 8:

```
(kali㉿kali)-[~/Desktop]
$ airdecap-ng -w 6B:33:6C:33:21 ~/Desktop/captures/WEP.cap
Total number of stations seen          6
Total number of packets read          73946
Total number of WEP data packets      37612
Total number of WPA data packets      0
Number of plaintext data packets      0
Number of decrypted WEP packets       37612
Number of corrupted WEP packets       0
Number of decrypted WPA packets       0
Number of bad TKIP (WPA) packets      0
Number of bad CCMP (WPA) packets      0

(kali㉿kali)-[~/Desktop]
$
```

3.1

Step 5:

```
Aircrack-ng 1.6

[00:00:02] 3443/3559 keys tested (2002.28 k/s)

Time left: 0 seconds                                96.74%

KEY FOUND! [ password2 ]

Master Key      : AE BD C5 18 93 AC 45 EC A4 45 C7 B4 4A 96 BB A9
                  92 B5 4F CC A0 6C 9B FB 1F F4 0C D4 06 27 41 41

Transient Key   : 9A 14 E8 99 35 CA 7A B4 21 EA 8D FA 37 9F 97 D1
                  72 50 9D FD 78 5D A8 47 2C 88 00 08 F0 D8 7A A8
                  17 C7 73 CA 0B 6F 49 AF EC AA 68 CB 3C CA 44 7A
                  49 3C 72 F2 55 36 58 A3 0D C6 31 FB 1C 70 80 90

EAPOL HMAC     : DE 01 08 23 B5 FA 3A AD 32 9D 07 79 C9 17 BA 42

(kali@kali)-[~/Desktop]
$ airdecap-ng ~/Desktop/captures/WPA.cap -e NetLab-WirelessHacking -p password2
Total number of stations seen          9
Total number of packets read          23289
Total number of WEP data packets       0
Total number of WPA data packets      10068
Number of plaintext data packets       0
Number of decrypted WEP packets        0
Number of corrupted WEP packets        0
Number of decrypted WPA packets        9855
Number of bad TKIP (WPA) packets       0
Number of bad CCMP (WPA) packets       0
```

Commentary:

In this lab we explored Aircrack-ng to decrypt and crack both WPA and WEP encrypted wireless packets. I learned that this tool is powerful and shows how quickly you can intercept and look at encrypted traffic if not secured correctly. Companies can use this information to update their wireless communication encryption to make it more difficult to encrypt and read sensitive information.