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- The screenshot displays the Wireshark network protocol analyzer interface. The top status bar indicates the capture is running on a Kali Linux virtual machine. The packet list pane shows a single packet (No. 87) of type HTTP, source 192.168.0.100, and destination 192.168.0.101. The packet details pane shows the request line: GET /down/login.php HTTP/1.1. The packet bytes pane shows the raw data of the request, including headers and body.
- Packet List:**
- | No. | Time | Source | Destination | Protocol | Length | Info |
|-----|------|---------------|---------------|----------|--------|------------------------------|
| 87 | 0.74 | 192.168.0.100 | 192.168.0.101 | HTTP | 676 | GET /down/login.php HTTP/1.1 |
- Packet Details:**
- Request Line:** GET /down/login.php HTTP/1.1
 - Host:** 192.168.0.101
 - User-Agent:** Mozilla/5.0 (X11; Linux x86_64; rv:128.0) Gecko/20100101 Firefox/128.0
 - Accept:** text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
 - Accept-Language:** en-US,en;q=0.5
 - Content-Encoding:** gzip, deflate
 - Content-Type:** application/x-www-form-urlencoded
 - Content-Length:** 44
 - Origin:** http://192.168.0.100
 - Connection:** keep-alive
 - Referer:** http://192.168.0.100/down/login.php
 - Cookie:** securityhash; PHPSESSID=c9f8c58166a5891ec8ea7e2dc01311v
 - Upgrade-Incoming-Requests:** */*
 - Priority:** u=0, v=0
- Packet Bytes:**
- ```

0000 00 00 00 27 e5 c6 08 00 27 22 52 f2 08 00 45 00 :.....
0010 02 50 19 42 40 00 00 00 0c 17 c0 00 00 7a c0 00 :.....
0020 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 :.....
0030 01 66 84 4d 53 00 00 00 00 00 00 00 00 00 00 00 :.....
0040 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 :.....
0050 64 78 56 47 54 00 00 00 00 00 00 00 00 00 00 00 :.....
0060 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 :.....
0070 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 :.....
0080 38 20 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d :.....
0090 31 31 30 27 26 38 31 32 38 31 30 27 26 38 31 32 :.....
00a0 4f 27 32 38 31 30 31 38 31 30 31 38 31 30 31 38 :.....
00b0 68 78 27 31 32 38 26 00 00 00 00 00 00 00 00 00 :.....
00c0 3a 26 74 65 78 74 26 74 65 65 65 65 65 65 65 65 :.....
00d0 69 63 61 74 69 69 69 69 69 69 69 69 69 69 69 69 :.....
00e0 6c 01 69 69 69 69 69 69 69 69 69 69 69 69 69 69 :.....
00f0 30 71 3d 38 28 39 52 2a 27 3a 30 71 3d 38 28 39 :.....
0100 38 2d 81 83 63 59 79 74 26 45 61 64 87 73 68 38 :.....
0110 59 59 59 59 59 59 59 59 59 59 59 59 59 59 59 59 :.....
0120 59 59 59 59 59 59 59 59 59 59 59 59 59 59 59 59 :.....
0130 26 50 6d 00 41 63 63 63 70 74 2d 45 6e 63 6f 64 :.....

```
- Packet Info:**
- Frame 87 on interface 0:** Ethernet II, Src: wreshark.eth0598743.pcapng, Dst: 192.168.0.101
  - Internet Protocol Version 4:** Src: 192.168.0.100, Dst: 192.168.0.101
  - Transmission Control Protocol:** Src Port: 54444, Dst Port: 80, Seq: 3071352896, Len: 676
  - Hypertext Transfer Protocol:** GET /down/login.php HTTP/1.1
- Packet Bytes:**
- ```

0000  00 00 00 27 e5 c6 08 00 27 22 52 f2 08 00 45 00  :.....
0010  02 50 19 42 40 00 00 00 0c 17 c0 00 00 7a c0 00  :.....
0020  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  :.....
0030  01 66 84 4d 53 00 00 00 00 00 00 00 00 00 00 00  :.....
0040  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  :.....
0050  64 78 56 47 54 00 00 00 00 00 00 00 00 00 00 00  :.....
0060  26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26  :.....
0070  31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32  :.....
0080  38 20 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d 4d  :.....
0090  31 31 30 27 26 38 31 32 38 31 30 27 26 38 31 32  :.....
00a0  4f 27 32 38 31 30 31 38 31 30 31 38 31 30 31 38  :.....
00b0  68 78 27 31 32 38 26 00 00 00 00 00 00 00 00 00  :.....
00c0  3a 26 74 65 78 74 26 74 65 65 65 65 65 65 65 65  :.....
00d0  69 63 61 74 69 69 69 69 69 69 69 69 69 69 69 69  :.....
00e0  6c 01 69 69 69 69 69 69 69 69 69 69 69 69 69 69  :.....
00f0  30 71 3d 38 28 39 52 2a 27 3a 30 71 3d 38 28 39  :.....
0100  38 2d 81 83 63 59 79 74 26 45 61 64 87 73 68 38  :.....
0110  59 59 59 59 59 59 59 59 59 59 59 59 59 59 59 59  :.....
0120  59 59 59 59 59 59 59 59 59 59 59 59 59 59 59 59  :.....
0130  26 50 6d 00 41 63 63 63 70 74 2d 45 6e 63 6f 64  :.....
  
```

- We get source and destination IP address. Source IP is user's IP address and destination IP is the request sent by user.
- Apply the Filter `http.request.method=="POST"` to find the what the user is posted here username and password in the URL: `http://192.168.0.100/dvwa/login.php`
- To find the user cookies apply the filter `http.cookie` to get session id of the user using these cookies we can login user account if the website is vulnerable.

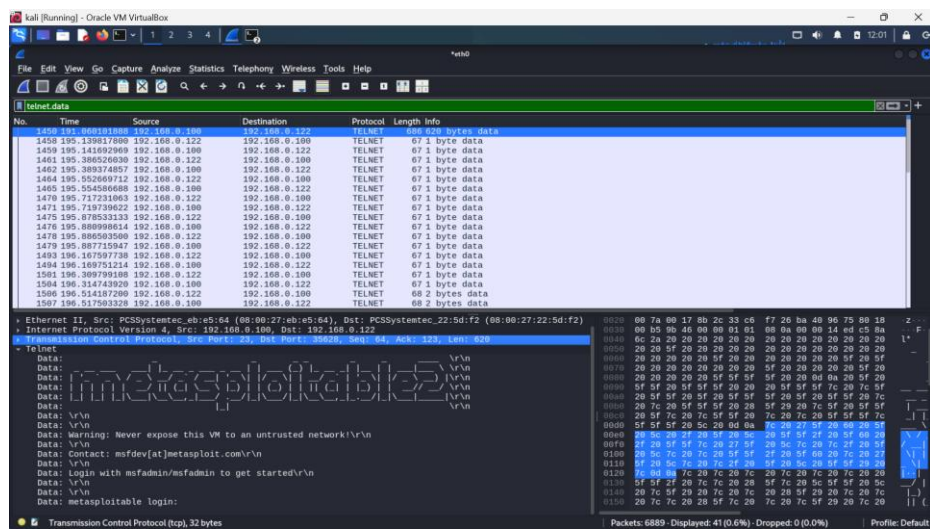


Fig (3): Telnet protocol

- Apply the filter for telnet.data for telnet protocol. So here the Wireshark show's the requests which is related to telnet.
- No observe the each request carefully we get data. Observe the picture data carefully.

The screenshots show Wireshark capturing telnet traffic on interface eth0. The packet list shows multiple telnet sessions from various source IPs to 192.168.0.100. The details pane for selected packets shows the 'Telnet' data field, which contains the command 'a' in the first two screenshots and 'f' in the last two.

```

File Actions Edit View Help
[sudo] password for kali:
root@kali:~/home/kali#
root@kali:~/home/kali# telnet 192.168.0.100
Trying 192.168.0.100...
Connected to 192.168.0.100.
Escape character is '^]'.

metasploitable2

Warning: Never expose this VM to an untrusted network!
Contact: msfdev[at]metasploit.com
Login with msfadmin/msfadmin to get started

metasploitable login: msfadmin
Password:
Last login: Mon Aug 11 01:37:55 EDT 2025 on tty1
linux metasploitable 2.0.24-16-server #1 SMP Thu Apr 10 13:58:08 UTC 2008 i686

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To access official Ubuntu documentation, please visit:
http://help.ubuntu.com/
No mail.
msfadmin@metasploitable:~$ dir

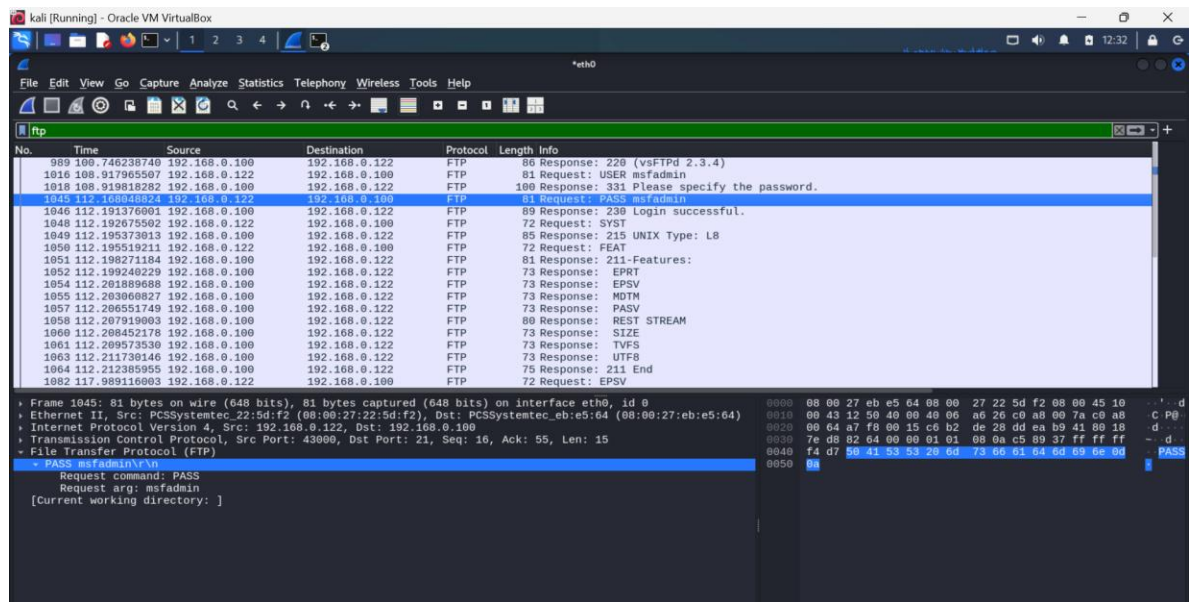
```

telnet

- Observe the all request we get username: msfadmin, password: msfadmin.
- Got to kali terminal send request to 192.160.0.100 for accessing telnet services.

COMMAND:

telnet 192.168.0.100



Filter: ftp

- Apply the filter for ftp for FTP protocol. So here the Wireshark shows the requests which is related to FTP.
- FTP is file transferring protocol the services on port 21.
- The actual file data in FTP may be sent over another port so if you also want to capture the file transfer data packets, you'd need.

```

root@kali:~# telnet 192.168.0.100
Trying 192.168.0.100...
Connected to 192.168.0.100.
Escape character is '^Z'.
220 (vsFTPd 2.3.4)
Name (192.168.0.100:kali): msfadmin
331 Please specify the password.
Password:
330 Login successful.
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
229 Entering Extended Passive Mode (|||65160|).
150 Here comes the directory listing.
drwxr-xr-x  6 1000    1000          4096 Apr 28  2010 vulnerable
226 Directory send OK.
ftp> dir
229 Entering Extended Passive Mode (|||14337|).
150 Here comes the directory listing.
drwxr-xr-x  6 1000    1000          4096 Apr 28  2010 vulnerable
226 Directory send OK.
ftp> whoami
?Invalid command.
ftp>

```

ftp services

COMMAND

ftp 192.168.0.100

- Connect to ftp enter username and password which u find In the Wireshark and access the services.

Conclusion

Wireshark is a powerful open-source network protocol analyzer that turns bytes on the wire into network traffic you can analyze. Its simple-to-use interface provides an overview of your capture traffic in the list pane and specific information about each packet in the details pane.

You have seen how to examine network packets in granular detail, refine your view using Wireshark's display filters, and summarize network traffic with statistical analysis tools. These skills allow you to use Wireshark in the real world for following TCP streams to uncover conversations, extracting files, and identifying cyber attacks