1. Preparation for running the program

The program can only run on a rooted Android System. Make sure the phone has been rooted.

1.1 Download

To run this program, you firstly need to download two tools to the phone. These two tools are:

- Tcpdump http://www.strazzere.com/android/tcpdump
- LSOF http://www.roman10.net/src/lsof

1.2 push tools to your phone

To put these tools into your Android phone, you can use ADB commands. First, connect your phone to your PC by USB cable. Then, open the command line tool and run the following command "adb push [source file] [destination file]", just as shown in the following figure:

```
C:\Users\user>adb push c:/tcpdump /data/local/tcpdump
2130 KB/s (645840 bytes in 0.296s)
```

Make sure you have got the write permission of "/data/local". Otherwise, you need to use shell command to change the mode of "/data/local" first:

```
C:\Users\user>adb shell
shell@jflte:/ $ su
su
root@jflte:/ # chmod 777 /data/local
chmod 777 /data/local
```

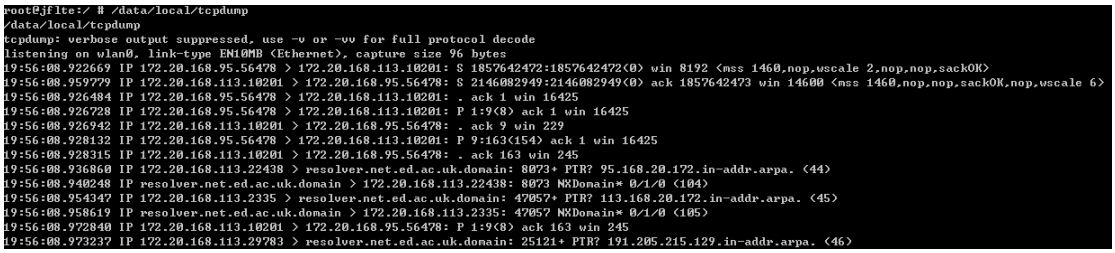
After you push Tcpdump and LSOF to "/data/local", you need to change their mode to get them executable:

```
root@jflte:/ # chmod 777 /data/local/tcpdump
chmod 777 /data/local/tcpdump
```

The operation of LSOF is the same.

You can check if you successfully finish above operation by running these two tool in

ADB shell command:



2. Some settings in the code

2.1 get particular type of packets

In default setting, Network Warden only capture TCP packet. You can find the line of code in *RunTCP.java :*

```
os.writeBytes("/data/local/tcpdump -v -n -s 0 tcp\n");
```

If you want to capture UDP packets as well, change this code to:

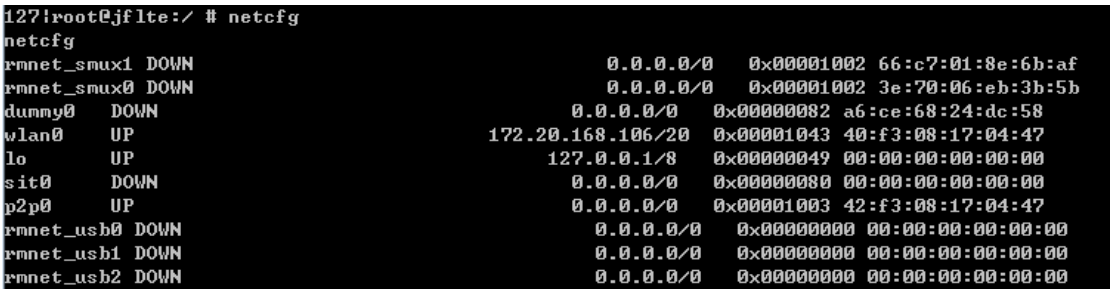
```
os.writeBytes("/data/local/tcpdump -v -n -s 0 tcp or udp\n");
```

2.2 network

In default setting, Network Warden captures the packet in WiFi network. You can find this line of code in *HashTable.java:*

```
os.writeBytes("ifconfig wlan0\n");
```

“wlan0” is the network name of the WiFi network. If you want to capture the packets from other network, you need the name of that network. You can find the name of the networks by ADB command:



While the first column is network name. Then, for example, you can replace the code with:

```
os.writeBytes("ifconfig rmnet_usb1\n");
```