MITM – Man in the Middle

Wifi Packet Capturing and Session Hijacking using Wireshark

Introduction

The main Objective of this Attack is to make a Fake Access point and send the fake ARP Packets on same Wi-Fi Network from where the users are connected and the name of fake access point is same as the name of the wireless network reside there. So when a fake access point is created with same wireless network name then the user which is connected to original network gets disconnected and connects with your fake access point, so all the traffic tunnels throughout my system and we get all details/credentials/information of that user which is generally known as session hijacking.

Requirements

1. Backtrack Operating System (BT5)
2. Virtual Machine (With USB Adapter)
3. Internet Access on your System

Deepanshu Kapoor

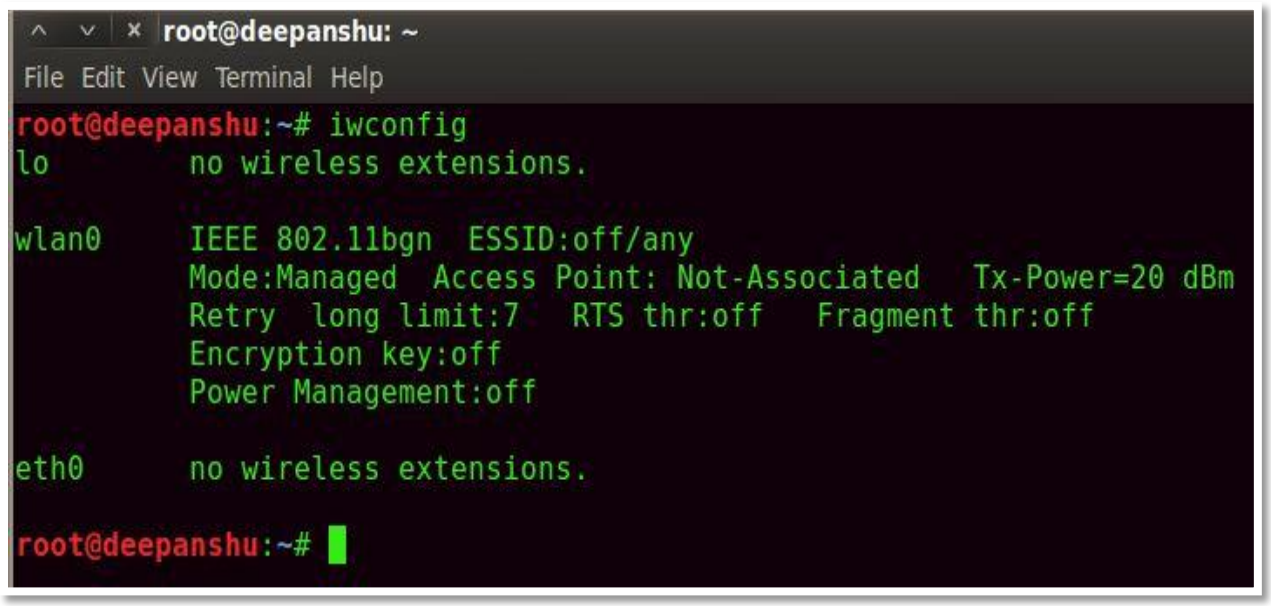
Security Specialist

Step - 1

Open Backtrack Operating System and start Terminal and type "**iwconfig**" for checking wireless interface.

Description –

iwconfig is similar to **ifconfig**, but is dedicated to the wireless interfaces. It is used to set the parameters of the network interface which are specific to the wireless operation (for example: the frequency).



Step - 2

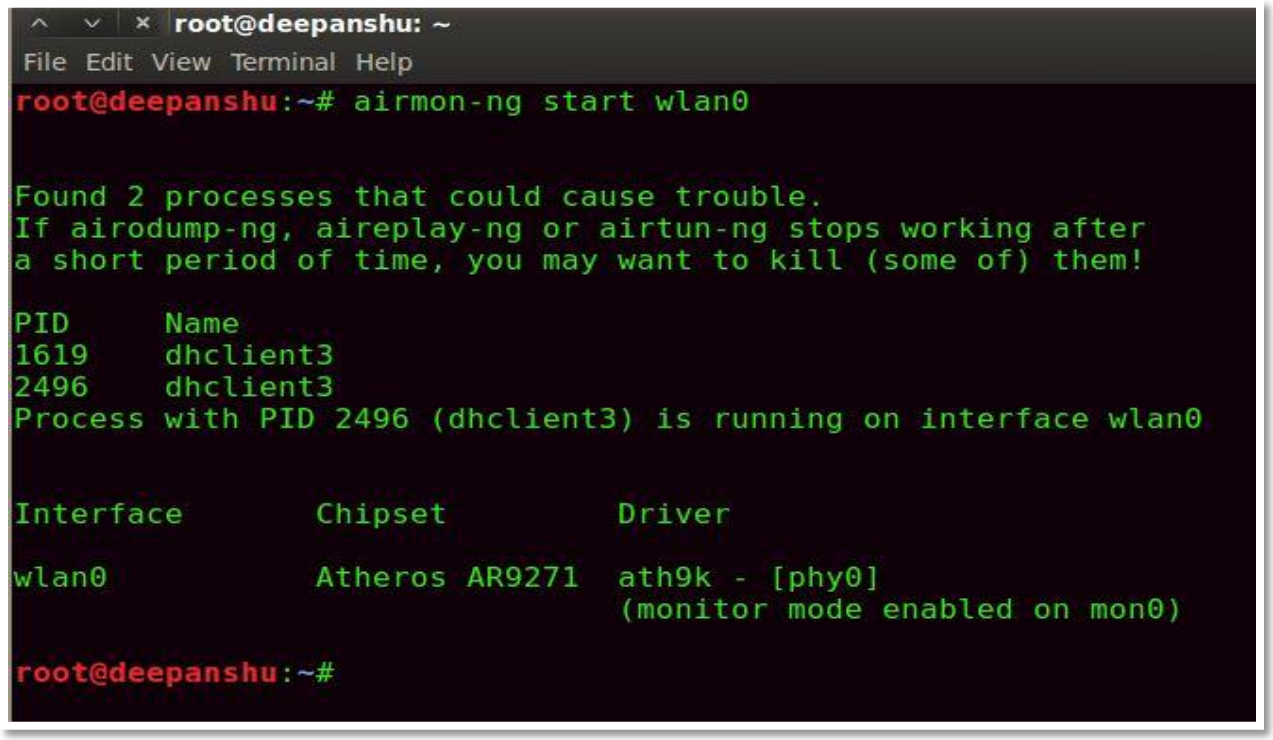
Start this Wireless Interface by typing this command

"**airmon-ng start wlan0**".

Description –

This script can be used to enable monitor mode on wireless interfaces. It may also be used to go back from monitor mode to managed mode. Entering the **airmon-ng** command without parameters will show the interfaces status.

wlan0 is your wifi card.
wlan is wireless lan and **0** is the number of your card.



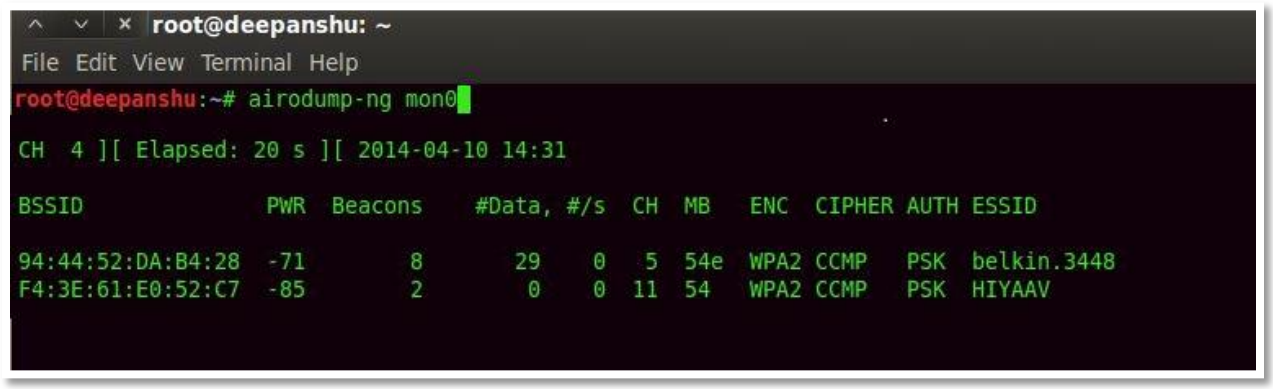
Step - 3

Start your monitor mode by typing this command "**airodump-ng mon0"**. It captures data from all stations.

Description -

Airodump-ng is used for packet capturing of raw **802.11 frames** and is particularly suitable for collecting WEP IVs (Initialization Vector) for the intent of using them with **aircrack-ng**. Also **airodump-ng** is capable of logging the coordinates of the found access points.

mon0 is the same card (**wlan0**) in **monitor mode**.
Once you put **wlan0** in monitor mode it will be read as **mon0** and **wlan0.**



Step – 4

Set up the channel ID which is shown above in **airodump-ng** command by typing these commands

"iwconfig mon0 channel 5" **"iwconfig wlan0 channel 5"**

OR

"iwconfig wlan0 channel 5" **"iwconfig mon0 channel 5"**

Decription -

iwconfig is similar to **ifconfig**, but is dedicated to the wireless interfaces. It is used to set the parameters of the network interface which are specific to the wireless operation (for example: the frequency).

wlan0 is your wifi card.
wlan is wireless lan and **0** is the number of your card.

mon0 is the same card (**wlan0**) in **monitor mode**.
Once you put **wlan0** in monitor mode it will be read as **mon0** and **wlan0.**

The "–channel" (-c) option allows a single or specific channels to be selected.

Step -5

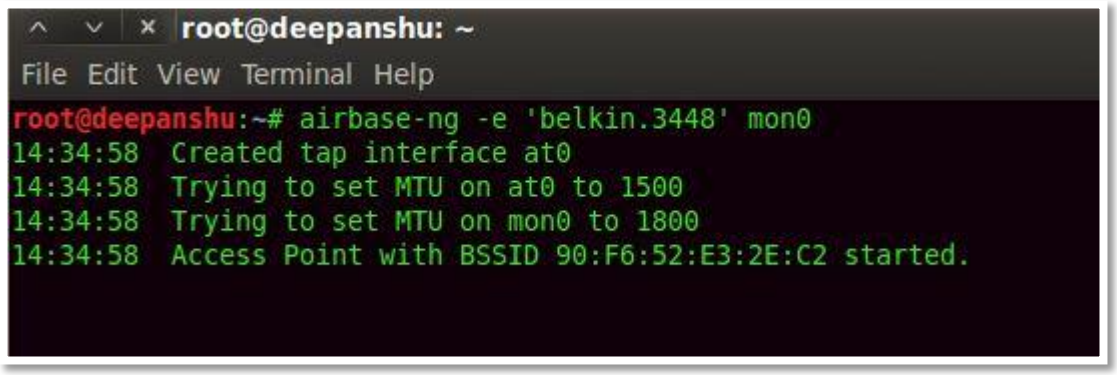
Now Setup your Fake Router by typing this command

"airbase-ng - e "belkin.3448" mon0"

Description –

Airbase-ng is multi-purpose tool aimed at attacking clients as opposed to the Access Point (AP) itself. The main idea is of the implementation is that it should encourage clients to associate with the fake AP, not prevent them from accessing the real AP.

"– essid" (-e) of the Network.



Step - 6

Now it's time to bridge all networks by typing these commands
"brctl addbr mitm"
"brctl addif mitm eth0"
"brctl addif mitm at0"

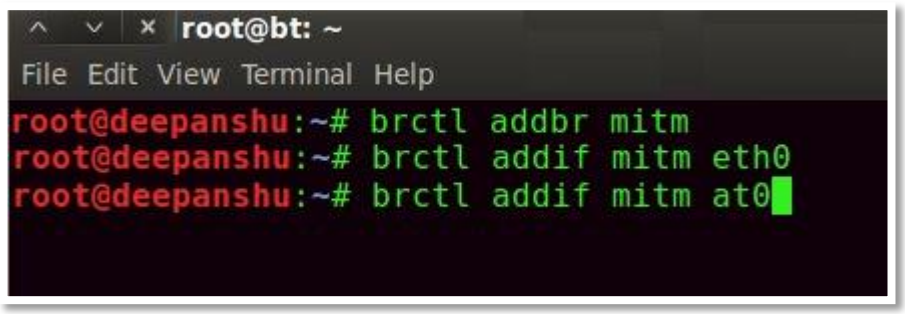
Here – mitm is <interface name>

Description -

Brctl - is used to create a bridge between two interfaces.

Addbr - A bridge can be added using the following command, with <name> being replaced with the name of the bridge being replaced.

Addif - To add a interface to a bridge, Where <brname> is the existing bridge name, and ifname is the interface you want to add.

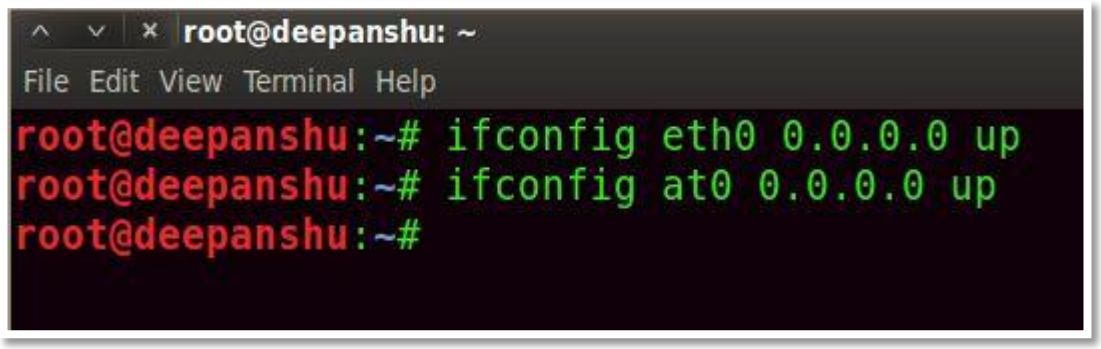


Step - 7

Now Setting up New configurations by typing these commands.
"**ifconfig eth0 0.0.0.0 up**"
"**ifconfig at0 0.0.0.0 up**"

Description -

ifconfig stands for interface configurator.
ifconfig command is used to configure network interfaces.
ifconfig is widely used to initialize the network interface and to enable or disable the interfaces.



Step – 8

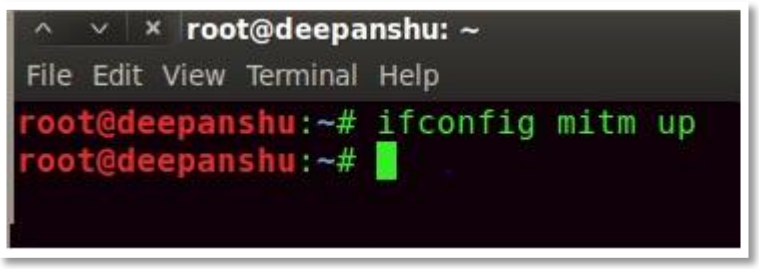
Now it's turn on MITM Interface by typing this command

"**ifconfig mitm up"**

Description –

ifconfig stands for interface configurator.
ifconfig command is used to configure network interfaces.
ifconfig is widely used to initialize the network interface and to enable or disable the interfaces.

By Default Interface we created is down, we need to put it up.



Step – 9

Now send the deauthentication packets to the router by typing this command "**aireplay-ng - - deauth 0 - a 94:44:52:DA:B4:28 mon0"**

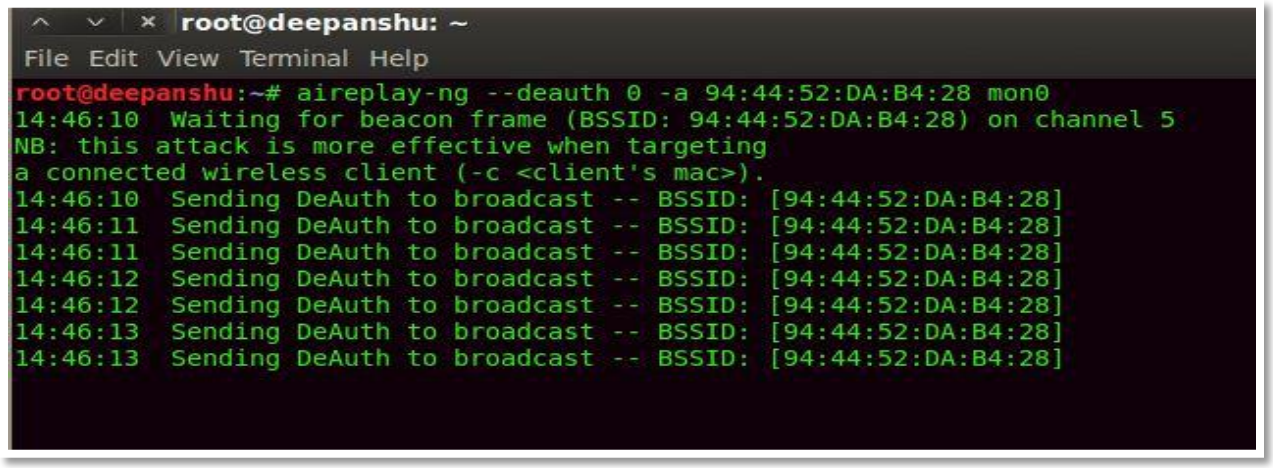
Description –

Aireplay-ng is used to inject frames.

The primary function is to generate traffic for the later use in **aircrack-ng** for cracking the **WEP** and **WPA-PSK** keys. There are different attacks which can cause deauthentications for the purpose of capturing WPA handshake data, fake authentications, Interactive packet replay, hand-crafted ARP request injection and ARP-request reinjection.

We use 0 for continuous Flooding of packets.
We use 1 for Single Flooding of packet.

-a represent bssid of the victim network.
94:44:52:DA:B4:28 here is a bssid of the victim network.



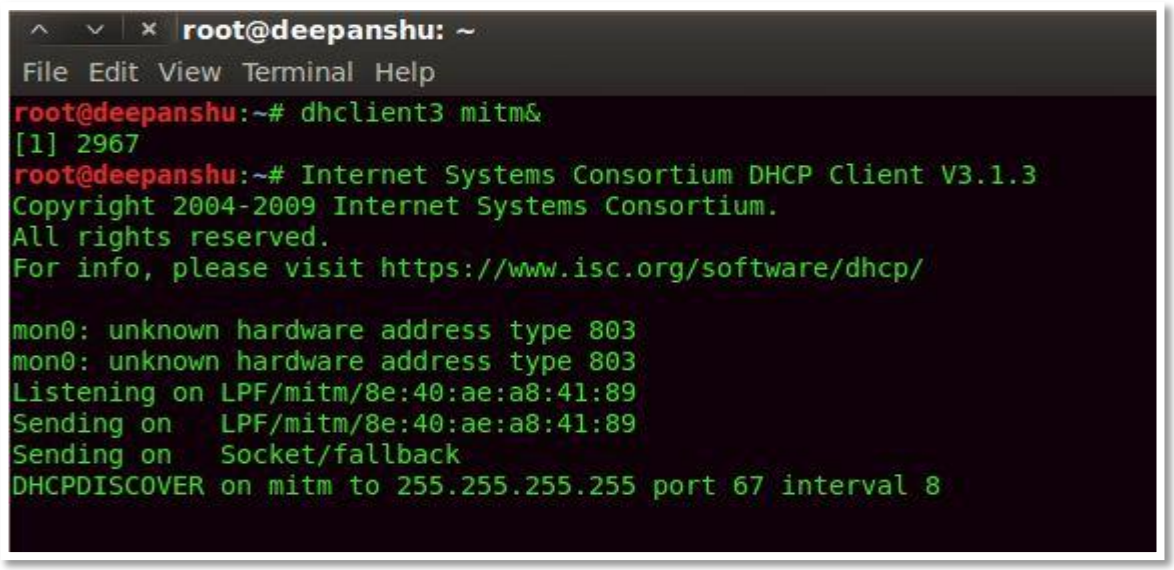
Step – 10

Now it's time to assigning the IP to all victims by typing this command "**dhclient3 mitm&**" **OR** "**dhclient3 mitm &**"

Description –

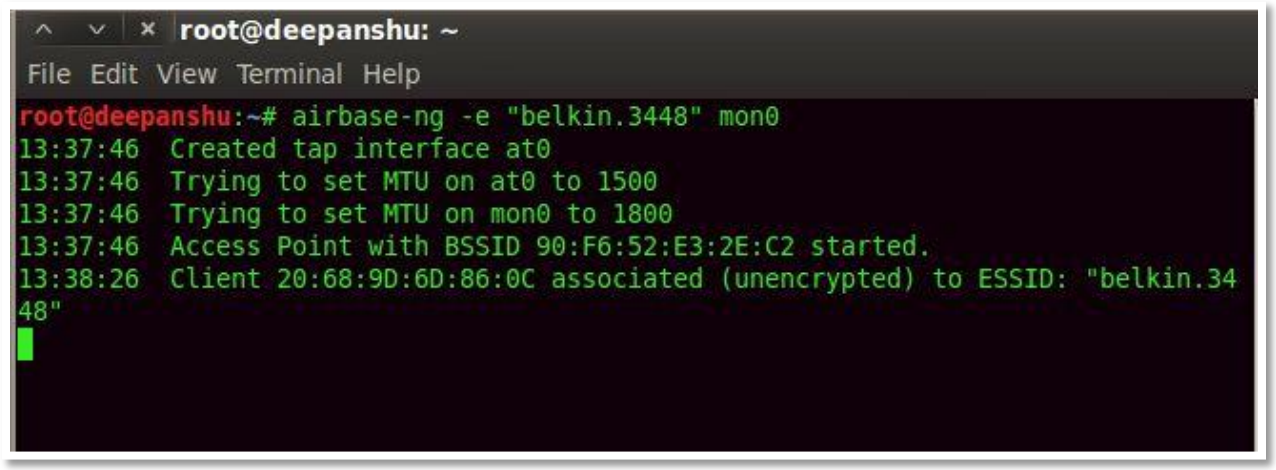
Dynamic Host Configuration Protocol (DHCP) is a network protocol that enables a server to automatically assign an IP address to a computer from a defined range of numbers (i.e., a scope) configured for a given network.

In Linux to unable **dhcp** we use the command **dhclient**.
& **dhclient3** – here **3** is the **version C**



Step – 11

Now you can check the **client connected** on the 5th Terminal where you create Fake Access point.

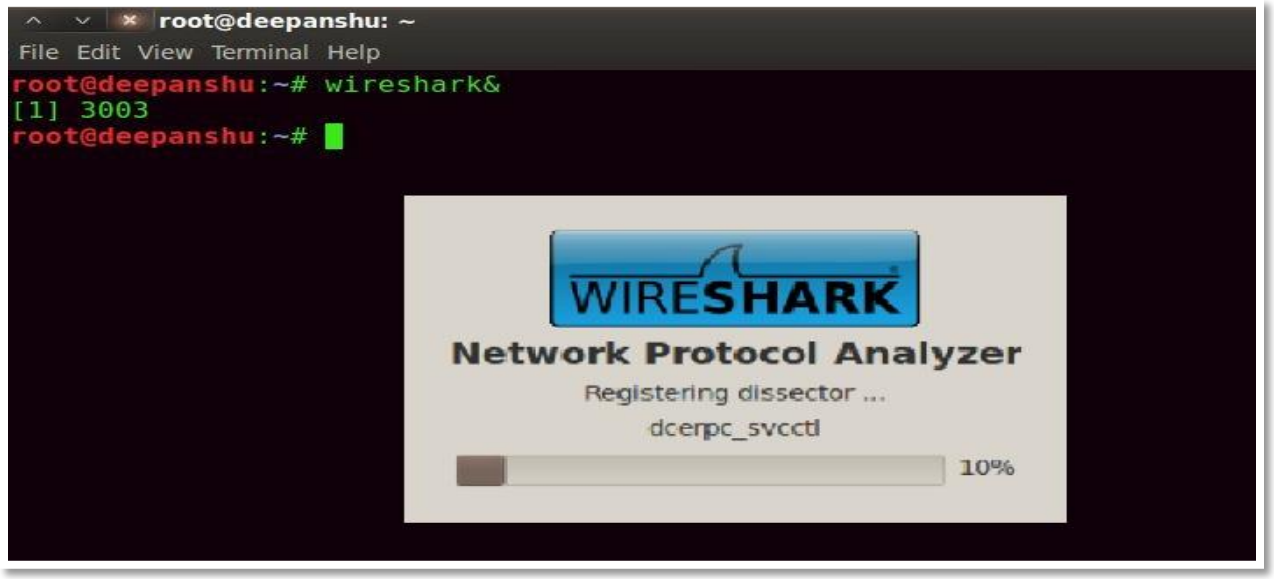


Step – 12

Start your Wireshark Packet Analyzer Tool by typing this command "**wireshark&" OR "wireshark &**

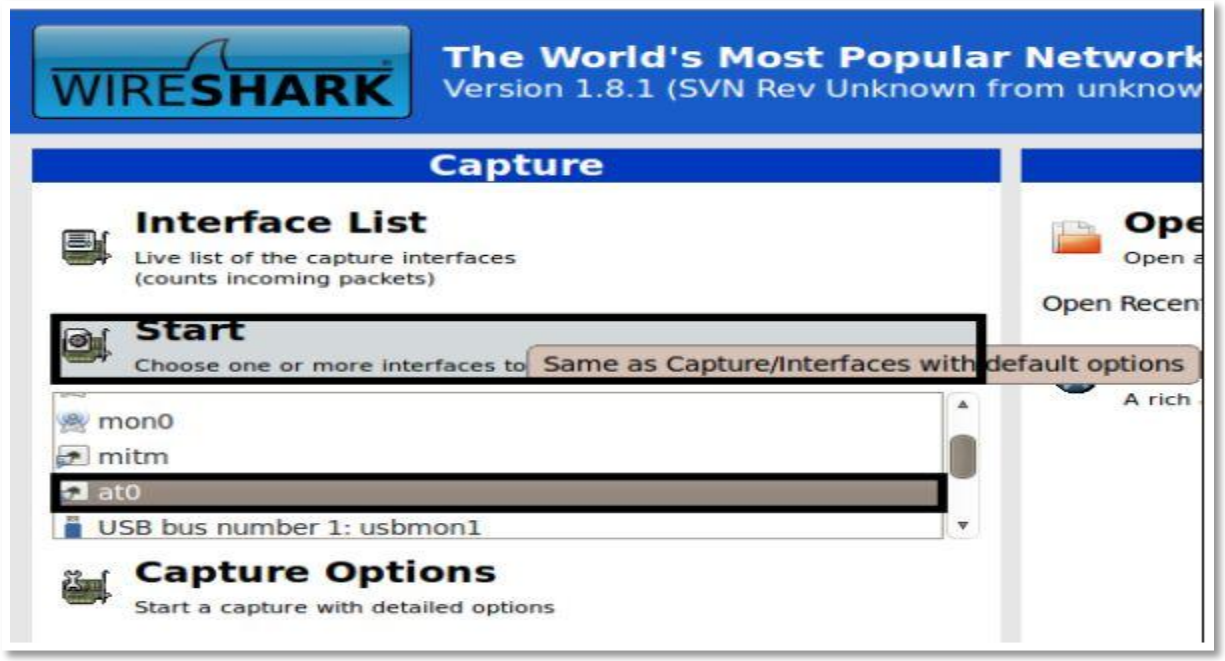
Description –

Wireshark is an open source tool for profiling network traffic and analyzing packets. Such a tool is often referred to as a network analyzer, network protocol analyzer or sniffer.



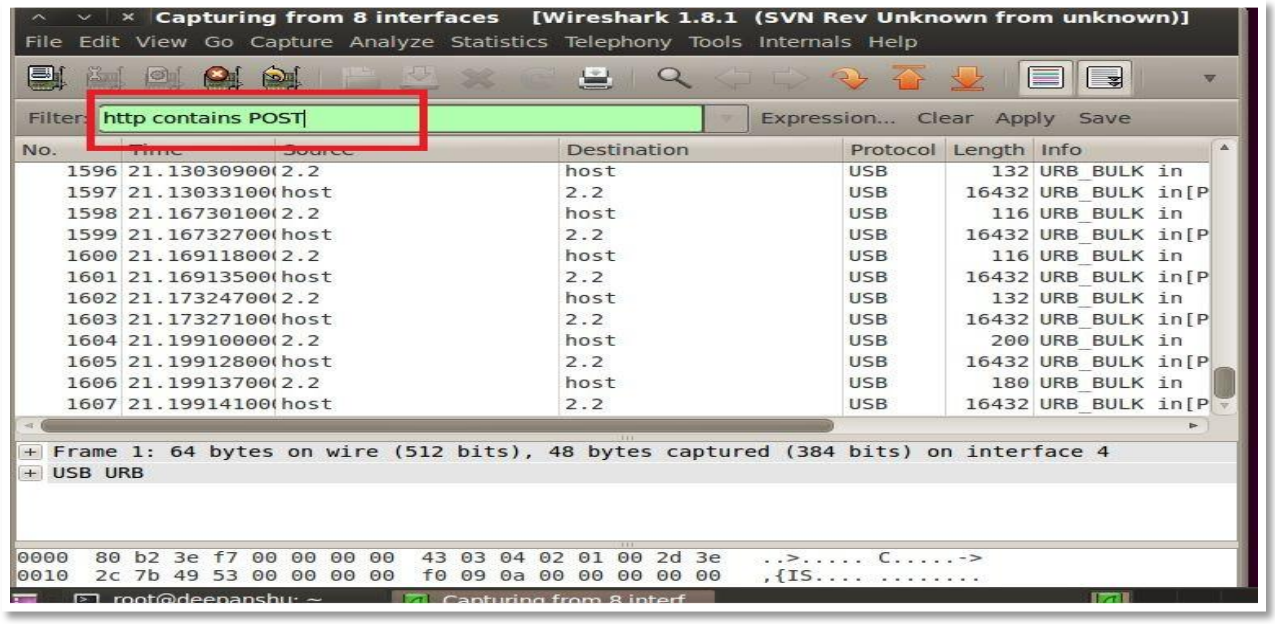
Step – 13

Now Select the Interface (at0) and click on **START.**



Step – 14

Type "**http contains POST"** and you can see that all packets be in your sniffing tool.



http://exploit.deepanshukapoor.org/admin.php

Username – john
Password – 1234