

WMS Assignment 4

★ Aim:-

Install, configure and demonstrate any one wifi traffic analyzer using sniffing tools such as Wireshark, Aircrack, Aircrack-ng, etc.

★ Objective:-

- To install, configure and demonstrate any one wifi traffic analyzer using sniffing tool
- To learn use of tools such as Wireshark, Aircrack, Aircrack-ng, etc.

★ Theory:-

Wireshark:-

- Wireshark is a free and open source packet analyzer.
- It is used for network troubleshooting, analysis, software and communication protocol development and education.

Wifmet Linux:-

- Wifmet Linux tool know that Wifmet is a wifi type Army Knife; it discovers APs and clients, capture wifi packets from local, Wifi or remote devices and can generate alerts for finger printed recon activities.

★ Ettercap:-

- Ettercap is a suite for Man in the middle attacks on LAN.
- It features sniffing of live connections, content filtering on the fly and many other interesting tricks and support active and passive dissection.

★ PRTG:-

- PRTG is a open source network monitor where PRTG stands for Passiver Router, Traffic Graphs.
- It is a network monitoring software from Passiver AG. PRTG runs on windows and monitor network availability and network usage using SNMP, Packet sniffing, WMI, IP, SLA, 4 MetFlocey.

★ Nagios:-

- Nagios is the definitive open source n/w monitoring solution.
- It can be used from simply checking to see if a network host is still up, all the way up to monitoring specific services on remote hosts and even to trigger corrective action if a problem is detected.

* Protocol analyzer:

It is mostly a tool for seeing the bits and bytes flowing from port to end network in a human understandable format.

* Wireshark misconceptions:

There is a combine misconception about Wireshark to recognize what Wireshark is not.

- 1) Wireshark is not a packet generator or packet dropper. It captures packets & analyze.
- 2) Wireshark will never advise if any suspicious packets or mischievous connections. Thus, it cannot use as an alarm any notification for packets.

* Conclusion:-

Thus, we studied the configuration of Wireshark and analysis of wifi traffic using the analyzing tool Wireshark.

* FAQ:

- 1) List the different open source tools to capture packet. Also, write its features packets are -
 - PRTG - Fiddler - EtherCAPS
 - Teddium - Packet capture - Solar winds
 - Kismet - Network miner

PRIG :-

- It filters according to IP addresses protocols and type of data
- It offers a dashboard which shows complete information about which application uses the most bandwidth

Solarwinds :-

- Offers many types of IT management tools including Deep Packet Sniffing and Analytics.
- It inspects all the contents of the packet to determine even the smallest detail including what application causes more traffic

Q2 Which mode NIC uses for Ethernet / packet sniffing?

- When you are running a sniffer, the packet capture driver that we mentioned earlier will put computer NIC into what is known as promiscuous mode
- This means the sniffing computer will be able to see all the traffic on the segment regardless of who is being sent to.

Q3 which iptables filter can be used to monitor outgoing packets from a specific system on the network?

→ outgoing packets would contain the IP address of the system as it is a source address.

- So assuming that the IP address of the system is 192.168.1.2. The filter would be `IP Src == 192.168.1.2`