

PACKET SNIFFING

Aim :

To implement packet sniffing

Code :

```
from scapy.all import sniff
from scapy.layers.inet import IP, TCP, UDP, ICMP

def packet_callback(packet):
    if IP in packet:
        ip_layer = packet[IP]
        protocol = ip_layer.proto
        src_ip = ip_layer.src
        dst_ip = ip_layer.dst

        protocol_name = ""
        if protocol == 1:
            protocol_name = "ICMP"
        elif protocol == 6:
            protocol_name = "TCP"
        else:
            protocol_name = "unknown protocol"

        print(f"Protocol: {protocol_name}")
        print(f"Source IP: {src_ip}")
        print(f"Destination IP: {dst_ip}")

    def main():
        sniff(iface = "wi-fi", prn = packet_callback,
              filter = "ip", store = 0)

if __name__ == "__main__":
    main()
```

Output:

Protocol : TCP

Source IP : 20.247.184.142

Destination IP : 172.20.10.2

Result :

Thus the python program to implement packet sniffing has been implemented successfully.

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