

EXP: 14

## Packet Sniffing

Date: 28/10/24

Aim:

Write a code using RAW sockets 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
```

```
# determine the protocol.
```

```
    protocol_name = ""
```

```
    if protocol == 1:
```

```
        protocol_name = "ICMP"
```

```
    elif protocol == 6:
```

```
        protocol_name = "TCP"
```

```
    elif protocol == 17:
```

```
        protocol_name = "UDP"
```

```
    else:
```

```
        protocol_name = "unknown protocol"
```

```
# print
```

```
    print
```

```
    print
```

```
    print
```

```
    print
```

```
def main:
```

```
#
```

```
network
```

```
sn
```

```
buffer =
```

```
if __name__
```

```
    main
```

```
output:
```

```
Protocol
```

```
Source
```

```
Destin
```

```
Result:
```

```
Th
```

```
Impleme
```

```
success
```



Sniffing

no RAW  
Packet

Sniff  
import  
P, ICMP

set):

[IP]

u. proto

src

.dst.

ip

1

own Protocol:

```
# print packet details.  
print["+ "protocol: { protocol_name}"]  
print["+ "source IP: {src_ip}"]  
print["+ "destination IP: {dst_ip}"]  
print( "-" * 50)
```

```
def main():
```

```
# capture packets on the default  
network interface.
```

```
sniff(face='WiFi', pbn=Packet_callback,  
baku="ip", more=0)
```

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

output:

Protocol: TCP

Source IP: 20.247.104.142

Destination IP: 172.20.10.2

Result:

The code for packet sniffing is  
implemented & executed and  
successfully.

