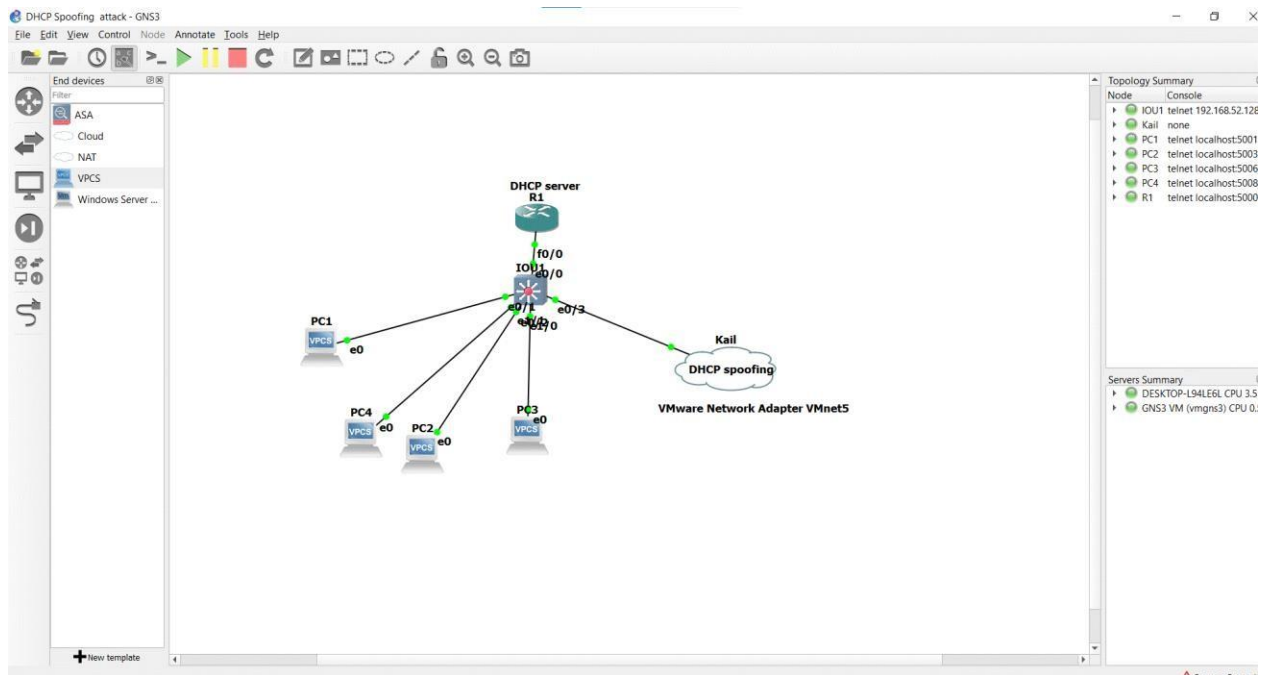# DHCP Starvation Attack

> is a network attack where an attacker sends fake DHCP requests to exhaust the server's IP pool, blocking legitimate users from getting an IP address. Attackers use spoofed MAC addresses to overwhelm the server quickly
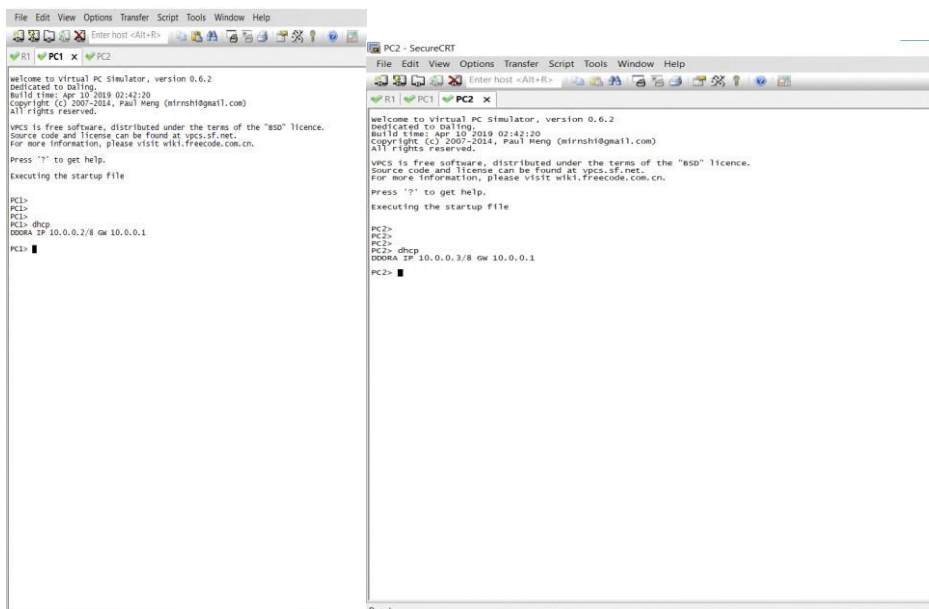
LAB on DHCP Starvation Attack

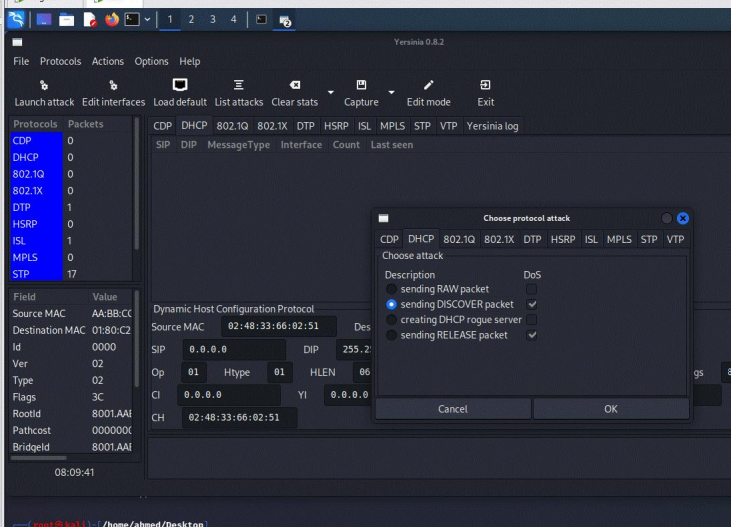# Step for configurations

1. Enter on Router and enable DHCP

R1(config)#int f0/0
R1(config-if)#ip address 10.0.0.1 255.0.0.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#ip dhcp pool DHCP
R1(dhcp-config)#network 10.0.0.0 255.0.0.0
R1(dhcp-config)#default-router 10.0.0.1
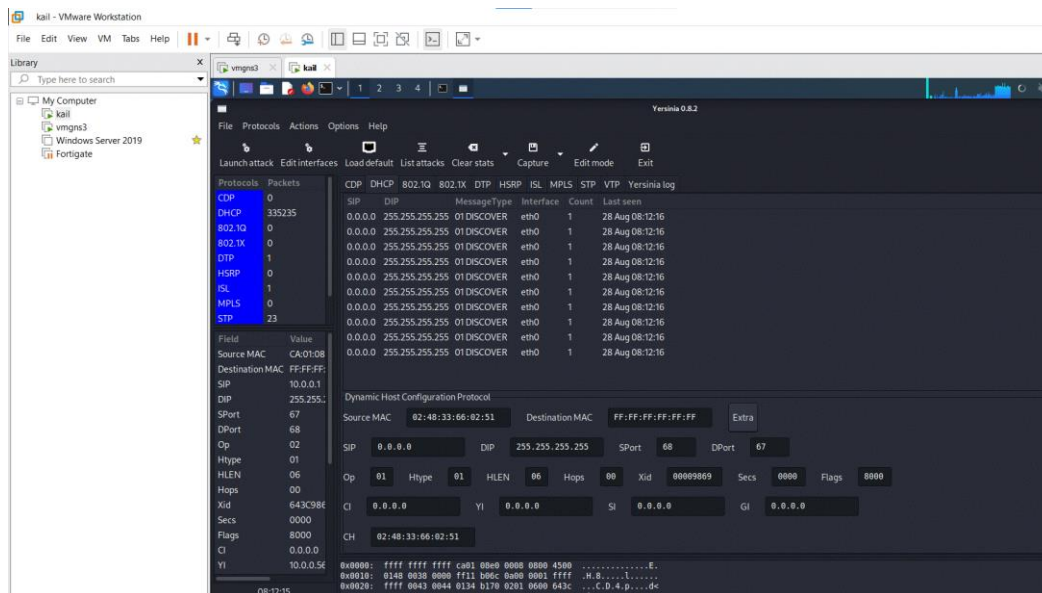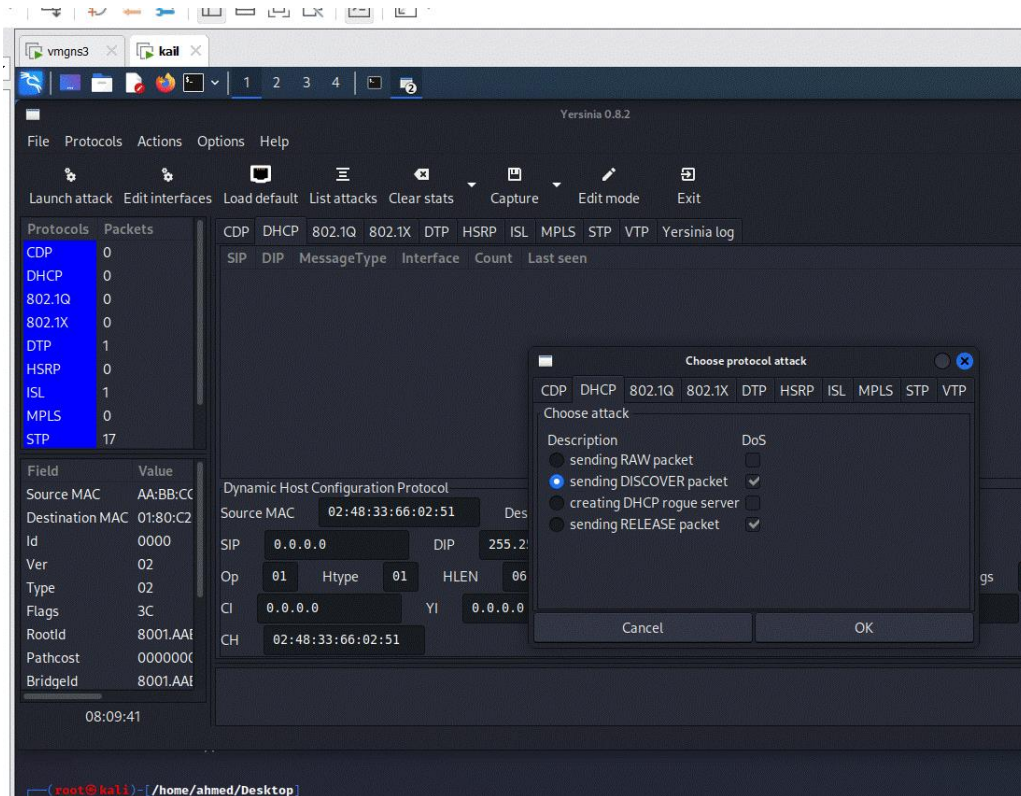R1(dhcp-config)#dns-server 8.8.8.8

2. Enter on All PC

PC> dhcp

3. Launch   DHCP Attack

Enter on Kail

4. Enter all PC for check iP

Each PC not given IP from DHCP Server

5.enter DHCP server
DHCP # show ip dhcp binding

File   Edit   View   Options   Transfer   Script   Tools   Window   Help

Enter host <Alt+R>

✔ **DHCP**   ✕   ✔ PC1   ✔ PC2

10.0.0.115	55e8.7b00.dce3	Aug 28 2024 03:18 PM	Automatic
10.0.0.116	17be.3338.c7b1	Aug 28 2024 03:18 PM	Automatic
10.0.0.117	b9c0.7831.ab0c	Aug 28 2024 03:18 PM	Automatic
10.0.0.118	800d.bc5a.e0a6	Aug 28 2024 03:18 PM	Automatic
10.0.0.119	b641.b902.8dde	Aug 28 2024 03:18 PM	Automatic
10.0.0.120	5cf7.4c37.c313	Aug 28 2024 03:18 PM	Automatic
10.0.0.121	24e4.345d.8482	Aug 28 2024 03:18 PM	Automatic
10.0.0.122	324a.c660.ecc0	Aug 28 2024 03:18 PM	Automatic
10.0.0.123	5299.7615.38d0	Aug 28 2024 03:18 PM	Automatic
10.0.0.124	78d3.4d79.792b	Aug 28 2024 03:19 PM	Automatic
10.0.0.125	0d2c.2311.1def	Aug 28 2024 03:19 PM	Automatic
10.0.0.126	bc93.9615.6b91	Aug 28 2024 03:19 PM	Automatic
10.0.0.127	0df6.b455.42f9	Aug 28 2024 03:19 PM	Automatic
10.0.0.128	8335.316f.ef3f	Aug 28 2024 03:19 PM	Automatic
10.0.0.129	b686.bd31.8f93	Aug 28 2024 03:19 PM	Automatic
10.0.0.130	ba93.183e.23a0	Aug 28 2024 03:19 PM	Automatic
10.0.0.131	6344.4236.13e1	Aug 28 2024 03:19 PM	Automatic
10.0.0.132	4c19.3c53.a556	Aug 28 2024 03:19 PM	Automatic
10.0.0.133	b3b7.e753.bbfb	Aug 28 2024 03:19 PM	Automatic
10.0.0.134	0fa4.bc0c.9c29	Aug 28 2024 03:19 PM	Automatic
10.0.0.135	2066.fb7e.3895	Aug 28 2024 03:19 PM	Automatic
10.0.0.136	6615.5e70.2439	Aug 28 2024 03:19 PM	Automatic
10.0.0.137	4a51.bf2f.ae1c	Aug 28 2024 03:19 PM	Automatic
10.0.0.138	a08c.9129.bce7	Aug 28 2024 03:19 PM	Automatic
10.0.0.139	5334.7d59.c440	Aug 28 2024 03:19 PM	Automatic
10.0.0.140	1308.8061.d991	Aug 28 2024 03:19 PM	Automatic
10.0.0.141	4982.a076.2882	Aug 28 2024 03:19 PM	Automatic
10.0.0.142	6797.ff7f.16c6	Aug 28 2024 03:19 PM	Automatic
10.0.0.143	2104.283f.e753	Aug 28 2024 03:19 PM	Automatic
10.0.0.144	8a24.0f03.98fc	Aug 28 2024 03:19 PM	Automatic
10.0.0.145	fa1d.602d.c408	Aug 28 2024 03:19 PM	Automatic
10.0.0.146	1667.8c71.770a	Aug 28 2024 03:19 PM	Automatic
10.0.0.147	b5de.103a.7ae1	Aug 28 2024 03:19 PM	Automatic
10.0.0.148	5de3.060c.7783	Aug 28 2024 03:19 PM	Automatic
10.0.0.149	c13c.6a6c.d7e8	Aug 28 2024 03:19 PM	Automatic
10.0.0.150	be7a.3b00.a86d	Aug 28 2024 03:19 PM	Automatic
10.0.0.151	5564.cd2a.15c5	Aug 28 2024 03:19 PM	Automatic
10.0.0.152	b1c3.7807.8efa	Aug 28 2024 03:19 PM	Automatic
10.0.0.153	61ca.0e3a.4520	Aug 28 2024 03:19 PM	Automatic
10.0.0.154	5f4b.dc16.a91c	Aug 28 2024 03:20 PM	Automatic
10.0.0.155	36c8.bc5a.7425	Aug 28 2024 03:20 PM	Automatic
10.0.0.156	80e4.fa3e.3e26	Aug 28 2024 03:20 PM	Automatic
10.0.0.157	6e7d.3060.e7c2	Aug 28 2024 03:20 PM	Automatic
10.0.0.158	13be.5a45.434f	Aug 28 2024 03:20 PM	Automatic
10.0.0.159	3d83.070f.51dc	Aug 28 2024 03:20 PM	Automatic
10.0.0.160	ff7f.312b.ce8c	Aug 28 2024 03:20 PM	Automatic
10.0.0.161	7644.fb20.b83e	Aug 28 2024 03:20 PM	Automatic
10.0.0.162	ca14.9929.d90c	Aug 28 2024 03:20 PM	Automatic
10.0.0.163	c4e1.1523.d401	Aug 28 2024 03:20 PM	Automatic
10.0.0.164	c18b.f91f.82d2	Aug 28 2024 03:20 PM	Automatic
10.0.0.165	f094.e37b.fb5b	Aug 28 2024 03:20 PM	Automatic
10.0.0.166	5a8a.1409.0cf7	Aug 28 2024 03:20 PM	Automatic
10.0.0.167	310c.0b11.da6a	Aug 28 2024 03:20 PM	Automatic
10.0.0.168	78c1.a541.25d7	Aug 28 2024 03:20 PM	Automatic
10.0.0.169	bae9.b03d.1341	Aug 28 2024 03:20 PM	Automatic
10.0.0.170	e88b.7715.c475	Aug 28 2024 03:20 PM	Automatic
10.0.0.171	eef4.9f33.8622	Aug 28 2024 03:20 PM	Automatic
10.0.0.172	eef0.cb7a.5ec5	Aug 28 2024 03:20 PM	Automatic
10.0.0.173	9ab2.6f0d.72c4	Aug 28 2024 03:20 PM	Automatic
10.0.0.174	596b.ed7e.b106	Aug 28 2024 03:20 PM	Automatic
10.0.0.175	ef9b.6941.7600	Aug 28 2024 03:20 PM	Automatic
10.0.0.176	2eb2.4637.48e8	Aug 28 2024 03:20 PM	Automatic
10.0.0.177	d21d.f741.c44b	Aug 28 2024 03:20 PM	Automatic
10.0.0.178	0bed.8126.c1e1	Aug 28 2024 03:20 PM	Automatic
10.0.0.179	1a88.e612.bdd9	Aug 28 2024 03:20 PM	Automatic
10.0.0.180	2bf4.7738.ec4b	Aug 28 2024 03:20 PM	Automatic
10.0.0.181	94fa.3f32.88b1	Aug 28 2024 03:20 PM	Automatic

Secure of DHCP Starvation

Enter on Switch

IOU1(config)#ip dhcp snooping vlan 1
IOU1(config)#ip dhcp snooping
IOU1(config)#no ip dhcp snooping information option
IOU1(config)#interface e0/0

IOU1(config-if)#no shutdown
IOU1(config-if)#ip dhcp snooping trust

IOU1(config) int range e0/1-3
IOU1(config-if)#no shutdown

IOU1(config-if)#ip dhcp snooping limit rate 3