Exp No: 03 Configure Static NAT in Cisco Packet Tracer

Date: 21/8/25

Aim

To configure the static NAT in cisco packet Tracer

Procedure

1. Built the topology with the devices R1, R2, 3 laptops, 1 server, 1 switch

2. Give these connections accordingly

laptop → switch → R1 Fa0/0

R1 serial 0/0/0 ↔ R2 serial 0/0/0

R2 Fa0/0 → server

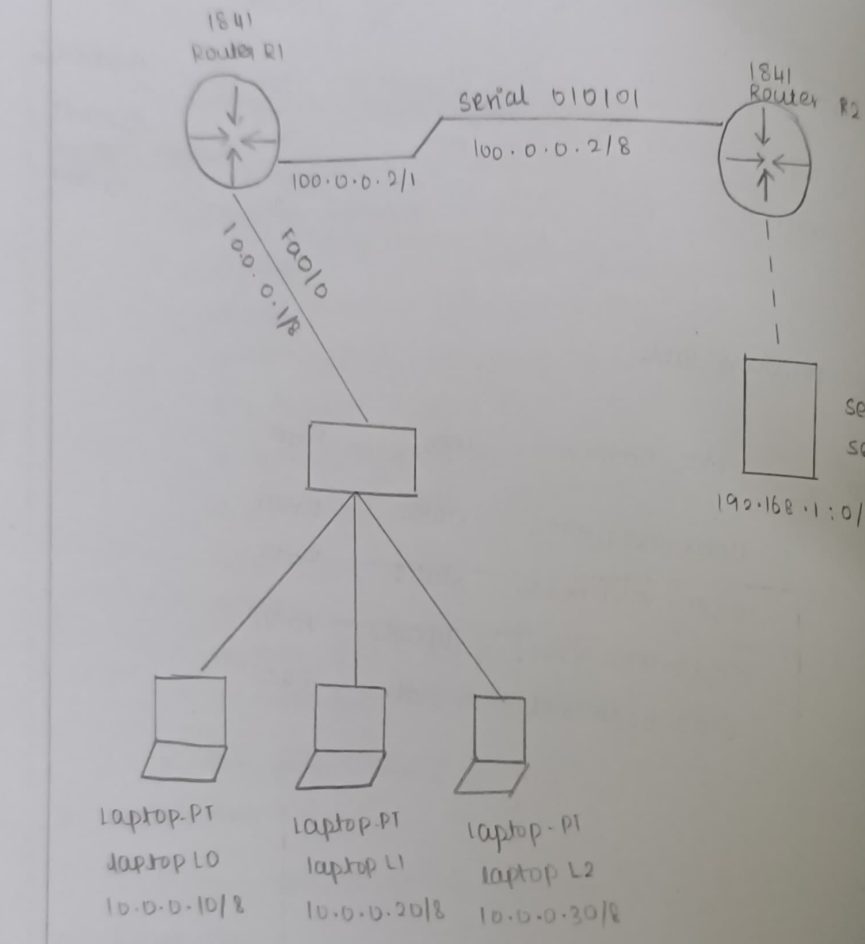
3. Assign IP address accordingly

Device	IP address
laptop 0	10.0.0.10/8
laptop 1	10.0.0.20/8
laptop 2	10.0.0.30/8
server 0	192.168.1.10/24
Serial 0/0/0 of R1	100.0.0.1/8
Serial 0/0/0 of R2	100.0.0.2/8

4. On R1, configure static NAT to map 10.0.0.10 → 50.0.0.10, 10.0.0.20 → 50.0.0.20, 10.0.0.30 → 50.0.0.30

5. On R2, configure static NAT to map 192.168.1.10 → 200.0.0.10

6. Mark Fa0/0 as NAT inside and serial 0/0/0 as NAT outside on both routers


1841
Router R1
serial 010101
1841
Router R2
100.0.0.2/8
100.0.0.2/1
100.0.0.1/8
fa0/0
server0
server0
192.168.1.0/24
laptop-PT
laptop L0
10.0.0.10/8
laptop-PT
laptop L1
10.0.0.20/8
laptop-PT
laptop L2
10.0.0.30/8

7. Add static routes R1 forwards traffic for 200.0.0.0/24 to 100.0.0.2 and R2 forwards traffic for 50.0.0.0/8 to 100.0.0.1

8. Finally, test by pinging the server's global IP (200.0.0.10) from any laptop. It will succeed while pinging the server's private IP (192.168.1.10) will fail, providing NAT is working.

Output :

→ Ping 200.0.0.10 [From laptop 0]
Reply from 200.0.0.10 bytes=32 time<1ms TTL=255

→ Ping 192.168.1.10
Request timed out

→ Ping 200.0.0.10 (Ping from 11 or 12)
Request timed out

→ NAT translations on R1:

Pro	Inside global	Inside local	Outside local	outside global
---	50.0.0.10	10.0.0.10	---	---
---	50.0.0.20	10.0.0.20	---	---
---	50.0.0.30	10.0.0.30	---	---
tcp	50.0.0.20:1025	10.0.0.20:1025	200.0.0.10:80	200.0.0.10:80

→ NAT translations on R2:

Pro	Inside global	Inside local	Outside local	outside global
---	200.0.0.10	192.168.1.10	---	---

→ Web browser from laptop 0:
Accessing: http://200.0.0.10 → server page opens
Accessing from laptop 1 → fails

Result :

Thus, the static NAT configuration is successfully executed and output verified.