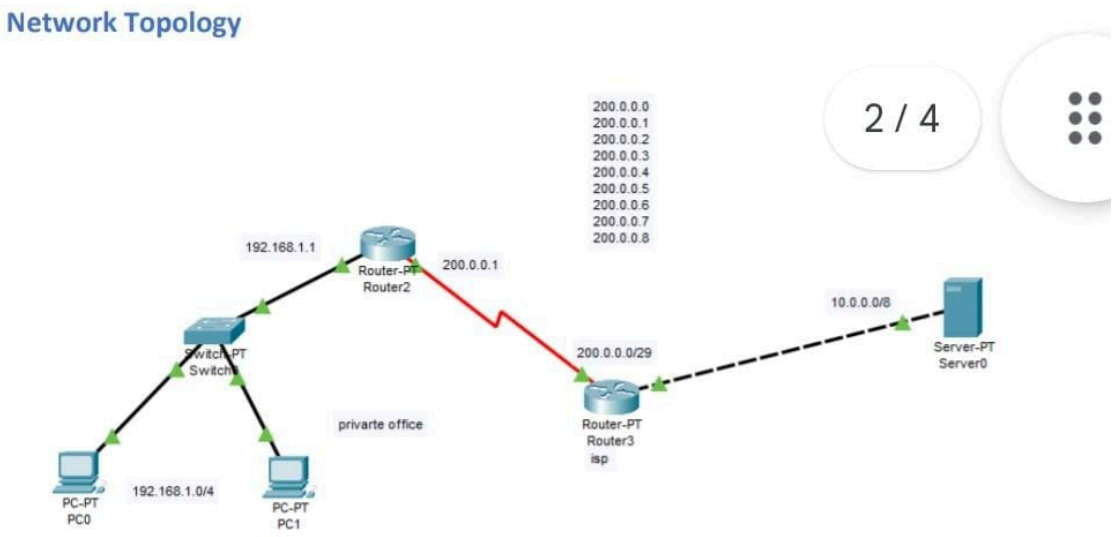
Experiment Name: Configuring NAT

Topology Overview:



This lab uses:

- **2 PCs:** PC0, PC1
- **1 Switch**
- **2 Routers:** Router1 (Internal), Router2 (External)
- **1 Server:** Server0
- **Cisco Packet Tracer**

Network Zones

- **LAN (Private):** 192.168.1.0/24
- **WAN Link:** 10.0.0.0/30

- **Public Server Network:** 200.0.0.0/8

Router1 performs NAT.

IP Addressing Table

Device	Interface	IP Address	Subnet Mask	Gateway
PC0	NIC	192.168.1.2	255.255.255.0	192.168.1.1
PC1	NIC	192.168.1.3	255.255.255.0	192.168.1.1
Server0	NIC	200.0.0.2	255.0.0.0	200.0.0.1
Router1	Fa0/0	192.168.1.1	255.255.255.0	—
Router1	Se2/0	10.0.0.1	255.255.255.252	—
Router2	Fa0/0	200.0.0.1	255.0.0.0	—
Router2	Se2/0	10.0.0.2	255.255.255.252	—

Step 1: End Device Configuration

Assign IP, subnet mask, and gateway to:

- PC0
- PC1
- Server0

Following the IP table above.

Step 2: Configure Router2

```
Router2> enable
Router2# configure terminal

interface FastEthernet0/0
 ip address 200.0.0.1 255.0.0.0
 no shutdown
exit
```

```
interface Serial2/0
 ip address 10.0.0.2 255.255.255.252
 no shutdown
exit
```

Step 3: Configure Router1 (Internal Router)

A. Assign Interface IPs + NAT Roles

```
Router1> enable
Router1# configure terminal

interface FastEthernet0/0
 ip address 192.168.1.1 255.255.255.0
 ip nat inside
 no shutdown
exit

interface Serial2/0
 ip address 10.0.0.1 255.255.255.252
 ip nat outside
 no shutdown
exit
```

B. Create Access List for Inside Network

```
access-list 1 permit 192.168.1.0 0.0.0.255
```

C. Configure NAT Overload (PAT)

Maps internal network → public IP of Serial2/0.

```
ip nat inside source list 1 interface Serial2/0 overload
```

D. Add Default Route on Router1

```
ip route 0.0.0.0 0.0.0.0 10.0.0.2
```

Verification & Testing

Check the configuration and connections

Go to a PC → Desktop → Web browser → pass the server ip → go