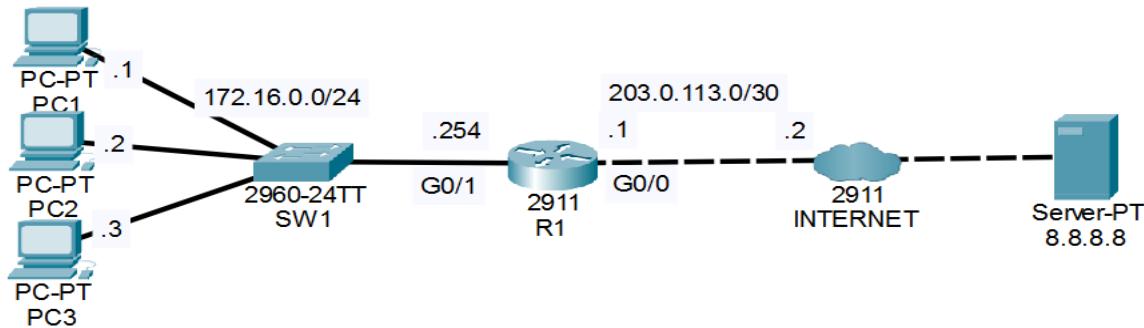


## Network Topology:



Instructions and actions:

### 1. Configure static NAT on R1

R1 CLI:

```
R1>en
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#int g0/1
R1(config-if)#ip nat inside
R1(config-if)#int g0/0
R1(config-if)#ip nat outside
R1(config-if)#exit
R1(config)#ip nat inside source static 172.16.0.1 100.0.0.1
R1(config)#ip nat inside source static 172.16.0.2 100.0.0.2
R1(config)#ip nat inside source static 172.16.0.3 100.0.0.3
R1(config)#do sh ip nat translations
Pro Inside global      Inside local      Outside local      Outside global
--- 100.0.0.1          172.16.0.1       ---             ---
--- 100.0.0.2          172.16.0.2       ---             ---
--- 100.0.0.3          172.16.0.3       ---             ---
R1(config) #
```

PC1 is now able to ping SRV1 across the internet

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 8.8.8.8:
  Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time<1ms TTL=126
Reply from 8.8.8.8: bytes=32 time<1ms TTL=126
Reply from 8.8.8.8: bytes=32 time=1ms TTL=126
Reply from 8.8.8.8: bytes=32 time=1ms TTL=126

Ping statistics for 8.8.8.8:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
```

2. Ping google.com from PC1, and then check the nat translations on R1

NAT translations on R1 after doing <ping google.com> on PC1:  
Here, the PC asks SRV1 for the IP address of google.com on port 53, which is used for DNS.

```
R1(config)#do sh ip nat translations
Pro Inside global      Inside local        Outside local      Outside global
icmp 100.0.0.1:10      172.16.0.1:10      172.217.175.238:10
172.217.175.238:10
icmp 100.0.0.1:11      172.16.0.1:11      172.217.175.238:11
172.217.175.238:11
icmp 100.0.0.1:12      172.16.0.1:12      172.217.175.238:12
172.217.175.238:12
icmp 100.0.0.1:9       172.16.0.1:9       172.217.175.238:9
172.217.175.238:9
---  100.0.0.1          172.16.0.1          ---             ---
---  100.0.0.2          172.16.0.2          ---             ---
---  100.0.0.3          172.16.0.3          ---             ---
udp  100.0.0.1:1025    172.16.0.1:1025    8.8.8.8:53        8.8.8.8:53

R1(config)#

```

3. Clear the NAT translations on R1. Which entries remain?

Static entries remain –

```
R1#clear ip nat translation *
R1#sh ip nat translations
Pro Inside global      Inside local        Outside local      Outside global
---  100.0.0.1          172.16.0.1          ---             ---
---  100.0.0.2          172.16.0.2          ---             ---
---  100.0.0.3          172.16.0.3          ---             ---

n14

```