



Department of Computer Science and Engineering
Data Science

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Semester: V

Class / Branch: CSE(DS)

Subject: WCN

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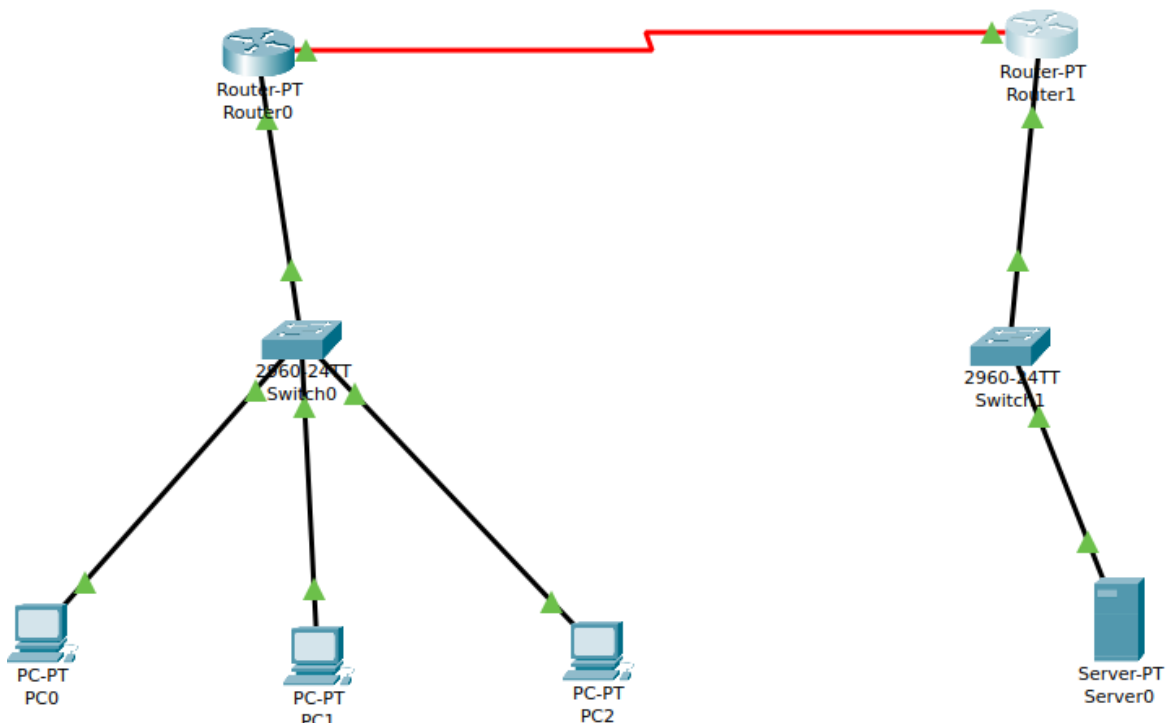
Date Of Performance: 27/09/24

Date Of Submission: 27/09/24

Experiment No. 9

Aim:- To design and simulate NAT on router using Cisco packet tracer/
GNS3.

Output:



**Router0**Physical Config **CLI** Attributes

IOS Command Line Interface

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 11.1.1.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#
Router(config)#
Router(config)#ip route 50.0.0.0 255.0.0.0 11.1.1.1
%Invalid next hop address (it's this router)
```

**Router0**Physical Config CLI Attributes

IOS Command Line Interface

```
Router(config)#
Router(config)#ip route 50.0.0.0 255.0.0.0 11.1.1.1
%Invalid next hop address (it's this router)
Router(config)#
Router(config)#
Router(config)#
Router(config)#
Router(config)#
Router(config)#
Router(config)#ip route 0.0.0.0 0.0.0.0 11.1.1.2
Router(config)#
Router(config)#enable
% Incomplete command.
Router(config)#access-list 1 permit 10.0.0.10 0.0.0.0
      ^
% Invalid input detected at '^' marker.

Router(config)#access-list 1 permit 10.0.0.10 0.0.0.0
Router(config)#access-list 1 permit 10.0.0.20 0.0.0.0
Router(config)#access-list 1 deny any
Router(config)#
Router(config)#
Router(config)#ip nat pool ant 50.0.0.1 netmask 255.0.0.0
      ^
% Invalid input detected at '^' marker.

Router(config)#ip nat pool ant 50.0.0.1 50.0.0.2 netmask 255.0.0.0
Router(config)#
Router(config)#ip nat inside source list 1 pool ant
Router(config)#
Router(config)#interface fastEthernet 0/0
Router(config-if)#ip nat inside
Router(config-if)#exit
Router(config)#interface serial 2/0
Router(config-if)#ip nat outside
Router(config-if)#exit
Router(config)#
```



Router0

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Static Routes

Network

Mask

Next Hop

Network Address

0.0.0.0/0 via 11.1.1.2

Equivalent IOS Commands

```
% Invalid input detected at '^' marker.

Router(config)#ip nat pool ant 50.0.0.1 50.0.0.2 netmask 255.0.0.0
Router(config)#
Router(config)#ip nat inside source list 1 pool ant
Router(config)#
Router(config)#interface fastEthernet 0/0
Router(config-if)#ip nat inside
Router(config-if)#exit
Router(config)#interface serial 2/0
Router(config-if)#ip nat outside
Router(config-if)#exit
Router(config)#
```



Router1

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Static Routes

Network

Mask

Next Hop

Network Address

50.0.0.0/8 via 11.1.1.1

Equivalent IOS Commands

```
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#ip route 50.0.0.0 255.0.0.0 11.1.1.1
Router(config)#
```



```
PC0

Physical  Config  Desktop  Programming  Attributes

Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.10

Pinging 192.168.1.10 with 32 bytes of data:

Request timed out.
Reply from 192.168.1.10: bytes=32 time=1ms TTL=126
Reply from 192.168.1.10: bytes=32 time=1ms TTL=126
Reply from 192.168.1.10: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.1.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms

C:\>ping 192.168.1.10

Pinging 192.168.1.10 with 32 bytes of data:

Reply from 192.168.1.10: bytes=32 time=9ms TTL=126
Reply from 192.168.1.10: bytes=32 time=1ms TTL=126
Reply from 192.168.1.10: bytes=32 time=5ms TTL=126
Reply from 192.168.1.10: bytes=32 time=5ms TTL=126

Ping statistics for 192.168.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 9ms, Average = 5ms

C:\>|
```