

**Institute of Engineering & Management**  
**Department of Computer Science & Engineering**  
**Network Lab for 3<sup>rd</sup> year 6<sup>th</sup> semester 2019**  
**Code: CS 692**

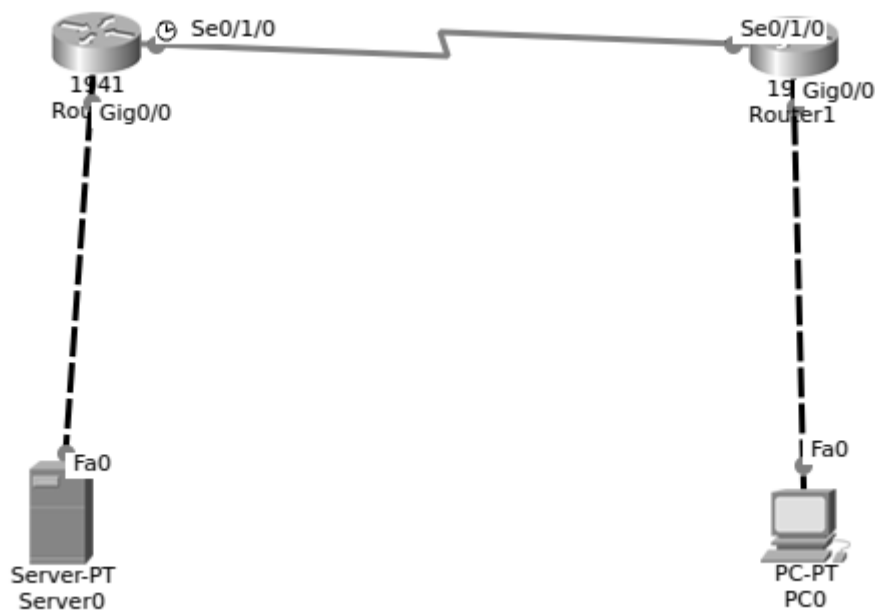
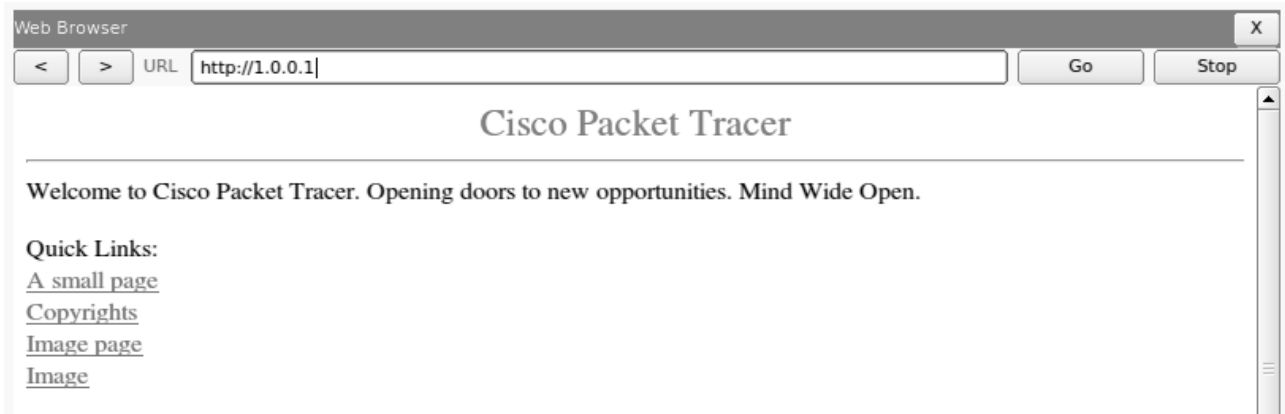
**Date: 08/04/19**

**WEEK-7**

**Assignment-1**

**Problem Statement:** Implement static NAT.

**Screen-Shot:**



**CLI code:**

**Router-1:**

```
Router>en
Router#config
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface se0/1/0
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#clock rate 64000
Router(config-if)#no shutdown
```

```

%LINK-5-CHANGED: Interface Serial0/1/0, changed state to down
Router(config-if)#exit
Router(config)#interface gig0/0
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#exit
Router(config)#
%LINK-5-CHANGED: Interface Serial0/1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1/0, changed
state to up
interface gig0/0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0,
changed state to up

Router(config-if)#exit
Router(config)#ip nat inside source static 192.168.10.2 1.0.0.1
Router(config)#interface gig0/0
Router(config-if)#ip nat inside
Router(config-if)#exit
Router(config)#interface se0/1/0
Router(config-if)#ip nat outside
Router(config-if)#exit
Router(config)#ip route 192.168.11.0 255.255.255.0 10.0.0.0
Router(config)#

```

## **Router-2:**

```

Router>en
Router#config terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface se0/1/0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#exit
Router(config)#interface gig0/9
%Invalid interface type and number
Router(config)#interface gig0/0
Router(config-if)#ip address 192.168.11.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0,
changed state to up
interface se0/1/0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial0/1/0, changed state to up
Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1/0, changed
state to up

Router(config-if)#ip route 1.0.0.0 255.0.0.0 10.0.0.0
Router(config)#
Router#
%SYS-5-CONFIG_I: Configured from console by console

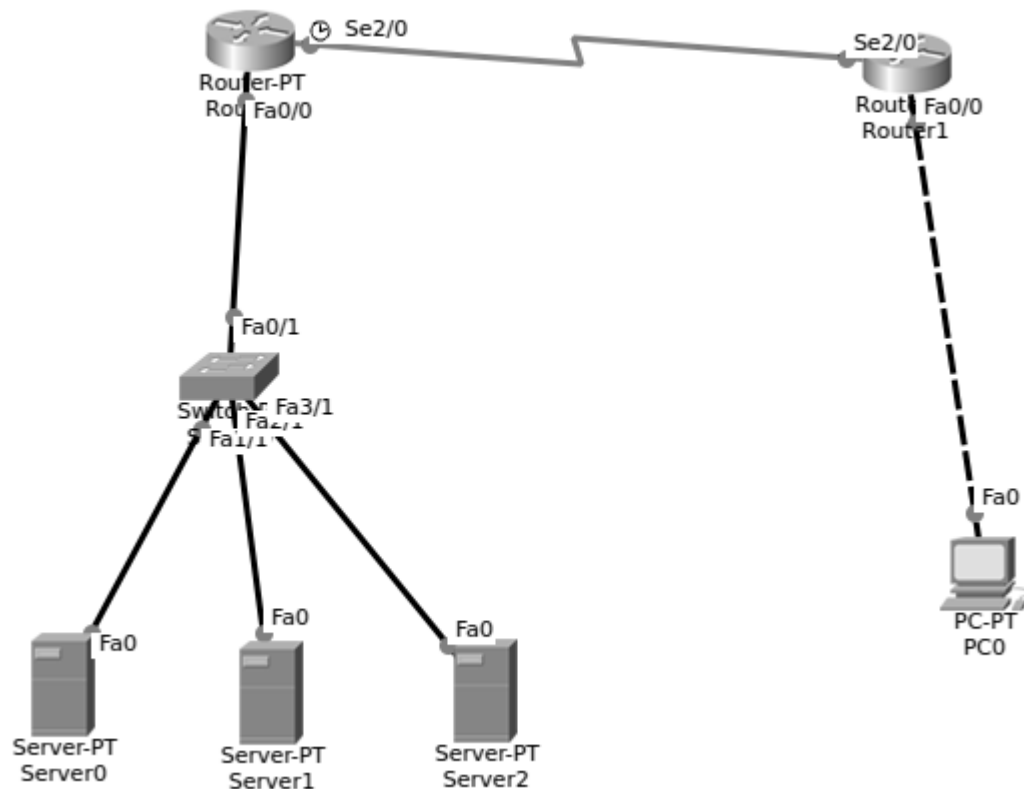
Router#

```

## Assignment-2

**Problem Statement:** Implement PAT.

**Screen-Shot:**



**CLI Code:**

### **Router-1:**

```
Router>en
```

```
Router#config termi
```

```
Router#config terminal
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
Router(config)#interface fa0/0
```

```
Router(config-if)#ip address 192.168.10.1 255.255.255.0
```

```
Router(config-if)#no shut down
```

```
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 se2/0
```

```
Router(config-if)#ip address 10.0.0.1 255.0.0.0
```

```
Router(config-if)#clock rate
```

```
% Incomplete command.
```

```
Router(config-if)#clock rate 64000
```

```
Router(config-if)#no shutdown
```

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

```
Router(config-if)#exit
```

```
Router(config)#
```

```
%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)#exit

Router#

%SYS-5-CONFIG\_I: Configured from console by console

Router#config te

Router#config terminal

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#ip route 192.168.11.0 255.255.255.0 10.0.0.0

Router(config)#access list 2 permit 192.168.10.0 0.0.0.255

% Invalid input detected at '^' marker.

Router(config)#interface se2/0

Router(config-if)#access list 2 permit 192.168.10.0 0.0.0.255

% Invalid input detected at '^' marker.

Router(config-if)#exit

Router(config)#access-list 2 permit 192.168.10.0 0.0.0.255

Router(config)#ip nat pool a 1.0.0.1 1.0.0.1 netmask 255.0.0.0

Router(config)#ip nat inside source list 2 pool a overload

Router(config)#interface fa0/0

Router(config-if)#ip nat inside

Router(config-if)#exit

Router(config)#interface se2/0

Router(config-if)#ip nat outside

Router(config-if)#exit

Router(config)#

## Router-2:

Router>en

Router#config tr

Router#config t

Router#config terminal

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface fa0/0

Router(config-if)#ip address 192.168.11.1 255.255.255.0

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 se2/0

Router(config-if)#ip address 10.0.0.2 255.0.0.0

Router(config-if)#no shutdown

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)#exit

Router(config)#ip route 192.168.10.0 255.255.255.0 10.0.0.0

Router(config)#