

Department of Information and Communication Engineering
Pabna University of Science and Technology

B.Sc. (Engineering) 4th Year 1st Semester Examination -2023

Session: 2019-2020

Course ID: ICE-4102

Course Title: Data Communication and Networking Sessional

Laboratory Problem List

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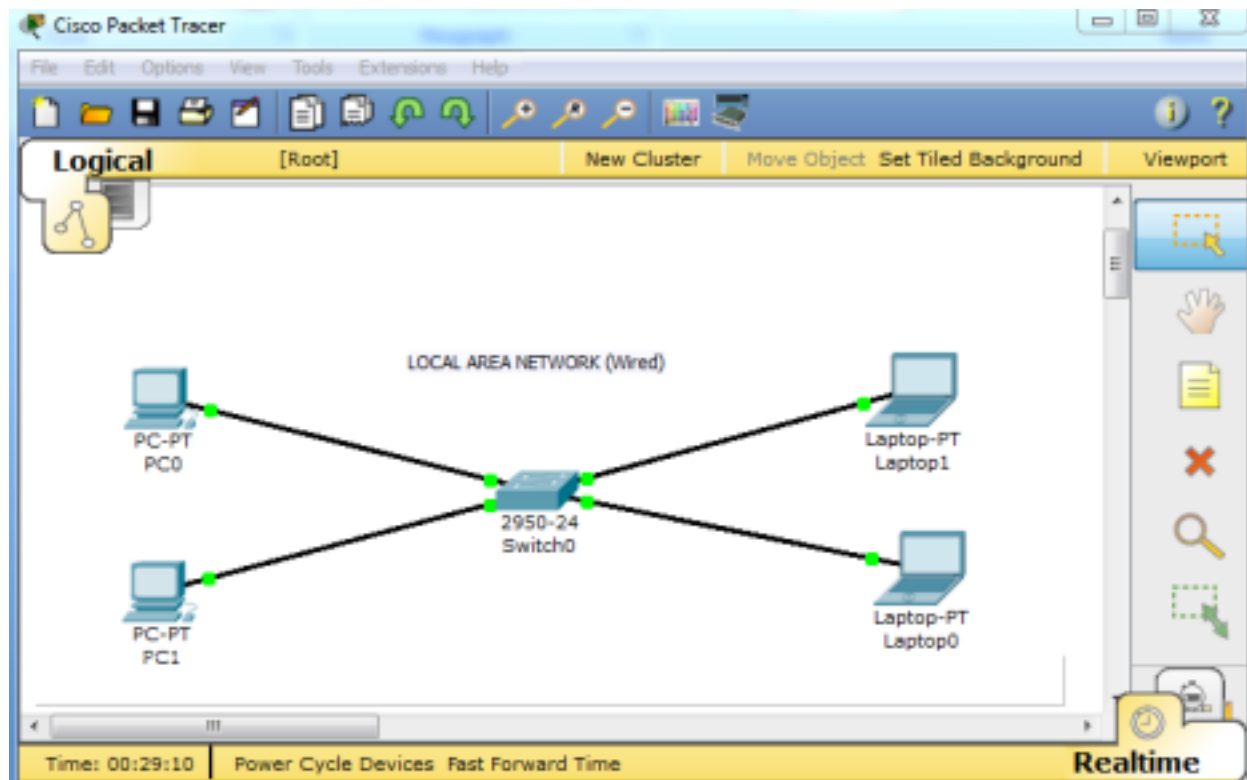
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Experiment No. : 01

Name of the Experiment: Configure Local Area Network (Wired)

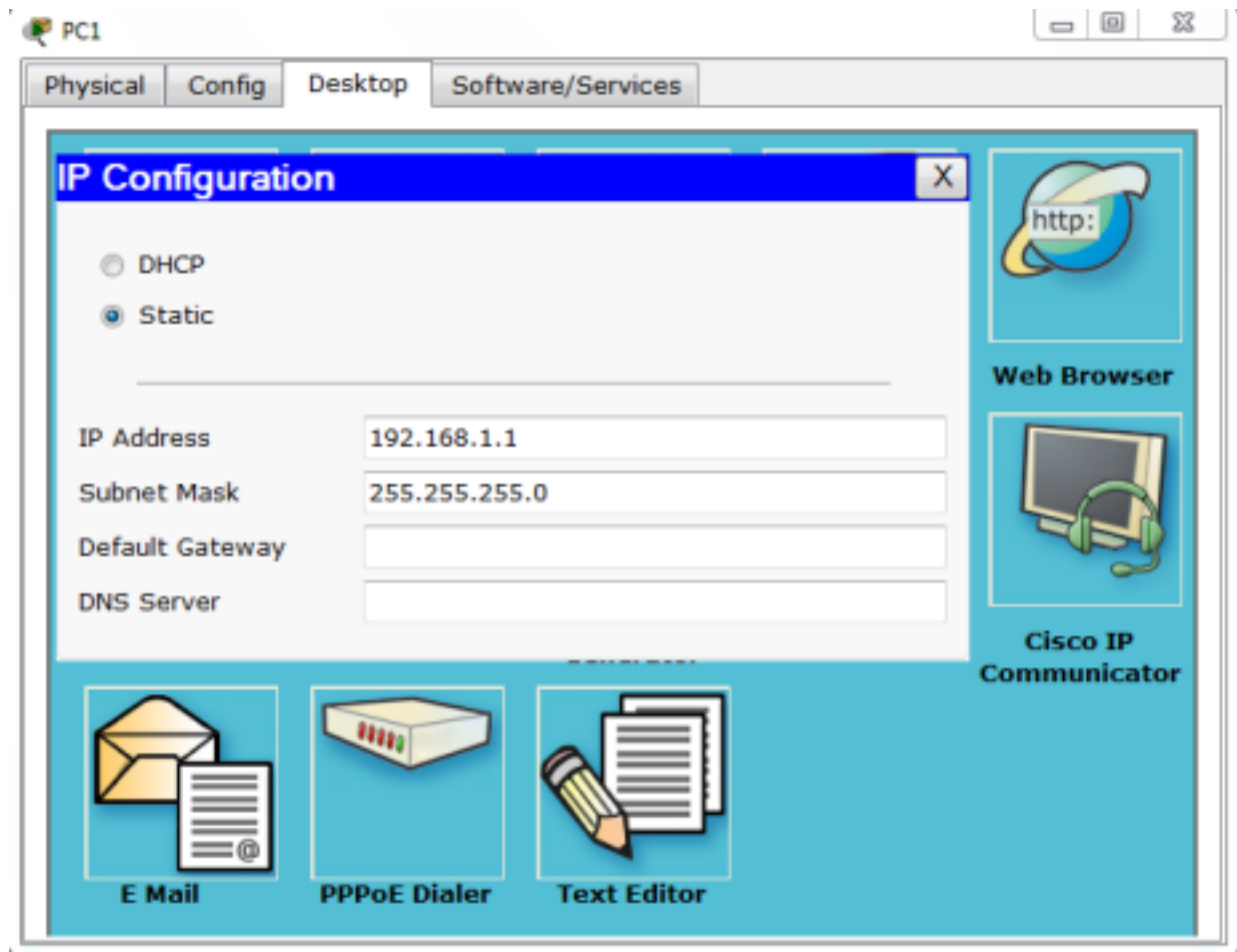
Required Component:

- (1). Switch
- (2). UTP Cable (Straight Through)
- (3). End Device(Desktop, Laptop etc)
- (4). IP Address (192.168.1.0)



#Procedure:

- (1). Drag and Drop a switch on CISCO Packet Tracer interface.
- (2). Take some end device which supports NIC Card with RJ45 connector.
- (3). Choose Copper "Straight Through" UTP Cable for connection.
- (4). Click on switch and select the specific port no for new connection.
- (5). Repeat procedure (4) as much your end device remain connection less.
- (6). Double click on an end device and you can see this interface is by default on "Physical" tab.
- (7). Select **Desktop tab** and click on "IP Configuration"



- (8). Put IP Address and Click on submit section Subnet Mask will take automatically.
- (9). Just close the section.
- (10). Put IP Address on all the remaining end device.

#Simulation Process:

(#) first way:

- (1). Select a packet from right side bar. Mouse pointer will change with packet symbol.
- (2). Select first a PC and then select another PC with packet symbol pointer.
- (3). It implies that a packet will flow from first device to second device.
- (4). Then you can see successful notification right side bottom section.

(#). Second way:

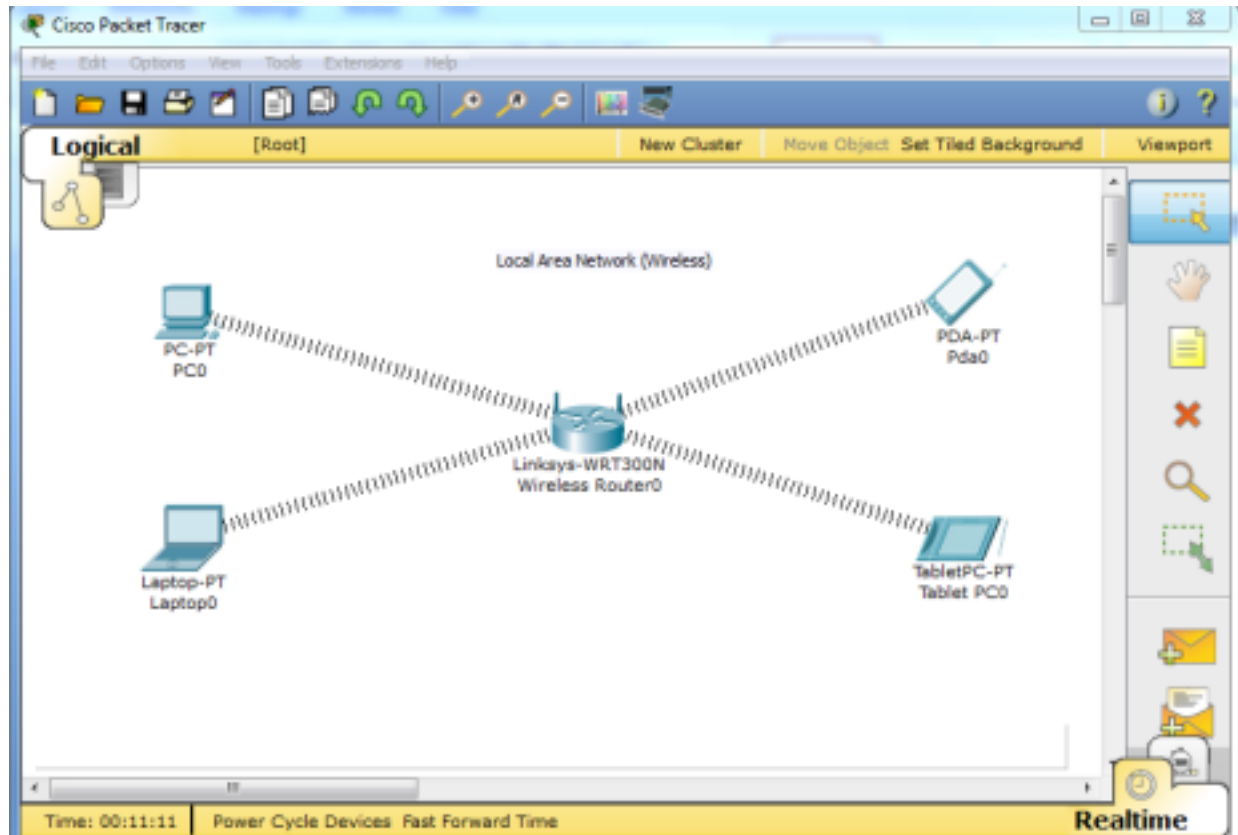
- (5). Double click on PC, select "Desktop" tab, Click on "Command Prompt"
 - (6). for example this pc with 192.168.1.1 and it will ping 192.168.1.2
 - (7). write down "ping 192.168.1.2" press enter.
 - (8). if your physical and logical connection is ok then it will say that...
- Packet Send=4 Packet Received=4 Packet Lost=0%

Experiment No. : 02

Name of the Experiment: Configure Local Area Network (Wireless)

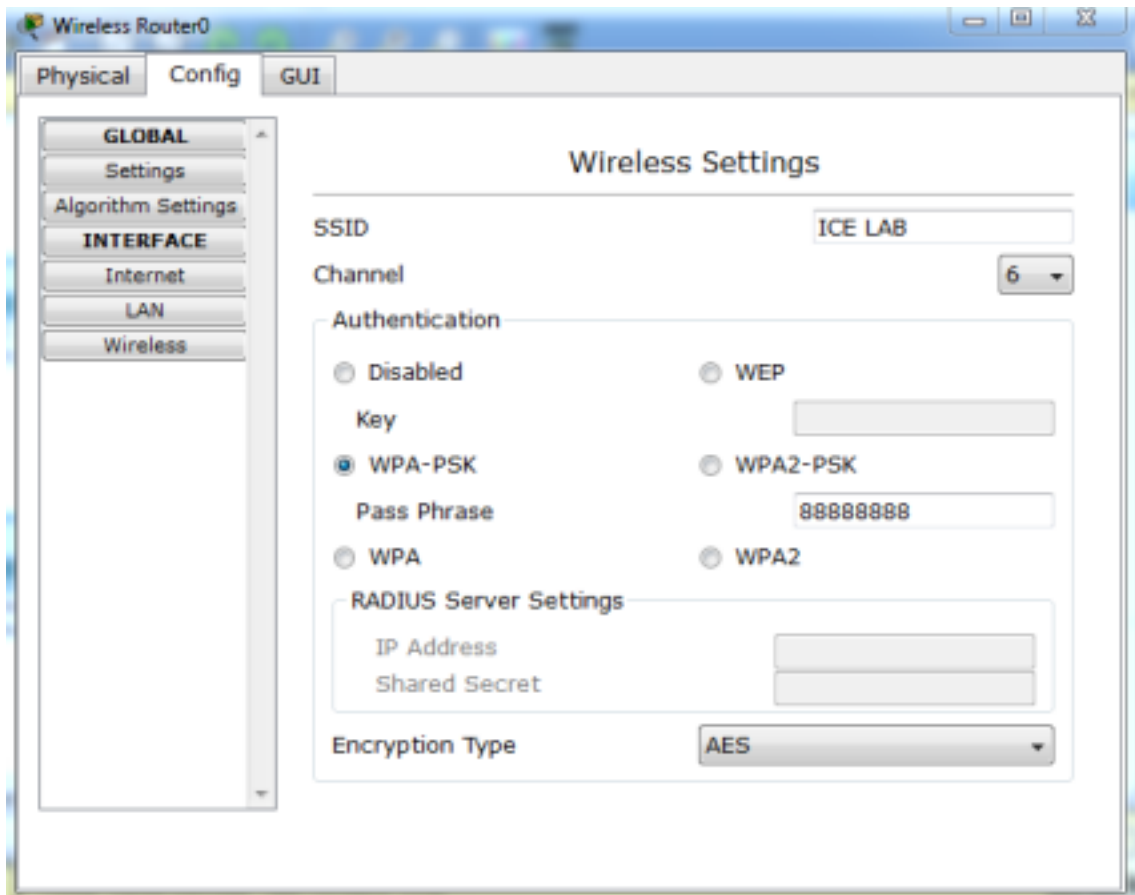
Required Component:

- (1) Router (Linksys-WRT300N)
- (2) End Device (Desktop, Laptop, TabletPC, PDAetc)
- (3) IP Address (192.168.1.0)



#Procedure:

- (1). Drag and Drop a wireless router some device which support wireless communication on CISCO Packet Tracer interface.
- (#). **For Desktop PC**
- (2). Double click on PC-PT then by default "Physical" tab. first power off your pc. We need to add Linksys-WMP300N Module on this pc.
- (3). Replace existing module with our "Linksys-WMP300N" module.
- (4). power on your device.
- (#). **For laptop same procedure will apply. Now desktop and laptop are ready to communicate over wireless media.**
- (#). **Router configuration:**
- (5). Double Click and go to "Config" tab. Then select wireless.
- (6). now give a name to your access point (SSID)
- (7). Select an Authentication type. By default it will Disabled we will check out "WPA-PSK" and set password 88888888 and colse it.



- (8). double click on desktop pc and open "PC Wireless" from "Desktop" tab.
- (9). click on "Connect" tab by default it will link information. Press "Refresh" button.
- (10). Then we will see an access point and press "Connect" button.
- (11). put your password of network on "Pre Shared key" and then connect. Same on Laptop
- (#) Config for PDA
- (12). Double click on it and then select "Config" tab and also "Wireless" from left bottom. (13). put your Access point name (SSID) and password "WPA-PSK" and close it. Same for Tablet.

#Simulation Process:

(#) first way:

- (1). Select a packet from right side bar. Mouse pointer will change with packet symbol.
- (2). Select first a PC and then select another PC with packet symbol pointer.
- (3). It implies that a packet will flow from first device to second device.
- (4). Then you can see successful notification right side bottom section.

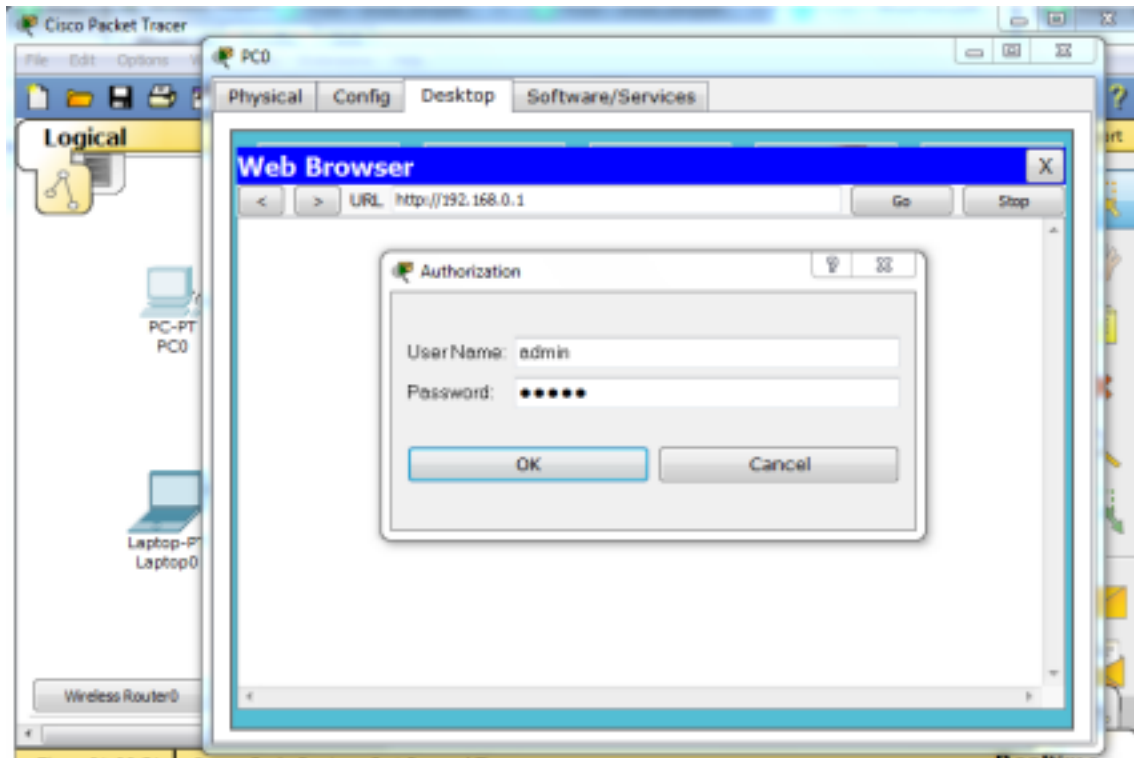
(#). Second way:

- (5). Double click on PC, select "Desktop" tab, Click on "Command Prompt"
- (6). for example this pc with 192.168.1.1 and it will ping 192.168.1.2
- (7). write down "ping 192.168.1.2" press enter.
- (8). if your physical and logical connection is ok then it will say that...
Packet Send=4 Packet Received=4 Packet Lost=0%

(#). Third way: access router control panel through end device

- (9) Double click on desktop or laptop then select "Web Browser" from "Desktop" tab

(10). write down router ip address on browser address bar and press enter. (11). A command prompt will appear for authentication give username and password admin. (12). If everything is ok then you will allow to access on router.



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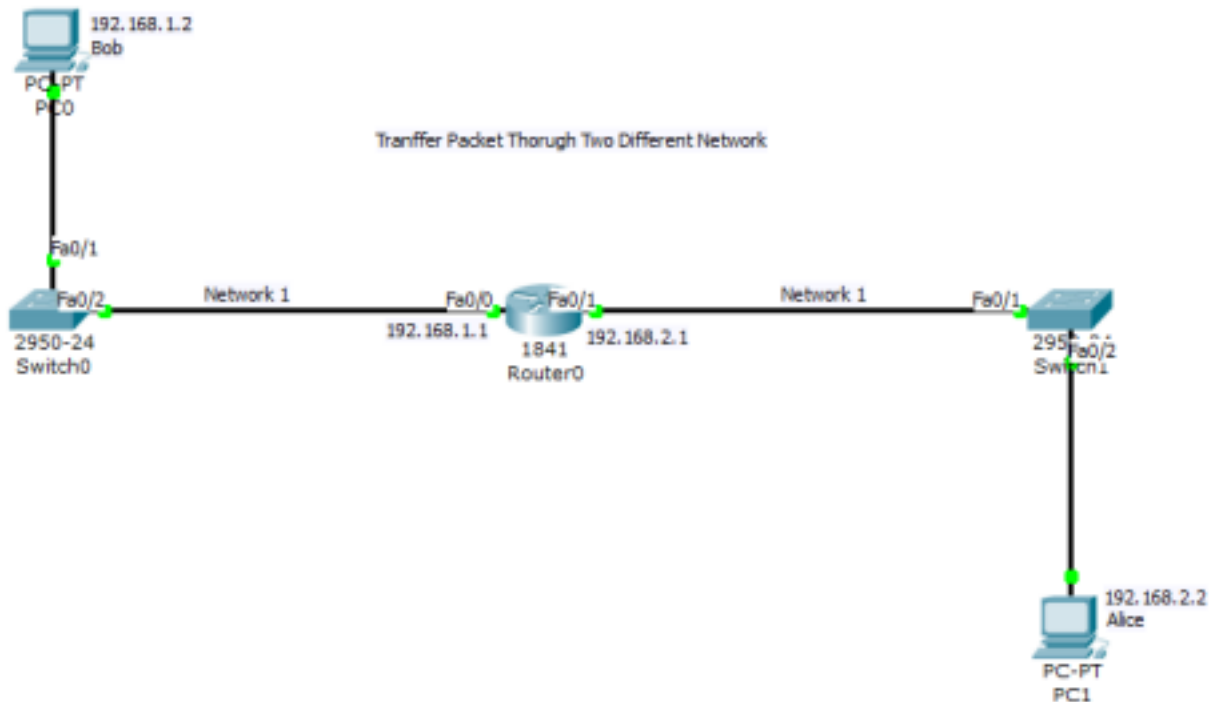
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Experiment No. : 03

Name of the Experiment: Transfer packets through two different network

Required Component:

- (1). Switch
- (2). UTP Cable (Straight Through)
- (3). End Device (Desktop, Laptop etc)
- (4). IP Address (192.168.1.0, 192.168.2.0)
- (5). Router



#Procedure:

- (1). Drag and Drop two switch one router and 2 end device
- (2). Select cable and connect two switch through router and then end device will connected with switch.
- (3). Double click on router, here this router by default two interface fa 0/0 and fa 0/1. those two interface are connected two different switch also two different network.
- (4). Click on CLI type no on the text edit option.
- (5). If you press yes then router will ask several question for his system maintains but all of those are not usable to us. so we just type no.
- (6). Router stay normally three stages. one is privilege mode then global config and Finlay specific configuration
- (7). Now we are in privilege mode to promote global config type enable and press enter then you can see it's router symbol will change
- (8). we are now global configuration mode so we need to access specific interface and configure it.
- (9). just write down "interface fa 0/0" this is for interface 0/0 of router. Then it need to add ip address so that just type e.g "ip address 192.168.1.1" then put subnet mask 255.255.255.0
- (10). By default every interface of Cisco device down state. So we need it to up. just write down

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"no shut" command

- (11). go back to privilege mode by "exit" command.
- (12). finally write down "wr" to save configuration
- (13). we just configured only one interface. we need another one of different network with different ip address.
- (14). After configure the router we need to mention ip address of each end device.

#CLI Procedure:

Continue with configuration dialog? [yes/no]: no
Press RETURN to get started!

```
Router>enable
Router#configure terminal
Router(config)#interface fastEthernet 0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown
```

%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 fastEthernet 0/1
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#no shutdown
```

```
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
```

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

```
Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router#wr
Building configuration...
[OK]
Router#
```

#Simulation Process:

(#) first way:

- (1). Select a packet from right side bar. Mouse pointer will change with packet symbol.
- (2). Select first a PC and then select another PC with packet symbol pointer. (3). It implies that a packet will flow from first device to second device.
- (4). Then you can see successful notification right side bottom section.

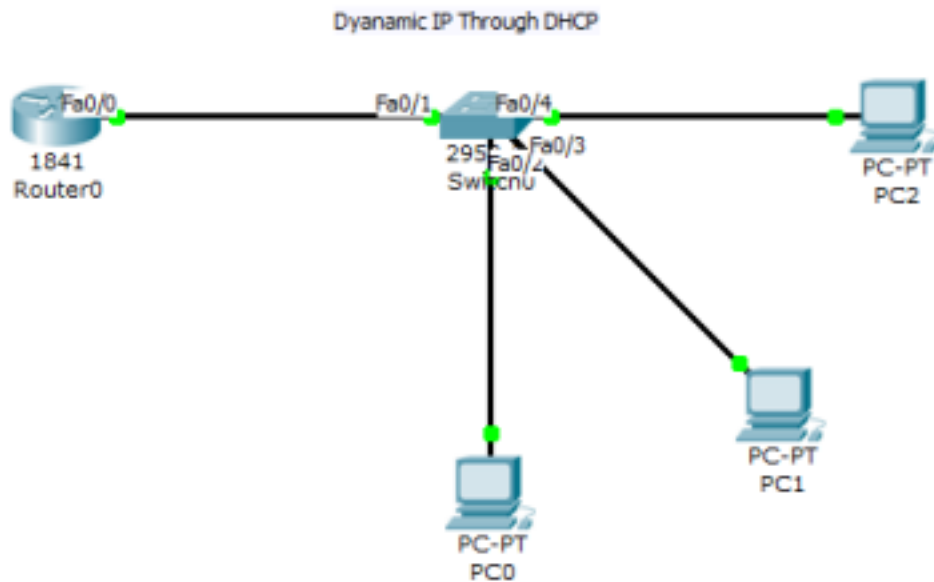
Experiment No. : 04

Name of the Experiment: Dynamic IP through DHCP

Required Component:

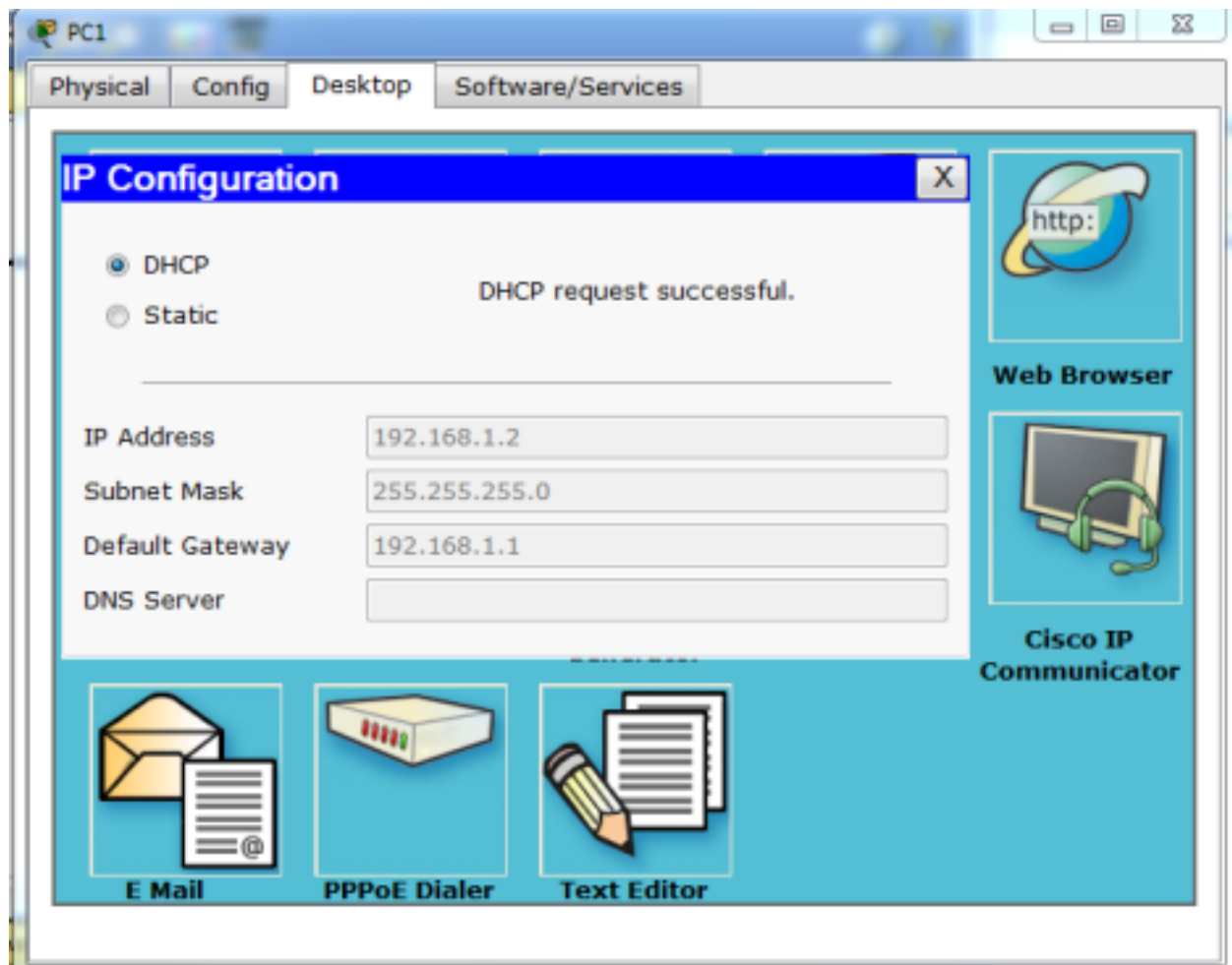
- (1). Switch
- (2). UTP Cable (Straight Through)
- (3). End Device (Desktop, Laptop etc)
- (4). IP Address (192.168.1.0)

(5). Router



#Procedure:

- (1). Drag and Drop one switch one router and 3 or more end device
- (2). Connect them UTP Straight Through Cable
- (3). Double click on router and then click on CLI Mode
- (4). enter privilege then global configuration mode.
- (5). Access an interface such as fa 0/0
- (6). Assign ip and subnet mask then "no shut" to up this state.
- (7). exit from here to global configuration mode
- (8). write down the command "ipdhcp pool myPoleName"
- (9). Mention the network and then router default ip
- (10). exit and save change.
- (11) double click on select "Desktop" and click on "IP configuration"
- (12). click on DHCP to send a request for ip



#CLI Procedure:

Continue with configuration dialog? [yes/no]: no

Press RETURN to get started!

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastEthernet 0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown
```

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

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

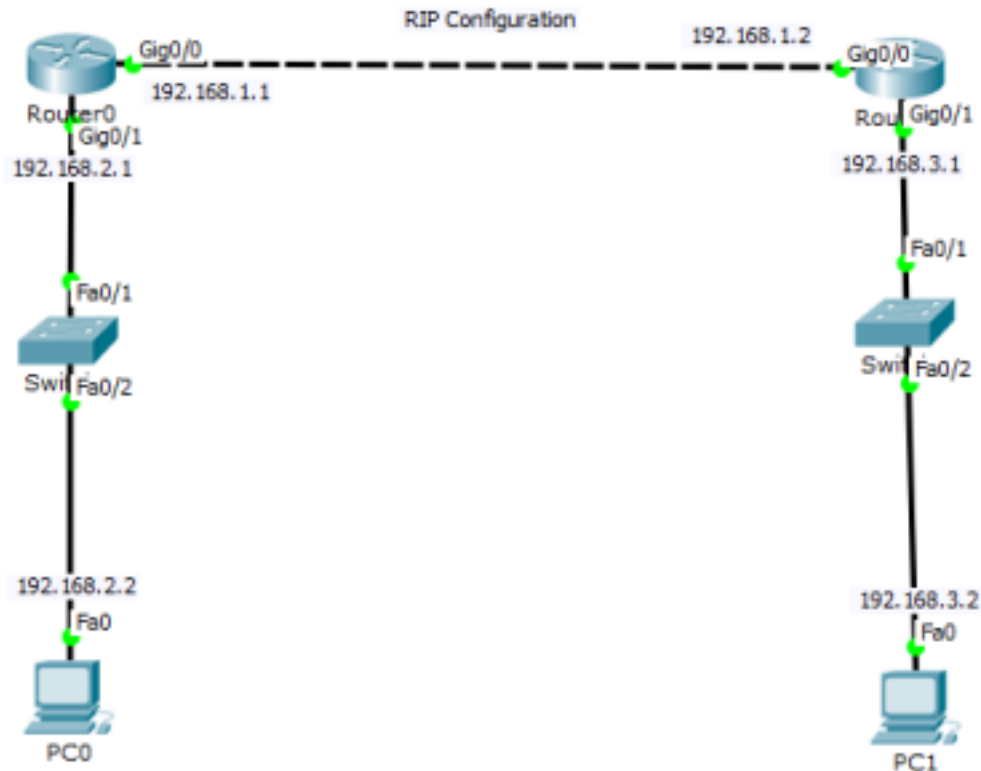
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```
Router(config-if)#exit
Router(config)#ip dhcp pool ice
Router(dhcp-config)#network 192.168.1.0
```

```
255.255.255.0 Router(dhcp-config)#default-router
192.168.1.1 Router(dhcp-config)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router#wr
Building configuration...
[OK]
Router#
```

- (1). Switch
- (2). UTP Cable (Straight Through)
- (3). Ethernet crossover cable
- (4). End Device (Desktop, Laptop etc)
- (5). Router



#Procedure:

- (1). Drag and Drop Routers, Switches and PCs.
- (2). Select cable and make sure a proper connections.
- (3). Double click on router.
- (4). Click on CLI Tab.
- (5). First assign IP Address of on interface
- (6). Assign RIP command.
- (7). Mention RIP version
- (8). Finally save this configuration

IP Configuration Router0 :

```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int gig 0/0
```

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```
Router(config-if)#ip add 192.168.1.1 255.255.255.0
Router(config-if)#no shut
```

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

```
Router(config-if)#exit
Router(config)#int gig 0/1
Router(config-if)#ip add 192.168.2.1 255.255.255.0
Router(config-if)#no shut
```

IP Configuration Router1 :

```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int gig 0/0
Router(config-if)#ip add 192.168.1.2 255.255.255.0
Router(config-if)#no shut
```

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

```
Router(config-if)#exit
Router(config)#int gig 0/1
Router(config-if)#ip add 192.168.3.1 255.255.255.0
Router(config-if)#no shut
```

#RIP Configuration Router0 :

```
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router RIP
Router(config-router)#version 2
Router(config-router)#net 192.168.1.0
Router(config-router)#net 192.168.2.0
Router(config-router)#exit
Router(config)#exit
Router#
Router#wr
Building configuration...
[OK]
```

RIP Configuration Router1 :

```
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router RIP
Router(config-router)#version 2
```

```
Router(config-router)#net 192.168.1.0
```

```
Router(config-router)#net 192.168.3.0
Router(config-router)#exit
Router(config)#exit
Router#
Router#wr
Building configuration...
[OK]
```

#Simulation Process: (Router0)

```
Router#
Router#showip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 -
OSPF NSSA external type 1, N2 - OSPF NSSA external type 2 E1 -
OSPF external type 1, E2 - OSPF external type 2, E - EGP i - IS-IS, L1 -
IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
```

Gateway of last resort is not set

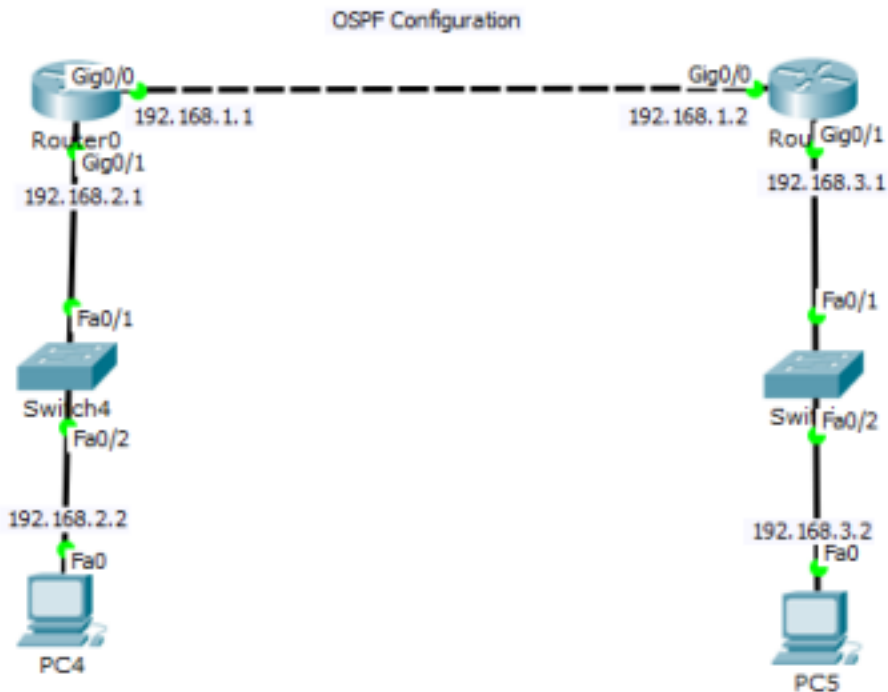
```
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/24 is directly connected, GigabitEthernet0/0 L
192.168.1.2/32 is directly connected, GigabitEthernet0/0 R
192.168.2.0/24 [110/2] via 192.168.1.1, 00:00:07, GigabitEthernet0/0
192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.3.0/24 is directly connected, GigabitEthernet0/1 L
192.168.3.1/32 is directly connected, GigabitEthernet0/1
```

Name of the Experiment: 06

Name of the Experiment: Configure Open Shortest Path First (OSPF) Routing Protocol

Required Component:

- (1). Switch
- (2). UTP Cable (Straight Through)
- (3). Ethernet crossover cable
- (4). End Device (Desktop, Laptop etc)
- (5). Router



#Procedure:

- (1). Drag and Drop Routers, Switches and PCs.
- (2). Select cable and make sure a proper connections.
- (3). Double click on router.
- (4). Click on CLI Tab.
- (5). First assign IP Address of on interface
- (6). Assign OSPF command. (ospf then numerical value such as 1,2,3)
- (7). Mention Network then Wild card mask then area.
- (8). Finally save this configuration

IP Configuration Router0 :

```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int gig 0/0
Router(config-if)#ip add 192.168.1.1 255.255.255.0
```

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

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

```
Router(config-if)#exit  
Router(config)#int gig 0/1  
Router(config-if)#ip add 192.168.2.1 255.255.255.0  
Router(config-if)#no shut
```

IP Configuration Router1 :

```
Router>en  
Router#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#int gig 0/0  
Router(config-if)#ip add 192.168.1.2 255.255.255.0  
Router(config-if)#no shut
```

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

```
Router(config-if)#exit  
Router(config)#int gig 0/1  
Router(config-if)#ip add 192.168.3.1 255.255.255.0  
Router(config-if)#no shut
```

#OSPF Configuration Router0 :

```
Router#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#router ospf 1  
Router(config-router)#network 192.168.1.0 0.0.0.255 area  
0 Router(config-router)#network 192.168.2.0 0.0.0.255  
area 0 Router(config-router)#exit  
Router(config)#exit  
Router#  
Router#wr  
Building configuration...  
[OK]
```

OSPF Configuration Router1 :

```
Router#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#router ospf 1  
Router(config-router)#network 192.168.1.0 0.0.0.255 area  
0 Router(config-router)#network 192.168.3.0 0.0.0.255  
area 0 Router(config-router)#exit
```



```
Router(config)#exit
Router#
Router#wr
Building configuration...
[OK]
```

#Simulation Process: (Router0)

```
Router#
Router#showip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 -
OSPF NSSA external type 1, N2 - OSPF NSSA external type 2 E1 -
OSPF external type 1, E2 - OSPF external type 2, E - EGP i - IS-IS, L1 -
IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
```

Gateway of last resort is not set

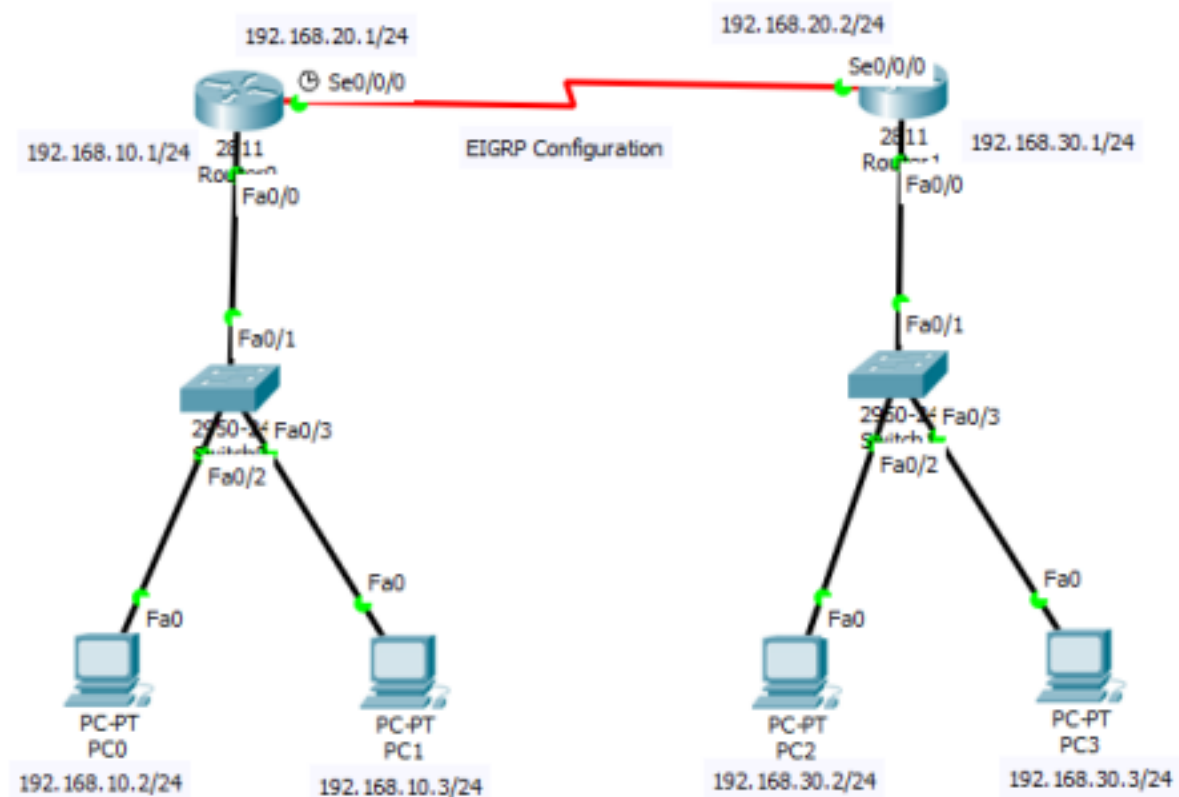
```
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/24 is directly connected, GigabitEthernet0/0 L
192.168.1.2/32 is directly connected, GigabitEthernet0/0 O
192.168.2.0/24 [110/2] via 192.168.1.1, 00:00:07, GigabitEthernet0/0
192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.3.0/24 is directly connected, GigabitEthernet0/1 L
192.168.3.1/32 is directly connected, GigabitEthernet0/1
```

Name of the Experiment: 07

Name of the Experiment: Configure Enhanced Interior Gateway Routing Protocol (EIGRP) **Required**

Components:

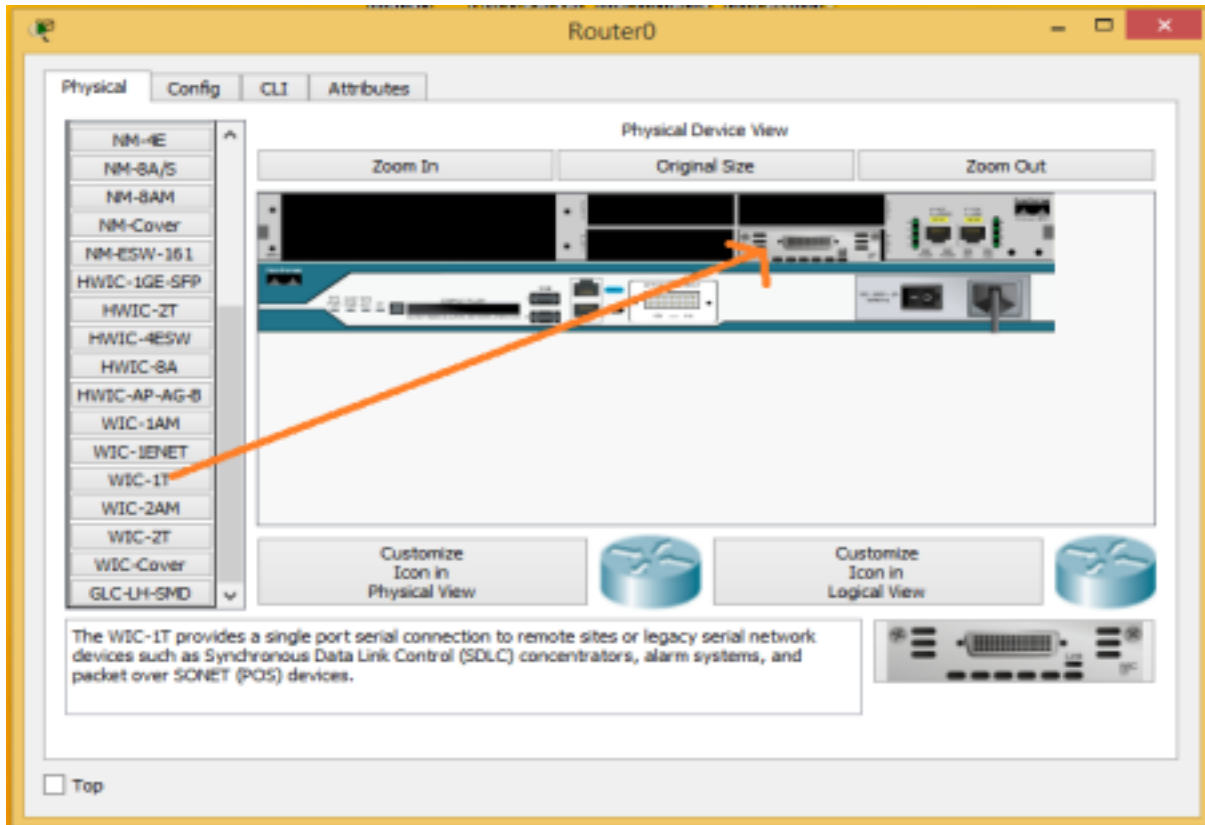
- (1). Switch
- (2). UTP Cable (Straight Through)
- (3). Serial DCE cable
- (4). End Device (Desktop, Laptop etc.)
- (5). Router



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#Procedure:

- (1). Drag and Drop Routers (2811), Switches and PCs.
- (2). Double click on router then by default "Physical" tab. first power off your router. We need to add WIC-IT Module on this router. Then power on your router.



- (2). Select cable and make sure a proper connections.
- (3). Double click on router.
- (4). Click on CLI Tab.
- (5). First assign IP Address of on interface
- (6). Assign EIGRP command. (eigrp then numerical value such as 1,2,3)
- (7). Mention network then subnet mask.
- (8). Finally save this configuration

IP Configuration Router0 :

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastEthernet 0/0
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#no shutdown
```

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```
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 serial 0/0/0
Router(config-if)#ip address 192.168.20.1 255.255.255.0
Router(config-if)#clock rate 128000
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Router#
```

IP Configuration Router1 :

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastEthernet 0/0
Router(config-if)#ip address 192.168.30.1 255.255.255.0
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 serial 0/0/0
Router(config-if)#ip address 192.168.20.2 255.255.255.0
```

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

Router(config-if)#
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up
```

```
Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up
```

```
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

```
Router#
```

EIGRP Configuration Router0 :

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router eigrp 10
Router(config-router)#network 192.168.10.0 255.255.255.0
Router(config-router)#network 192.168.20.0 255.255.255.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

```
Router#
```

EIGRP Configuration Router1 :

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
```

```
Router(config)#router eigrp 10
Router(config-router)#network 192.168.20.0 255.255.255.0
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 10: Neighbor 192.168.20.1 (Serial0/0/0) is up: new adjacency
```

```
Router(config-router)#network 192.168.30.0 255.255.255.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router#copy runn
Router#copy running-config st
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

Router#

Simulation Process: (Router0)

```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
```

Gateway of last resort is not set

```
C 192.168.10.0/24 is directly connected, FastEthernet0/0
C 192.168.20.0/24 is directly connected, Serial0/0/0
D 192.168.30.0/24 [90/20514560] via 192.168.20.2, 00:12:51, Serial0/0/0
```

Required Components:

- (1). Switch
- (2). Automatically choose connection type cable
- (3). End Device (Desktop, Laptop etc)
- (4). Router.

BGP Configuration**# Procedure:**

- (1). Drag and Drop Routers, Switches and PCs.
- (2). Select cable and make sure a proper connections.
- (3). Double click on router.
- (4). Click on CLI Tab.
- (5). First assign IP Address of on interface
- (6). Assign BGP command. (bgp then numerical value such as 100,200)
- (7). Mention Network then neighbor network with remote-as(100/200).
- (8). Finally save this configuration

IP Configuration Router0 :

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with
CNTL/Z. Router(config)#interface fastEthernet 0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
```


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

```
Router(config-if)#exit
Router(config)#
Router(config)#interface se2/0
Router(config-if)#ip address 192.168.2.2 255.255.255.0
Router(config-if)#no shutdown
```

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

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

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

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

```
Router(config)#exit
```

```
Router#
```

%SYS-5-CONFIG_: Configured from console by console

```
Router#wr
```

Building configuration...

[OK]

```
Router#
```

IP Configuration Router1 :

```
Router>enable
```

```
Router#configure terminal
```

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

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

```
Router(config-if)#ip address 192.168.3.1 255.255.255.0
```

```
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 192.168.2.3 255.255.255.0
```

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

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

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

Router(config-if)#exit

%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#wr

Building configuration...

[OK]

Router#

BGP Configuration Router0 :

Router#configure terminal

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

Router(config)#router bgp 100

Router(config-router)#network 192.168.1.0

Router(config-router)#network 192.168.2.0

Router(config-router)#neighbor 192.168.2.3 remote-as 200

Router(config-router)#neighbor 192.168.3.2 remote-as 200

Router(config-router)#exit

Router(config)#exit

Router#

%SYS-5-CONFIG_I: Configured from console by console

Router#wr

Building configuration...

[OK]

Router#

BGP Configuration Router1 :

Router#configure terminal

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

Router(config)#router bgp 200

Router(config-router)#network 192.168.2.0

Router(config-router)#network 192.168.3.0

Router(config-router)#neighbor 192.168.2.2 remote-as 100

Router(config-router)#%BGP-5-ADJCHANGE: neighbor 192.168.2.2 Up

Router(config-router)#neighbor 192.168.1.2 remote-as 100

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

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```
Router(config)#exit
```

```
Router#
```

```
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router#wr
```

```
Building configuration...
```

```
[OK]
```

```
Router#
```

Simulation Process: (Router0)

```
Router#show ip route
```

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 -
OSPF NSSA external type 1, N2 - OSPF NSSA external type 2 E1 -
OSPF external type 1, E2 - OSPF external type 2, E - EGP i - IS-IS, L1
- IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area * - candidate
default, U - per-user static route, o - ODR
P - periodic downloaded static route

Gateway of last resort is not set

C 192.168.1.0/24 is directly connected, FastEthernet0/0

C 192.168.2.0/24 is directly connected, Serial2/0

B 192.168.3.0/24 [20/0] via 192.168.2.3, 01:02:34

