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# Computer Networks

Arjun A.S

18M18CS019

## Lab week-3

### Experiment: Ping responses

#### IP configurations for Nodes:

There are 5 nodes in which three are intermediary nodes (routers) and two are end nodes (PC)

★ PC0 :  
\* IP: 10.0.0.10  
\* gateway: 10.0.0.1

★ PC1 :  
\* IP: 40.0.0.10  
\* gateway: 40.0.0.1

#### ★ Router-0 [PT-Router]

\* Fa0/0 : 10.0.0.1 which is connected to PC0  
\* Se2/0 : 20.0.0.1 which is connected to Router1

#### ★ Router-1

\* Se2/0 : 20.0.0.2 which is connected to Router0  
\* Se3/0 : 30.0.0.1 which is connected to Router2

#### ★ Router-2

\* Fa0/0 : 40.0.0.1 which is connected to PC1  
\* Se2/0 : 30.0.0.2 which is connected to Router1

With these configurations when we tried to ping P1 (40.0.0.10) from P0 (10.0.0.10) the ping response was destination unreachable.

Despite of connection the ping failed. Proper routing has to be done as there were no direct path between the sender and receiver.

Each router is configured with the route so that all the networks can easily exchange the data.

commands executed in each router

router> enable

router# show ip route

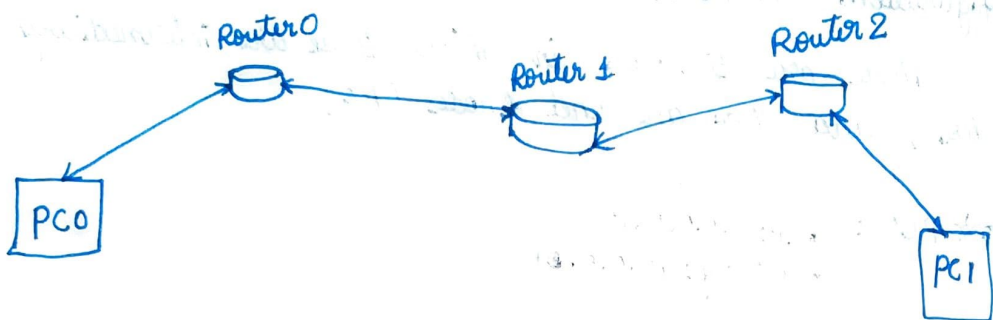
router# exit

router# config terminal

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router (config) # ip route <network address> <subnet mask> <first-hop-add>  
After this, when tried to ping the PC1. The ping response of 4 datapackets were acknowledged showing the successful communication.

The topology is



Outcome :

- \* In order to establish proper communication with multiple networks proper routing is required.
- \* This routing is specified in the routing table of the each router in the network.
- \* Ping response saying "destination unreachable" is shown when the proper routing of the routers are not done.
- \* After successful configuration of the routers, ~~then~~ Upon pinging the PC on the network success message saying 0% data loss along with TTL values and other parameters is seen.

*[Signature]*