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5`B' IBM18CS069

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Expt-2 ~~Create~~ Configuring IP address to Routers in Packet Tracer. Explore the following messages: ping responses, Destination unreachable, Request timed out & Reply.

Expt:- Connect 2 devices with router, config source & dest address

interface is a shared boundary across which 2 or more seperate components of a comp system exchange info

Interface is an endpoint

How to config router manually?
- click on router → click CLI - no
-enable (u get router>)
configure terminal *
interface of PC 0 & Router 0 - fastethernet
for PC-0

⇒ config — 10.0.0.1
10.0.0.10
same way w.r.t to PC-1

* we have enter configuration mode
interface fa0/0
↓
u are configuring that particular interface
wat is use of gateway? u are specifying

gateway address to indicate your info
has to pass through that gateway
For every PC the interface address
must be gateway address

gate

For a network through gateway of
interface and data has to go out.

conf
⇒ address lo. 0.0.0.1 255.0.0.0
→ no shutdown
then arrows turn green & the
link btw the interface is up.
IIy way config for fa 0/1

Commands
- enable
- configure terminal
- interface fa 0/0
- ip address lo.0.0.0.1 255.0.0.0
- no shutdown
- exit

} for interface-1

Note:- Same thing for interface 2 but change
gateway address.

- u can check your ip address using - ipconfig
for a public address to see on cmd -
nslookup domain
nslp

- topology
- ping req & resp'y

What is ping network?
to determine whether there is a connection.

Ping is ICMP ip packet
↓
Internet Control message Protocol
Echo request
Echo reporting

ping is a command to see dest ip addr is alive or not
if interface is alive we get reply
ttl - Time to live
↳ indicates max no of nodes it can pass through before reaching dest

A packet can stay in a network until request is timed out.

when packet ttl value reaches 0 it is not forwarded it will no longer stay in the network

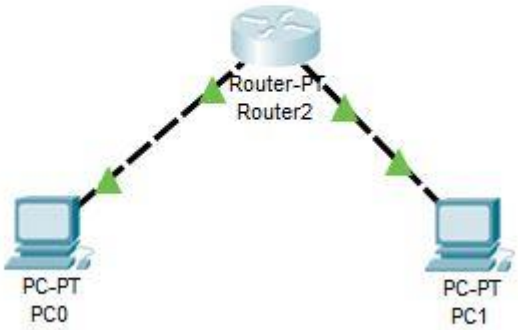
In PC-0
when we ping itself: 10.0.0.10
msg recieved is:-

when pinged to PC-1
Request timed out

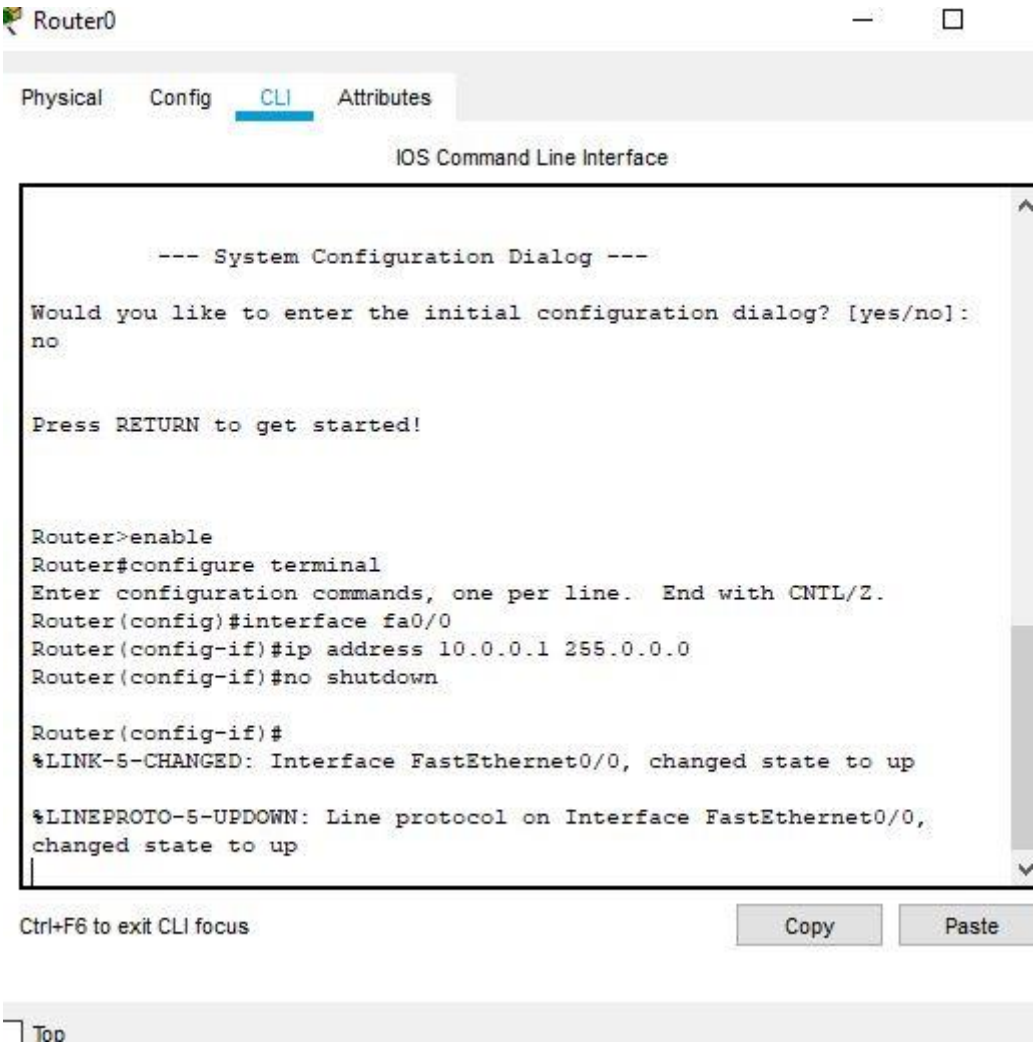
Learning Outcomes

- We created a network topology using 2-PCs and a router as a connecting device
- Configured a default gateway & ip address
- Went onto to configure ip address for the interfaces
- We made a ping to see if destination ip address was alive or not.
- If interface is alive we get a reply
- We did a simple simulation by sending a simple PDU from source to destination for the ICMP protocol.
- TTL (time to live) was observed and we learnt that it indicates the maximum no of nodes it can pass through before reaching destination.

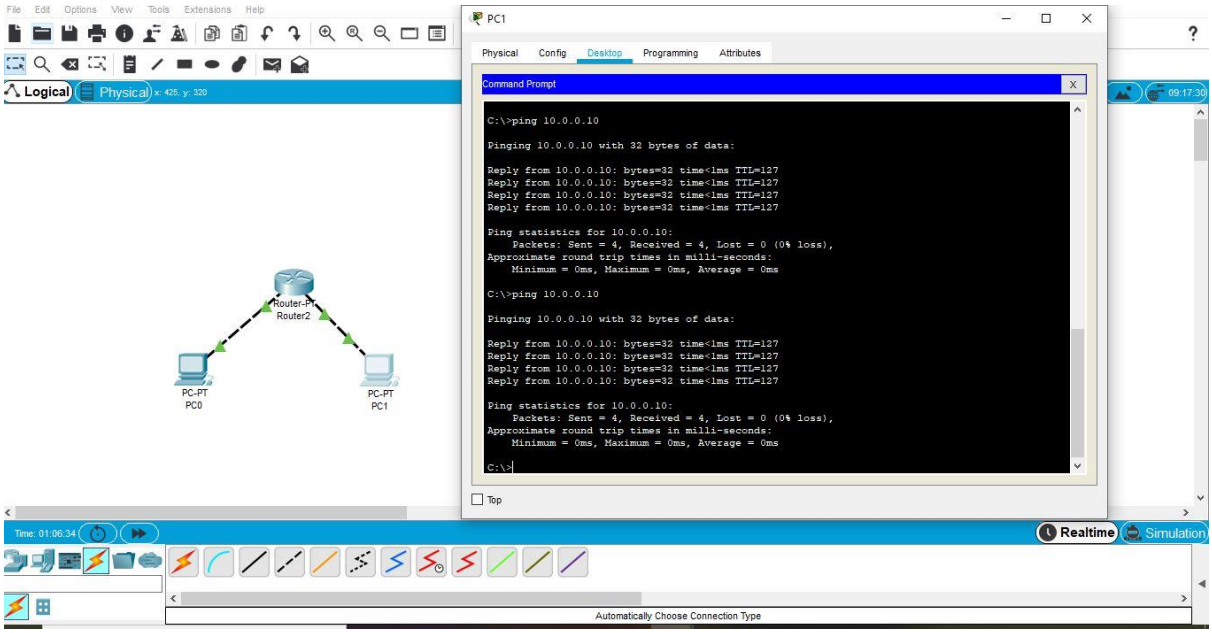
Network Topology



Configuring Router Interfaces



Ping Response



PDU Simulation