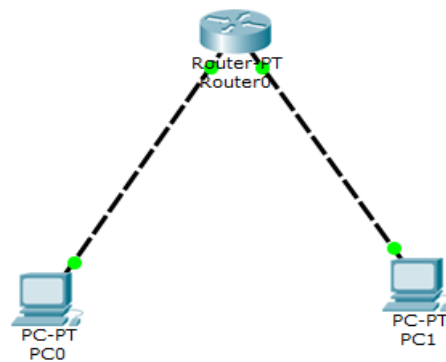


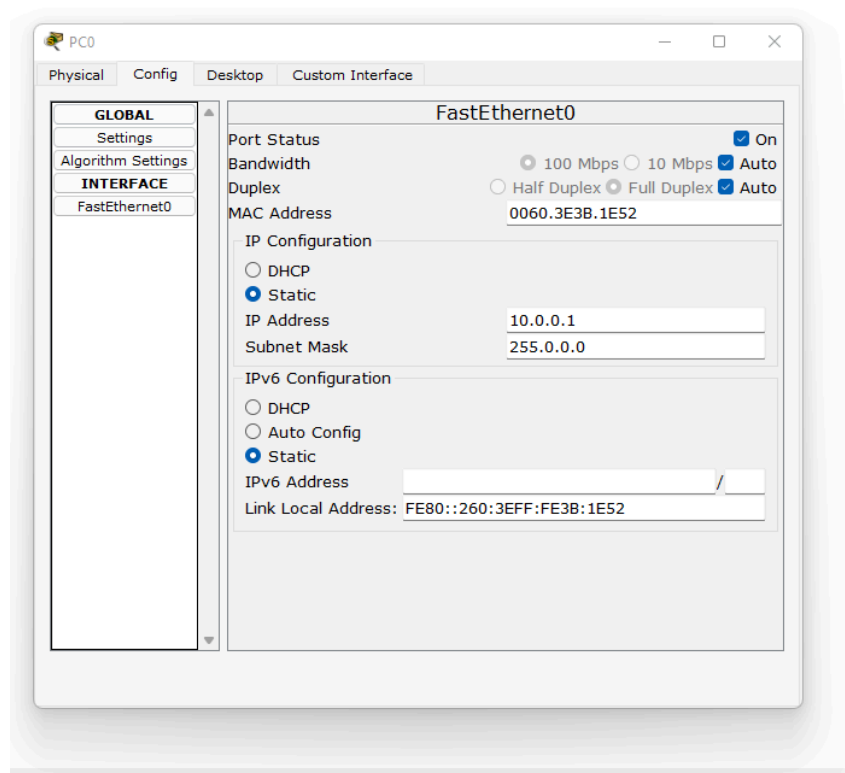
LAB 2

Experiment 2

AIM: To demonstrate configuration of ip address to the routers and explore ping command
Topology:



PC 0 IP address configuration:



1BM22CS167

PC 1 IP address configuration:

The screenshot shows the configuration window for PC1. The 'Config' tab is selected, and the 'FastEthernet0' interface is chosen from the left sidebar. The interface settings are as follows:

- Port Status:** ☒ On
- Bandwidth:** ☒ 100 Mbps ☐ 10 Mbps ☒ Auto
- Duplex:** ☐ Half Duplex ☒ Full Duplex ☒ Auto
- MAC Address:** 0001.C9D0.ACDA
- IP Configuration:** ☒ Static
IP Address: 20.0.0.2
Subnet Mask: 255.0.0.0
- IPv6 Configuration:** ☒ Static
IPv6 Address:
Link Local Address: FE80::201:C9FF:FED0:ACDA

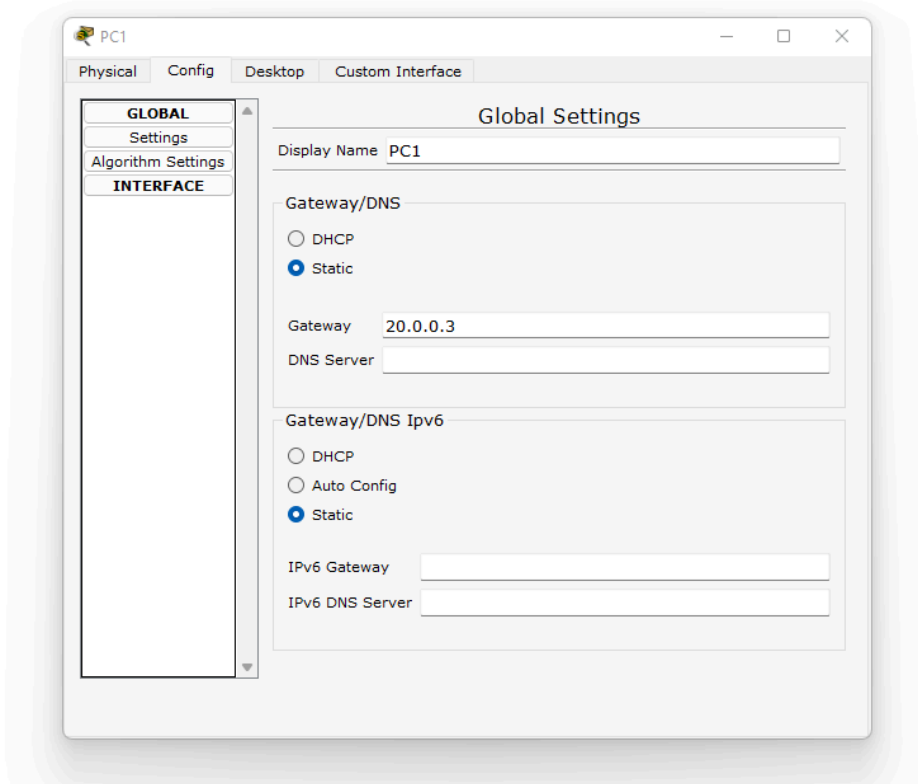
PC 0 gateway configuration:

The screenshot shows the configuration window for PC0. The 'Config' tab is selected, and the 'Global Settings' section is chosen from the left sidebar. The global settings are as follows:

- Display Name:** PC0
- Gateway/DNS:** ☒ Static
Gateway: 10.0.0.2
DNS Server: 0.0.0.0
- Gateway/DNS IPv6:** ☒ Static
IPv6 Gateway:
IPv6 DNS Server:

1BM22CS167

PC 1 gateway configuration



Router cli :

```
IOS Comm:
Software clause at DFARS sec. 252.227-7013.

cisco Systems, Inc.
170 West Tasman Drive
San Jose, California 95134-1706

Cisco Internetwork Operating System Software
IOS (tm) PT1000 Software (PT1000-I-M), Version 12.2(28), RELEASE SOFTWARE (fc5)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Wed 27-Apr-04 15:01 by miwang

PT 1001 (PTSC2005) processor (revision 0x200) with 60416K/5120K bytes of memory
.
Processor board ID PT0123 (0123)
PT2005 processor: part number 0, mask 01
Brldging software.
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

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

Press RETURN to get started!

Router>enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastethernet0/0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#no shutdown

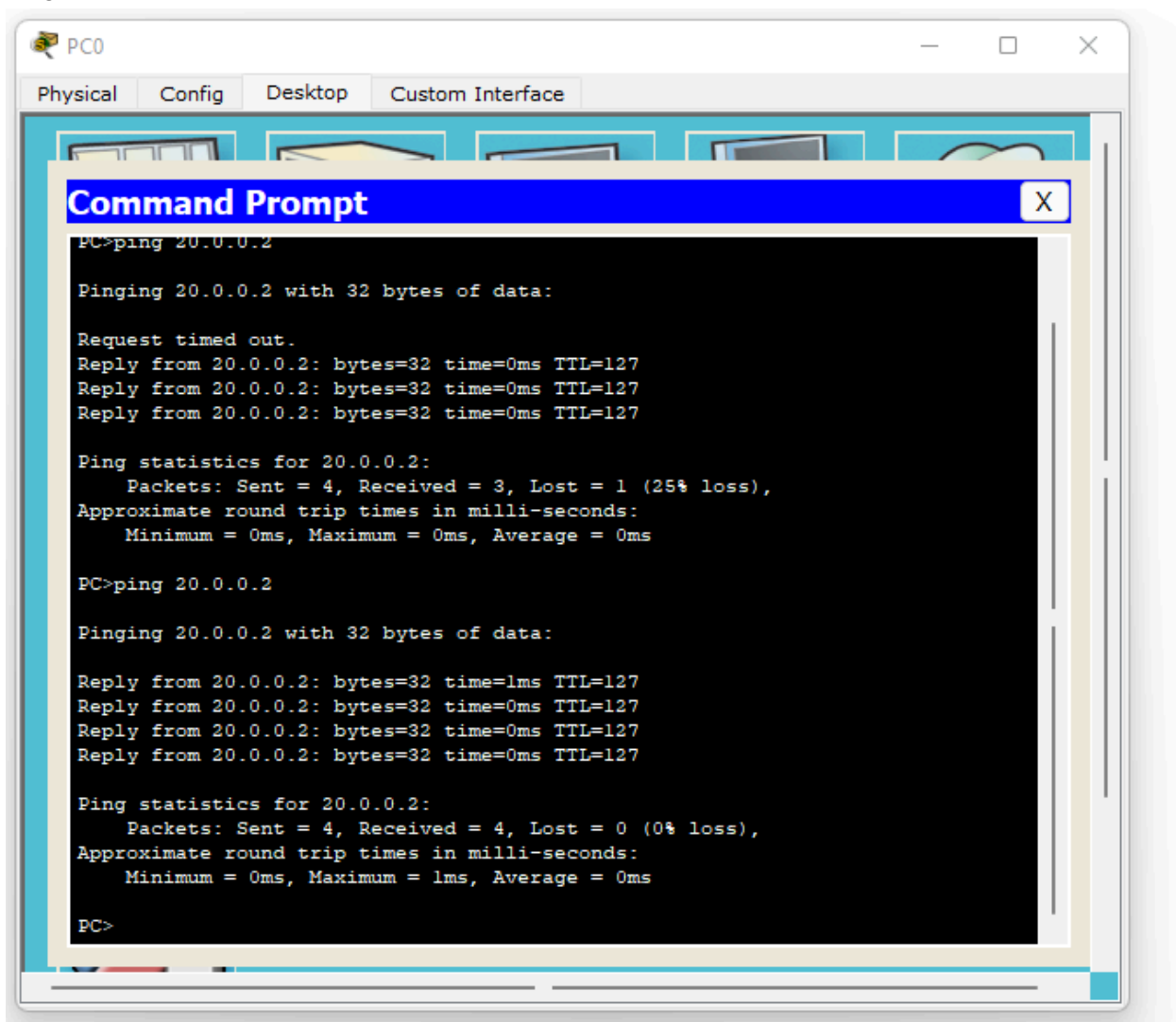
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#interface fastethernet1/0
% Invalid input detected at '^' marker.

Router(config)#interface fastethernet1/0
Router(config-if)#ip address 20.0.0.3 255.0.0.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up
```

Ping command :



Aim:

To demonstrate configuration of IP address to the routers and explore ping command

to the CLASSMATE

Date _____
Page _____

8/10/24 LAB-2

Experiment-2

Router config commands

Router > enable

Router# config t

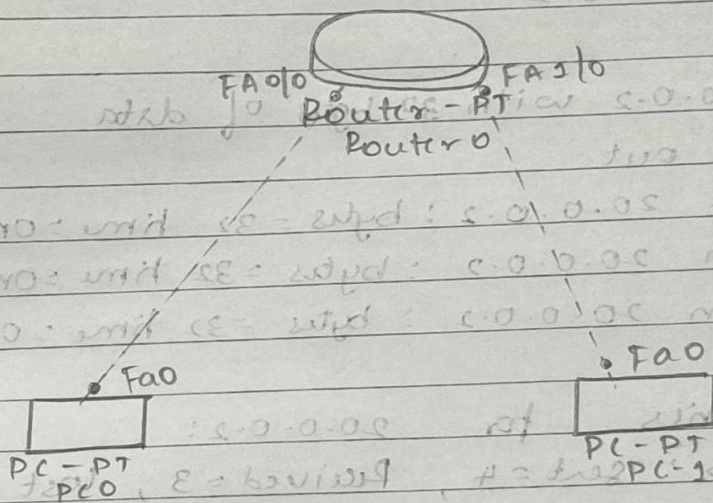
Router(config)# interface (name) fastethernet 0/0 or 0/1/0

Router(config-if)# ip address 10.0.0.2 255.0.0.0

Router(config-if)# no shutdown (same network diff numb)

Router(config-if)# exit

TOPOLOGY:



CONFIGURATION:

- (i) select two generic PC end devices and a generic router
- (ii) connect them using automatically choose connection type
- (iii) config PC0 with IP address 10.0.0.1 and PC1 with IP address 20.0.0.2 diff since they belong to different networks.
- (iv) select the router and under CLI configure the router for the two different networks using the above commands.

(iv) If the commands work the connection goes up

(vi) Once the connection goes up to send PDU from PC0 to PC1 & select PC0 go to command prompt ~~and~~ under duishop and carry out the following commands
ping 20.0.0.2 (IP address of destination PC)

(vii) ~~It~~ carry out the command twice to have 0% loss.

OBSERVATION:

PC > ping 20.0.0.2

Pinging 20.0.0.2 with 32 bytes of data

Request time out

Reply from 20.0.0.2 : bytes = 32 time = 0ms TTL = 124

Reply from 20.0.0.2 : bytes = 32 time = 0ms TTL = 124

Reply from 20.0.0.2 : bytes = 32 time = 0ms TTL = 124

ping statistics for 20.0.0.2:

Packets : sent = 4, Received = 3, lost = 1 (25% loss)

PC > ping 20.0.0.2

Pinging 20.0.0.2 with 32 bytes of data

Reply from 20.0.0.2 : bytes = 32 time = 0ms TTL = 124

Reply from 20.0.0.2 : bytes = 32 time = 0ms TTL = 124

Reply from 20.0.0.2 : bytes = 32 time = 0ms TTL = 124

Reply from 20.0.0.2 : bytes = 32 time = 0ms TTL = 124

ping statistics for 20.0.0.2:

Packets : sent = 4, Received = 4, lost = 0 (0% loss)

Approximate round trip times in milliseconds:

Minimum = 0ms, maximum = 1ms, Average = 0ms.