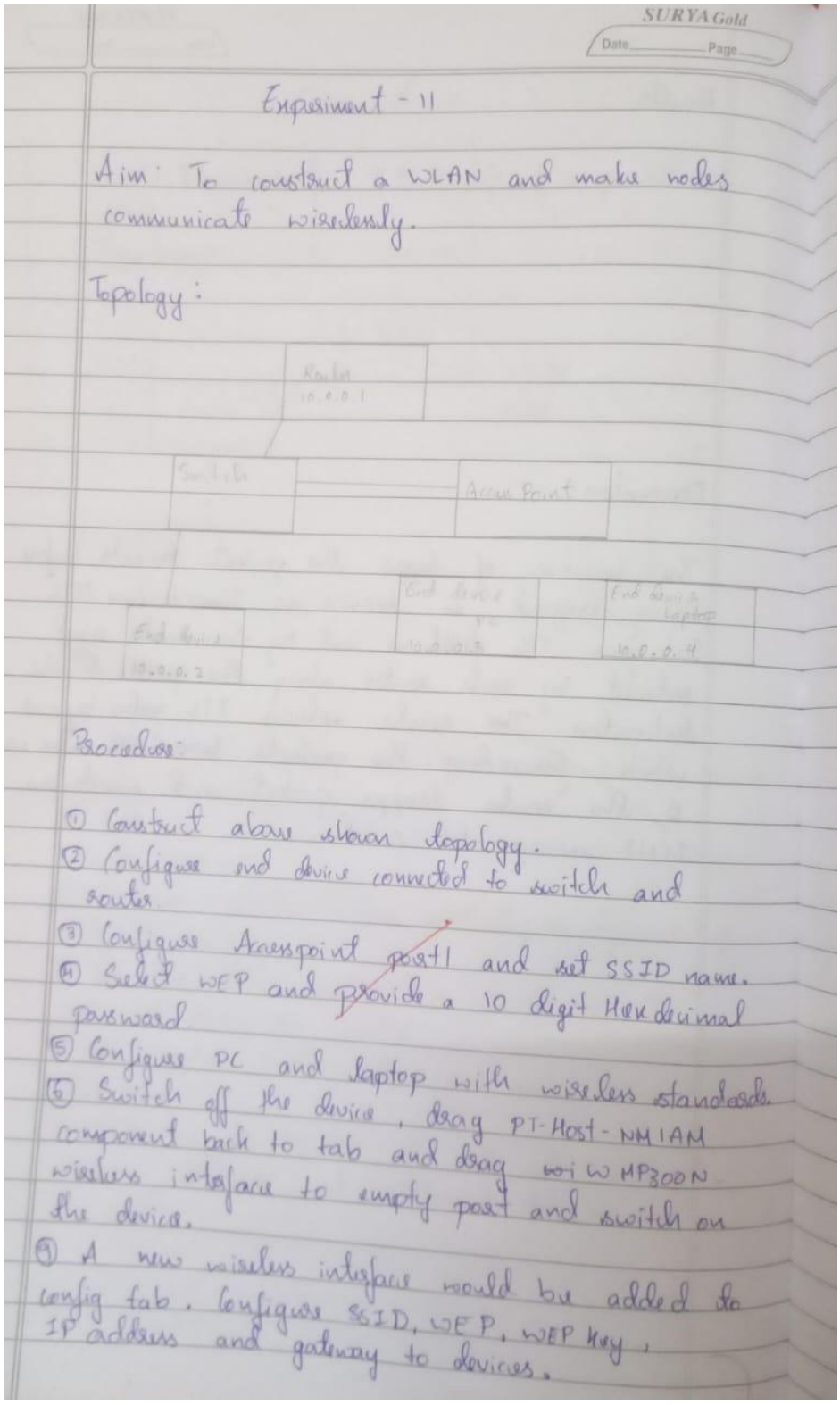
EXPERIMENT- 11

To construct a WLAN and make the nodes communicate wirelessly



SURYA Gold

Date Page

Experiment - 11

Aim: To construct a WLAN and make nodes communicate wirelessly.

Topology:

Router 10.0.0.1

Switch

Access Point

End device 10.0.0.2

End device 10.0.0.3

End device Laptop 10.0.0.4

Procedure:

1. Construct above shown topology.
2. Configure end device connected to switch and router
3. Configure Accesspoint port1 and set SSID name.
4. Select WEP and provide a 10 digit Hexdecimal password
5. Configure PC and laptop with wireless standards.
6. Switch off the device, drag PT-Host-NM1AM component back to tab and drag WMP300N wireless interface to empty port and switch on the device.
7. A new wireless interface would be added to config tab. Configure SSID, WEP, WEP Key, IP address and gateway to devices.

(10) Ping from every device to another.

Results:

> Ping 10.0.0.3

Pinging 10.0.0.3 with 32 bytes of data:

Request timed out.
Reply from 10.0.0.3: bytes=32 time=0ms TTL=127
Reply from 10.0.0.3: bytes=32 time=0ms TTL=127
Reply from 10.0.0.3: bytes=32 time=2ms TTL=127

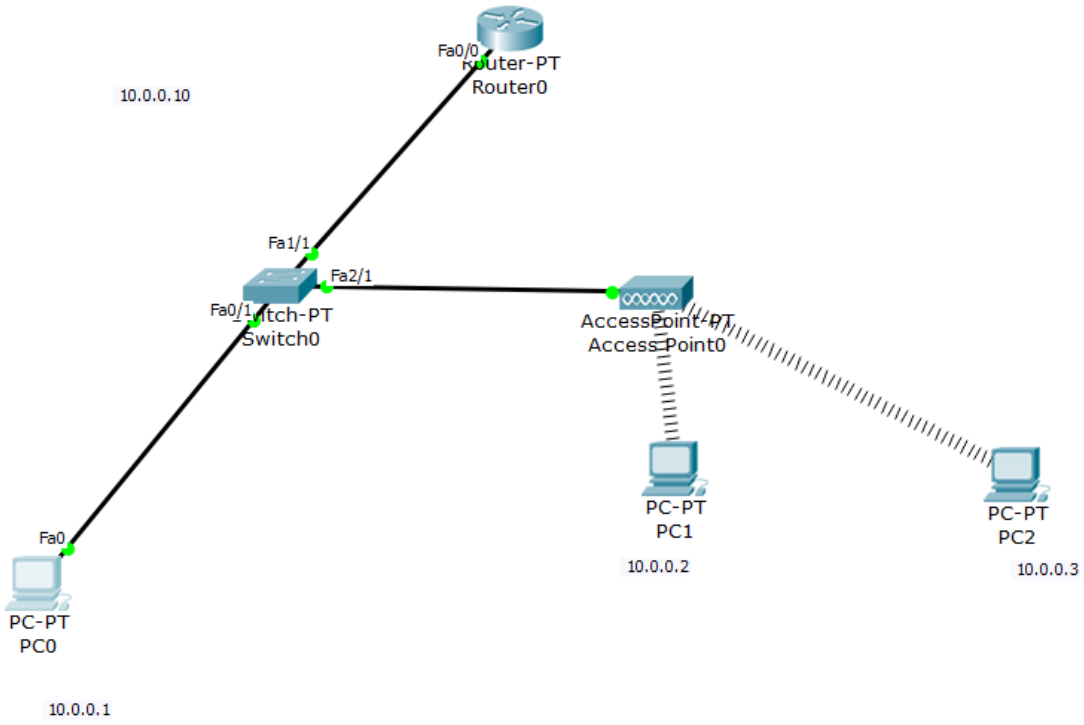
Ping statistics for 10.0.0.3:
Packets: Sent=4 Received=3 Lost=1 (25% loss)

Approximate round trip times in milliseconds:
Minimum = 0ms, Maximum = 2ms, Average = 0ms

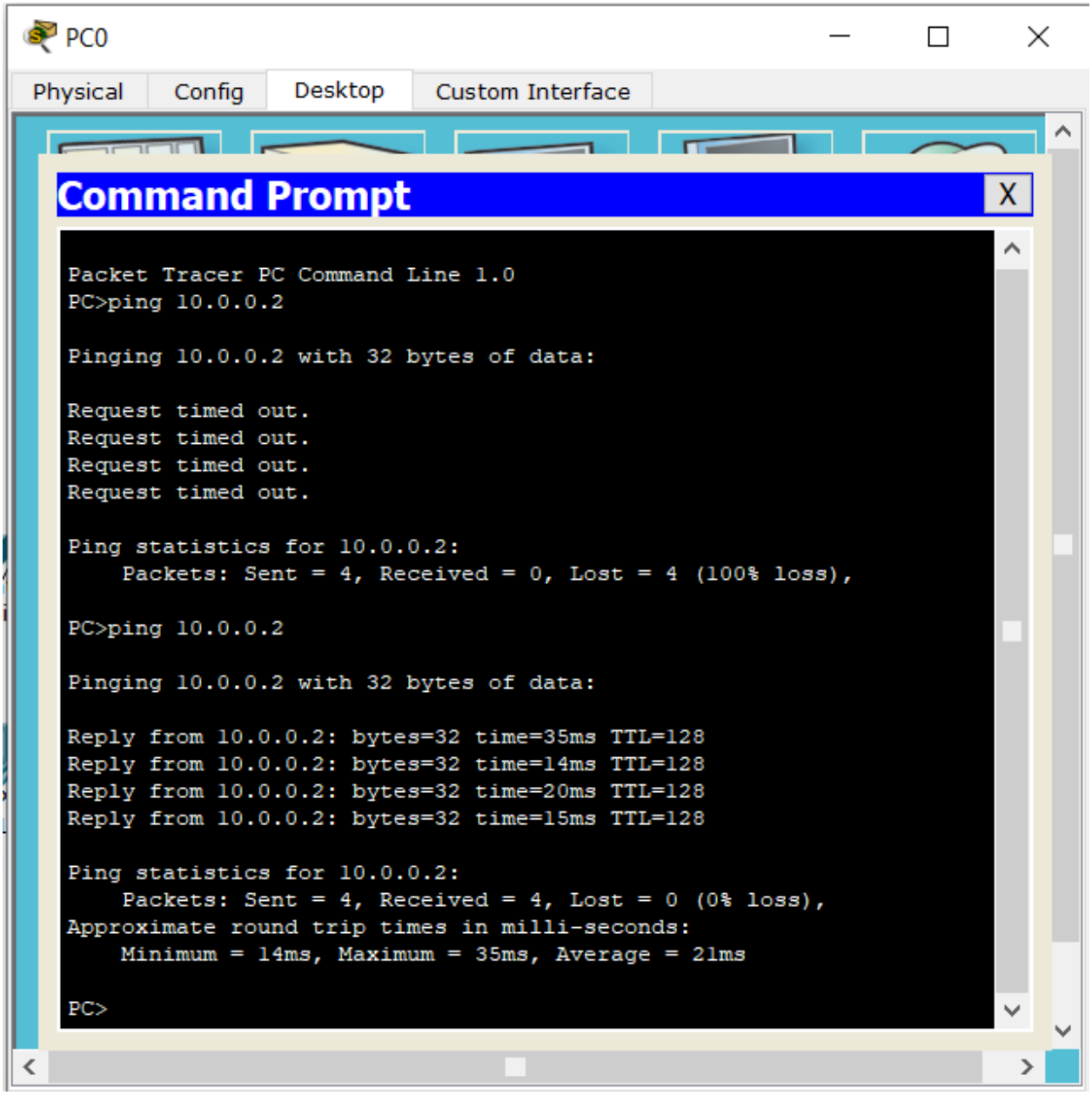
Observation:

A WAN is a group of co-located devices that form a network based on radio transmissions. Data sent in packets contain layers with labels and instructions, MAC addresses to end points for routing. Accesspoint is the base station that serves as a hub to which other stations connect. We can connect multiple devices to a single accesspoint wirelessly.

Topology:


Fa0/0
Router-PT
Router0
10.0.0.10
Fa1/1
Fa2/1
Fa0/1
Switch-PT
Switch0
AccessPoint-PT
Access_Point0
Fa0
PC-PT
PC0
10.0.0.1
PC-PT
PC1
10.0.0.2
PC-PT
PC2
10.0.0.3

Result:


PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
X
Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.2
Pinging 10.0.0.2 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 10.0.0.2:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
PC>ping 10.0.0.2
Pinging 10.0.0.2 with 32 bytes of data:
Reply from 10.0.0.2: bytes=32 time=35ms TTL=128
Reply from 10.0.0.2: bytes=32 time=14ms TTL=128
Reply from 10.0.0.2: bytes=32 time=20ms TTL=128
Reply from 10.0.0.2: bytes=32 time=15ms TTL=128
Ping statistics for 10.0.0.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 14ms, Maximum = 35ms, Average = 21ms
PC>