Experiment: 4

Configuration of Wireless LAN

Aim:

To construct a Wireless LAN and make the PC's communicate wirelessly

Requirements

- Windows pc – 2 Nos
- CISCO Packet Tracer Software (Student Version)
- 8 port switch – 1 No
- Cat-5 LAN cable

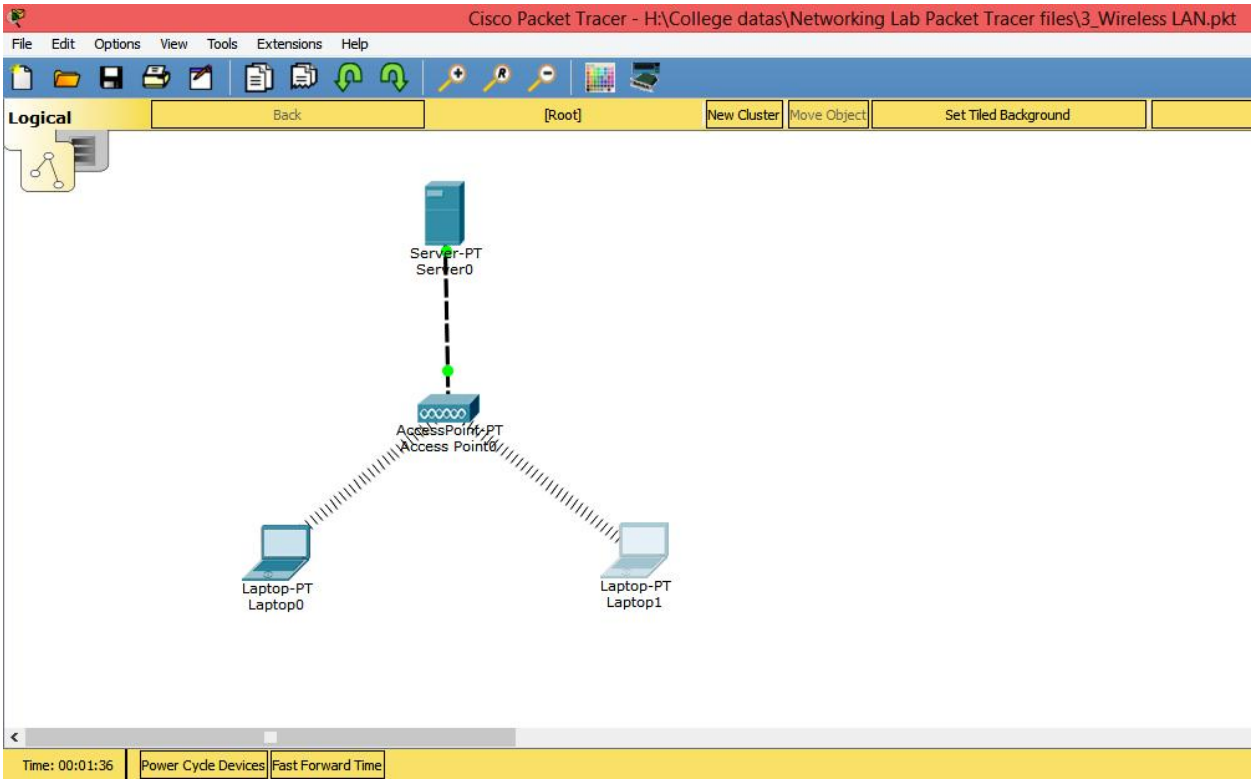
Procedure

- Open the CISCO Packet tracer software
- Drag and drop 2 Laptop pcs using End Device Icons on the left corner
- Select Access point and server from wireless devices
- Select laptop-> physical-> OFF laptop-> remove LAN Module & replace WPC 300N Wireless module -> ON Laptop
- Observe the wireless connections between access point and laptops
- Give IP address of the PCs as per table, ping between PCs and observe the transfer of data packets in real and simulation mode.

Theory

A Wireless Local Area Network (WLAN) implements a flexible data communication system frequently augmenting rather than replacing a wired LAN within a building or campus. WLANs use radio frequency to transmit and receive data over the air, minimizing the need for wired connections.

Network Topology Diagram for Wireless LAN



WLAN OUTPUT WINDOW:(PINGING FROM laptop 1- laptop 0)

C:\>ping 169.254.129.204

Pinging 169.254.129.204 with 32 bytes of data:

Reply from 169.254.129.204: bytes=32 time=30ms TTL=128
Reply from 169.254.129.204: bytes=32 time=16ms TTL=128
Reply from 169.254.129.204: bytes=32 time=15ms TTL=128
Reply from 169.254.129.204: bytes=32 time=13ms TTL=128

Ping statistics for 169.254.129.204:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 13ms, Maximum = 30ms, Average = 18ms

Result:

Thus, constructed a WLAN and made the Laptops communicate wirelessly