Assignment No. 2

TITLE :- Setup WAN which able to ping, Wired to
Wireless LAN.

Problem Definition :-

Setup a WAN which contains wired as well as
wireless LAN by using a packet tracer tool.
Demonstrate transfer of a parket from LAN 1
(Wired LAN) to LAN 2 (Wireless LAN).

Learning Objective :
Setup wired to wireless LAN.

Learning Outcome :
Creation of wired to Wireless Network.

Prerequisites :
Open source Operating system, Parket Tracer,
Wireshark, Core I3/I5/I7 with 4GB RAM system,
Wired Wireless AP/router, Wireless Adapter.

Concepts Related Theory :-

What is a Wifi or wireless network vs a
wired network ?
A wireless network allows device to stay

connected to the network but roam untethered to any wires. Access points amplify Wi-Fi signals, so a device can be far from a router but still be connected to the network. When you connect to a Wi-Fi hotspot at a cafe, a hotel, an airport lounge, or another public place, you're connecting to that business's wireless network.

A wired network uses cables to connect devices, such as laptop or desktop computers, to the Internet or another network. A wired network has some disadvantages when compared to a wireless network. The biggest disadvantage is that your device is tethered to a router. The most common wired networks use cables connected to one end to an Ethernet port on the network router and at the other end to a computer or other device.

Previously it was thought that wired networks were faster and more secure than wireless networks. But continual enhancements to wireless network technology such as the Wi-Fi 6 networking standard have eroded speed and security differences between wired and wireless networks.

Algorithm :-

1. Start.

2. Collect router and Wireless card

3. Connect router in local LAN.

4. Connect WB/wireless adapter to system.

5. Network configuration select automatic dhp.

6. Connect system with router.

7. Check your system IP and try to ping any LAB system from your system.

8. Start Wireshark

9. Provide filter ip.addr == 10.10.10.71

10. Repeat the same using Packet Tracer.

CONCLUSION :

Thus, after successfully completing this assignment, Wired to Wireless LAN.

Screenshots :-

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`ip.addr == 10.65.189.244`

No.	Time	Source	Destination	Protocol	Length	Info
10706	54.350346	192.168.43.115	10.65.189.244	ICMP	74	Echo (ping) request id=0x0001, seq=1/256, ttl
10710	54.352813	10.65.189.244	192.168.43.115	ICMP	74	Echo (ping) reply id=0x0001, seq=1/256, ttl
10890	55.368905	192.168.43.115	10.65.189.244	ICMP	74	Echo (ping) request id=0x0001, seq=2/512, ttl
10891	55.371244	10.65.189.244	192.168.43.115	ICMP	74	Echo (ping) reply id=0x0001, seq=2/512, ttl
11059	56.394625	192.168.43.115	10.65.189.244	ICMP	74	Echo (ping) request id=0x0001, seq=3/768, ttl
11061	56.397259	10.65.189.244	192.168.43.115	ICMP	74	Echo (ping) reply id=0x0001, seq=3/768, ttl
11249	57.422563	192.168.43.115	10.65.189.244	ICMP	74	Echo (ping) request id=0x0001, seq=4/1024, tt
11250	57.425100	10.65.189.244	192.168.43.115	ICMP	74	Echo (ping) reply id=0x0001, seq=4/1024, tt

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