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Tutorial 5: WLAN Creation

Create a Wireless Local Area Network (WLAN)

IP Address:

The router has been assigned the IP address 192.168.0.1, which serves as the gateway for all devices on the network. All devices on this network have IP addresses in the format 192.168.0.xx. A straight-through cable is used to connect two PCs using a switch and connect them to a wireless router.

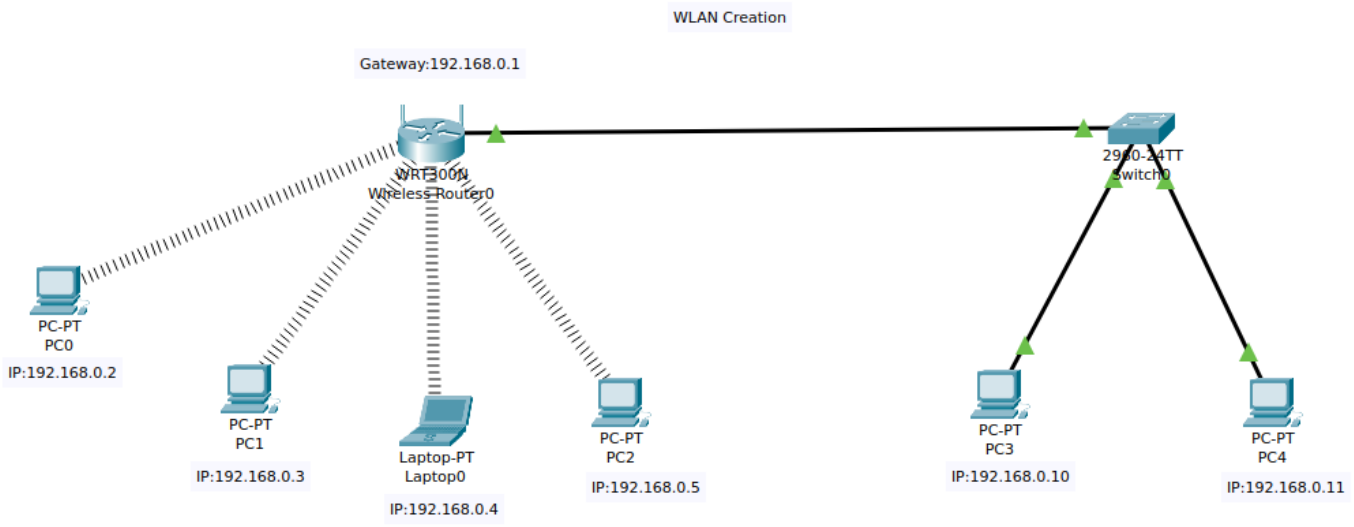
WLAN:

A wireless local area network (WLAN) is a type of local area network (LAN) that uses radio waves instead of physical cables to transmit data between devices. WLANs are commonly used in homes, offices, schools, and other public areas to provide wireless connectivity for computers, smartphones, tablets, and other devices.

The key components of a WLAN are:

- **Access points:** Access points are devices that transmit and receive wireless signals. They connect to a wired network and serve as the central hub through which wireless devices establish connections.
- **Service set identifier (SSID):** The SSID is the network name that uniquely identifies a WLAN. When users search for available Wi-Fi networks on their devices, they see a list of SSIDs. Connecting to a particular SSID enables their device to join that specific WLAN.
- **Security protocols:** Security protocols are used to encrypt data transmitted over the WLAN and prevent unauthorized access. Common security protocols for WLANs include WPA2, WPA3, and WEP.
- **Internet connectivity:** WLANs are connected to the internet via a wired network connection, such as a broadband modem or Ethernet connection. This connection allows devices connected to the WLAN to access online resources and services

Implementation of WLAN Network



Simulation:

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	Laptop0	IC...		0.000	N	0	(e...	(delete)
	Successful	PC3	PC4	IC...		0.000	N	1	(e...	(delete)
	Successful	PC1	PC3	IC...		0.000	N	2	(e...	(delete)
	Successful	PC4	Laptop0	IC...		0.000	N	3	(e...	(delete)

1. Payload delivery from a PC (connected to wireless router) to a laptop connected to the same was successful.

2. Payload delivery from a PC (connected to switch) to another PC (connected to same switch) was successful.

3. Payload delivery from a PC (connected to wireless router) to a PC (connected to switch which is connected to wireless router) was successful.

4.Payload delivery from a PC(connected to switch which is connected to wireless router) to a laptop (connected to wireless router) was successful.