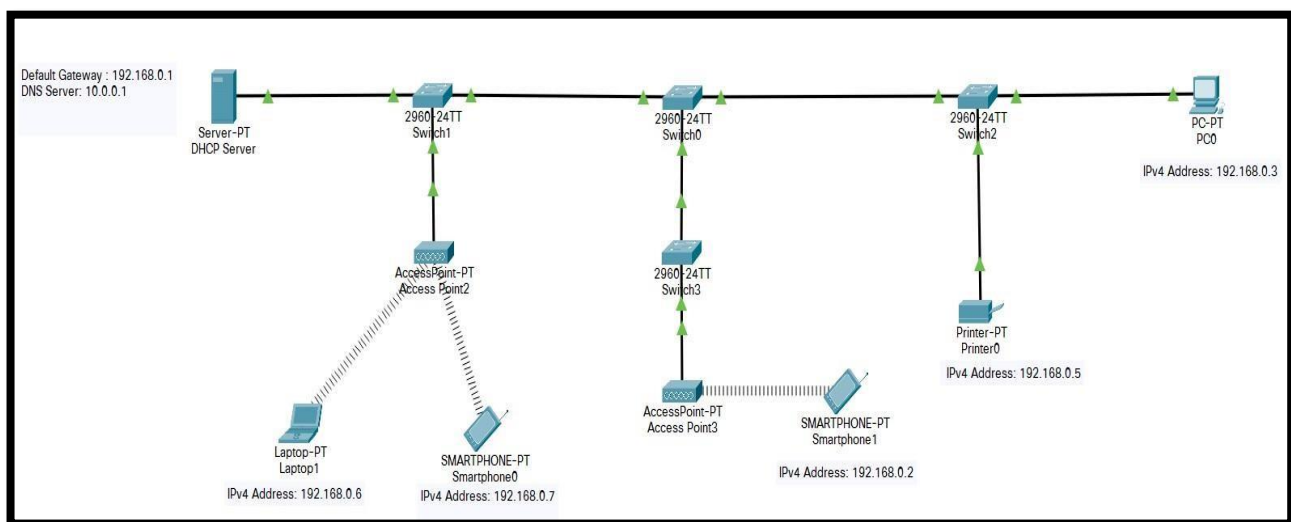


Network Design Lab

Chapter3: Simulation of Wireless Router in CPT

Learning Objective:

- 1) Simulate Access Point configuration
- 2) Simulate DHCP



DHCP Server:

- Default Gateway : 192.168.0.1
 - DNS Server: 10.0.0.1
- Device IP Address List:**
- Laptop1 – 192.168.0.6
 - Smartphone0 – 192.168.0.7
 - Smartphone1– 192.168.0.2
 - PC0 – 192.168.0.3
 - Printer0 – 192.168.0.5

DHCP Service Configuration:

DHCP Server

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.0.1

DNS Server: 10.0.0.1

Start IP Address: 192 168 0 0

Subnet Mask: 255 255 255 0

Maximum Number of Users: 255

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168.0.1	10.0.0.1	192.168.0.0	255.255.255.0	255	0.0.0.0	0.0.0.0

ICMP Ping Results:

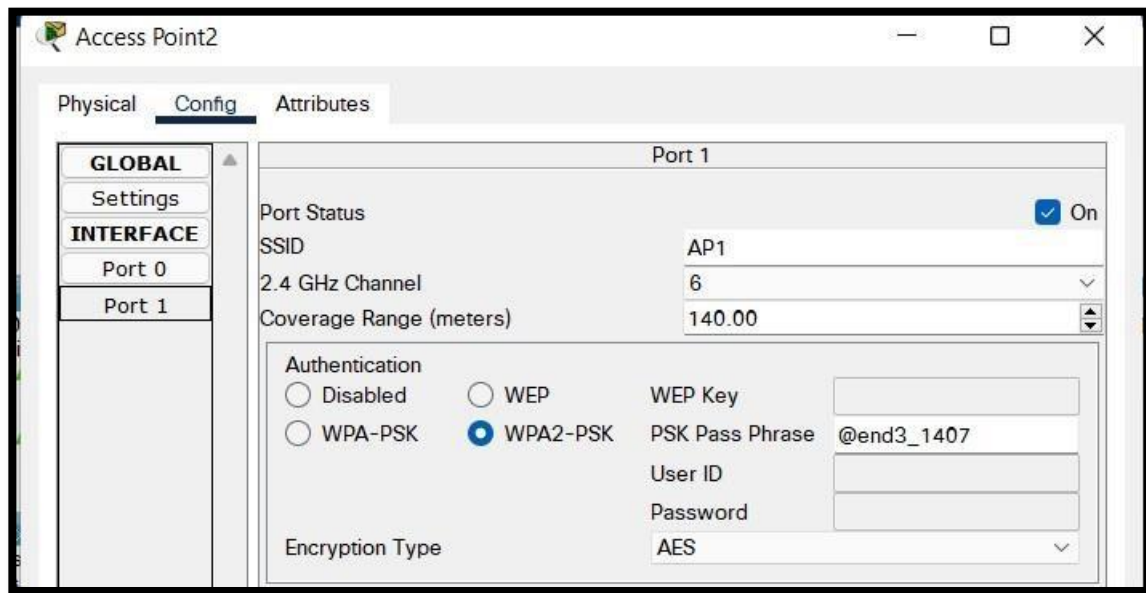
Realtime **Simulation**

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Laptop1	Printer0	ICMP		0.000	N	0	(edit)	(delete)
	Successful	Smartphone0	Printer0	ICMP		0.000	N	1	(edit)	(delete)
	Successful	DHCP Server	PC0	ICMP		0.000	N	2	(edit)	(delete)

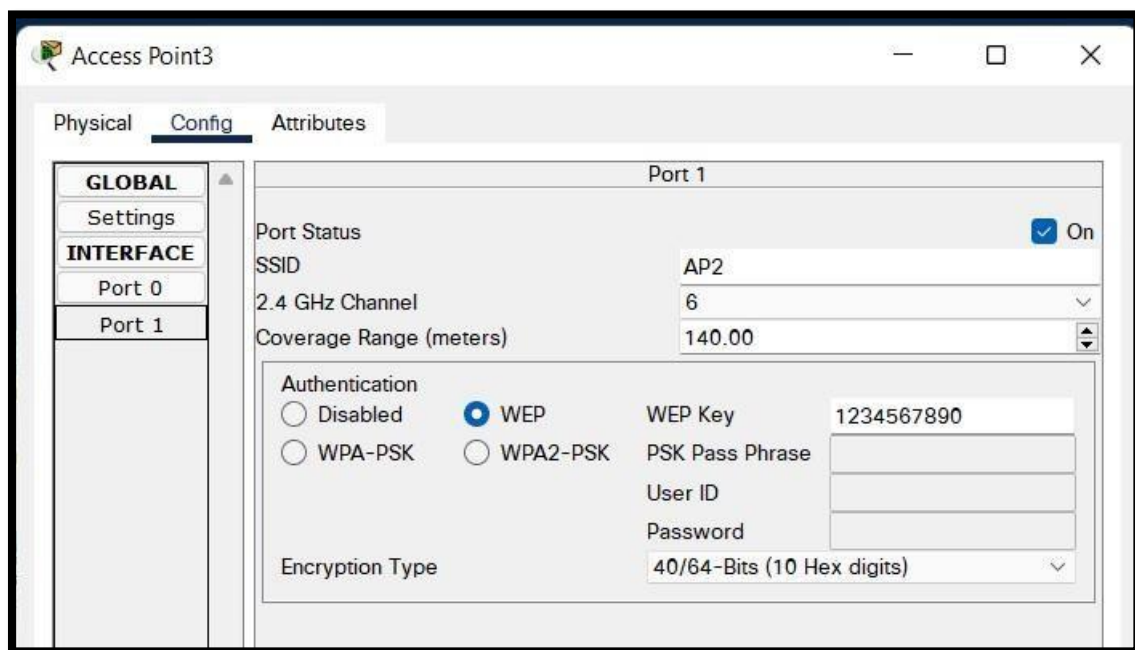
Realtime **Simulation**

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Smartphone1	Printer0	ICMP		0.000	N	3	(edit)	(delete)
	Successful	DHCP Server	Laptop1	ICMP		0.000	N	4	(edit)	(delete)

Access Point 1 (AP1) WPA2-PSK Authentication:



Access Point 2 (AP2) WEP Authentication:



Conclusion:

Using Cisco Packet Tracer, I was able to do DHCP Configuration and all devices were automatically assigned IP Addresses by the DHCP Server. All Access Points are configured securely by using authentication methods like WEP and WPA2-PSK