Nama : Hany Luthfiyyah

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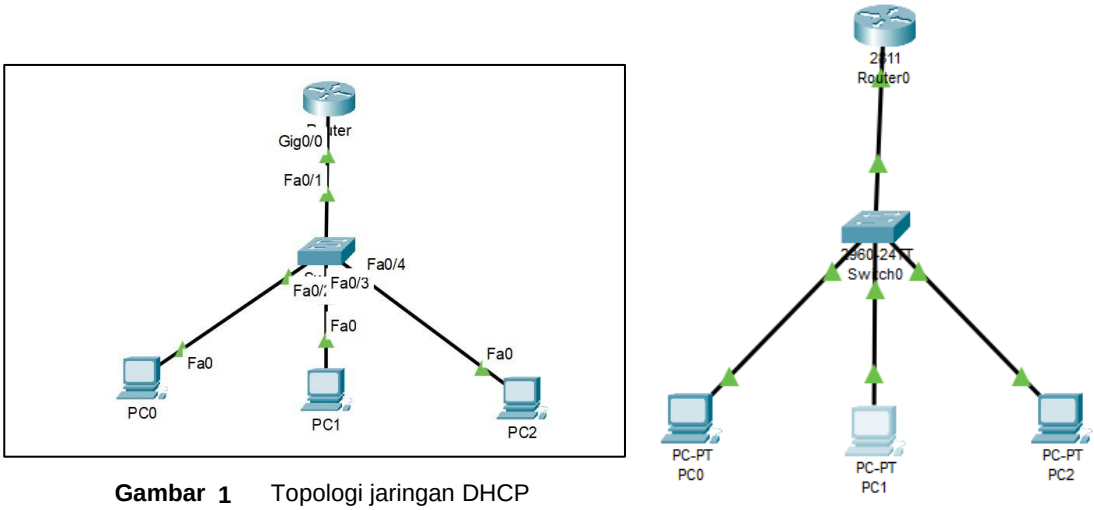
Kelas : MI 3A

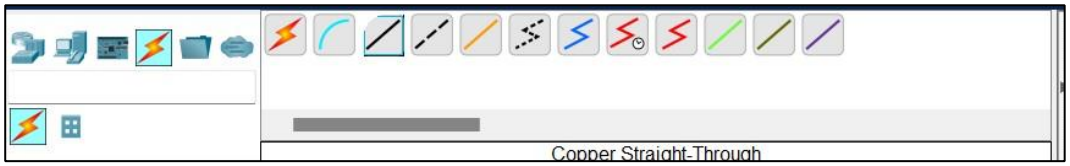
Mata Kuliah : Praktikum Jarringa Komputer

A. PERCOBAAN



Gambar 1 Topologi jaringan DHCP

1. Buat Topologi Seperti Gambar diatas
2. Pasang Kabel Copper Straight dari PC ke Switch terhubung



Gambar 6.2 Tampilan pilihan kabel pada Cisco Packet Tracer

3. Setelah itu, kita menyalakan switch daya dan tunggu beberapa menit, router akan menyala.

```
System Bootstrap, Version 15.1(4)M4, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 2010 by cisco Systems, Inc.
Total memory size = 512 MB - On-board = 512 MB, DIMM0 = 0 MB
CISCO2911/K9 platform with 524288 Kbytes of main memory
Main memory is configured to 72/-1(On-board/DIMM0) bit mode with ECC disabled

Readonly ROMMON initialized

program load complete, entry point: 0x80803000, size: 0x1b340
program load complete, entry point: 0x80803000, size: 0x1b340

IOS Image Load Test
___________________
Digitally Signed Release Software
program load complete, entry point: 0x81000000, size: 0x3bcd3d8
Self decompressing the image :
################################################################################ [OK]
```

Gambar 6.3 Tampilan booting pada Router

4. Setelah looding router selesai, kita lanjutkan konfigurasinya.

Memberi nama Router

```
Router>enable
Router#configure terminal
Router(config)#hostname ROUTER_DHCP
```

Setting IP Address pada Router

```
ROUTER_DHCP(config)#int g0/0
ROUTER_DHCP(config-if)#ip add 192.168.1.1 255.255.255.0
ROUTER_DHCP(config-if)#no shutdown
ROUTER_DHCP(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0,
changed state to up

ROUTER_DHCP(config-if)#exit
```

Konfigurasi DHCP pada Router

```
ROUTER_DHCP(config)#ip dhcp pool LAB
ROUTER_DHCP(dhcp-config)#network 192.168.1.0 255.255.255.0
ROUTER_DHCP(dhcp-config)#default-router 192.168.1.1
ROUTER_DHCP(dhcp-config)#dns-server 192.168.1.1
ROUTER_DHCP(dhcp-config)#ip dhcp excluded-address 192.168.1.1
ROUTER_DHCP(dhcp-config)#ip dhcp excluded-address 192.168.1.2
192.168.1.20
ROUTER_DHCP(config)#
```

5. Setelah itu lakukan konfigurasi pada PC

Konfigurasi DHCP Client

```
Setting DHCP client :
   1. Klik 2x pada icon PC,
   2. Pilih desktop,
   3. Pilih IP Configuration,
   4. Pilih DHCP,
   5. Tunggu, lalu akan dapat IP DHCP
```

6. Setelah itu Melihat daftar IP dari Client

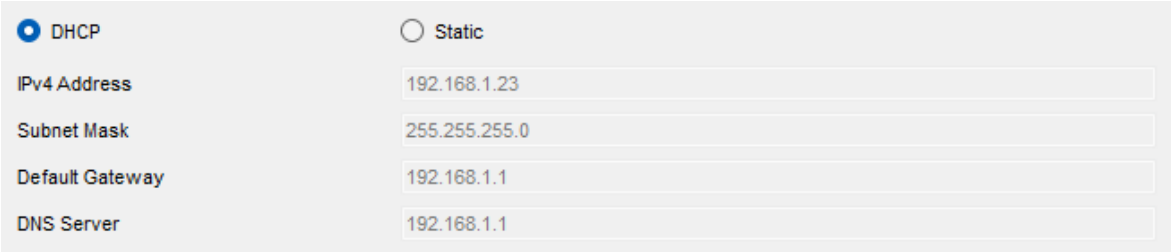
Melihat Daftar IP dari Client

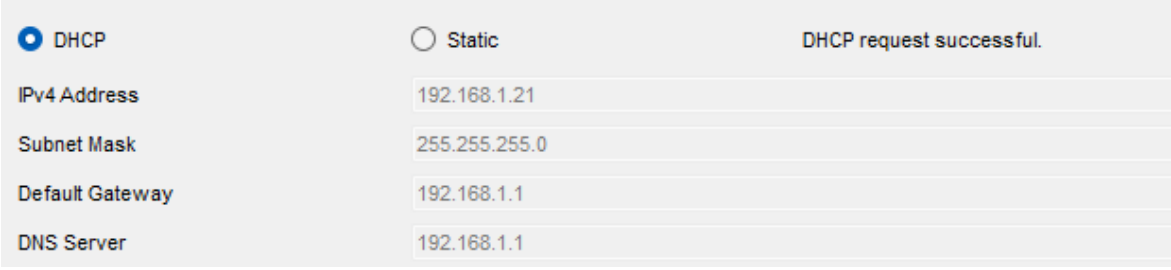
```
ROUTER_DHCP#sh ip dhcp binding
```

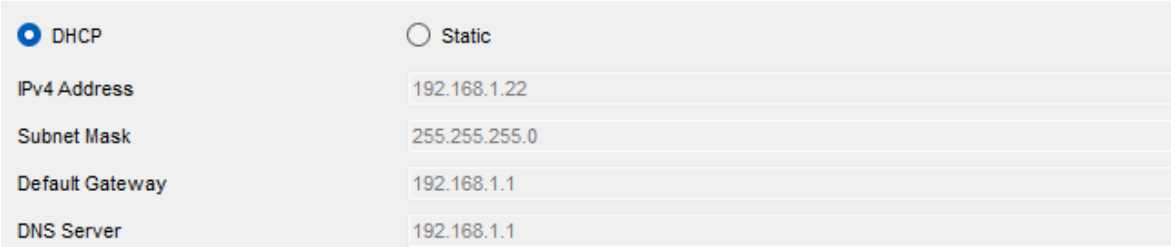
```
ROUTER_DHCP#sh ip dhcp binding
IP address       Client-ID/              Lease expiration        Type
                 Hardware address
192.168.1.21     00D0.BA95.3C52           --                     Automatic
192.168.1.22     0001.631A.3CE9           --                     Automatic
192.168.1.23     0004.9AD1.12BE           --                     Automatic
ROUTER_DHCP#
```

No	IP address	MAC Address	Lease Expiration	Type
1	192.168.1.21	00D0.BA95.3C52	--	Automatic
2	192.168.1.22	0001.631A.3C39	--	Automatic
3	192.168.1.23	0004.9AD1.12BE	--	Automatic

Setelah itu lakukan pengalamatan ip pada Client/PC







No	Client	IP address	Netmask	Gateway	Dns
1	PC0	192.168.1.23	255.255.255.0	192.168.1.1	192.168.1.1
2	PC1	192.168.1.21	255.255.255.0	192.168.1.1	192.168.1.1
3	PC2	192.168.1.22	255.255.255.0	192.168.1.1	192.168.1.1

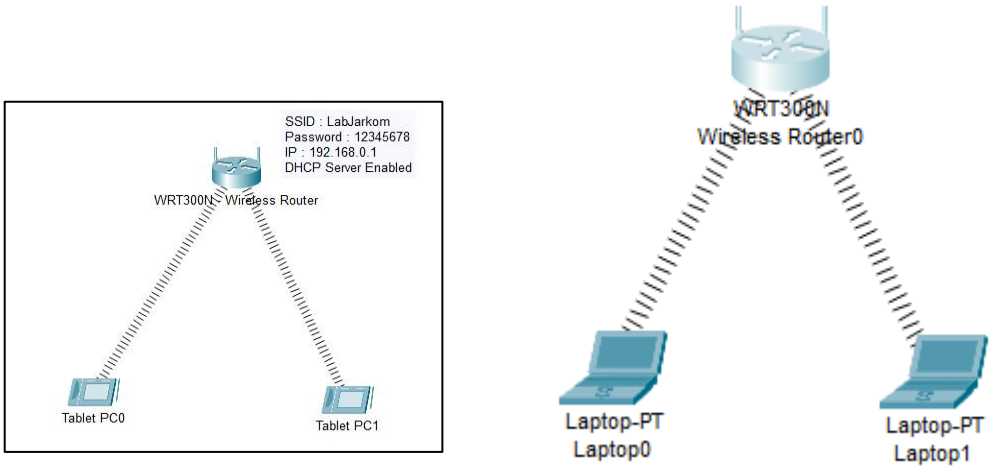
7. Lakukan pengujian PING pada setiap PC

Daftar IP Client

No	Sumber	Hasil Ya / Tidak	Tujuan	Hasil Ya / Tidak
1	PC0	Ya	PC1	Ya
		Ya	PC2	Ya
2	PC1	Ya	PC0	Ya
		Ya	PC2	Ya
3	PC2	Ya	PC0	Ya
		Ya	PC1	Ya

Tes Koneksi dengan menggunakan PING (catat hasil yang anda dapat)

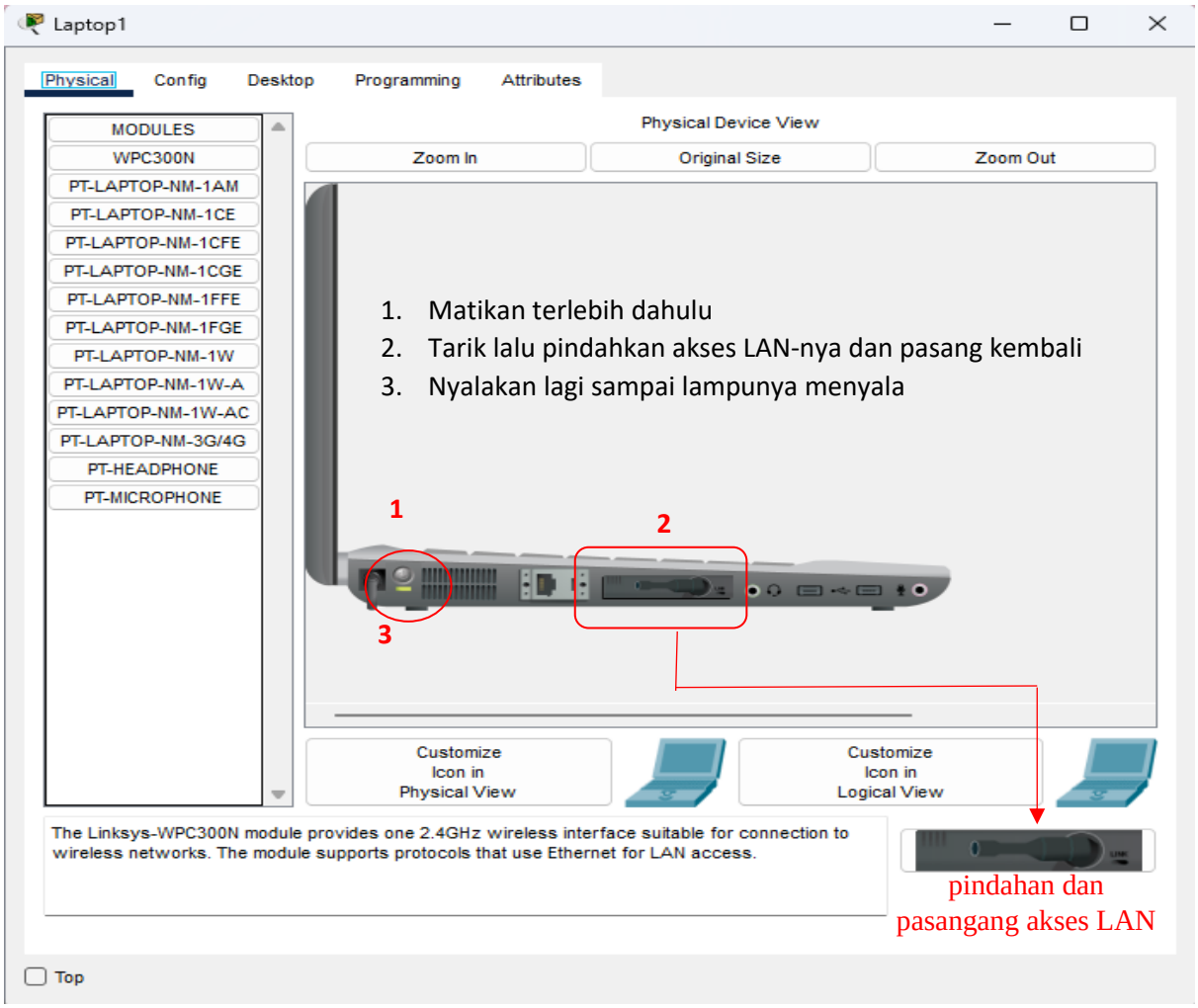
B. PERCOBAAN



Gambar 1 Topologi jaringan Wireless

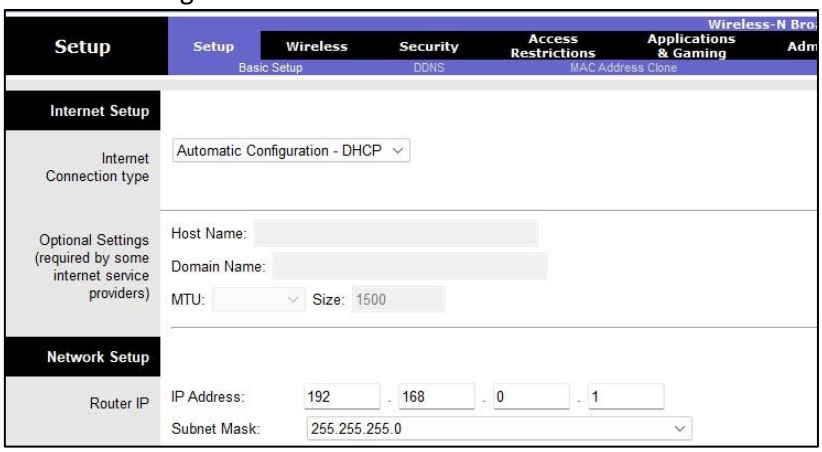
1. Buat Topologi Seperti Gambar diatas (note*: **Gantilah device tablet menjadi laptop pada topologi diatas dan harus terhubung secara wireless**)

- Ganti adapternya terlebih dahulu dengan cara seperti di gambar



2. Konfigurasi Access Point

- Untuk mengkonfigurasi access point, klik Wireless Router yang sudah dipasang.
- Pilih tab/menu GUI
- Masukkan IP Address dengan 192.168.0.1
- Serta Subnet Mask dengan 255.255.255.0



Gambar 7.2 Konfigurasi IP Access Point

- Aktifkan DHCP Server, menjadi Enabled
- Mulai IP Address, dan IP DHCP dimulai dari 192.168.0.100
- Maximum number of Users (jumlah maksimum dari IP DHCP)
- Lalu simpan pengaturan (Save Settings)

Gambar 7.3 Konfigurasi Range IP pada Access point

- Pilih tab/menu Wireless -> Basic Wireless Settings
- Buatlah nama SSID dengan LabJarkom
- Lalu simpan pengaturan (Save Settings)

Gambar 7.4 Konfigurasi SSID pada Access Point

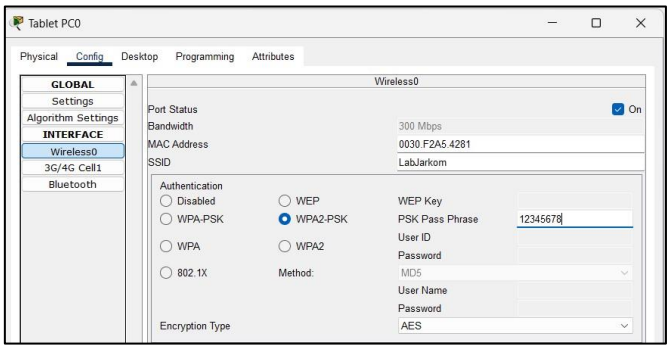
- Tekan tab/menu Wireless -> Wireless Security
- Lalu pada Security Mode akan menggunakan WPA2 Personal
- Dengan Encryption AES
- Serta Passphrase 12345678
- Lalu simpan pengaturan (Save Settings)

Gambar 7.5 Konfigurasi Password pada Access Point

3. Konfigurasi Client

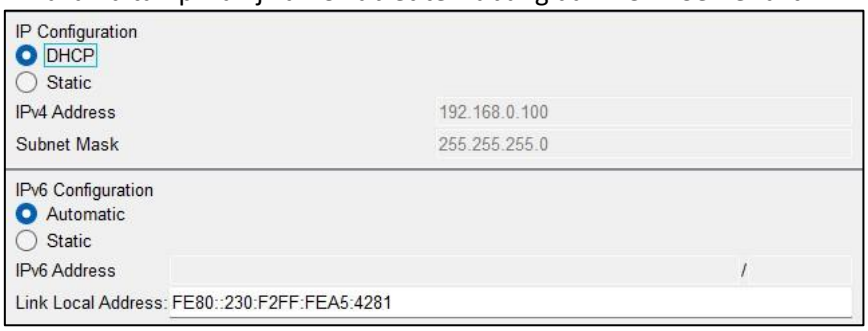
Konfigurasi Tablet PC0

- Konfigurasi Tablet PC pada tab Config
- SSID = LabJarkom
- Authentication = WPA2-PSK
- Pass Phrase = 12345678



Gambar 7.6 Konfigurasi SSID dan Password pada PC Tablet0

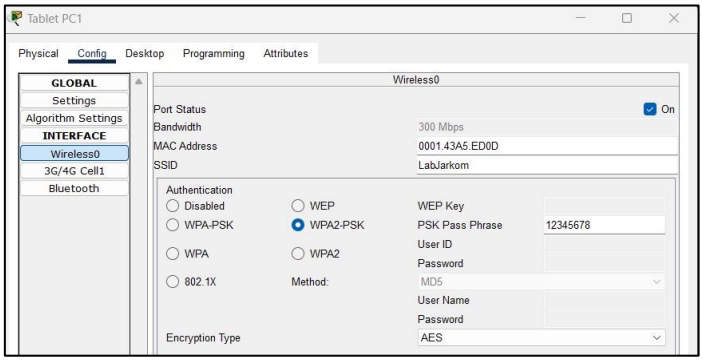
- Pada IP Configuration memakai DHCP
- Nomor IP akan ditampilkan jika PC Tablet terhubung dan DCHP Server aktif



Gambar 7.7 Konfigurasi DHCP pada PC Tablet0

Konfigurasi Tablet PC1

- Konfigurasi Tablet PC pada tab Config
- SSID = LabJarkom
- Authentication = WPA2-PSK
- Pass Phrase = 12345678



Gambar 7.8 Konfigurasi SSID dan Password pada PC Tablet1

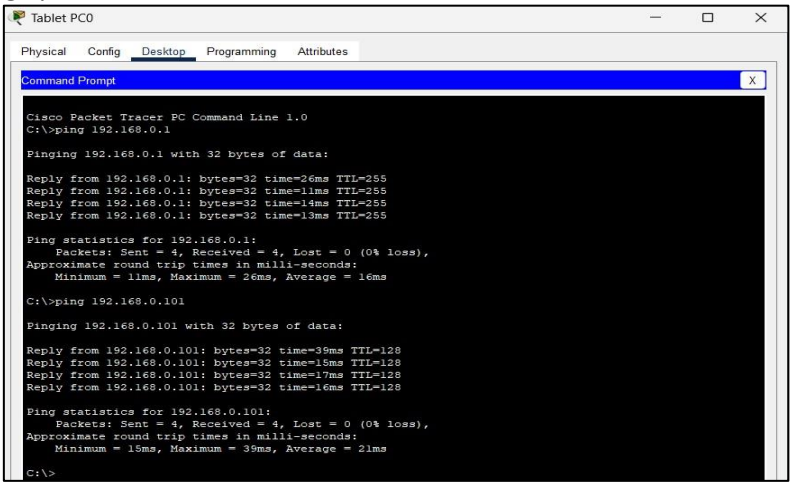
- IP menggunakan DHCP
- Nomor IP akan ditampilkan jika PC Tablet terhubung dan DCHP Server aktif

Gambar 7.9 Konfigurasi DHCP pada PC Tablet0

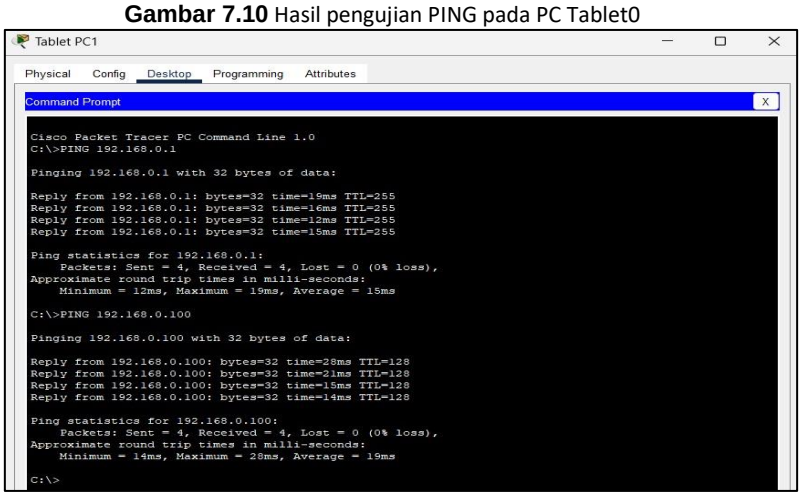
4. Pengujian PING

- Di PC Tablet, pilih tab/menu Desktop -> Command Prompt
- Jalankan perintah Ping ke IP Access Point 192.168.0.1

- Ping IP PC TabletPC0 Ke PC TabletPC1
- Lakukan juga pada PC TabletPC1 ke PC TabletPC0



Gambar 7.10 Hasil pengujian PING pada PC Tablet0



Gambar 7.11 Hasil pengujian PING pada PC Tablet1