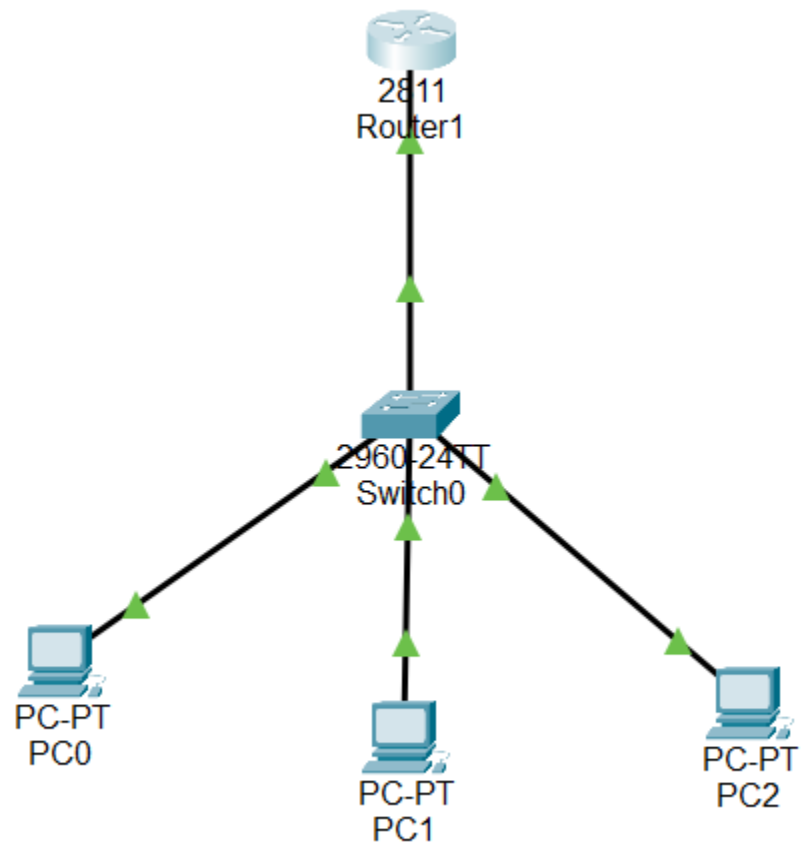


**NAMA** : AGUNG AKSA  
**NIM** : 09010182327007  
**KELAS** : MI-3A  
**MK** : PRAKTIKUM JARKOM

### 1. Topologi jaringan DHCP



### 1. Melihat Daftar IP dari Client

NO	IP ADDRESS	MAC ADDRESS	LEASE EXPIRATION	TYPE
1	192.168.1.21	00D0.FF27.2986	-	Automatic
2	192.168.1.22	0001.42AC.C622	-	Automatic
3	192.168.1.23	0060.2FGA.18AD	-	Automatic

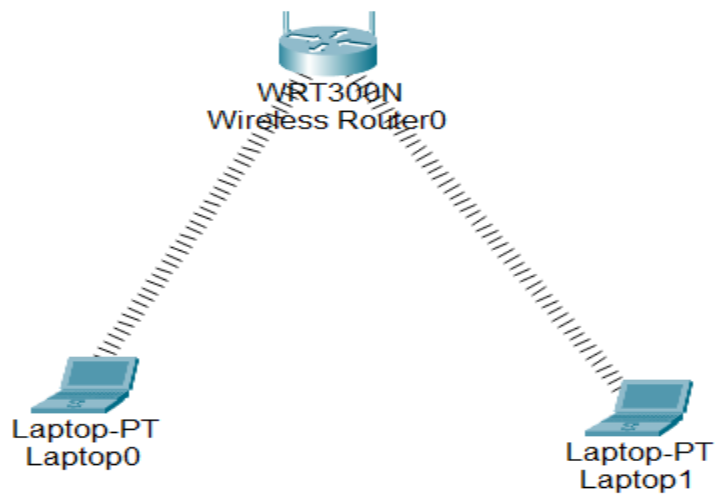
## 2. IP pada Client/PC

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

## 3. Daftar IP Client

No	Sumber	Hasil	Tujuan	Hasil
		Ya / Tidak		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

## 1. Topologi jaringan Wireless



## 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

**Wireless-N Broadband Router**

**Setup** | Setup | Wireless | Security | Access Restrictions | Applications & Gaming | Administration | S

Basic Setup | DDNS | MAC Address Clone | Advanced Routing

**Internet Setup**

Internet Connection type: Automatic Configuration - DHCP

Optional Settings (required by some internet service providers):

Host Name:

Domain Name:

MTU:  Size: 1500

**Network Setup**

Router IP

IP Address: 192 . 168 . 0 . 1

Subnet Mask: 255.255.255.0

Help...

- 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)

**DHCP Server Settings**

DHCP Server: ☒ Enabled ☐ Disabled **DHCP Reservation**

Start IP Address: 192.168.0. 100

Maximum number of Users: 50

IP Address Range: 192.168.0. 100 - 149

Client Lease Time: 0 minutes (0 means one day)

Static DNS 1: 0 . 0 . 0 . 0

Static DNS 2: 0 . 0 . 0 . 0

Static DNS 3: 0 . 0 . 0 . 0

WINS: 0 . 0 . 0 . 0

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

The screenshot shows the 'Basic Wireless Settings' page of a 'Wireless-N Broadband Router'. The top navigation bar includes 'Wireless', 'Setup', 'Wireless', 'Security', 'Access Restrictions', 'Applications & Gaming', and 'Administration'. Below this, sub-tabs are visible: 'Basic Wireless Settings', 'Wireless Security', 'Guest Network', 'Wireless MAC Filter', and 'Advanced Wire'. The left sidebar has 'Basic Wireless Settings' selected. The main content area contains the following settings:

- Network Mode: Mixed (dropdown)
- Network Name (SSID): LabJarkom (text input)
- Radio Band: Auto (dropdown)
- Wide Channel: Auto (dropdown)
- Standard Channel: 1 - 2.412GHz (dropdown)
- SSID Broadcast: ☒ Enabled ☐ Disabled (radio buttons)

A 'Help...' link is located on the right side of the page.

- 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)

The screenshot shows the 'Wireless Security' page of the same router. The top navigation bar and sub-tabs are identical to the previous screenshot. The left sidebar now has 'Wireless Security' selected. The main content area contains the following settings:

- Security Mode: WPA2 Personal (dropdown)
- Encryption: AES (dropdown)
- Passphrase: 12345678 (text input)
- Key Renewal: 3600 seconds (text input)

### 3. Konfigurasi Client

#### Konfigurasi Laptop PC0

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

Physical Config Desktop Programming Attributes

<b>GLOBAL</b>	Wireless0	
Settings		
Algorithm Settings		
<b>INTERFACE</b>		
Wireless0		
3G/4G Cell1		
Bluetooth		

Port Status	<input checked="" type="checkbox"/> On	
Bandwidth	300 Mbps	
MAC Address	0030.F241.421B	
SSID	Default	
Authentication		
<input type="radio"/> Disabled	<input type="radio"/> WEP	WEP Key
<input type="radio"/> WPA-PSK	<input checked="" type="radio"/> WPA2-PSK	PSK Pass Phrase
<input type="radio"/> WPA	<input type="radio"/> WPA2	User ID
<input type="radio"/> 802.1X	Method:	Password
		MD5
		User Name
		Password
Encryption Type	AES	

- Pada IP Configuration memakai DHCP
- Nomor IP akan ditampilkan jika Laptop terhubung dan DHCP Server aktif

IP Configuration	
<input checked="" type="radio"/> DHCP	
<input type="radio"/> Static	
IPv4 Address	192.168.0.101
Subnet Mask	255.255.255.0

IPv6 Configuration	
<input checked="" type="radio"/> Automatic	
<input type="radio"/> Static	
IPv6 Address	
Link Local Address:	FE80::230:F2FF:FEA5:4281

#### Konfigurasi Laptop PC1

- Konfigurasi Laptop PC pada tab Config

- SSID = LabJarkom
- Authentication = WPA2-PSK
- Pass Phrase = 12345678

Physical **Config** Desktop Programming Attributes

GLOBAL	Wireless0	
Settings	Port Status	<input checked="" type="checkbox"/> On
Algorithm Settings	Bandwidth	300 Mbps
<b>INTERFACE</b>	MAC Address	000B.BE62.3E35
Wireless0	SSID	Default
3G/4G Cell1	Authentication	
Bluetooth	<input type="radio"/> Disabled <input type="radio"/> WEP <input checked="" type="radio"/> WPA2-PSK <input type="radio"/> WPA <input type="radio"/> 802.1X	WEP Key PSK Pass Phrase: 12345678 User ID Password Method: MD5 User Name Password Encryption Type: AES

- IP menggunakan DHCP
- Nomor IP akan ditampilkan jika Laptop terhubung dan DHCP Server aktif

IP Configuration	
<input checked="" type="radio"/> DHCP	
<input type="radio"/> Static	
IPv4 Address	192.168.0.102
Subnet Mask	255.255.255.0
IPv6 Configuration	
<input checked="" type="radio"/> Automatic	
<input type="radio"/> Static	
IPv6 Address	/
Link Local Address:	FE80::201:43FF:FEA5:ED0D

#### 4. Pengujian PING

- Di Laptop, pilih tab/menu Desktop -> Command Prompt
- Jalankan perintah Ping ke IP Access Point 192.168.0.1
- Ping IP Laptop PC0 Ke Laptop PC1
- Lakukan juga pada Laptop PC1 ke LaptopPC0

```
Cisco Packet Tracer PC Command Line 1.0
C:\>

ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time=92ms TTL=255
Reply from 192.168.0.1: bytes=32 time=46ms TTL=255
Reply from 192.168.0.1: bytes=32 time=31ms TTL=255
Reply from 192.168.0.1: bytes=32 time=63ms TTL=255

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 31ms, Maximum = 92ms, Average = 58ms

C:\>ping 192.168.0.101

Pinging 192.168.0.101 with 32 bytes of data:

Reply from 192.168.0.101: bytes=32 time=2ms TTL=128
Reply from 192.168.0.101: bytes=32 time=42ms TTL=128
Reply from 192.168.0.101: bytes=32 time=4ms TTL=128
Reply from 192.168.0.101: bytes=32 time=43ms TTL=128

Ping statistics for 192.168.0.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 43ms, Average = 22ms

C:\>
```

```
Cisco Packet Tracer PC Command Line 1.0
C:\>
PING 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time=166ms TTL=255
Reply from 192.168.0.1: bytes=32 time=37ms TTL=255
Reply from 192.168.0.1: bytes=32 time=46ms TTL=255
Reply from 192.168.0.1: bytes=32 time=14ms TTL=255

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 14ms, Maximum = 166ms, Average = 65ms

C:\>PING 192.168.0.100

Pinging 192.168.0.100 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.0.100:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>PING 192.168.0.100

Pinging 192.168.0.100 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.0.100:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>PING 192.168.0.102

Pinging 192.168.0.102 with 32 bytes of data:

Reply from 192.168.0.102: bytes=32 time<1ms TTL=128
```

```
Reply from 192.168.0.102: bytes=32 time<1ms TTL=128
Reply from 192.168.0.102: bytes=32 time=1ms TTL=128
Reply from 192.168.0.102: bytes=32 time<1ms TTL=128
Reply from 192.168.0.102: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.102:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```