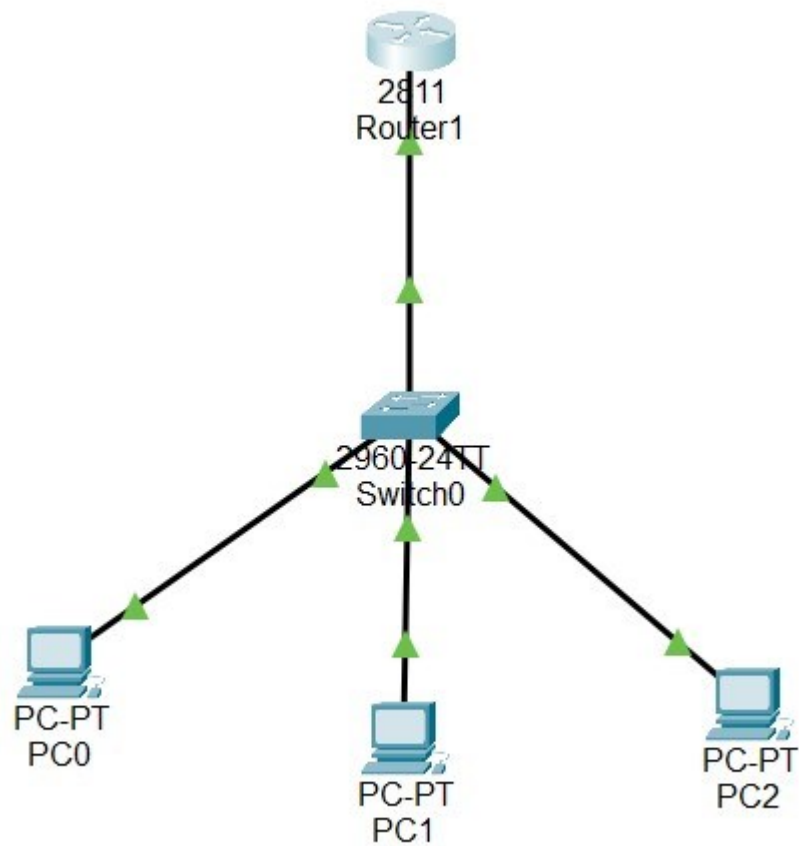


NAMA : DERI ANDIKO
NIM : 09010282327032
KELAS : MI-3A
MK : PRAKTIKUM JARKOM

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

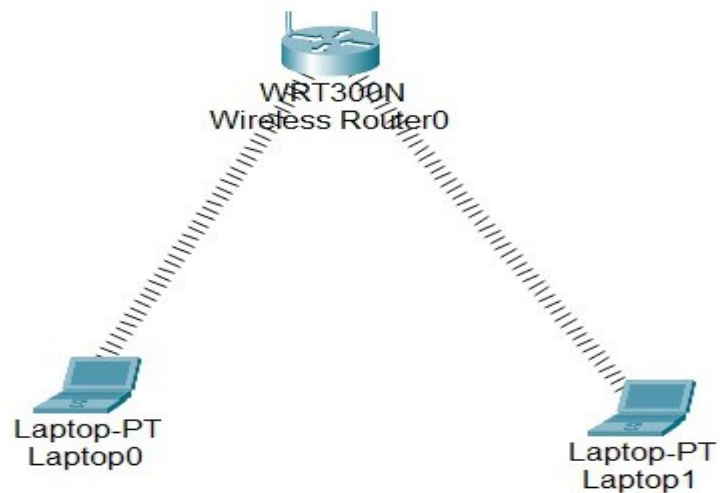
2. IP pada Client/PC

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

The screenshot displays the configuration interface of a Wireless-N Broadband Router. The top navigation bar includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, and Administration. The Setup tab is active, showing sub-tabs for Basic Setup, DDNS, MAC Address Clone, and Advanced Routing. The main content area is divided into two sections: Internet Setup and Network Setup. The Internet Setup section includes a dropdown for Internet Connection type (set to Automatic Configuration - DHCP) and optional settings for Host Name, Domain Name, and MTU (set to 1500). The Network Setup section includes a Router IP configuration area with IP Address (192.168.0.1) and Subnet Mask (255.255.255.0) fields. A Help... button is visible on the right side of the interface.

Setup		Wireless		Security		Access Restrictions		Applications & Gaming		Administration	
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: <input type="text"/>									
		Domain Name: <input type="text"/>									
		MTU: <input type="text"/> Size: 1500									
Network Setup											
Router IP		IP Address: <input type="text"/> 192 <input type="text"/> 168 <input type="text"/> 0 <input type="text"/> 1									
		Subnet Mask: <input type="text"/> 255.255.255.0									

- 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:	<input checked="" type="radio"/> Enabled <input type="radio"/> 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)

Wireless-N Broadband Router	
Wireless	Setup Wireless Security Access Restrictions Applications & Gaming Administration
	Basic Wireless Settings Wireless Security Guest Network Wireless MAC Filter Advanced Wire
Basic Wireless Settings	<div> <div>Network Mode:</div> <div>Mixed</div> </div> <div> <div>Network Name (SSID):</div> <div>LabJarkom</div> </div> <div> <div>Radio Band:</div> <div>Auto</div> </div> <div> <div>Wide Channel:</div> <div>Auto</div> </div> <div> <div>Standard Channel:</div> <div>1 - 2.412GHz</div> </div> <div> <div>SSID Broadcast:</div> <div><input checked="" type="radio"/> Enabled <input type="radio"/> Disabled</div> </div>
	Help...

- 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)

Wireless		Setup	Wireless	Security	Access Restrictions	Applications & Gaming	Wireless-N Broad
Wireless Security		Basic Wireless Settings		Wireless Security	Guest Network	Wireless MAC Filter	
Wireless Security		<div>Security Mode: WPA2 Personal</div> <div>Encryption: AES</div> <div>Passphrase: 12345678</div> <div>Key Renewal: 3600 seconds</div>					

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
<div> <div> GLOBAL Settings Algorithm Settings INTERFACE Wireless0 3G/4G Cell1 Bluetooth </div> <div> Wireless0 Port Status On Bandwidth 300 Mbps MAC Address 0030.F241.421B SSID Default <div> <div> Authentication <input type="radio"/> Disabled <input type="radio"/> WPA-PSK <input type="radio"/> WPA <input type="radio"/> 802.1X </div> <div> <input type="radio"/> WEP <input checked="" type="radio"/> WPA2-PSK <input type="radio"/> WPA2 Method: </div> <div> WEP Key PSK Pass Phrase 12345678 User ID Password MD5 User Name Password AES </div> </div> </div> </div>				

- 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																
<table border="1"> <tr> <td colspan="2">GLOBAL</td> </tr> <tr> <td colspan="2">Settings</td> </tr> <tr> <td colspan="2">Algorithm Settings</td> </tr> <tr> <td colspan="2">INTERFACE</td> </tr> <tr> <td colspan="2">Wireless0</td> </tr> <tr> <td colspan="2">3G/4G Cell1</td> </tr> <tr> <td colspan="2">Bluetooth</td> </tr> </table>					GLOBAL		Settings		Algorithm Settings		INTERFACE		Wireless0		3G/4G Cell1		Bluetooth			
GLOBAL																				
Settings																				
Algorithm Settings																				
INTERFACE																				
Wireless0																				
3G/4G Cell1																				
Bluetooth																				
<table border="1"> <tr> <td colspan="2">Wireless0</td> </tr> <tr> <td>Port Status</td> <td><input checked="" type="checkbox"/> On</td> </tr> <tr> <td>Bandwidth</td> <td>300 Mbps</td> </tr> <tr> <td>MAC Address</td> <td>000B.BE62.3E35</td> </tr> <tr> <td>SSID</td> <td>Default</td> </tr> <tr> <td colspan="2"> Authentication <input type="radio"/> Disabled <input type="radio"/> WEP <input type="radio"/> WPA-PSK <input checked="" type="radio"/> WPA2-PSK <input type="radio"/> WPA <input type="radio"/> WPA2 <input type="radio"/> 802.1X Method: </td> </tr> <tr> <td colspan="2"> WEP Key PSK Pass Phrase: 12345678 User ID Password MD5 User Name Password AES </td> </tr> <tr> <td colspan="2">Encryption Type</td> </tr> </table>					Wireless0		Port Status	<input checked="" type="checkbox"/> On	Bandwidth	300 Mbps	MAC Address	000B.BE62.3E35	SSID	Default	Authentication <input type="radio"/> Disabled <input type="radio"/> WEP <input type="radio"/> WPA-PSK <input checked="" type="radio"/> WPA2-PSK <input type="radio"/> WPA <input type="radio"/> WPA2 <input type="radio"/> 802.1X Method:		WEP Key PSK Pass Phrase: 12345678 User ID Password MD5 User Name Password AES		Encryption Type	
Wireless0																				
Port Status	<input checked="" type="checkbox"/> On																			
Bandwidth	300 Mbps																			
MAC Address	000B.BE62.3E35																			
SSID	Default																			
Authentication <input type="radio"/> Disabled <input type="radio"/> WEP <input type="radio"/> WPA-PSK <input checked="" type="radio"/> WPA2-PSK <input type="radio"/> WPA <input type="radio"/> WPA2 <input type="radio"/> 802.1X Method:																				
WEP Key PSK Pass Phrase: 12345678 User ID Password MD5 User Name Password AES																				
Encryption Type																				

- 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:\>