

NAMA: RIZKY HANIFUDIN

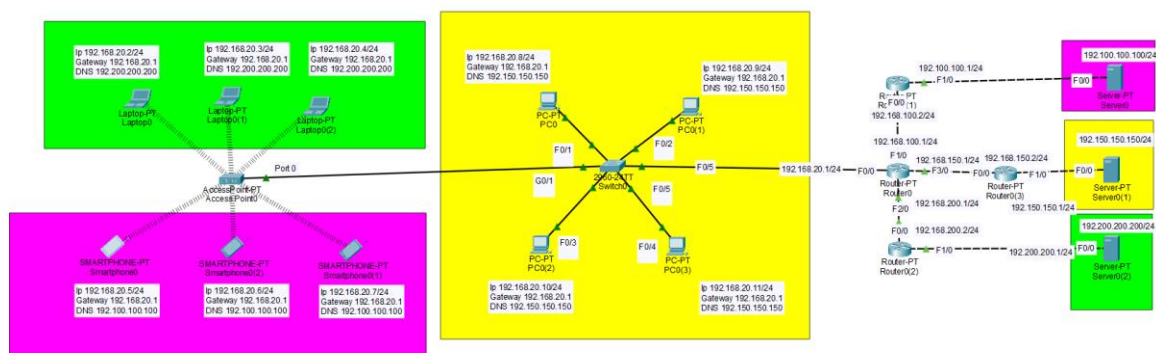
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UJIKOM NETWORK ADMINISTRATOR

## LAPORAN UJIKOM TUGAS 3

Step by step Instalation Network

### 1. Creat Topology Network



Berikut topology untuk network yang akan kita bangun. Pada topology ini kita menggunakan beberapa device diantaranya :

- Switch Manage : 1 Unit
- PC/Komputer : 4 Unit
- Smarthphone : 3 Unit
- Laptop : 3 Unit
- Accesspoint : 1 Unit
- Router : 4 Unit
- Server : 3 Unit

## 2. Configuration Device

PhysicalConfigDesktopProgrammingAttributes

MODULES

WPC300N

PT-LAPTOP-NM-1AM

PT-LAPTOP-NM-1CE

PT-LAPTOP-NM-1CFE

PT-LAPTOP-NM-1CGE

PT-LAPTOP-NM-1FFE

PT-LAPTOP-NM-1FGE

PT-LAPTOP-NM-1W

PT-LAPTOP-NM-1W-A

PT-LAPTOP-NM-1W-AC


PT-LAPTOP-NM-3G/4G

PT-HEADPHONE

PT-MICROPHONE

Physical Device View


Zoom InOriginal SizeZoom Out



Customize Icon in Physical View

Customize Icon in Logical View

The Linksys-WPC300N module provides one 2.4GHz wireless interface suitable for connection to wireless networks. The module supports protocols that use Ethernet for LAN access.



## - Configuration Laptop Device

Langkah setup pertama yang perlu di perhatikan di laptop yaitu :

- Matikan Power Laptop
- Kemudian Ganti Konektor LAN dengan Konektor Wireless
- Koneksikan ke Wireless/Accesspoint yang tersedia dengan

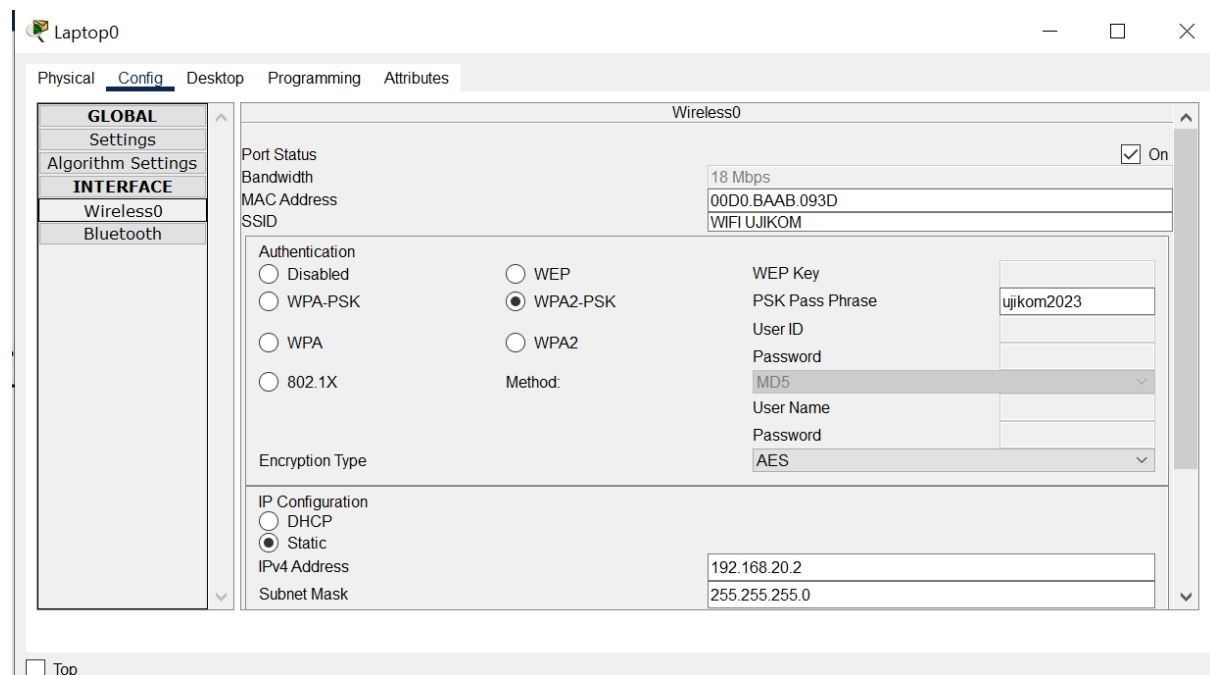
SSID : WIFI UJIKOM

Pass : ujikom2023

- Setup IP Address Pada Laptop0 : 192.168.20.2/24

- Setup IP Address Pada Laptop0 : 192.168.20.3/24

- Setup IP Address Pada Laptop0 : 192.168.20.4/24



## - Configuration PC/Komputer Device

Langkah setup pertama yang perlu di lakukan di Komputer yaitu :

- Setup IP address Pada PC0 : 192.168.20.8/24
- Setup IP address Pada PC1 : 192.168.20.9/24
- Setup IP address Pada PC2 : 192.168.20.10/24
- Setup IP address Pada PC3 : 192.168.20.11/24

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.20.8

Subnet Mask 255.255.255.0

Default Gateway 192.168.20.1

DNS Server 192.150.150.150

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::201:C7FF:FEDA:5756

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

☐ Top

## - Configuration Accesspoint device

Langkah setup pertama yang perlu di perhatikan di Accesspoint yaitu :

- Setup

SSID : WIFI UJIKOM

Pass : ujikom2023

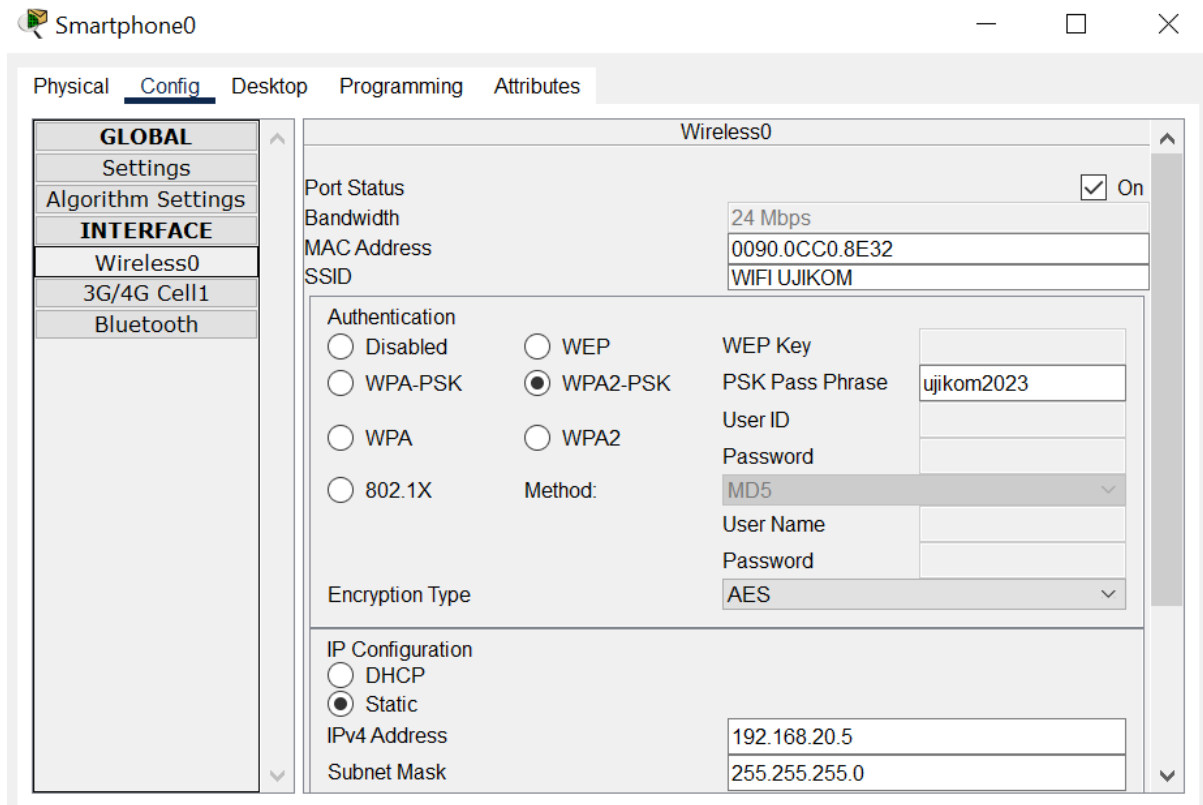
The screenshot shows the configuration window for 'Access Point0'. The 'Config' tab is selected, and 'Port 1' is chosen under the 'INTERFACE' section. The 'Port Status' is set to 'On'. The 'SSID' is 'WIFI UJIKOM', the '2.4 GHz Channel' is '6', and the 'Coverage Range (meters)' is '140,00'. Under 'Authentication', 'WPA2-PSK' is selected. The 'PSK Pass Phrase' is 'ujikom2023'. The 'Encryption Type' is 'AES'.

Port 1	
Port Status	<input checked="" type="checkbox"/> On
SSID	WIFI UJIKOM
2.4 GHz Channel	6
Coverage Range (meters)	140,00
<b>Authentication</b>	
<input type="radio"/> Disabled	<input type="radio"/> WEP
<input type="radio"/> WPA-PSK	<input checked="" type="radio"/> WPA2-PSK
WEP Key	
PSK Pass Phrase	ujikom2023
User ID	
Password	
Encryption Type	AES

## - Configuration Smartphone device

Langkah setup pertama yang di perhatikan di Smartphone yaitu :

- Koneksikan ke wireless atau SSID yang sudah di setup SSID : WIFI UJIKOM, Password : ujikom2023

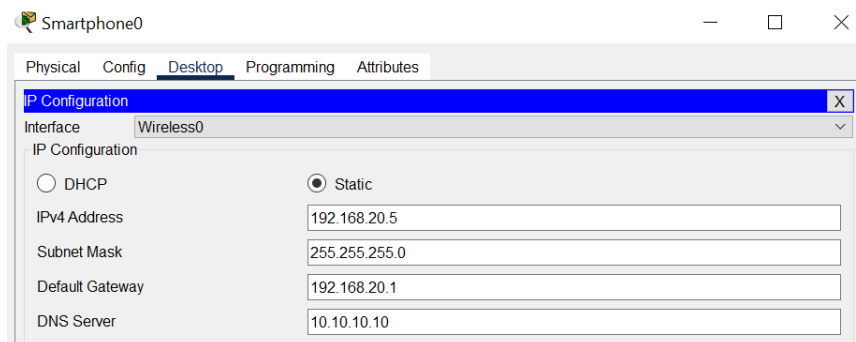


- Setup IP Address Static pada ke 3 handphone tersebut

IP Address HP0 : 192.168.20.5/24

IP Address HP1 : 192.168.20.6/24

IP Address HP2 : 192.168.20.7/24



## - Configuration Server

IP Address Server1 : 192.100.100.100/24

IP Address Server2: 192.150. 150. 150/24

IP Address Server3: 192.200. 200. 200/24

Physical	<u>Config</u>	Services	Desktop	Programming	Attributes
<b>GLOBAL</b>					
Settings					
Algorithm Settings					
<b>INTERFACE</b>					
FastEthernet0					
<b>FastEthernet0</b>					
Port Status <input checked="" type="checkbox"/> On					
Bandwidth <input checked="" type="radio"/> 100 Mbps <input type="radio"/> 10 Mbps <input checked="" type="checkbox"/> Auto					
Duplex <input type="radio"/> Half Duplex <input checked="" type="radio"/> Full Duplex <input checked="" type="checkbox"/> Auto					
MAC Address 0060.4726.1213					
IP Configuration					
<input type="radio"/> DHCP					
<input checked="" type="radio"/> Static					
IPv4 Address 192.100.100.100					
Subnet Mask 255.255.255.0					
IPv6 Configuration					
<input type="radio"/> Automatic					
<input checked="" type="radio"/> Static					
IPv6 Address					
Link Local Address: FE80::260:47FF:FE26:1213					

## - Configuration Router

### RIP

IP Address: 192.168.20.0

IP Address: 192. 168.100.0

IP Address: 192. 168. 150. 0

IP Address: 192. 168. 200. 0

Physical Config CLI Attributes

<b>GLOBAL</b>
Settings
Algorithm Settings
<b>ROUTING</b>
Static
<b>RIP</b>
<b>INTERFACE</b>
FastEthernet0/0
FastEthernet1/0
FastEthernet2/0
FastEthernet3/0
FastEthernet4/0
FastEthernet5/0
Modem6/0
Modem7/0

## RIP Routing

Network	<input type="text"/>
	<input type="button" value="Add"/>
Network Address	
192.168.20.0	
192.168.100.0	
192.168.150.0	
192.168.200.0	
	<input type="button" value="Remove"/>

## Equivalent IOS Commands

```
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
%SYS-5-CONFIG_I: Configured from console by console
```

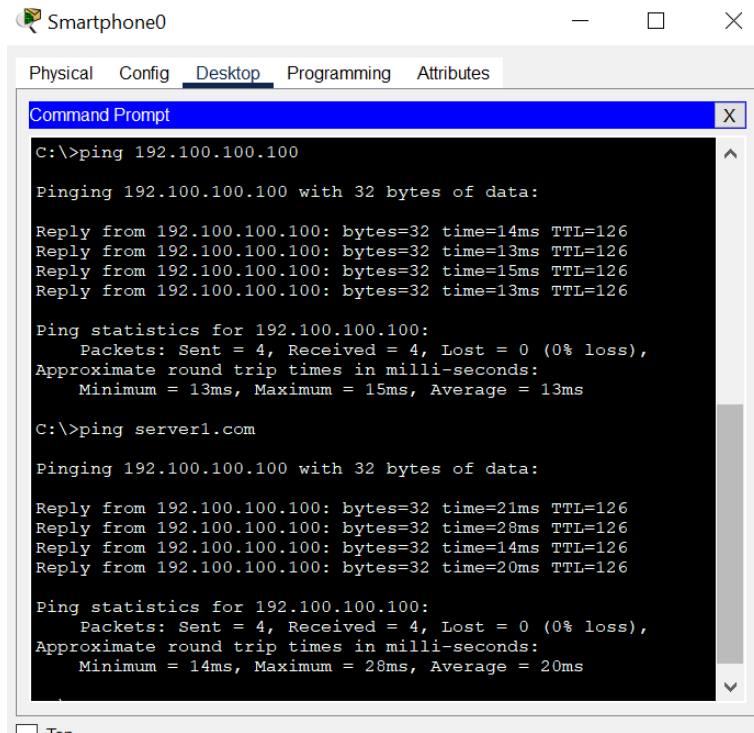


### 3. Testing Hasil Configuration

- Test Ping dari Smartphone0

Smartphone0 ke Server1

Result :



```
C:\>ping 192.100.100.100

Pinging 192.100.100.100 with 32 bytes of data:

Reply from 192.100.100.100: bytes=32 time=14ms TTL=126
Reply from 192.100.100.100: bytes=32 time=13ms TTL=126
Reply from 192.100.100.100: bytes=32 time=15ms TTL=126
Reply from 192.100.100.100: bytes=32 time=13ms TTL=126

Ping statistics for 192.100.100.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 13ms, Maximum = 15ms, Average = 13ms

C:\>ping server1.com

Pinging 192.100.100.100 with 32 bytes of data:

Reply from 192.100.100.100: bytes=32 time=21ms TTL=126
Reply from 192.100.100.100: bytes=32 time=28ms TTL=126
Reply from 192.100.100.100: bytes=32 time=14ms TTL=126
Reply from 192.100.100.100: bytes=32 time=20ms TTL=126

Ping statistics for 192.100.100.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 14ms, Maximum = 28ms, Average = 20ms
```

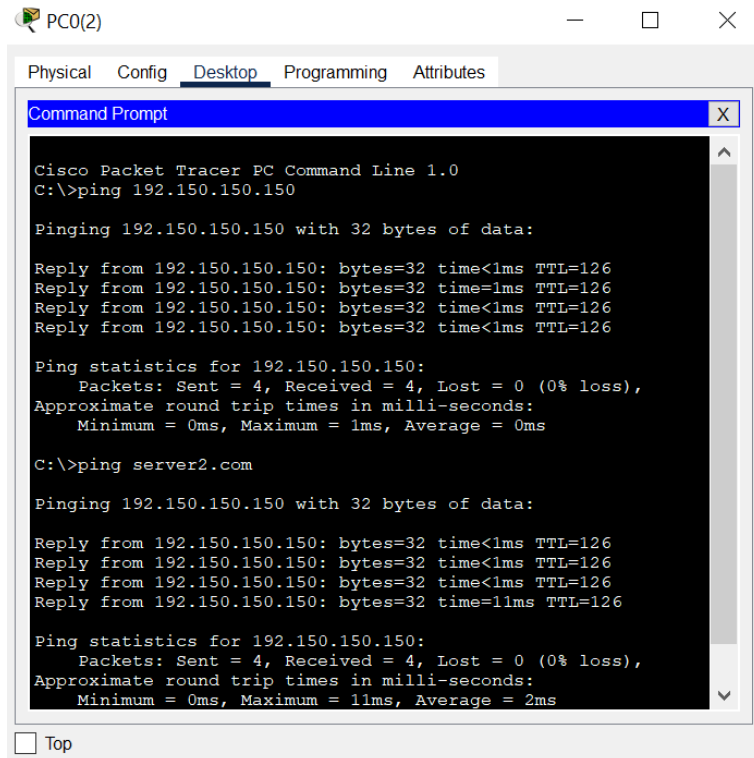
- Akses Dns dari Smartphone0



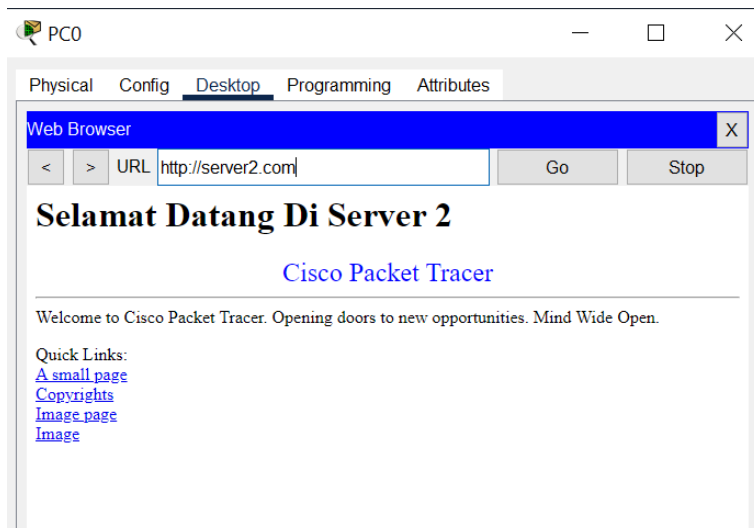
- Test Ping dari PC2

PC2 ke Server2

Result :



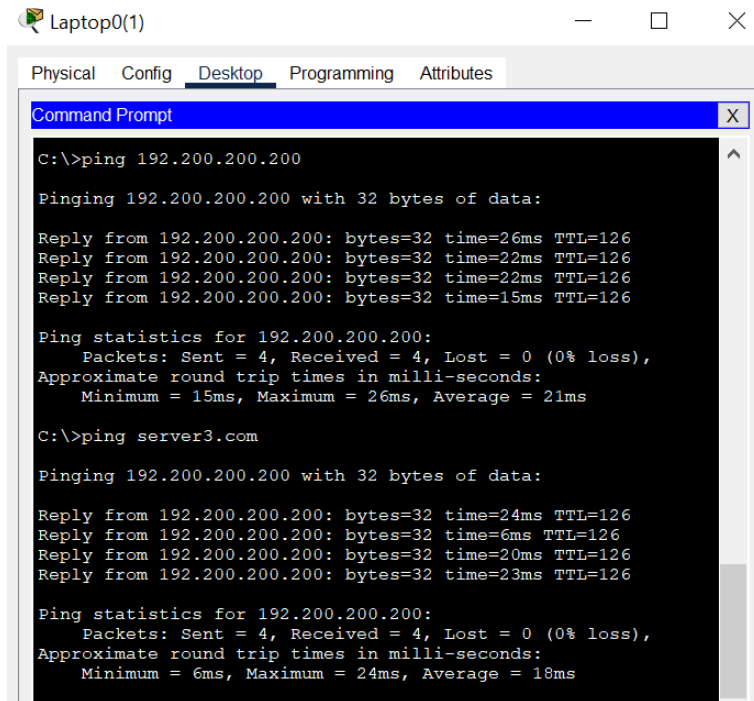
- Akses Dns dari PC2



- Test Ping dari Laptop1

Laptop1 ke Server3

Result :



```
C:\>ping 192.200.200.200

Pinging 192.200.200.200 with 32 bytes of data:

Reply from 192.200.200.200: bytes=32 time=26ms TTL=126
Reply from 192.200.200.200: bytes=32 time=22ms TTL=126
Reply from 192.200.200.200: bytes=32 time=22ms TTL=126
Reply from 192.200.200.200: bytes=32 time=15ms TTL=126

Ping statistics for 192.200.200.200:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 15ms, Maximum = 26ms, Average = 21ms

C:\>ping server3.com

Pinging 192.200.200.200 with 32 bytes of data:

Reply from 192.200.200.200: bytes=32 time=24ms TTL=126
Reply from 192.200.200.200: bytes=32 time=6ms TTL=126
Reply from 192.200.200.200: bytes=32 time=20ms TTL=126
Reply from 192.200.200.200: bytes=32 time=23ms TTL=126

Ping statistics for 192.200.200.200:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 6ms, Maximum = 24ms, Average = 18ms
```

- Akses Dns dari Laptop1

