

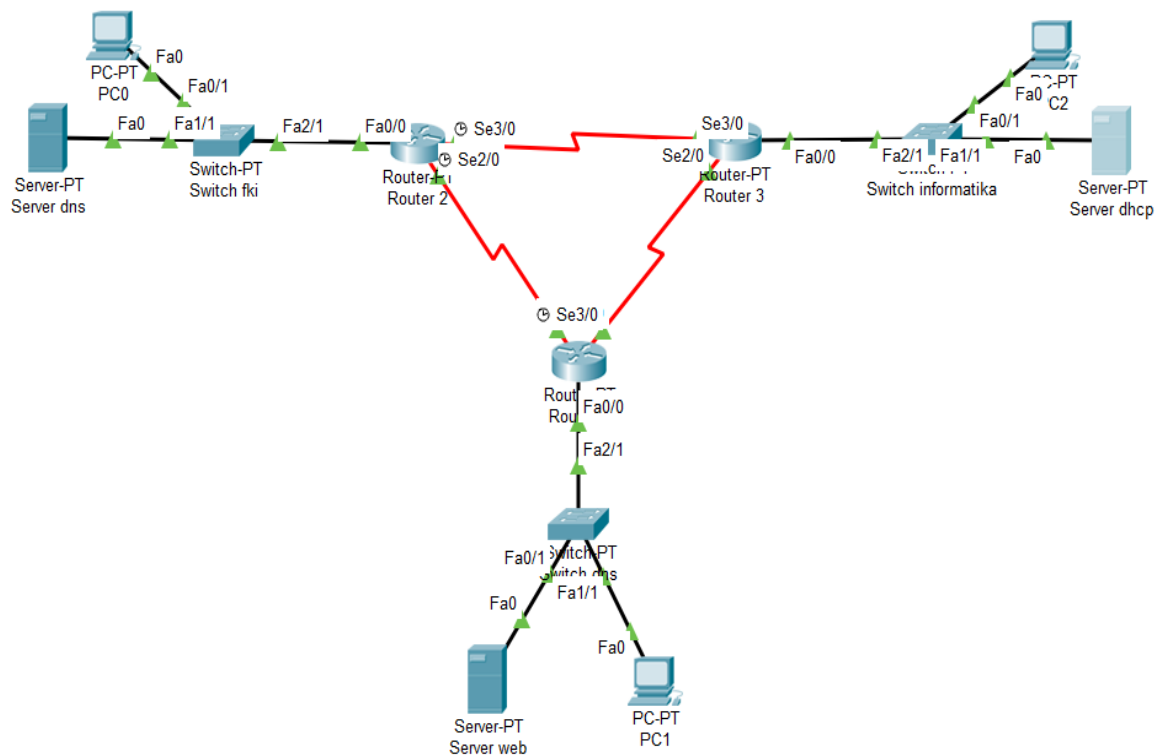
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LAPORAN ULANGAN AKHIR SEMESTER(UAS)

1. Buatlah topologi jaringan seperti pada gambar di bawah ini



2. Lakukan konfigurasi pengalaman IP terhadap ROUTER dan PC

Konfigurasi IP pada Router 1

Router 1

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0040.0B37.5974

IP Configuration

IP Address 192.168.30.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#

☐ Top

Router 1

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Serial2/0

Port Status ☒ On

Duplex ☒ Full Duplex

Clock Rate 1200

IP Configuration

IP Address 50.50.50.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#

☐ Top

Router 1

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Serial3/0

Port Status ☒ On

Duplex ☒ Full Duplex

Clock Rate 2000000

IP Configuration

IP Address 60.60.60.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#

☐ Top

Konfigurasi IP pada Router 2

Router 2

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 000A.F351.C097

IP Configuration

IP Address 192.168.10.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

☐ Top

Activate Windows

Router 2

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Serial2/0

Port Status ☒ On

Duplex ☐ Full Duplex

Clock Rate 2000000

IP Configuration

IP Address 10.10.10.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
```

☐ Top

Activate Windows

Router 2

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Serial3/0

Port Status ☒ On

Duplex ☐ Full Duplex

Clock Rate 2000000

IP Configuration

IP Address 20.20.20.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
```

☐ Top

Activate Windows

Konfiguras IP pada Router3

Router 3

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0009.7C02.286D

IP Configuration

IP Address 192.168.20.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

☐ Top

Router 3

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Serial2/0

Port Status ☒ On

Duplex ☒ Full Duplex

Clock Rate 1200

IP Configuration

IP Address 30.30.30.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
```

☐ Top

Router 3

Physical **Config** CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Serial3/0

Port Status ☒ On

Duplex ☒ Full Duplex

Clock Rate 1200

IP Configuration

IP Address 40.40.40.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router(config-if) #
Router(config-if) #exit
Router(config) #interface Serial2/0
Router(config-if) #
Router(config-if) #exit
Router(config) #interface Serial3/0
Router(config-if) #
```

☐ Top

Konfigurasi IP pada Router DNS

Server dns

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: 192.168.10.1

DNS Server: 192.168.10.2

Start IP Address: 192.168.10.0

Subnet Mask: 255.255.255.0

Maximum Number of Users: 253

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	192.168.10.1	192.168.10.2	192.168.10.0	255.255.255.0	253	0.0.0.0	0.0.0.0

Top

Server dns

Physical **Config** Services Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Global Settings

Display Name: Server dns

Gateway/DNS IPv4

☐ DHCP

☒ Static

Gateway: 192.168.10.1

DNS Server:

Gateway/DNS IPv6

☐ DHCP

☐ Auto Config

☒ Static

IPv6 Gateway:

IPv6 DNS Server:

Top

Server dns

Physical Config Services **Desktop** Programming Attributes

IP Configuration

X

IP Configuration

☐ DHCP

☒ Static

IP Address: 192.168.10.2

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.10.1

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP

☐ Auto Config

☒ Static

IPv6 Address: /

Link Local Address: FE80::209:7CFF:FE7B:1678

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

Top

Konfigurasi IP pada Server DHCP

Server dhcp

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: 192.168.20.1

DNS Server: 192.168.20.2

Start IP Address: 192.168.20.0

Subnet Mask: 255.255.255.0

Maximum Number of Users: 253

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	192.168.20.1	192.168.20.2	192.168.20.0	255.255.255.0	253	0.0.0.0	0.0.0.0

Top

Server dhcp

Physical **Config** Services Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Global Settings

Display Name: Server dhcp

Gateway/DNS IPv4

☐ DHCP

☒ Static

Gateway: 192.168.20.1

DNS Server:

Gateway/DNS IPv6

☐ DHCP

☐ Auto Config

☒ Static

IPv6 Gateway:

IPv6 DNS Server:

Top

Server dhcp

Physical Config Services **Desktop** Programming Attributes

IP Configuration

IP Configuration

☐ DHCP

☒ Static

IP Address: 192.168.20.2

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.20.1

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP

☐ Auto Config

☒ Static

IPv6 Address: /

Link Local Address: FE80::2E0:F7FF:FE3D:7D00

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

Top

Konfigurasi IP pada server WEB

Server web

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: 192.168.30.1

DNS Server: 192.168.30.2

Start IP Address: 192 168 30 0

Subnet Mask: 255 255 255 0

Maximum Number of Users: 253

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	192.168.30.1	192.168.30.2	192.168.30.0	255.255.255.0	253	0.0.0.0	0.0.0.0

☐ Top

Server web

Physical **Config** Services Desktop Programming Attributes

GLOBAL

- Settings**
- Algorithm Settings

INTERFACE

- FastEthernet0

Global Settings

Display Name: Server web

Gateway/DNS IPv4

☐ DHCP

☒ Static

Gateway: 192.168.30.1

DNS Server:

Gateway/DNS IPv6

☐ DHCP

☐ Auto Config

☒ Static

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

Server web

Physical Config Services **Desktop** Programming Attributes

IP Configuration X

IP Configuration

☐ DHCP ☒ Static

IP Address: 192.168.30.2

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.30.1

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::20A:F3FF:FED0:39C2

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

Konfigurasi IP pada PC0

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface: FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IP Address: 192.168.10.3

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.10.1

DNS Server: 192.168.10.2

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::201:C7FF:FEA3:BA2A

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

Konfigurasi IP pada PC1

PC1

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface: FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IP Address: 192.168.30.3

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.30.1

DNS Server: 192.168.30.2

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::20A:41FF:FE28:C6DE

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

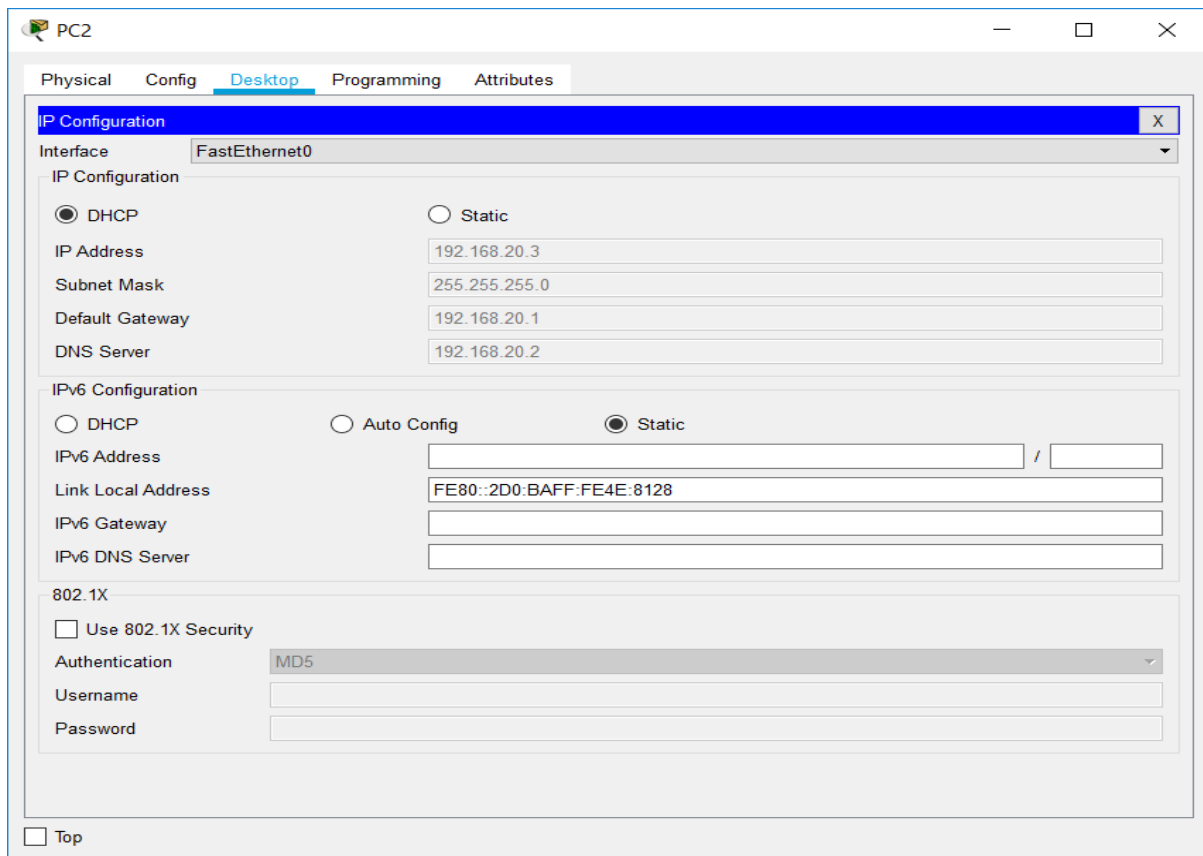
Authentication: MD5

Username:

Password:

☐ Top

Konfigurasi IP pada PC2



PC2

Physical Config **Desktop** Programming Attributes

IP Configuration [X]

Interface: FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IP Address: 192.168.20.3

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.20.1

DNS Server: 192.168.20.2

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::2D0:BAFF:FE4E:8128

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security


Authentication: MD5

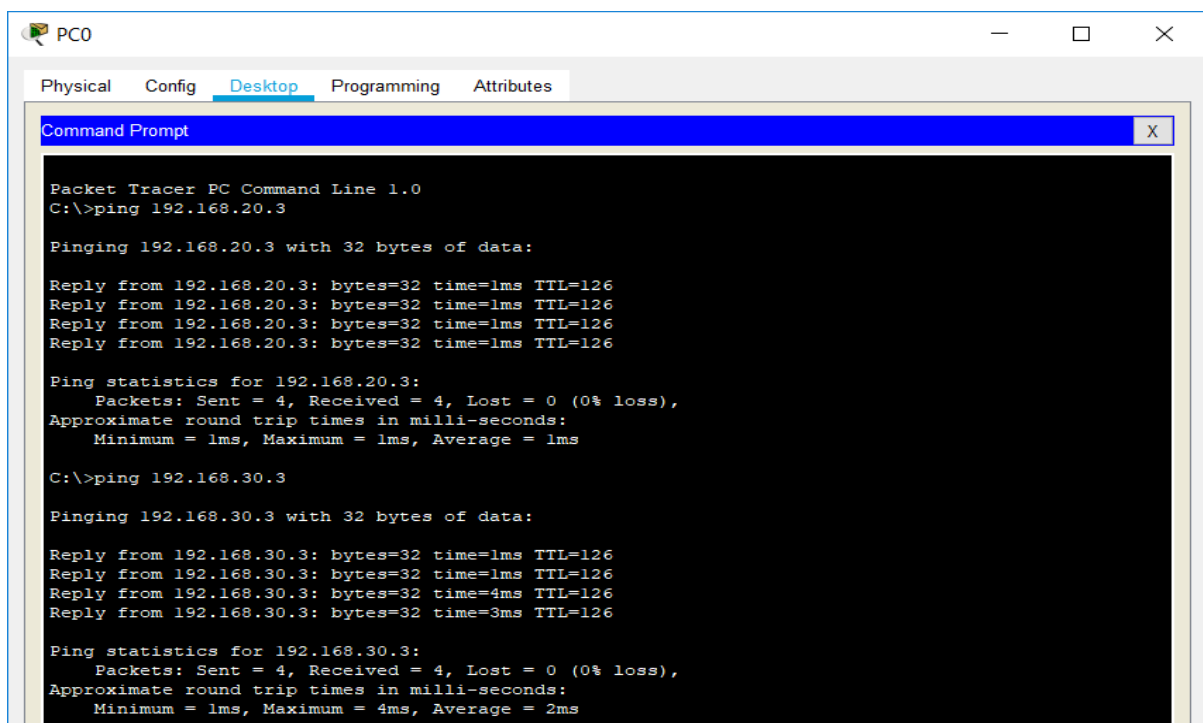
Username:

Password:

☐ Top

3. Uji koneksi untuk melihat konektivitas antar PC

 Login pada PC0 dengan alamat 192.168.10.3 kemudian lakukan ping ke PC1 dan PC2(192.168.20.3 dan 192.168.30.3)



PC0

Physical Config **Desktop** Programming Attributes

Command Prompt [X]

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

Reply from 192.168.20.3: bytes=32 time=1ms TTL=126
Reply from 192.168.20.3: bytes=32 time=1ms TTL=126
Reply from 192.168.20.3: bytes=32 time=1ms TTL=126
Reply from 192.168.20.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.20.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms

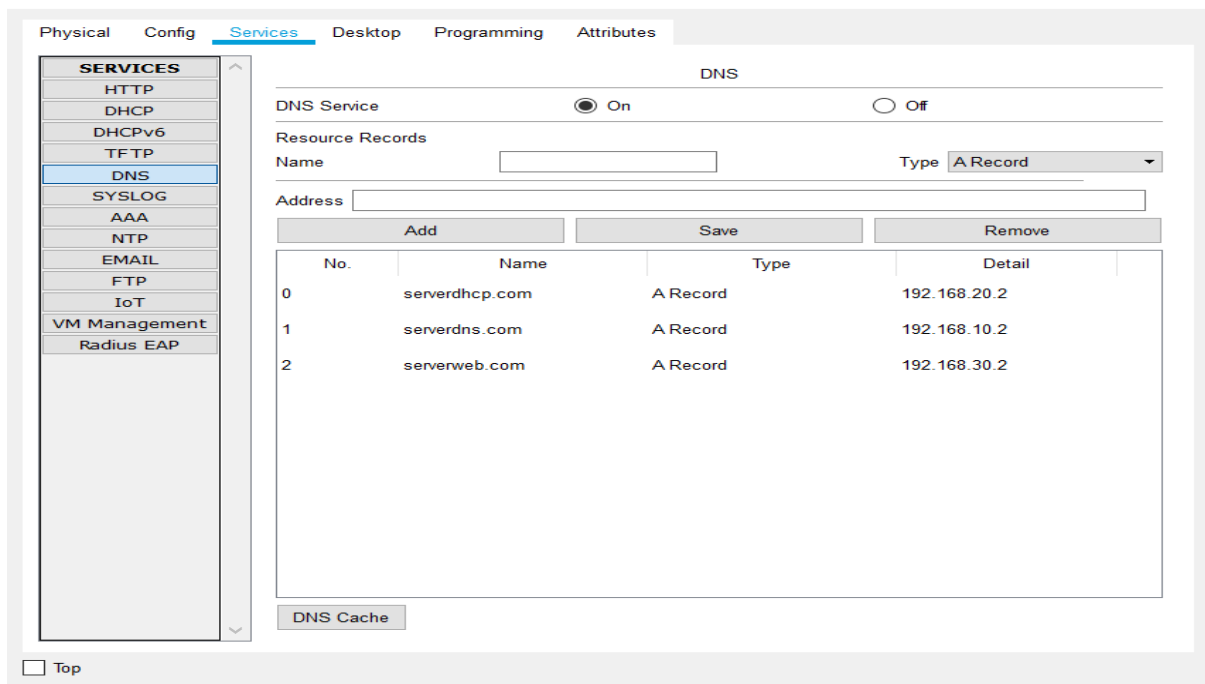
C:\>ping 192.168.30.3

Pinging 192.168.30.3 with 32 bytes of data:

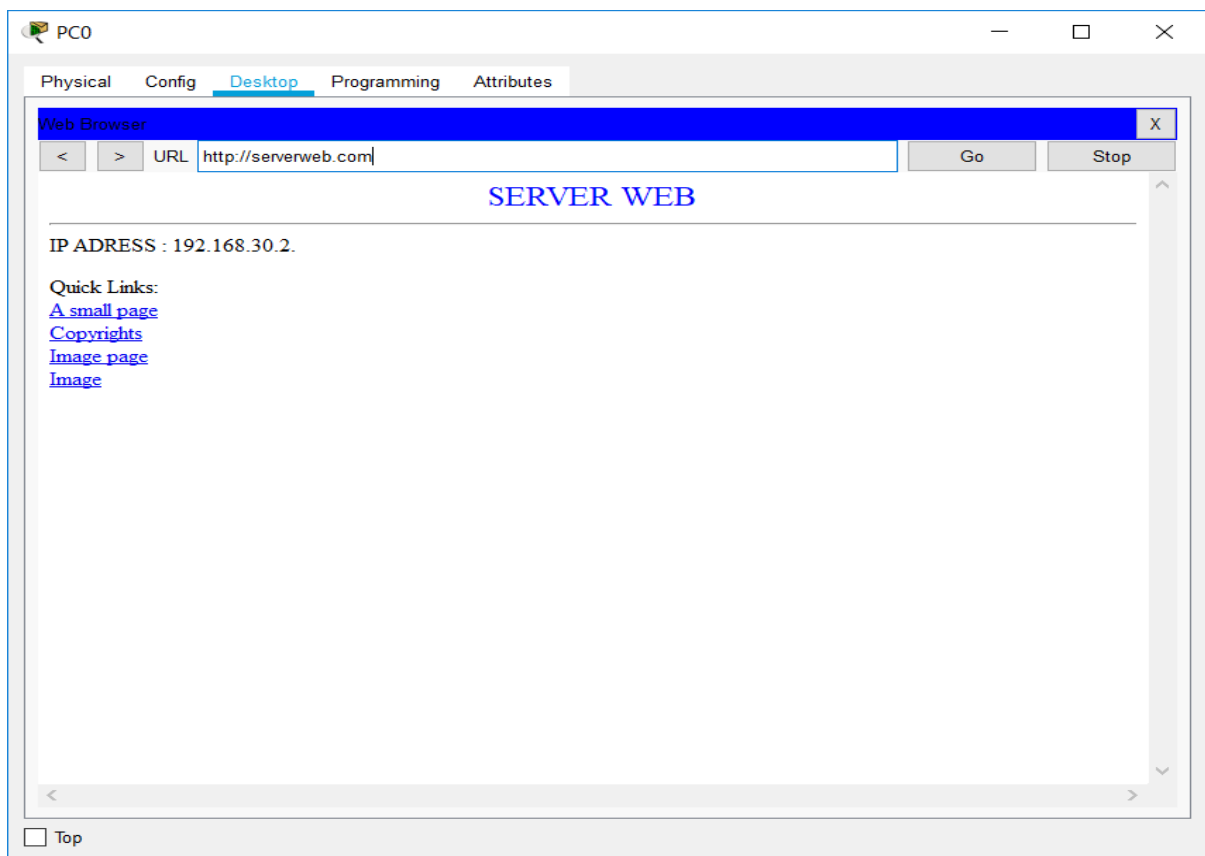
Reply from 192.168.30.3: bytes=32 time=1ms TTL=126
Reply from 192.168.30.3: bytes=32 time=1ms TTL=126
Reply from 192.168.30.3: bytes=32 time=4ms TTL=126
Reply from 192.168.30.3: bytes=32 time=3ms TTL=126

Ping statistics for 192.168.30.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 4ms, Average = 2ms
```

4. Pilih salah satu server aktifkan DNS Service nya kemudian tambahkan nama sever lain dan isi dengan IP Address server tersebut



5. Uji konektiitas URL pada PC
PC0 terhadap Server Web(http://serverweb.com)



PC1 terhadap Server DNS (http://serverdns.com)

