

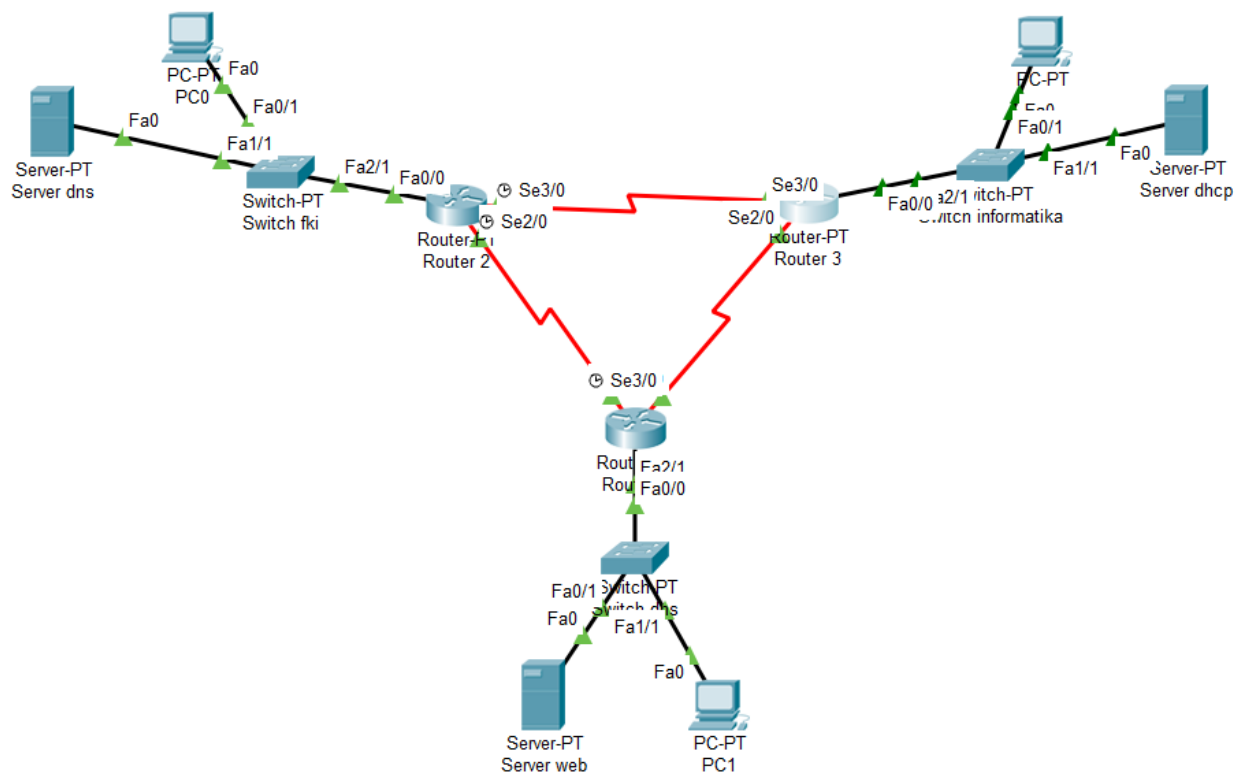
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## Soal UAS

1. Buatlah topologi seperti pada gambar



2. Lakukan konfigurasi pengalamatan IP terhadap ROUTER 1, 2, 3, PC 1, 2, 3

- 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

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

- 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

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

PhysicalConfigCLIAttributes

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

PhysicalConfigCLIAttributes

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

- Router 3

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

PhysicalConfigCLIAttributes

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

- Server DNS

Server dns

PhysicalConfigServicesDesktopProgrammingAttributes

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 | 192.168.1...    | 192.168.1... | 192.168.1...     | 255.255.2... | 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

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

- 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 | 192.168.2...    | 192.168.2... | 192.168.2...     | 255.255.2... | 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

PhysicalConfigServicesDesktopProgrammingAttributes

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

MD5

Username

Password

Top

- Server WEB

Server web

PhysicalConfigServicesDesktopProgrammingAttributes

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 | 192.168.3...    | 192.168.3... | 192.168.3...     | 255.255.2... | 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

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

- 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

- 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

- PC2

The screenshot shows the 'PC2' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is active, showing settings for the 'FastEthernet0' interface. The 'DHCP' radio button is selected, and the 'Static' radio button is also visible. The IP Address is 192.168.20.3, Subnet Mask is 255.255.255.0, Default Gateway is 192.168.20.1, and DNS Server is 192.168.20.2. The 'IPv6 Configuration' section shows 'Static' selected, with an IPv6 Address field, a Link Local Address of FE80::2D0:BAFF:FE4E:8128, and empty fields for IPv6 Gateway and IPv6 DNS Server. The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to MD5, and empty fields for Username and Password. A 'Top' button is at the bottom left.

PC2

Physical Config **Desktop** Programming Attributes

IP Configuration

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. Lakukan Uji Koneksi

The screenshot shows the 'PC1' configuration window with the 'Desktop' tab selected. A 'Command Prompt' window is open, displaying the results of ping tests. The first test is to 192.168.10.3, showing a 25% loss (1 packet lost) and round trip times between 1ms and 33ms. The second test is to 192.168.20.3, showing a 25% loss (1 packet lost) and round trip times between 1ms and 3ms. The 'Top' button is at the bottom left.

PC1

Physical Config **Desktop** Programming Attributes

Command Prompt

```
Reply from 192.168.10.3: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 6ms, Average = 3ms

C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

Reply from 192.168.10.3: bytes=32 time=33ms TTL=126
Reply from 192.168.10.3: bytes=32 time=2ms TTL=126
Reply from 192.168.10.3: bytes=32 time=1ms TTL=126
Reply from 192.168.10.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 33ms, Average = 9ms

C:\>ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

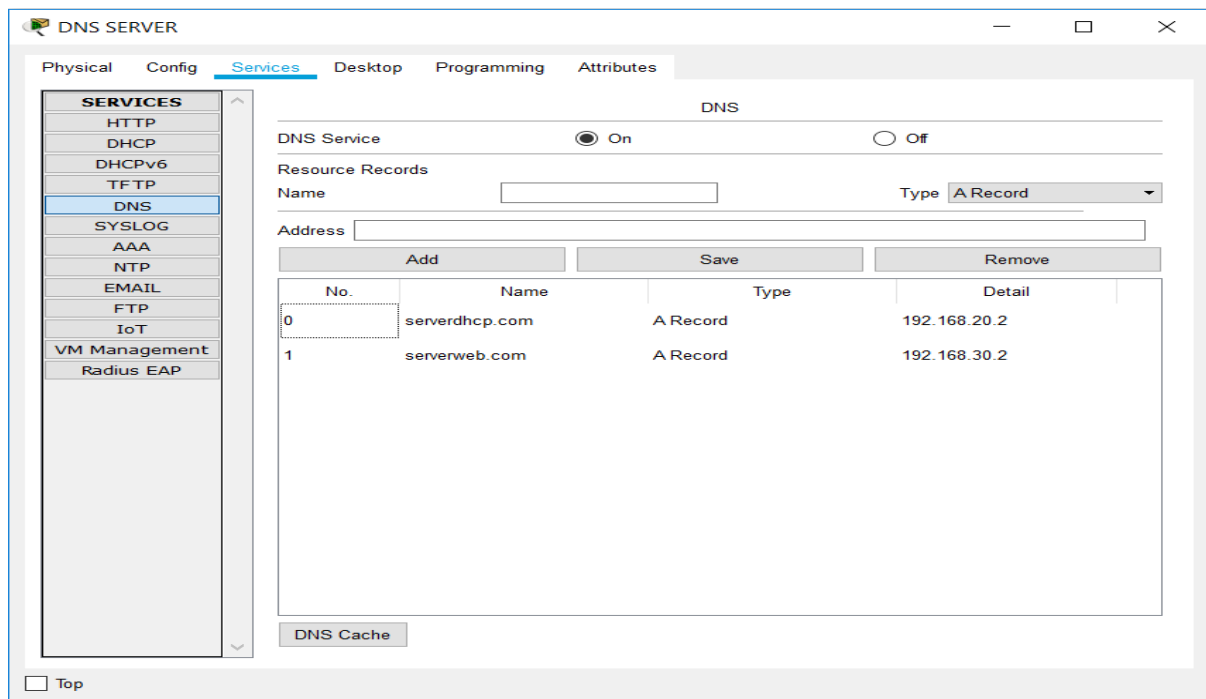
Request timed out.
Reply from 192.168.20.3: bytes=32 time=2ms TTL=126
Reply from 192.168.20.3: bytes=32 time=3ms TTL=126
Reply from 192.168.20.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.20.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 2ms

C:\>
```

☐ Top

4. Pilih salah satu server untuk meng 'ON' kan DNS dan menambahkan nama dan alamat server



5. Uji URL yang di buat pada Web Browser salah satu PC

