PRAKTIKUM
DESAIN DAN MANAJEMEN JARINGAN KOMPUTER

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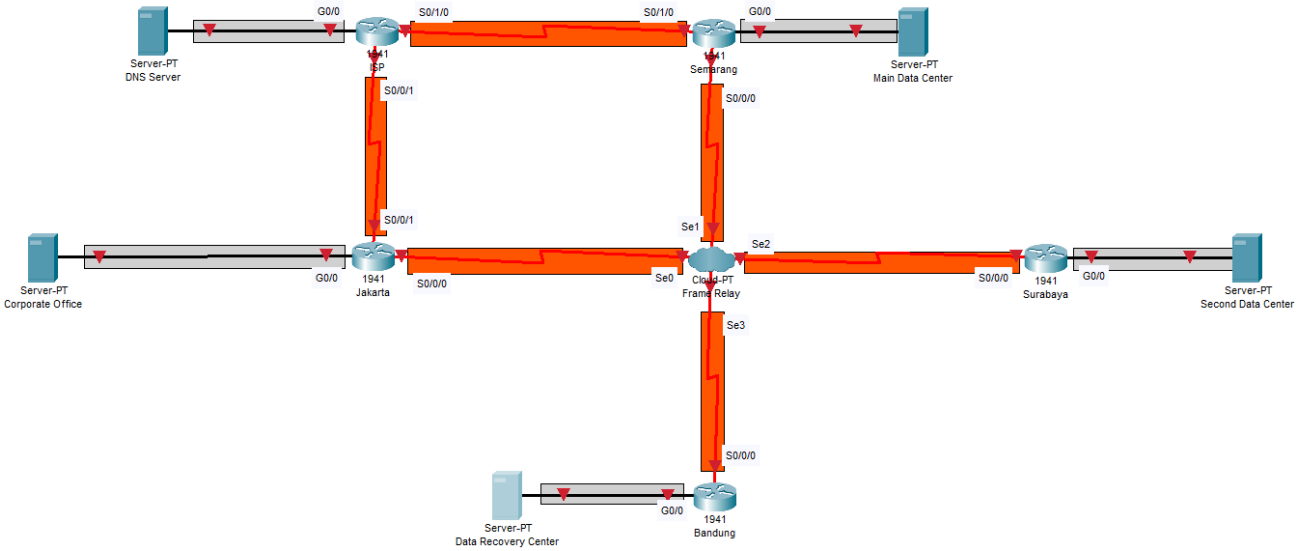
1. Menghubungkan perangkat dengan kabel yang sesuai.



2. Memberi hostname ke perangkat.

```
Router(config)#host Jakarta
Jakarta(config)#
Router(config)#host Semarang
Semarang(config)#
Router(config)#host Surabaya
Surabaya(config)#
Router(config)#host Bandung
Bandung(config)#
Router(config)#host ISP
ISP(config)#
```

3. Pengalamatan.
   - Jakarata:

```
Jakarta(config)#int s0/0/0
Jakarta(config-if)#ip add 34.42.0.1 255.255.255.0
Jakarta(config-if)#no sh
Jakarta(config-if)#int s0/0/1
Jakarta(config-if)#ip add 134.142.0.2 255.255.255.252
Jakarta(config-if)#no sh
Jakarta(config-if)#int g0/0
Jakarta(config-if)#ip add 192.168.34.1 255.255.255.0
Jakarta(config-if)#no sh
```

   - Semarang:

```
Semarang(config)#int s0/0/0
Semarang(config-if)#ip add 34.42.0.2 255.255.255.0
Semarang(config-if)#no sh
Semarang(config-if)#int s0/1/0
Semarang(config-if)#ip add 134.142.0.6 255.255.255.252
Semarang(config-if)#no sh
Semarang(config-if)#int g0/0
Semarang(config-if)#ip add 192.168.43.1 255.255.255.0
Semarang(config-if)#no sh
```

- Surabaya:

```
Surabaya(config)#int s0/0/0
Surabaya(config-if)#ip ad 34.42.0.3 255.255.255.0
Surabaya(config-if)#no sh
Surabaya(config-if)#int g0/0
Surabaya(config-if)#ip add 192.168.42.1 255.255.255.0
Surabaya(config-if)#no sh
```

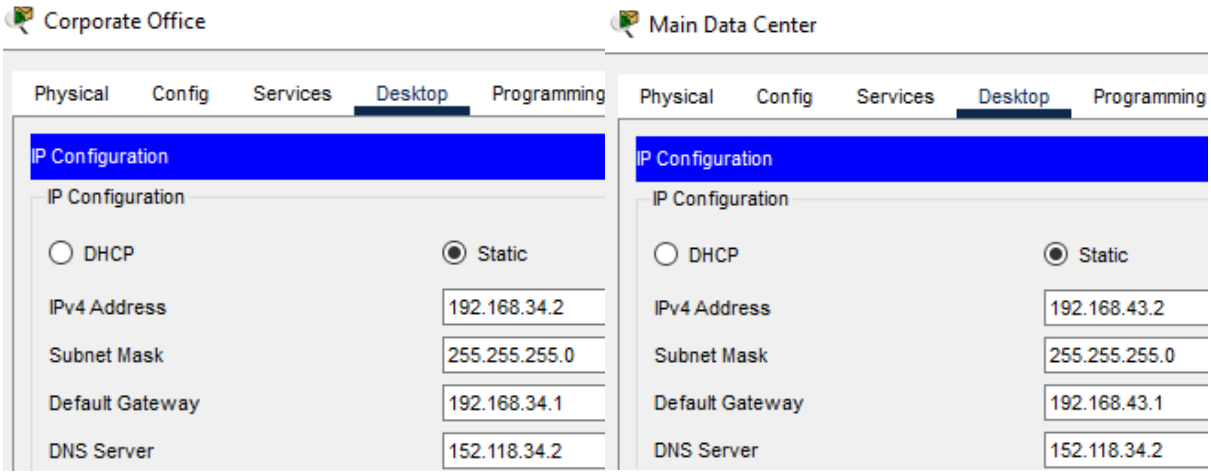
- Bandung:

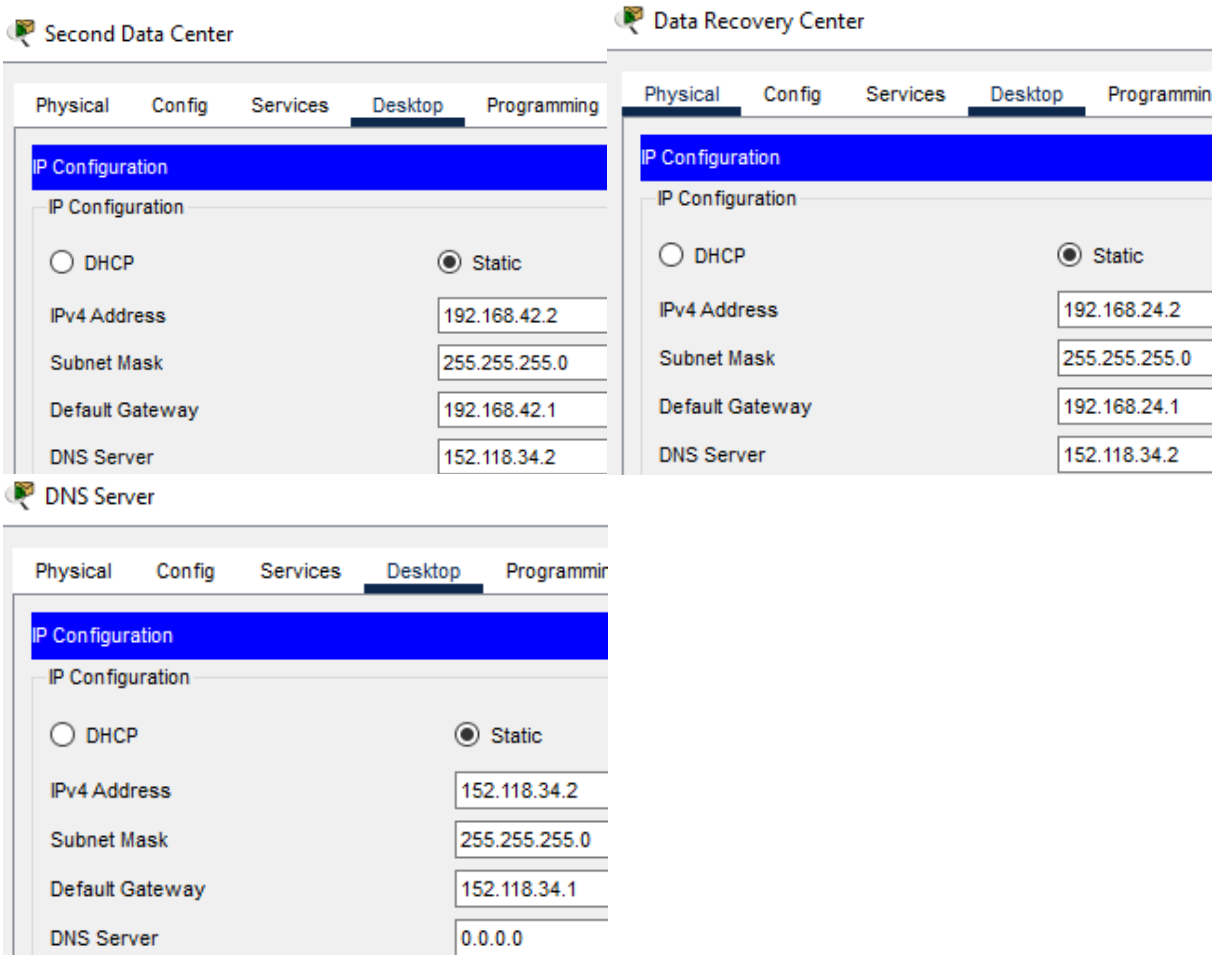
```
Bandung(config)#int s0/0/0
Bandung(config-if)#ip add 34.42.0.4 255.255.255.0
Bandung(config-if)#no sh
Bandung(config-if)#int g0/0
Bandung(config-if)#ip add 192.168.24.1 255.255.255.0
Bandung(config-if)#no sh
```

- ISP:

```
ISP(config)#int s0/0/1
ISP(config-if)#ip add 134.142.0.1 255.255.255.252
ISP(config-if)#no sh
ISP(config-if)#int s0/1/0
ISP(config-if)#ip add 134.142.0.5 255.255.255.252
ISP(config-if)#no sh
ISP(config-if)#int g0/0
ISP(config-if)#ip add 152.118.34.1 255.255.255.0
ISP(config-if)#no sh
```

- End devices:





Konfigurasi PPP

4. Konfigurasi PPP.
   - Jakarta:

```
Jakarta(config)#int s0/0/1
Jakarta(config-if)#encap ppp
Jakarta(config-if)#ppp auth chap
Jakarta(config-if)#username ISP secret cisco
```

   - Semarang:

```
Semarang(config)#int s0/1/0
Semarang(config-if)#encap ppp
Semarang(config-if)#ppp auth chap
Semarang(config-if)#user ISP sec cisco
```

   - ISP:

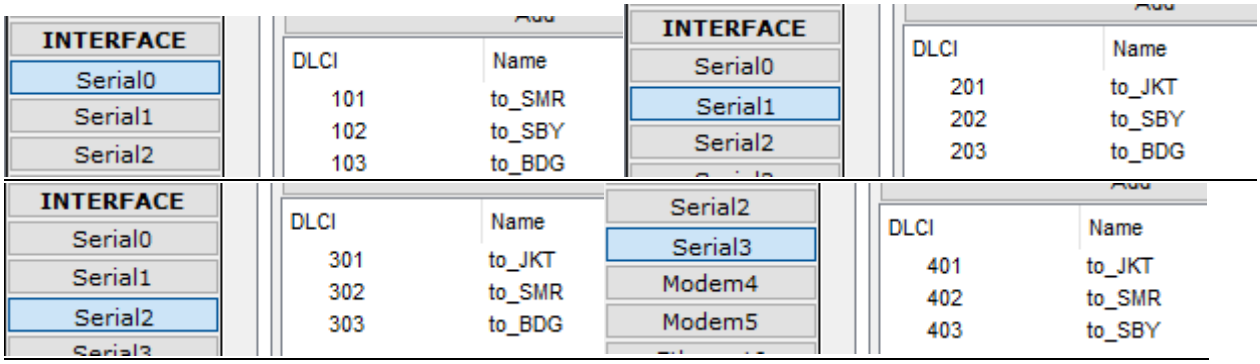
```
ISP(config)#int s0/0/1
ISP(config-if)#encap ppp
ISP(config-if)#ppp auth chap
ISP(config-if)#username Jakarta secret cisco
ISP(config)#int s0/1/0
ISP(config-if)#encap ppp
ISP(config-if)#ppp auth chap
ISP(config-if)#user Semarang sec cisco
```

5. Tes PPP.

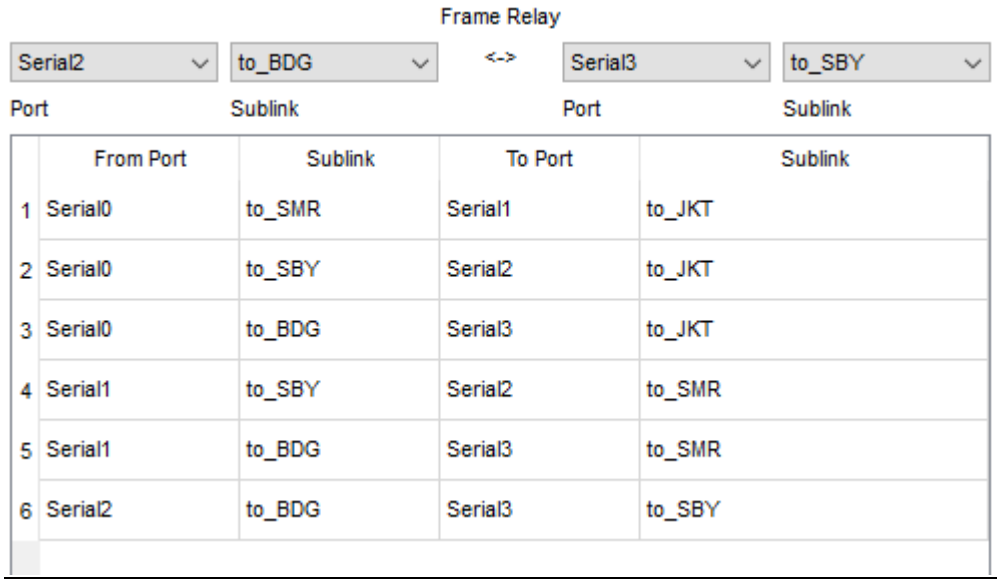
Last Status	Source	Destination	Type
Successful	Jakarta	ISP	ICMP
Successful	Semarang	ISP	ICMP

Konfigurasi Frame Relay

6. Konfigurasi interface.



7. Konfigurasi koneksi frame relay.



	From Port	Sublink	To Port	Sublink
1	Serial0	to_SMR	Serial1	to_JKT
2	Serial0	to_SBY	Serial2	to_JKT
3	Serial0	to_BDG	Serial3	to_JKT
4	Serial1	to_SBY	Serial2	to_SMR
5	Serial1	to_BDG	Serial3	to_SMR
6	Serial2	to_BDG	Serial3	to_SBY

8. Konfigurasi frame relay.
   - Jakarta:

```
Jakarta(config)#int s0/0/0
Jakarta(config-if)#encap frame
Jakarta(config-if)#encap frame-relay
Jakarta(config-if)#frame lmi ansi
Jakarta(config-if)#frame map ip 34.42.0.2 101 broad
Jakarta(config-if)#frame map ip 34.42.0.3 102 broad
Jakarta(config-if)#frame map ip 34.42.0.4 103 broad
```

- Semarang:

```
Semarang(config)#int s0/0/0
Semarang(config-if)#encap frame
Semarang(config-if)#frame lmi ansi
Semarang(config-if)#frame map ip 34.42.0.1 201 broad
Semarang(config-if)#frame map ip 34.42.0.3 202 broad
Semarang(config-if)#frame map ip 34.42.0.4 203 broad
```

- Surabaya:

```
Surabaya(config)#int s0/0/0
Surabaya(config-if)#encap frame
Surabaya(config-if)#frame lmi ansi
Surabaya(config-if)#frame map ip 34.42.0.1 301 broad
Surabaya(config-if)#frame map ip 34.42.0.2 302 broad
%Address already in map
Surabaya(config-if)#frame map ip 34.42.0.4 303 broad
```

- Bandung:

```
Bandung(config)#int s0/0/0
Bandung(config-if)#encap frame
Bandung(config-if)#frame lmi ansi
Bandung(config-if)#frame map ip 34.42.0.1 401 broad
Bandung(config-if)#frame map ip 34.42.0.2 402 broad
Bandung(config-if)#frame map ip 34.42.0.3 403 broad
```

9. Tes frame relay.

Last Status	Source	Destination	Type
Successful	Jakarta	Semarang	ICMP
Successful	Jakarta	Surabaya	ICMP
Successful	Jakarta	Bandung	ICMP
Successful	Semarang	Surabaya	ICMP
Successful	Semarang	Bandung	ICMP
Successful	Surabaya	Bandung	ICMP

Routing

10. Konfigurasi EIGRP.

- Jakarta:

```
Jakarta(config)#router eigrp 10
Jakarta(config-router)#net 34.42.0.0 0.0.0.255
Jakarta(config-router)#net 134.142.0.0 0.0.0.3
Jakarta(config-router)#net 192.168.34.0 0.0.0.255
Jakarta(config-router)#passive g0/0
```

- Semarang:

```
Semarang(config)#router eigrp 10
Semarang(config-router)#net 34.42.0.0 0.0.0.255
Semarang(config-router)#net 134.142.0.4 0.0.0.3
Semarang(config-router)#net 192.168.43.0 0.0.0.255
Semarang(config-router)#passive g0/0
```

- Surabaya:

```
Surabaya(config)#router eigrp 10
Surabaya(config-router)#net 34.42.0.0 0.0.0.255
Surabaya(config-router)#net 192.168.42.0 0.0.0.255
Surabaya(config-router)#passive g0/0
```

- Bandung:

```
Bandung(config)#router eigrp 10
Bandung(config-router)#net 34.42.0.0 0.0.0.255
Bandung(config-router)#net 192.168.24.0 0.0.0.255
Bandung(config-router)#passive g0/0
```

- ISP:

```
ISP(config)#router eigrp 10
ISP(config-router)#net 134.142.0.0 0.0.0.3
ISP(config-router)#net 134.142.0.4 0.0.0.3
ISP(config-router)#net 152.118.34.0 0.0.0.255
ISP(config-router)#passive g0/0
```

11. Tes EIGRP.

Last Status	Source	Destination
Successful	Corporate Office	DNS Server
Successful	Corporate Office	Main Data Center
Successful	Corporate Office	Second Data Center
Successful	Corporate Office	Data Recovery Center
Successful	Main Data Center	DNS Server
Successful	Main Data Center	Second Data Center
Successful	Main Data Center	Data Recovery Center
Successful	Second Data Center	ISP
Successful	Second Data Center	Data Recovery Center
Successful	Data Recovery Center	DNS Server