

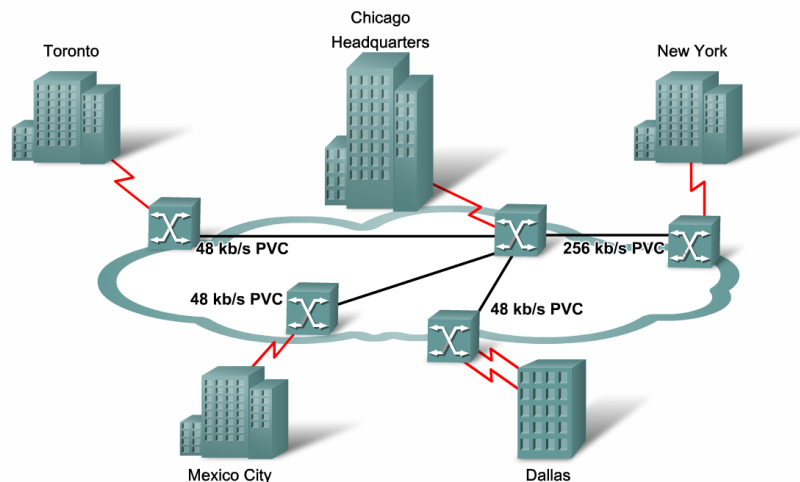
네트워크 운용관리 10주차

김정윤 교수

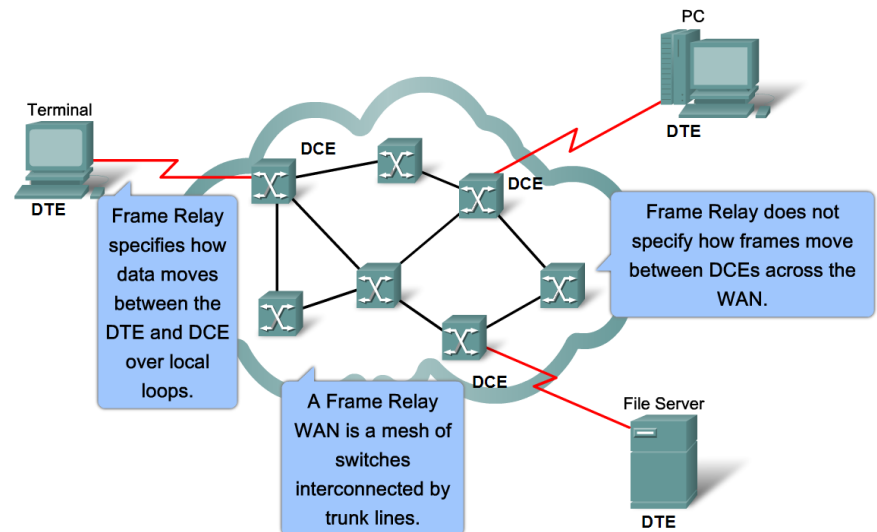
Describe the Fundamental Concepts of Frame Relay Technology

- Describe how Frame Relay is used to provide WAN services to the Enterprise.

Frame Relay WAN Requirements

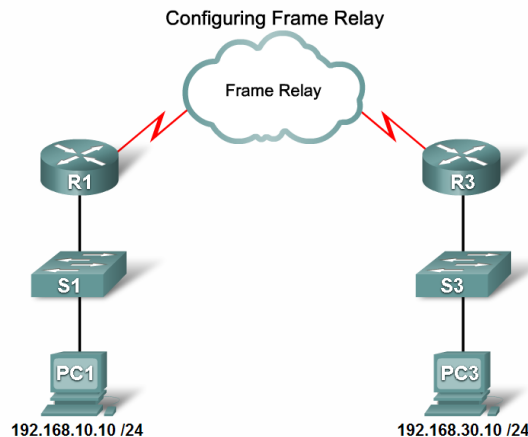


Frame Relay WAN

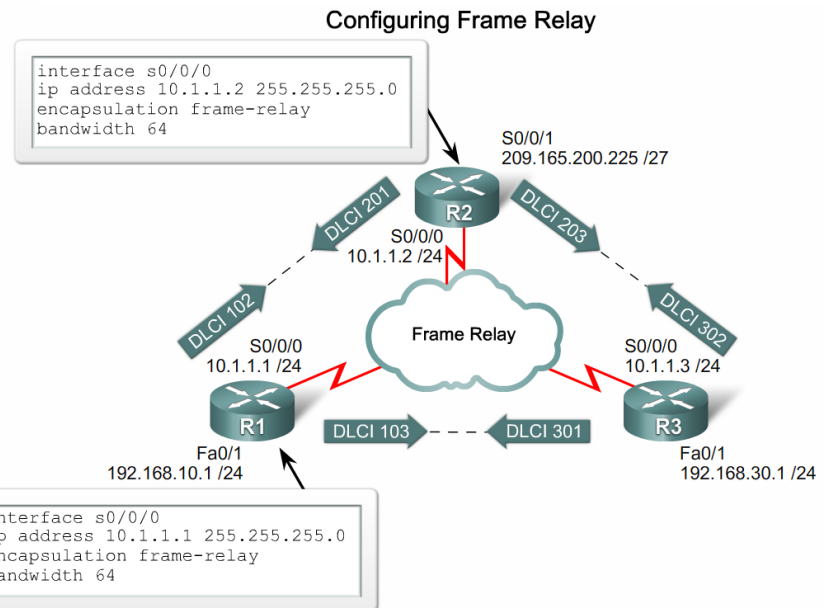


Basic Frame Relay PVC

- **Configure a basic Frame Relay PVC on a router serial interface**

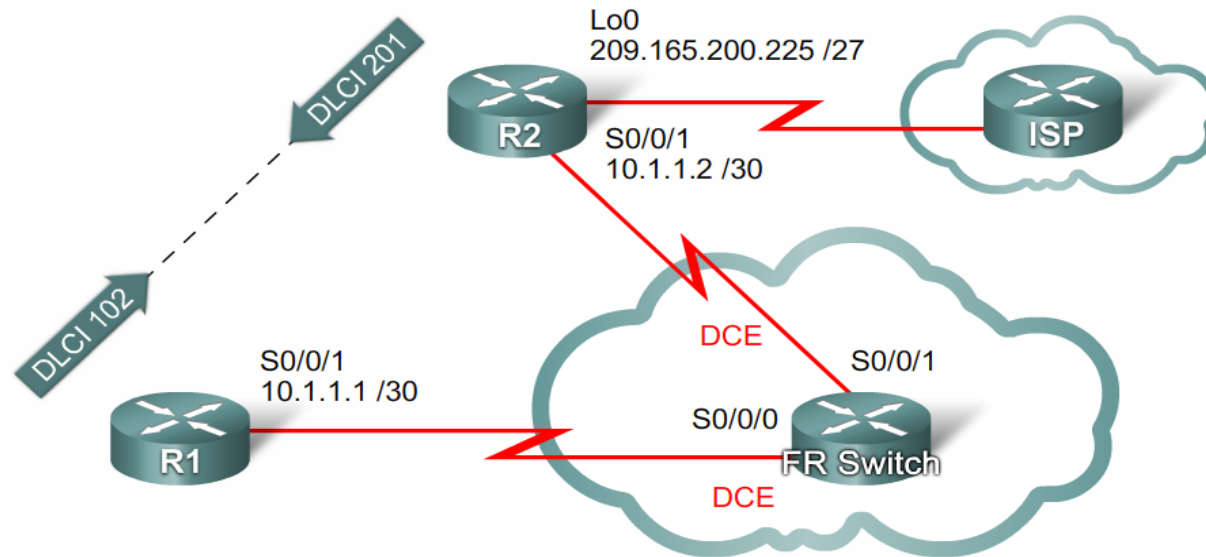


Required Tasks	Optional Tasks
<ul style="list-style-type: none">• Enable Frame Relay encapsulation on an interface• Configure dynamic or static address mapping	<ul style="list-style-type: none">• Configure the LMI• Configure Frame Relay SVCs• Configure Frame Relay traffic shaping• Customize Frame Relay for your network• Monitor and Maintain Frame Relay connection



Basic Frame Relay PVC

- **Configure a static Frame Relay map**

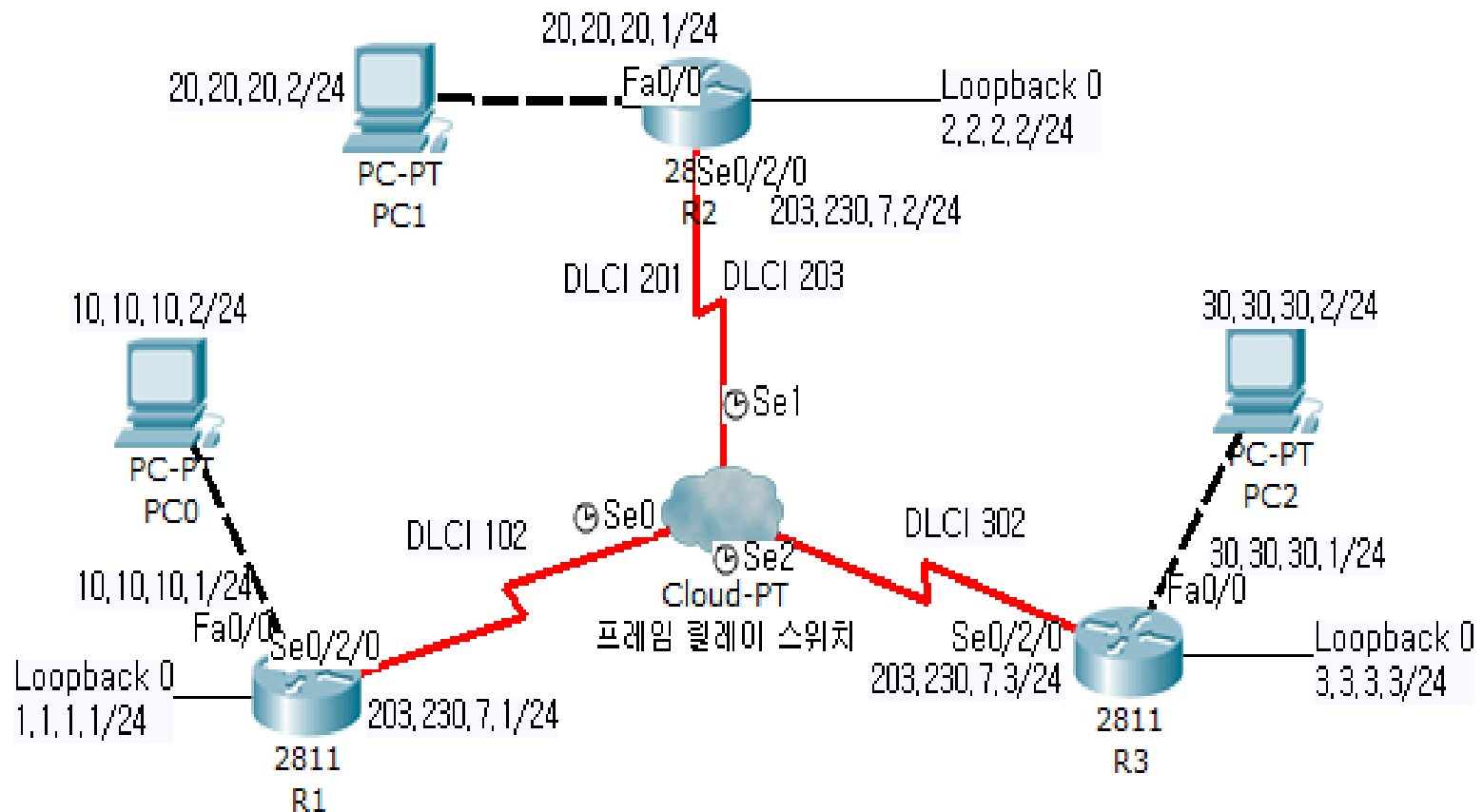


Configuration for R1

```
interface s0/0/1
ip address 10.1.1.1 255.255.255.252
encapsulation frame-relay
bandwidth 64
frame-relay map ip 10.1.1.2 102 broadcast
```

Frame-relay 패킷트레이서

라우팅 프로토콜 : RIPv2 사용



Frame-relay 패킷트레이서

프레임 릴레이 스위치

Physical Config

GLOBAL

Settings

TV Settings

CONNECTIONS

Frame Relay

DSL

Cable

INTERFACE

Serial0

Serial1

Serial2

Serial3

Modem4

Modem5

Ethernet6

Coaxial7

Frame Relay: Serial0

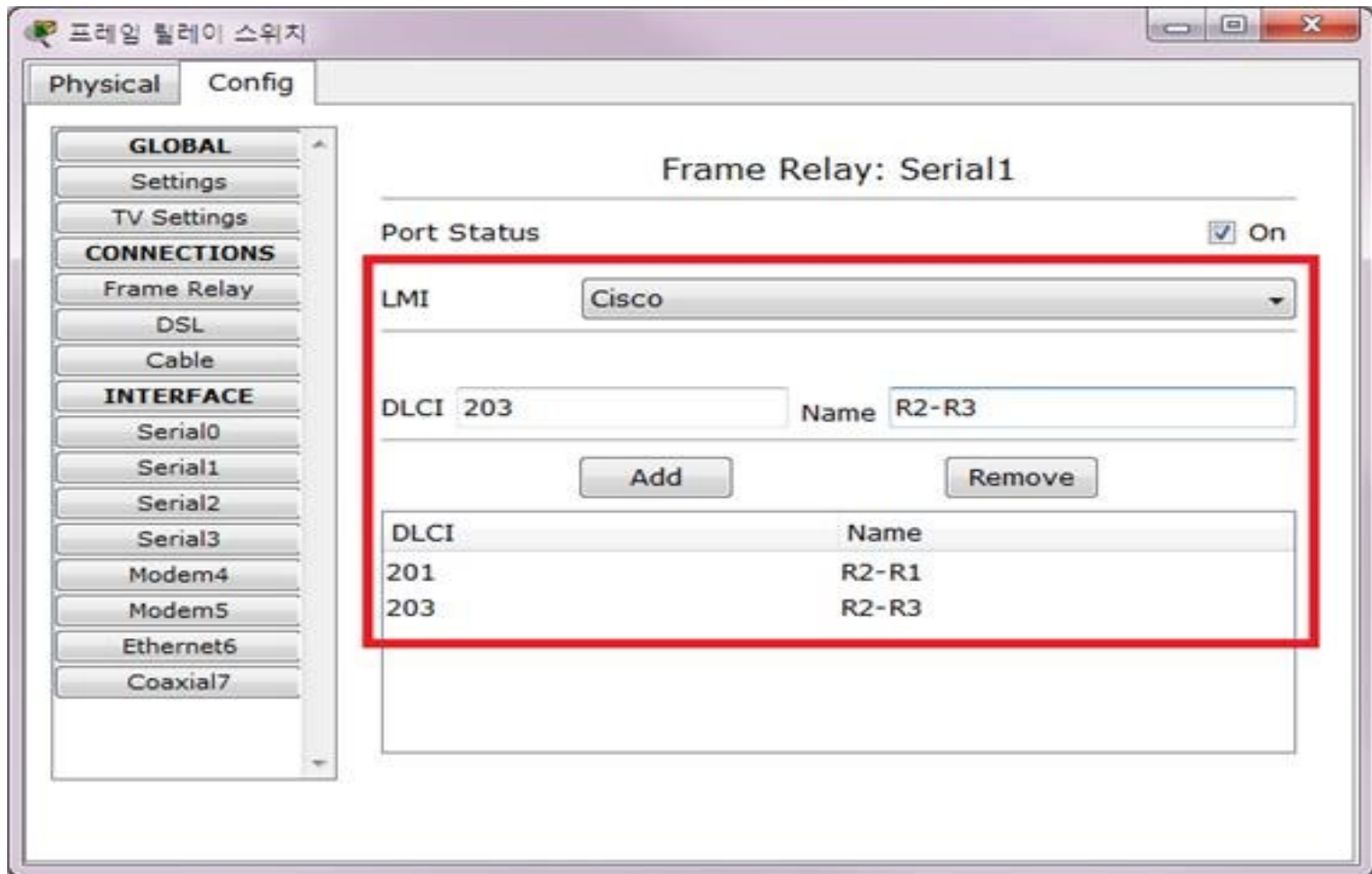
Port Status ☒ On

LMI

DLCI Name

DLCI	Name
102	R1-R2

Frame-relay 패킷트레이서



Frame-relay 패킷트레이서

프레임 릴레이 스위치

Physical Config

GLOBAL

Settings

TV Settings

CONNECTIONS

Frame Relay

DSL

Cable

INTERFACE

Serial0

Serial1

Serial2

Serial3

Modem4

Modem5

Ethernet6

Coaxial7

Frame Relay: Serial2

Port Status ☒ On

LMI Cisco

DLCI 302 Name R3-R2

Add Remove

DLCI	Name
302	R3-R2

Frame-relay 패킷트레이서

```
R1(config)#int lo 0
R1(config-if)#ip add 1.1.1.1 255.255.255.0
R1(config-if)#exit
R1(config)#int fa0/0
R1(config-if)#ip add 10.10.10.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#int s0/2/0
R1(config-if)#ip add 203.230.7.1 255.255.255.0
R1(config-if)#encapsulation frame-relay
R1(config-if)#frame-relay map ip 203.230.7.2 102 broadcast
R1(config-if)#frame-relay map ip 203.230.7.3 102 broadcast
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#router rip
R1(config-router)#version 2
R1(config-router)#network 1.0.0.0
R1(config-router)#network 10.0.0.0
R1(config-router)#network 203.230.7.0
R1(config-router)#no auto-summary
```

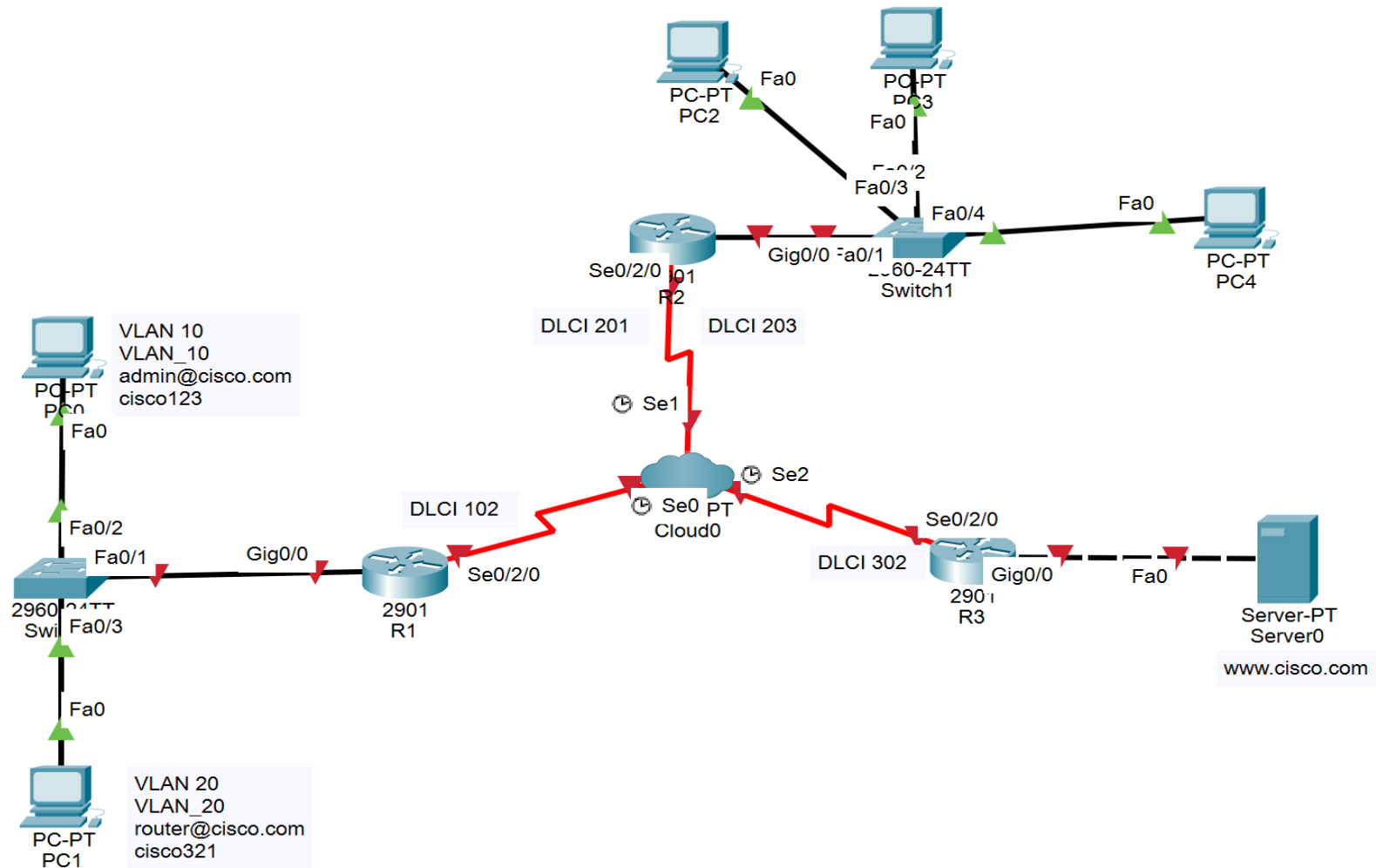
Frame-relay 패킷트레이서

```
R2(config)#int lo 0
R2(config-if)#ip add 2.2.2.2 255.255.255.0
R2(config-if)#exit
R2(config)#int fa0/0
R2(config-if)#ip add 20.20.20.1 255.255.255.0
R2(config-if)#no shutdown
R2(config-if)#exit
R2(config)#int s0/2/0
R2(config-if)#ip add 203.230.7.2 255.255.255.0
R2(config-if)#encapsulation frame-relay
R2(config-if)#frame-relay map ip 203.230.7.1 201 broadcast
R2(config-if)#frame-relay map ip 203.230.7.3 203 broadcast
R2(config-if)#no ip split-horizon
R2(config-if)#no shutdown
R2(config-if)#exit
R2(config)#router rip
R2(config-router)#version 2
R2(config-router)#network 2.0.0.0
R2(config-router)#network 20.0.0.0
R2(config-router)#network 203.230.7.0
R2(config-router)#no auto-summary
```

Frame-relay 패킷트레이서

```
R3(config)#int lo 0
R3(config-if)#ip add 3.3.3.3 255.255.255.0
R3(config-if)#exit
R3(config)#int fa0/0
R3(config-if)#ip add 30.30.30.1 255.255.255.0
R3(config-if)#no shutdown
R3(config-if)#exit
R3(config)#int s0/2/0
R3(config-if)#ip add 203.230.7.3 255.255.255.0
R3(config-if)#encapsulation frame-relay
R3(config-if)#frame-relay map ip 203.230.7.2 302 broadcast
R3(config-if)#frame-relay map ip 203.230.7.1 302 broadcast
R3(config-if)#no shutdown
R3(config-if)#exit
R3(config)#router rip
R3(config-router)#version 2
R3(config-router)#network 3.0.0.0
R3(config-router)#network 30.0.0.0
R3(config-router)#network 203.230.7.0
R3(config-router)#no auto-summary
```

Frame-Relay 연습





고생하셨습니다.

다음 수업시간에 뵙겠습니다.