



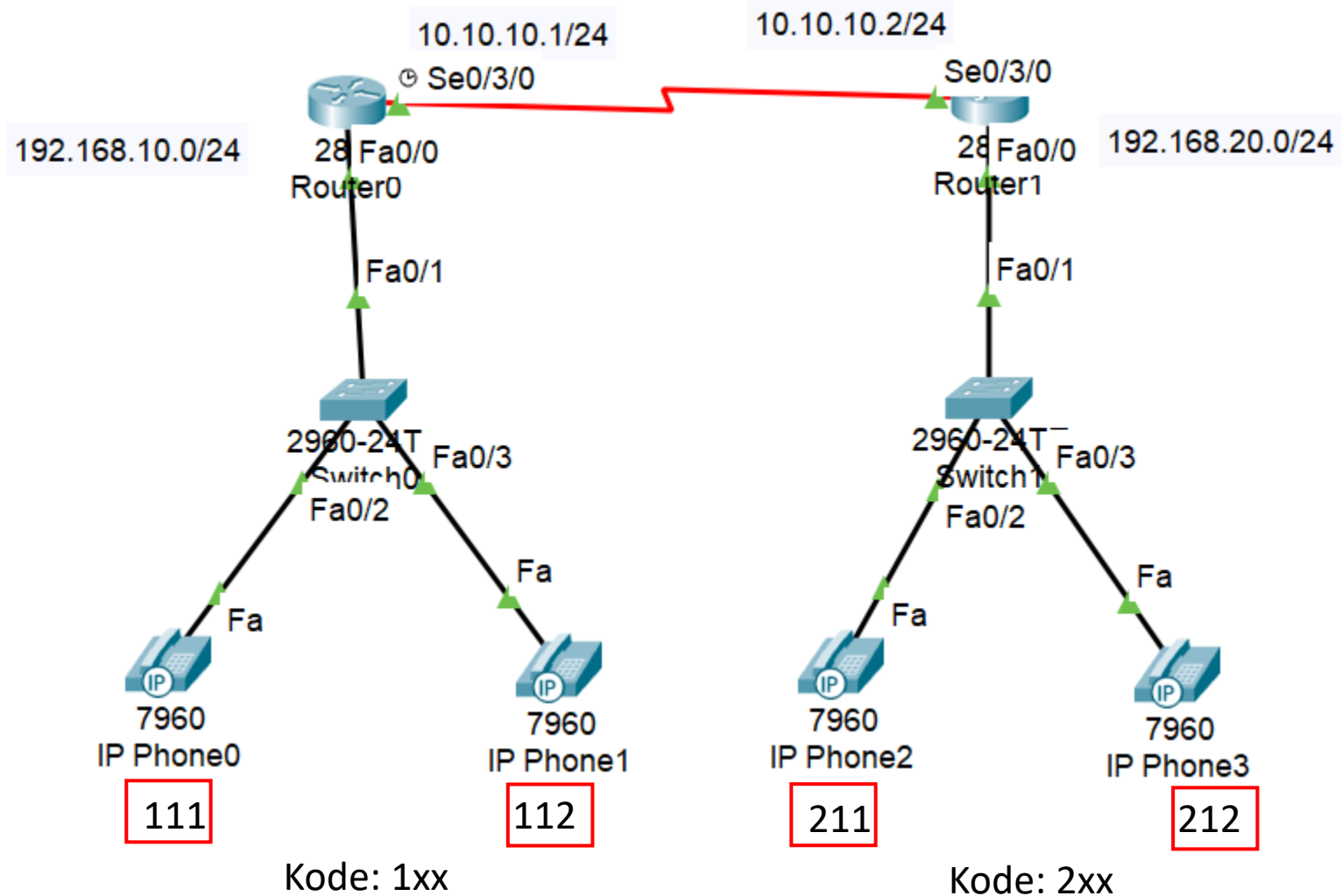
Modul Praktikum Jaringan Komunikasi Cisco VOIP (H.323) Interkoneksi 2 Router

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Topik Bahasan

- Integrasi 2 router Cisco VoIP
- Setting IP Address dan DHCP
- Setting serial interface dan Routing Protocol
- Setting dial number IP Phone
- Setting dial interkoneksi antar router

Topologi VoIP



Konfigurasi Router0

Setting IP address dan DHCP

```
Router>en
Router#config terminal
Router(config)#interface fastethernet 0/0
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#ip dhcp excluded-address 192.168.10.1

Router(config)#ip dhcp pool voip1
Router(dhcp-config)#network 192.168.10.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.10.1
Router(dhcp-config)#option 150 ip 192.168.10.1
Router(dhcp-config)#exit
Router(config)#
```

IP static

DHCP

Konfigurasi Router1

Setting IP address dan DHCP

```
Router>en
Router#config terminal
Router(config)#interface fastethernet 0/0
Router(config-if)#ip address 192.168.20.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#ip dhcp excluded-address 192.168.20.1

Router(config)#ip dhcp pool voip2
Router(dhcp-config)#network 192.168.20.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.20.1
Router(dhcp-config)#option 150 ip 192.168.20.1
Router(dhcp-config)#exit
Router(config)#
```

IP static

DHCP

Menambahkan serial interface

- Matikan perangkat router
- Drag and drop WIC-1T
- Hidupkan kembali perangkat

Physical Config CLI Attributes

Physical Device View


Zoom In Original Size Zoom Out

WIC-1T

Customize Icon in Physical View

Customize Icon in Logical View

The WIC-1T provides a single port serial connection to remote sites or legacy serial



Port	Link	VLAN	IP Address	IPv6 Address	MAC Address
FastEthernet0/0	Down	--	<not set>	<not set>	0009.7C95.7101
FastEthernet0/1	Down	--	<not set>	<not set>	0009.7C95.7102
Serial10/3/0	Down	--	<not set>	<not set>	<not set>
Vlan1	Down	1	<not set>	<not set>	0060.4755.12A8

Hostname: Router

Physical Location: Intercity, Home City, Corporate Office, Main Wiring Closet

Konfigurasi Router0

Setting serial interface dan routing protocol

```
Router(config)#int se0/3/0
Router(config-if)#ip address 10.10.10.1 255.255.255.0
Router(config-if)#clock rate 64000
Router(config-if)#no shutdown
Router(config-if)#exit

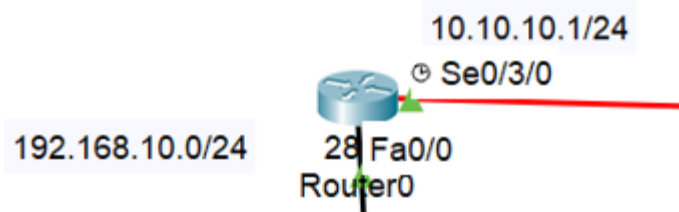
Router(config)#router rip
Router(config-router)#version 2
Router(config-router)#no auto-summary
Router(config-router)#network 192.168.10.0
Router(config-router)#network 10.10.10.0
Router(config-router)#exit
Router(config)#
```

IP serial int.

sbg DCE

RIP routing prot.

to adv. all network



Konfigurasi Router1

Setting serial interface dan routing protocol

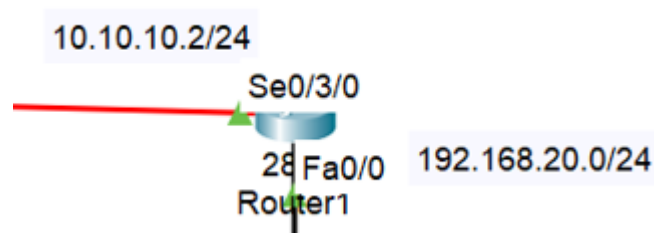
```
Router(config)#int se0/3/0
Router(config-if)#ip address 10.10.10.2 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
```

```
Router(config)#router rip
Router(config-router)#version 2
Router(config-router)#no auto-summary
Router(config-router)#network 192.168.20.0
Router(config-router)#network 10.10.10.0
Router(config-router)#exit
Router(config)#
```

IP serial int.

RIP routing prot.

to adv. all network



Konfigurasi Router0

Setting numbering

```
Router(config)#telephony-service
Router(config-telephony)#ip source-address 192.168.10.1 port 2001
Router(config-telephony)#max-ephones 3
Router(config-telephony)#max-dn 3
Router(config-telephony)#auto assign 1 to 3
Router(config-telephony)#exit
```

```
Router(config)#telephony-service
Router(config-telephony)#ephone-dn 1
Router(config-ephone-dn)#number 111
Router(config-ephone-dn)#ephone-dn 2
Router(config-ephone-dn)#number 112
Router(config-ephone-dn)#
```

Kode: 1xx

Konfigurasi Router1

Setting numbering

```
Router(config)#telephony-service
Router(config-telephony)#ip source-address 192.168.20.1 port 2001
Router(config-telephony)#max-ephones 3
Router(config-telephony)#max-dn 3
Router(config-telephony)#auto assign 1 to 3
Router(config-telephony)#exit
```

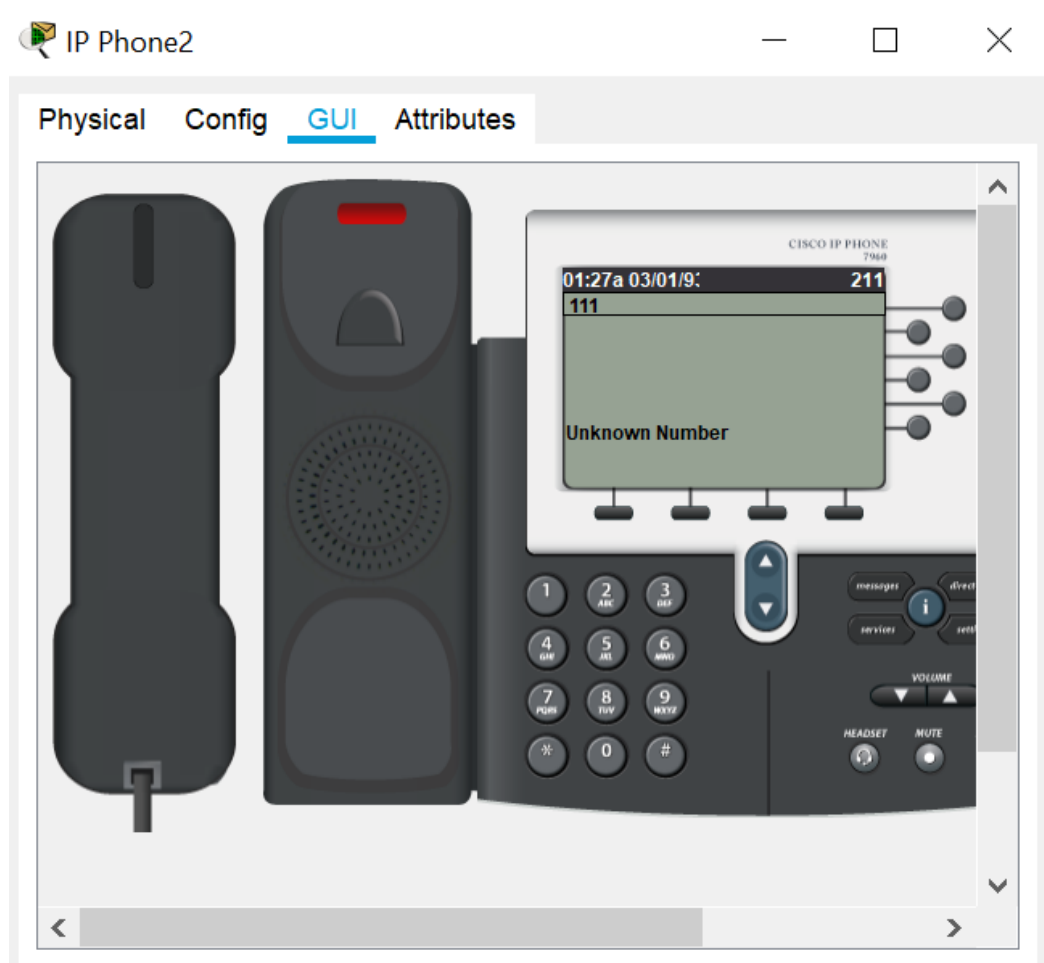
```
Router(config)#telephony-service
Router(config-telephony)#ephone-dn 1
Router(config-ephone-dn)#number 211
Router(config-ephone-dn)#ephone-dn 2
Router(config-ephone-dn)#number 212
Router(config-ephone-dn)#
```

Kode: 2xx

Konfigurasi 3 Switch (VLAN)

```
Switch>enable
Switch#conf t
Switch(config)#interface range f0/1-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport voice vlan 1
Switch(config-if-range)#exit
Switch(config)#
```

Hasil: 211 call 111 => gagal



Konfigurasi Router0 dan Router1

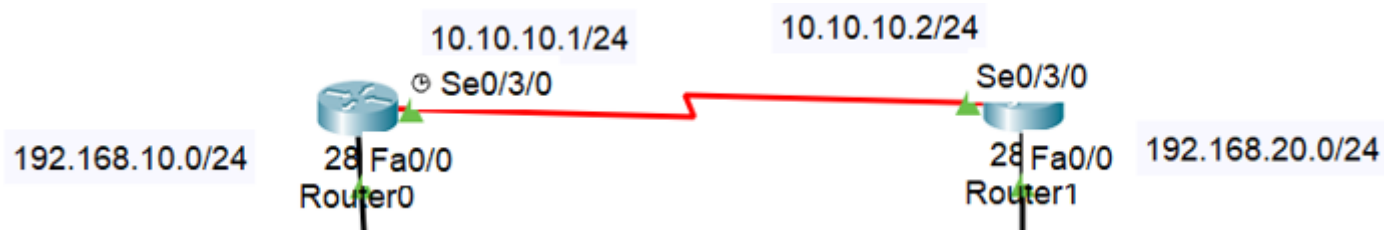
Setting interkoneksi antara 2 router

```
Router(config)#dial-peer voice 1 voip
Router(config-dial-peer)#destination-pattern 2..
Router(config-dial-peer)#session target ipv4:192.168.20.1
Router(config-dial-peer)#exit
Router(config)#
```

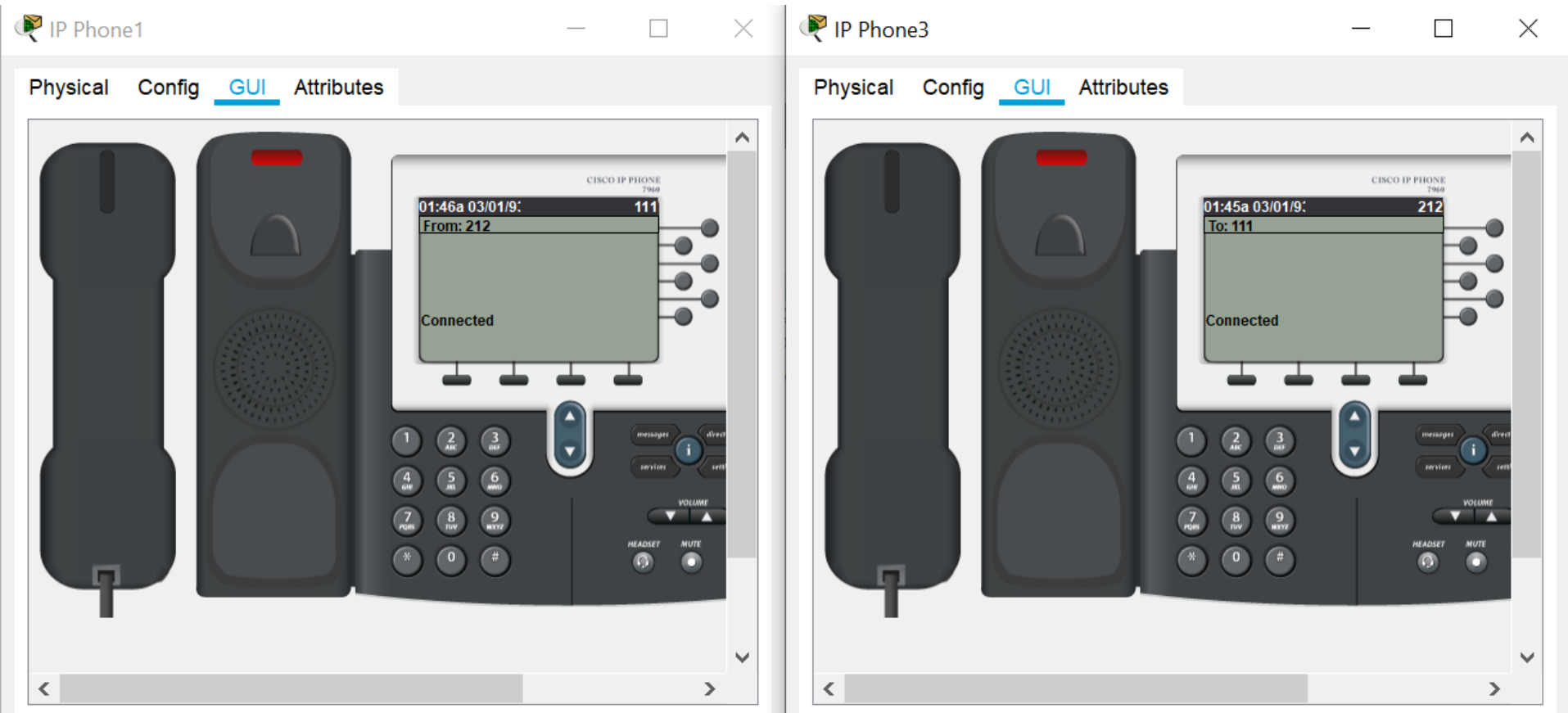
Router0

```
Router(config)#dial-peer voice 1 voip
Router(config-dial-peer)#destination-pattern 1..
Router(config-dial-peer)#session target ipv4:192.168.10.1
Router(config-dial-peer)#exit
Router(config)#
```

Router1



Interkoneksi antara 2 router



PERCOBAAN

- Lakukan percobaan pada topologi di contoh
- Lakukan interkoneksi semuanya, dan buatlah laporan resminya (topologi, konfigurasi, hasil, analisa dan kesimpulan)

TUGAS

- Designlah jaringan Cisco VoIP seperti berikut.
- Lakukan interkoneksi semuanya dan buat laporannya (topologi, setting masing-masing perangkat, tes koneksi, analisa dan kesimpulan)

