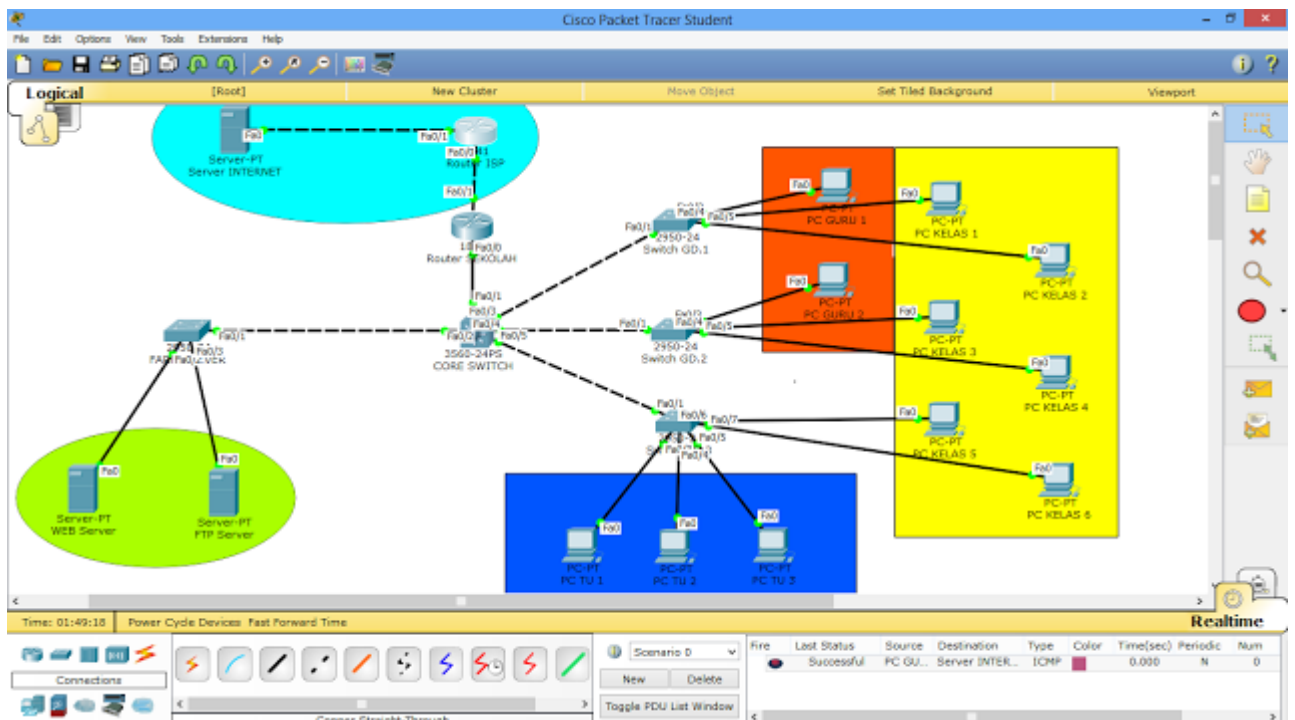


TUTORIAL MEMBUAT CISCO PACKET TRACER SOAL LKS

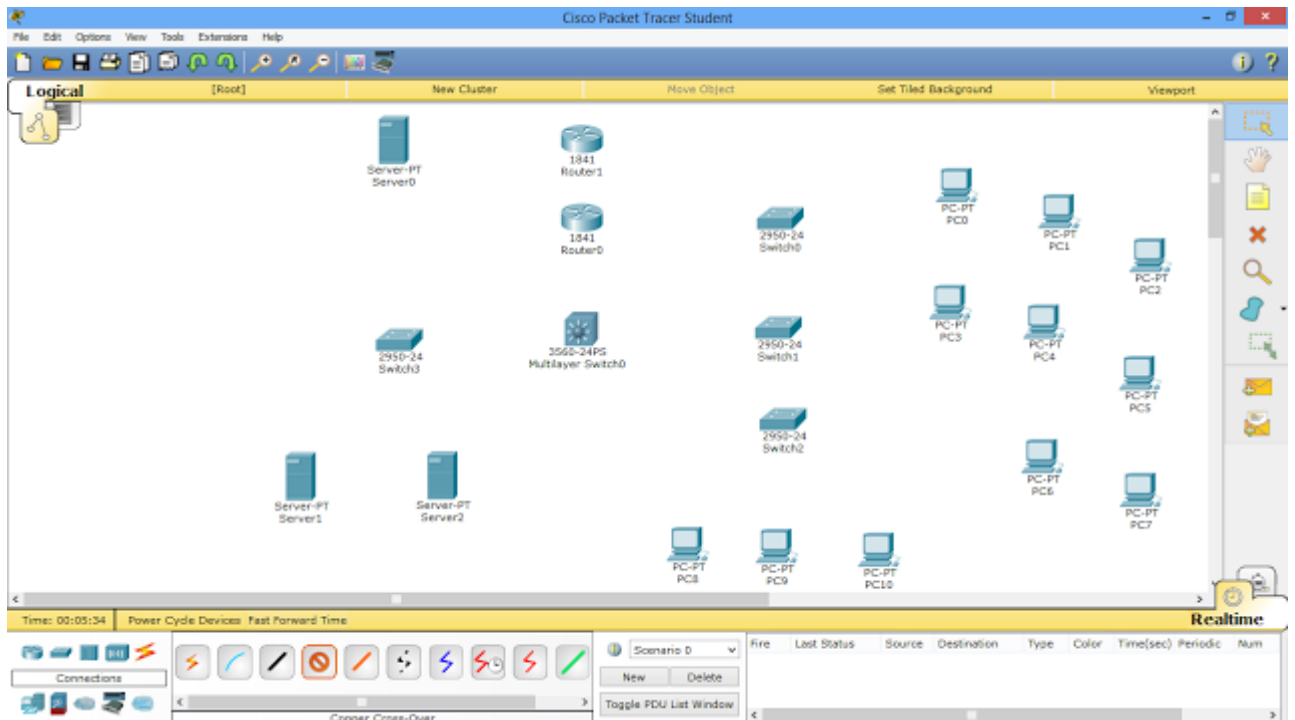
TUTORIAL MEMBUAT CISCO PACKET TRACER SOAL LKS

Kali ini saya akan membuat rangkaian/skema hingga menjadi seperti pada gambar di bawah ini.

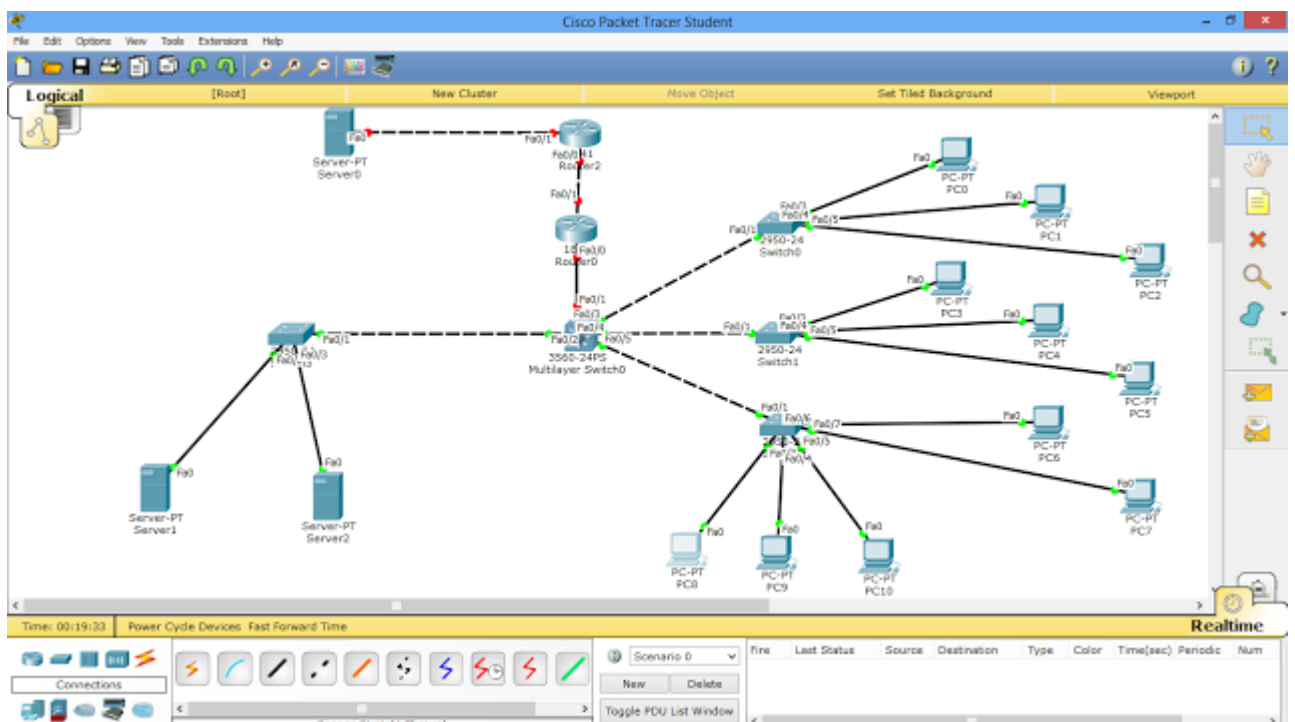


Agar bias menjadi seperti gambar di atas, langkah-langkahnya adalah...

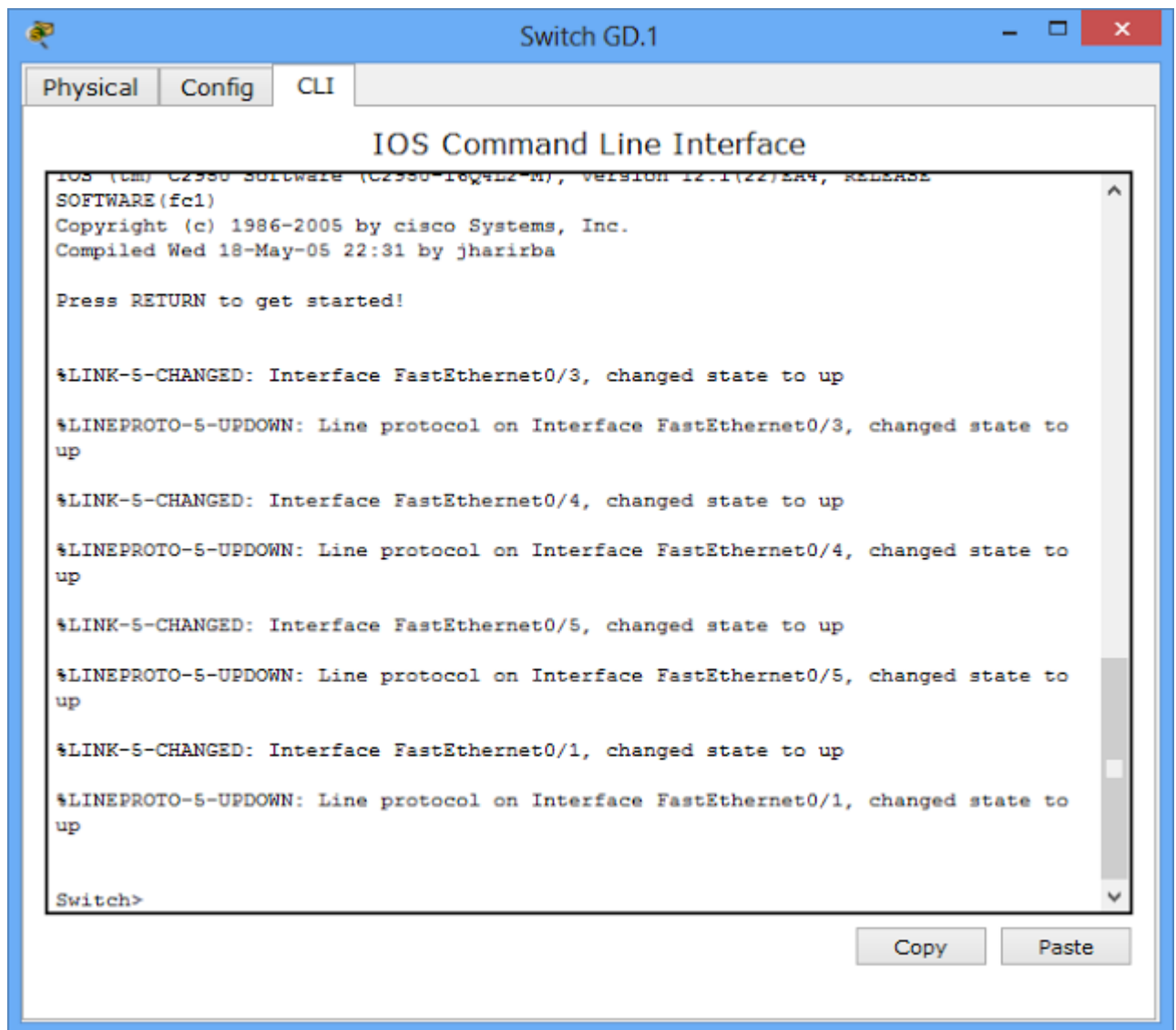
1. Pertama kita harus menyusun semua komponen-komponen yang dibutuhkan, kita membutuhkan 11 PC client, 4 switch, 1 multilayer switch, 2 router, dan 3 server.



1. 2. Selanjutnya buat rangkaian hingga menjadi gambar seperti dibawah.



1. 3. Setelah itu, kita masuk ke CLI pada switch gedung 1 (switch 0) lalu ikuti langkah berikut:

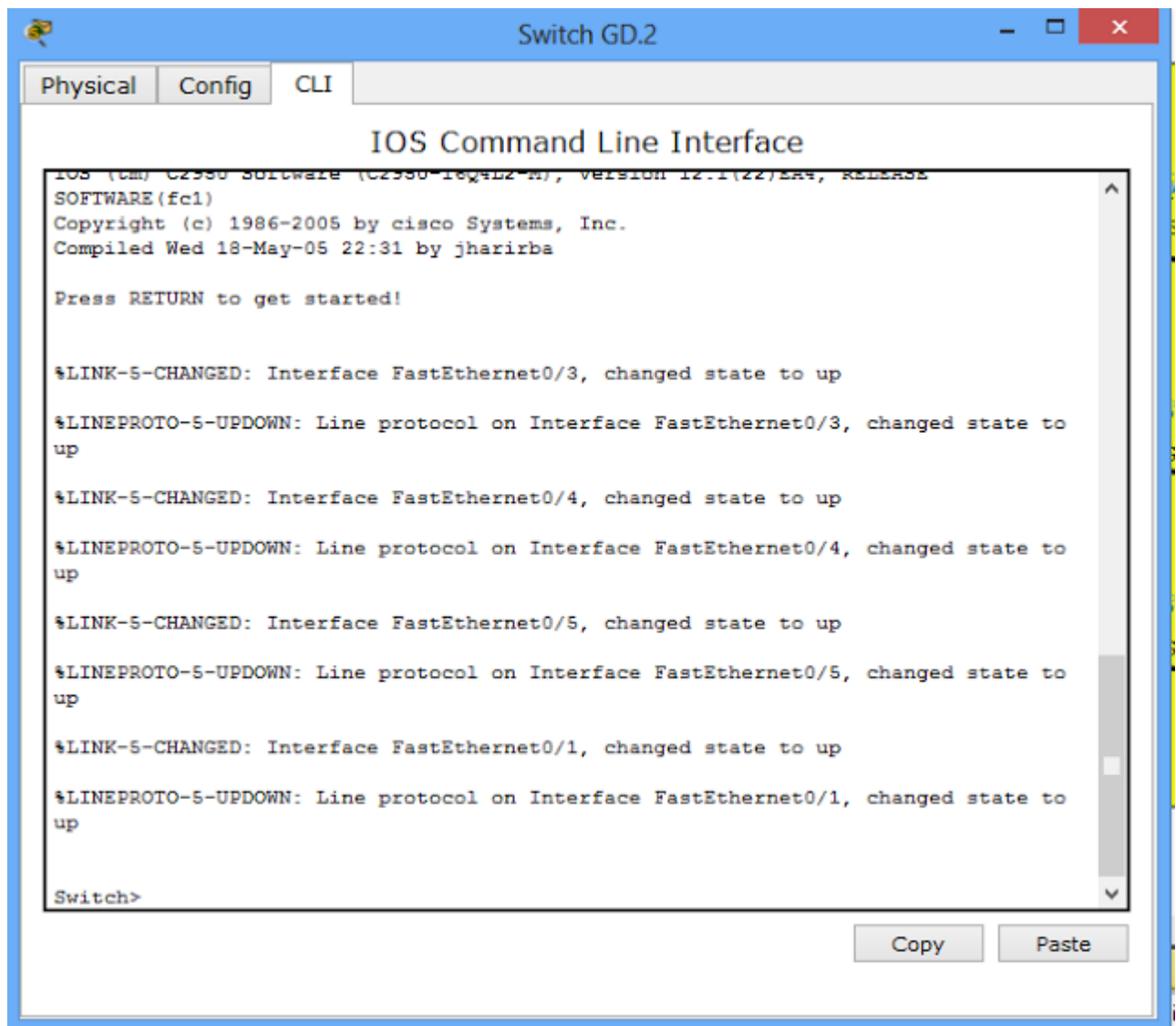


GEDUNG 1

```
Switch>en
Switch#vlan database
Switch(vlan)#vlan 10 name GURU
VLAN 10 added:
  Name: GURU
Switch(vlan)#vlan 20 name KELAS
VLAN 20 added:
  Name: KELAS
Switch(vlan)#ex
Switch#conf t
Switch(config)#interface fa0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#ex
Switch(config)#interface range fa0/4-5
Switch(config-if-range)#switchport mode access
```

```
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#ex
Switch(config)#interface fa0/1
Switch(config-if)#switchport mode trunk
Switch(config-if)#end
```

1. 4. Kalau sudah selesai, lanjut ke CLI switch gedung 2 (switch 1).

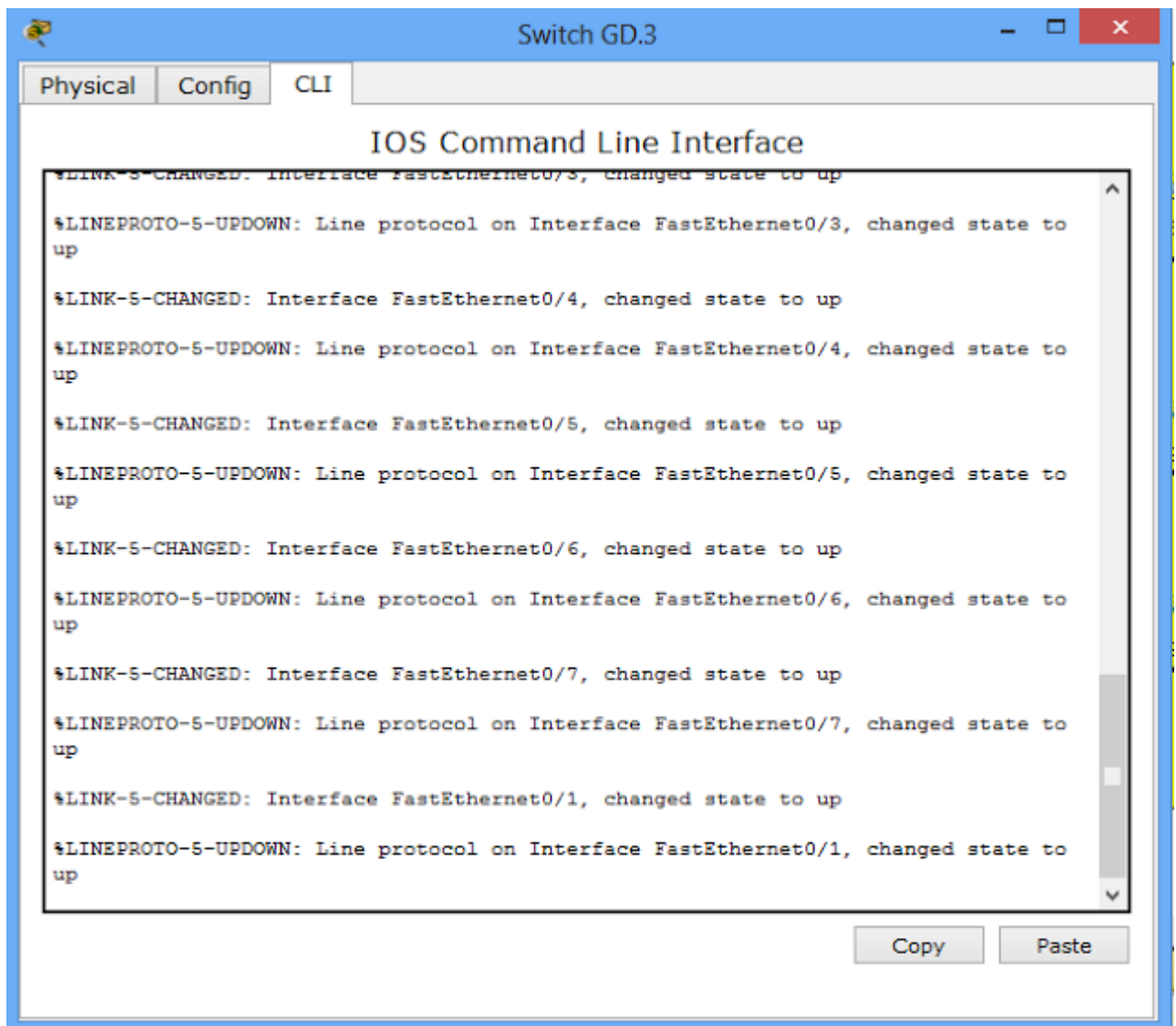


GEDUNG 2

```
Switch>en
Switch#VLAN database
Switch(vlan)#vlan 10 name GURU
VLAN 10 added:
  Name: GURU
```

```
Switch(vlan)#vlan 20 name KELAS
VLAN 20 added:
  Name: KELAS
Switch(vlan)#ex
Switch#conf t
Switch(config)#interface fa0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#ex
Switch(config)#interface range fa0/4-5
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#ex
Switch(config)#interface fa0/1
Switch(config-if)#switchport mode trunk
Switch(config-if)#end
```

1. 5. Lanjut ke CLI switch gedung 3 (switch 2)

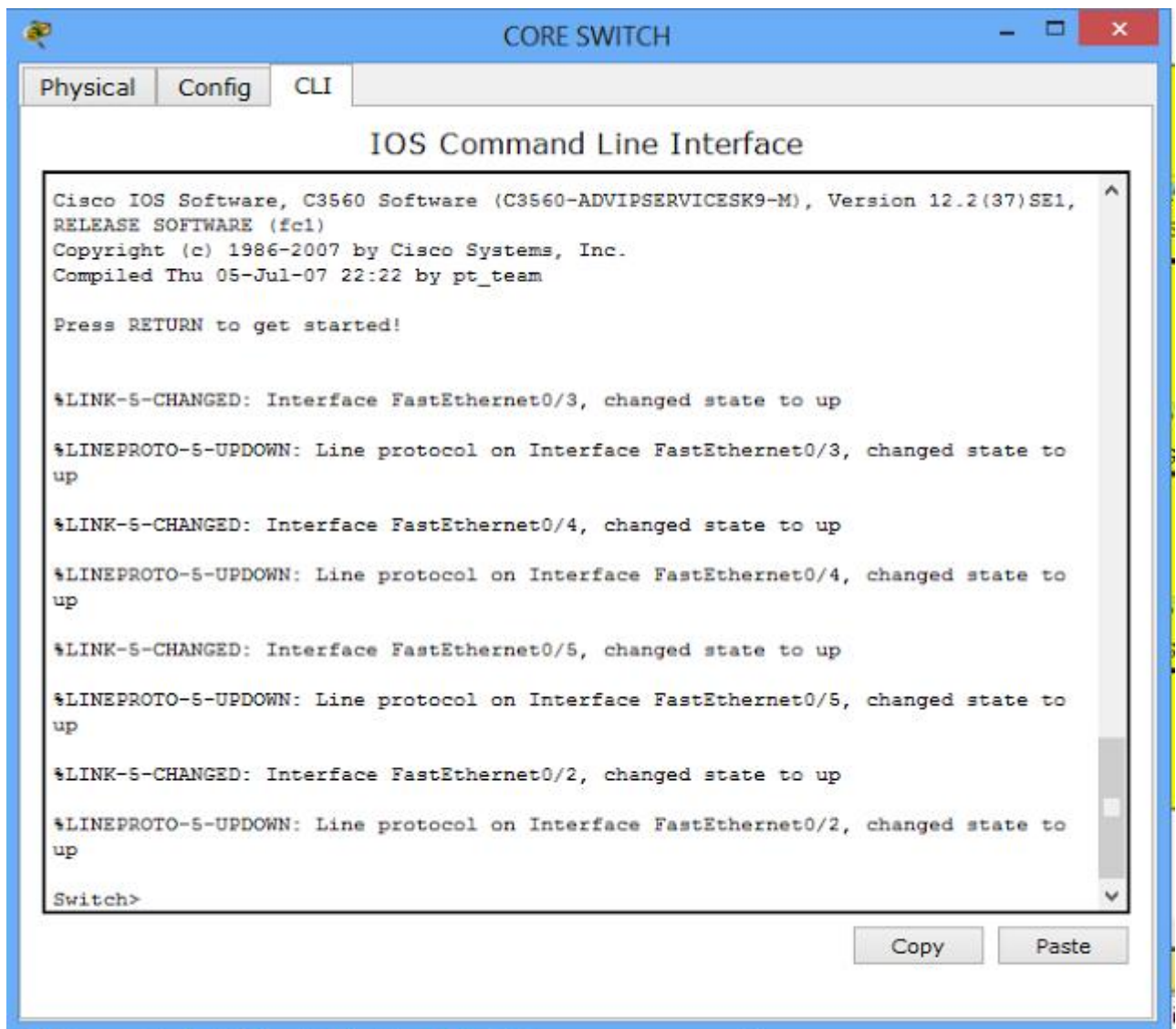


GEDUNG 3

```
Switch>en
Switch#vlan database
Switch(vlan)#vlan 20 name KELAS
VLAN 20 added:
  Name: KELAS
Switch(vlan)#vlan 30 name TU
VLAN 30 added:
  Name: TU
Switch(vlan)#ex
Switch#conf t
Switch(config)#interface range fa0/3-5
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 30
Switch(config-if-range)#ex
Switch(config)#interface range fa0/6-7
Switch(config-if-range)#switchport mode access
```

```
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#ex
Switch(config)#interface fa0/1
Switch(config-if)#switchport mode trunk
Switch(config-if)#end
```

1. 6. Selanjutnya kita ke CLI multilayer switch (CORE SWITCH) dan ikuti langkah berikut.

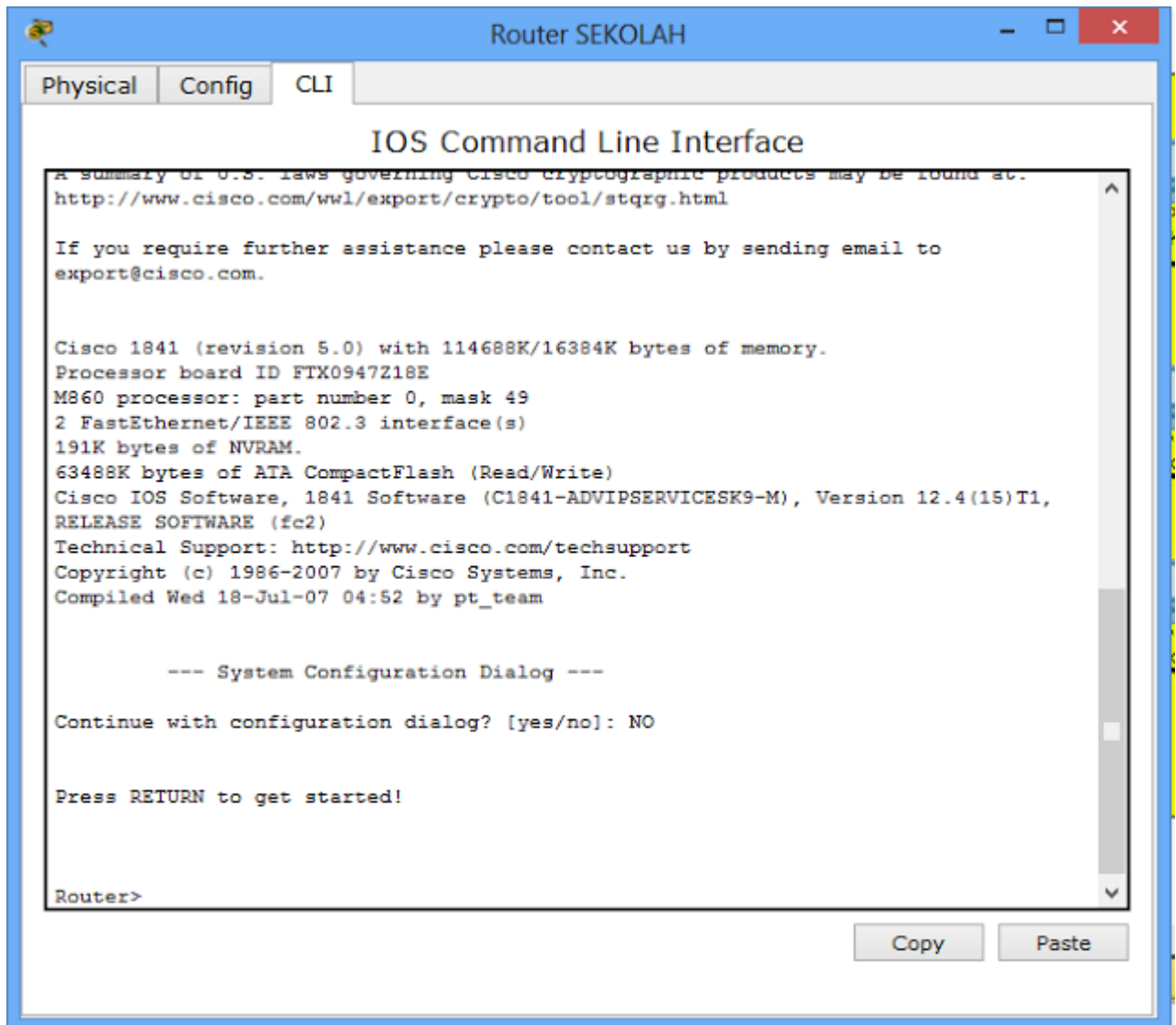


CORE SWITCH

```
Switch>en
Switch#vlan database
Switch(vlan)#vlan 10 name GURU
Switch(vlan)#Vlan 20 name KELAS
Switch(vlan)#vlan 30 name TU
Switch(vlan)#ex
```

```
Switch#conf t
Switch(config)#ip dhcp pool GURU
Switch(dhcp-config)#network 10.3.10.0 255.255.255.224
Switch(dhcp-config)#default-router 10.10.10.1
Switch(dhcp-config)#ex
Switch(config)#ip dhcp pool KELAS
Switch(dhcp-config)#network 10.3.20.0 255.255.255.240
Switch(dhcp-config)#default-router 10.10.20.1
Switch(dhcp-config)#ex
Switch(config)#ip dhcp pool TU
Switch(dhcp-config)#network 10.3.30.0 255.255.255.248
Switch(dhcp-config)#default-router 10.10.30.1
Switch(dhcp-config)#ex
Switch(config)#interface vlan 10
Switch(config-if)#ip address 10.3.10.1 255.255.255.224
Switch(config-if)#ex
Switch(config)#interface vlan 20
Switch(config-if)#ip address 10.3.20.1 255.255.255.240
Switch(config-if)#ex
Switch(config)#interface vlan 30
Switch(config-if)#ip address 10.3.30.1 255.255.255.248
Switch(config-if)#ex
Switch(config)#interface range fa0/3-5
Switch(config-if-range)#switchport trunk encapsulation dot1q
Switch(config-if-range)#switchport mode trunk
Switch(config-if-range)#end
Switch#conf t
Switch(config)#ip routing
Switch(config)#end
Switch#conf t
Switch(config)#interface fa0/1
Switch(config-if)#no switchport
Switch(config-if)#ip address 10.3.0.2 255.255.255.252
Switch(config-if)#ex
Switch(config)#interface fa0/2
Switch(config-if)#no switchport
Switch(config-if)#ip address 10.3.1.1 255.255.255.0
Switch(config-if)#ex
Switch(config)#router ospf 1
Switch(config-router)#network 10.3.0.0 0.0.0.3 area 0
Switch(config-router)#network 10.3.1.0 0.0.0.255 area 0
Switch(config-router)#network 10.3.10.0 0.0.0.31 area 0
Switch(config-router)#network 10.3.20.0 0.0.0.15 area 0
Switch(config-router)#network 10.3.30.0 0.0.0.7 area 0
Switch(config-router)#end
Switch#conf t
Switch(config)#ip route 0.0.0.0 0.0.0.0 10.3.0.1
Switch(config)#end
```


1. 7. Selanjutnya ke CLI pada router sekolah lalu ikuti langkah dibawah.



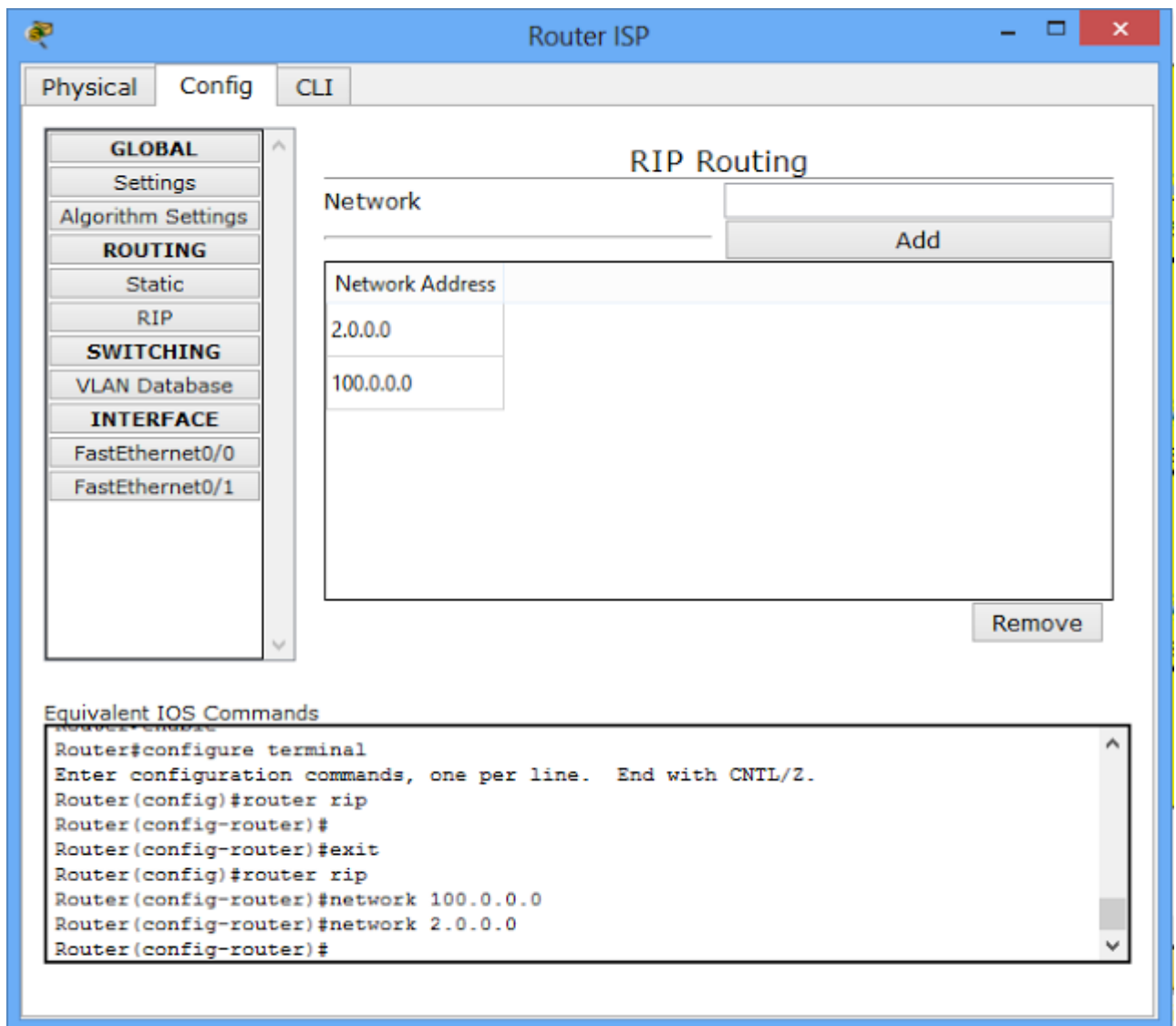
ROUTER SEKOLAH

```
Router#conf t
Router(config)# interface fa0/0
Router(config-if)#ip address 10.3.0.1 255.255.255.252
Router(config-if)#no shutdown
Router(config-if)#ex
Router(config)#router ospf 1
Router(config-router)#network 10.3.0.0 0.0.0.3 area 0
Router(config-router)#end
Router#conf t
Router(config)# interface fa0/1
Router(config-if)#ip address 100.3.1.2 255.255.255.252
Router(config-if)#no shutdown
```

```
Router(config-if)#ex
Router(config)# interface fa0/0
Router(config-if)#ip nat inside
Router(config-if)#ex
Router(config)# interface fa0/1
Router(config-if)#ip nat outside
Router(config-if)#ex
Router(config)#ip nat inside source list 1 interface fa0/1 overload
Router(config)#access-list 1 permit 10.3.10.0 0.0.0.31
Router(config)#access-list 1 permit 10.3.20.0 0.0.0.15
Router(config)#access-list 1 permit 10.3.30.0 0.0.0.7
Router(config)#ip route 0.0.0.0 0.0.0.0 100.3.1.1
Router(config)#end
```

1. 8. Setelah router sekolah, kita ke router ISP, bagian ini kita tidak perlu mengatur CLI nya, kita hanya perlu mengatur RIP= 100.3.1.4 dan 2.3.2.1 lalu int Fa 0/0= 100.3.1.1 255.255.255.252 dan Fa 0/1= 2.3.2.1 255.0.0.0

>>ini pada bagian RIP.



>>ini pada bagian FastEthernet0/0

Router ISP

Physical Config CLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

FastEthernet0/0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0060.3E3B.6901

IP Configuration

IP Address 100.3.1.1

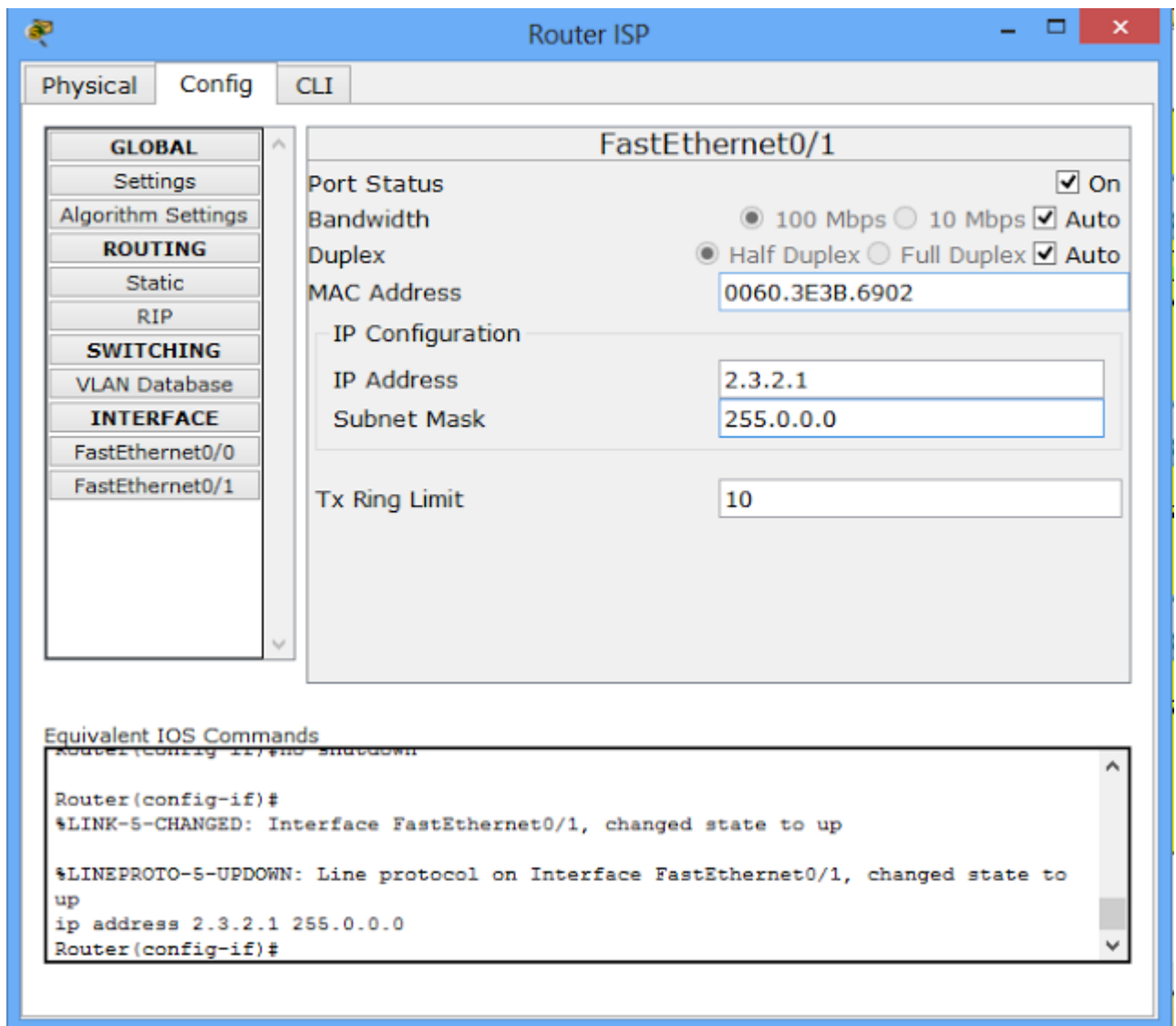
Subnet Mask 255.255.255.252

Tx Ring Limit 10

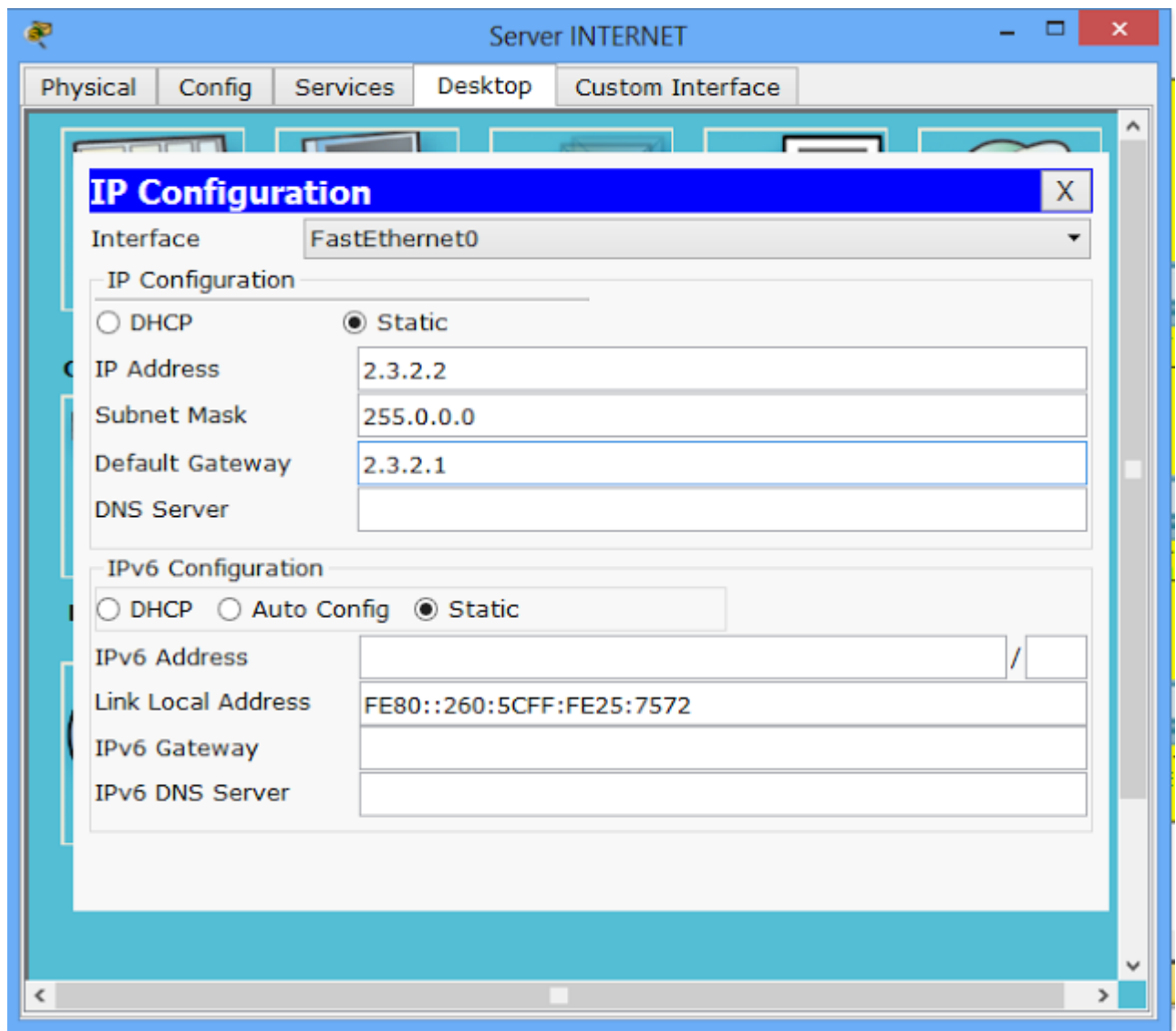
Equivalent IOS Commands

```
Router(config-if)#  
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to  
up  
ip address 100.3.1.1 255.0.0.0  
Router(config-if)#
```

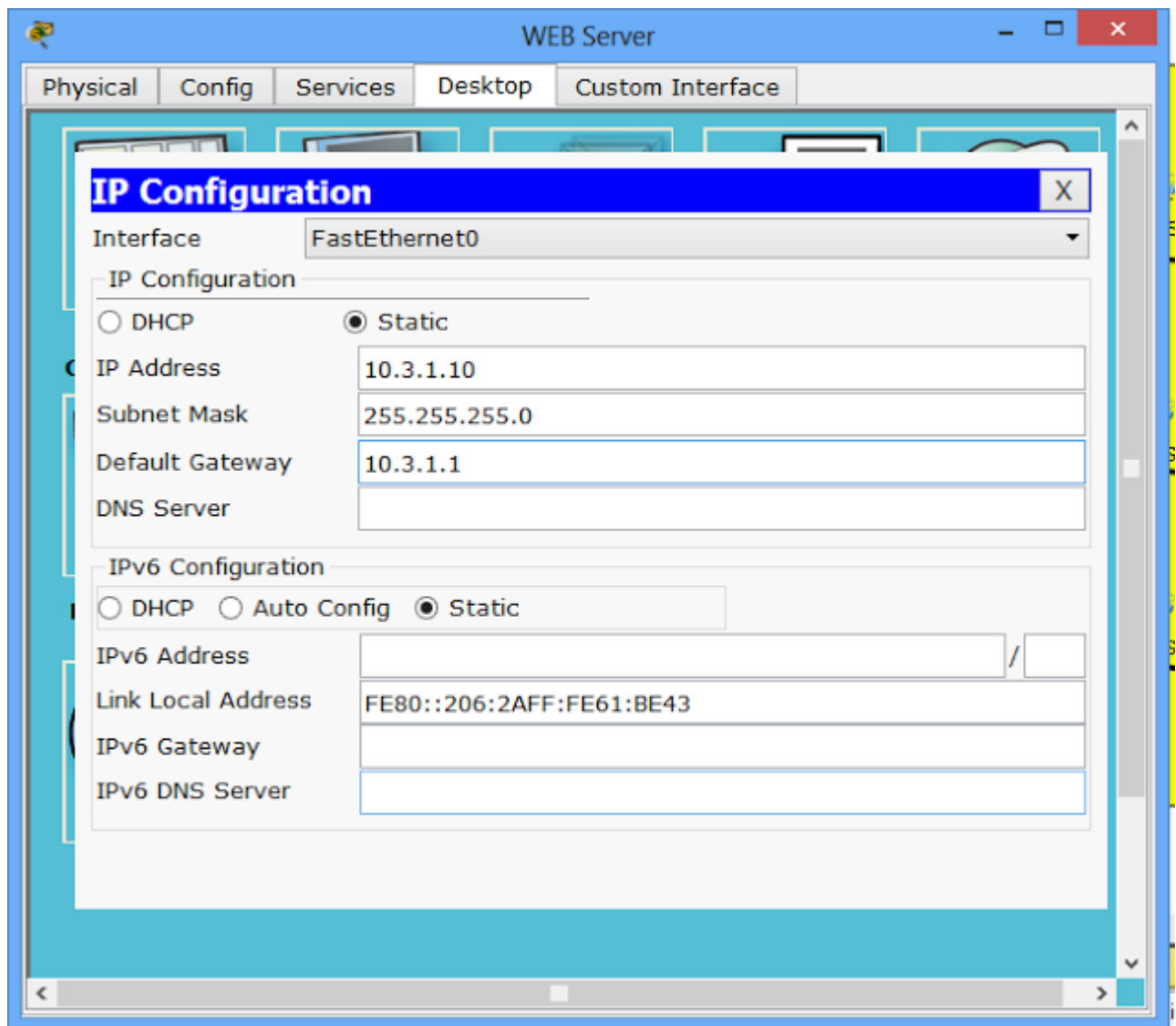
>>ini pada bagian FastEthernet0/1



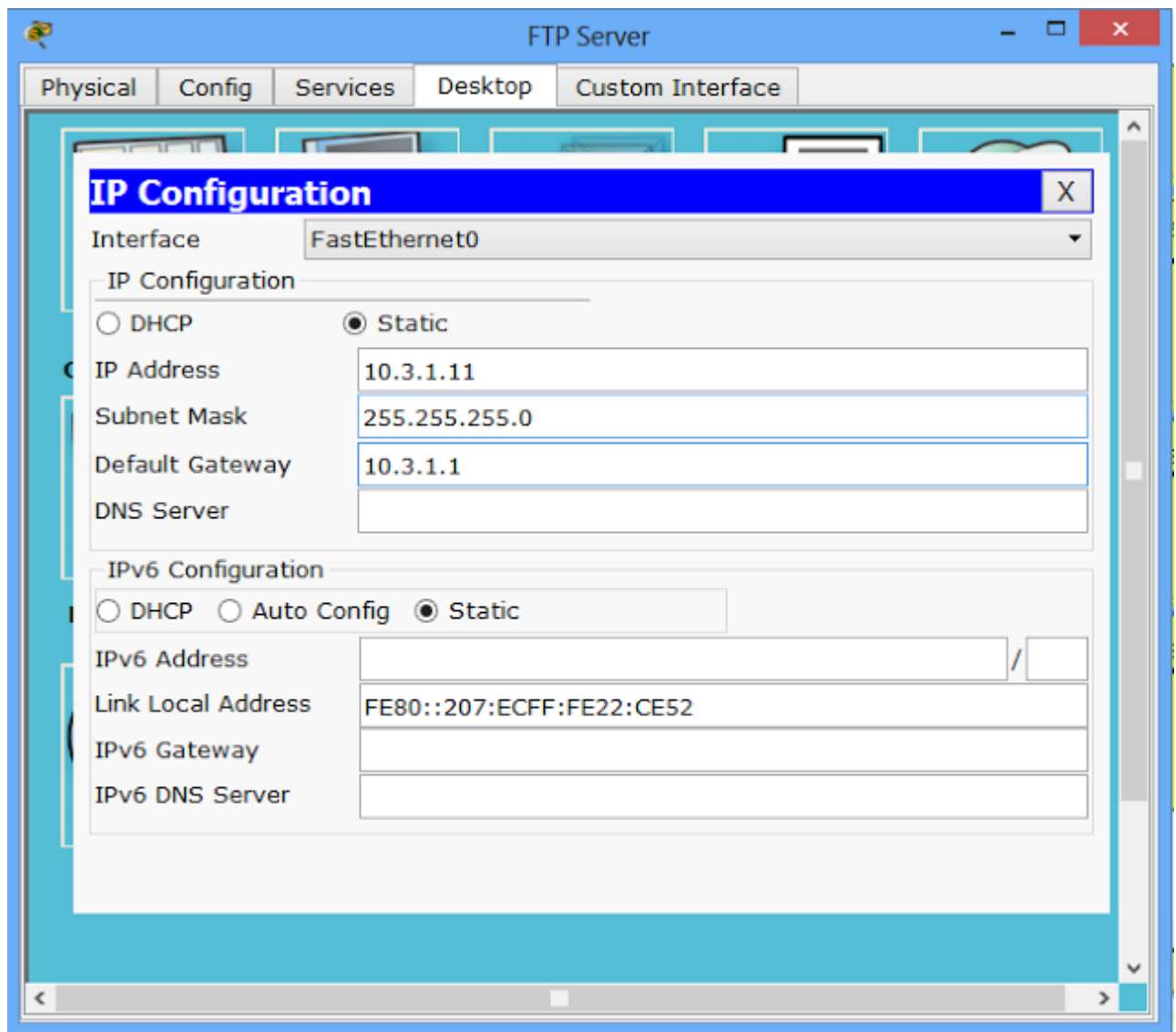
1. 9. Sekarang kita mengatur IP Configuration pada server internet dengan IP Address = 2.3.2.2 ,Subnet Mask = 255.0.0.0 ,dan gateway = 2.3.2.1



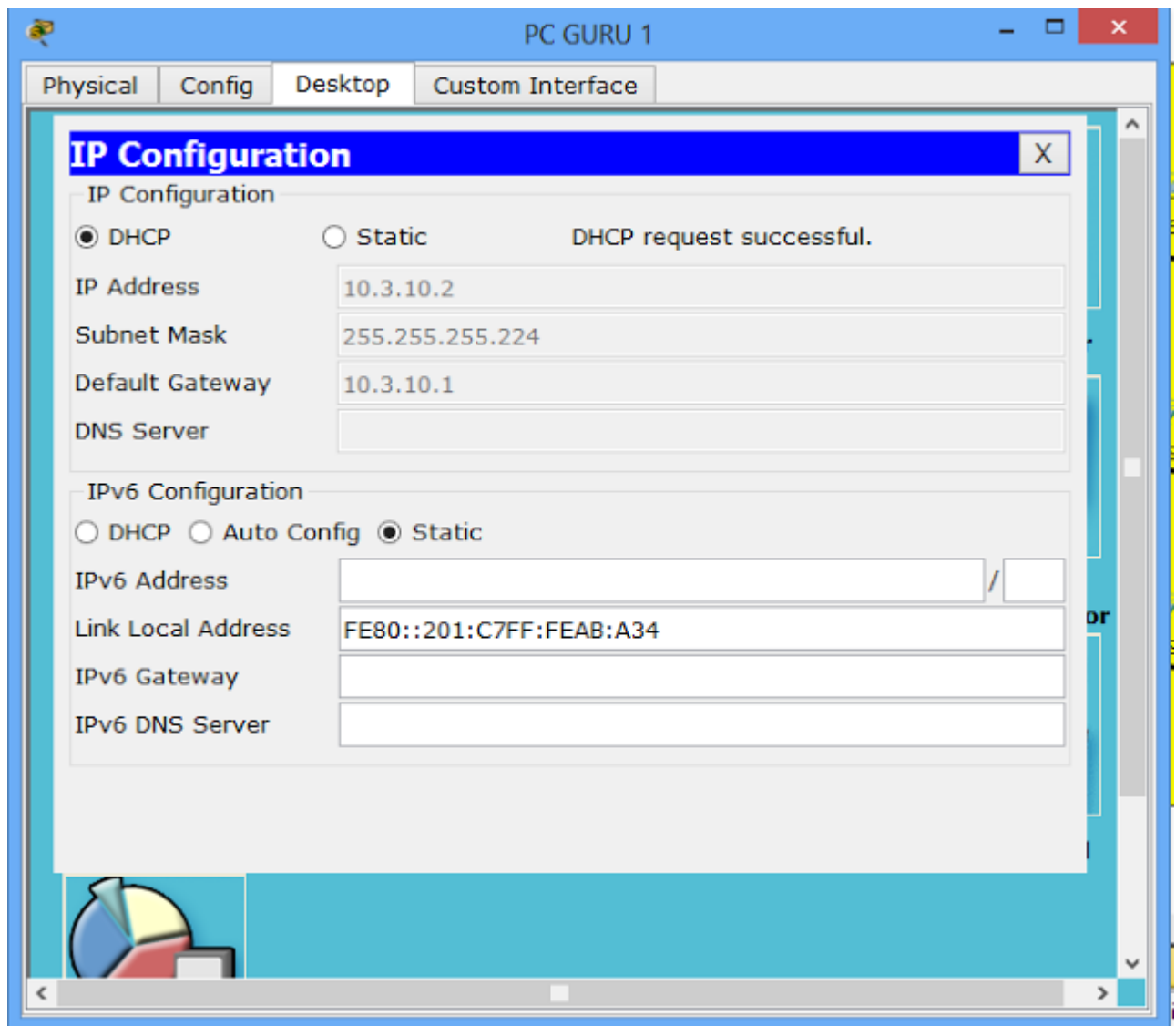
1. 10. Selanjutnya kita mengatur IP Configuration pada WEB Server dengan IP Address = 10.3.1.10 ,Subnet Mask = 255.255.255.0 ,dan gateway = 10.3.1.1



1. 11. Selanjutnya kita mengatur IP Configuration pada WEB Server dengan IP Address = 10.3.1.11 ,Subnet Mask = 255.255.255.0 ,dan gateway = 10.3.1.1



1. 12. Terakhir kita ke IP Configuration pada PC/client, terserah PC/client yang mana saja. Setelah itu kita klik pada mode DHCP untuk mendapat IP secara otomatis. Jika berhasil ditandai dengan **DHCP request successful**.



1. 13. Setelah semua client mendapatkan IP, kita harus mengecek dengan cara mengirimkan surat dari client ke client lain atau client ke server. Jika pengiriman sukses, akan seperti pada gambar di bawah yang ditandai dengan muncul kata "successful".