

Nomer 4 (Full Konfig)

IP STATIS & DHCP

R GEDUNG UTAMA

Interface + Router-on-a-Stick

```
enable  
conf t
```

```
interface g0/0
```

```
no ip address
```

```
no shutdown
```

```
interface g0/0.10
```

```
encapsulation dot1Q 10
```

```
ip address 172.16.4.1 255.255.255.128
```

```
description SDM
```

```
interface g0/0.20
```

```
encapsulation dot1Q 20
```

```
ip address 172.16.2.1 255.255.254.0
```

```
description KURIKULUM
```

```
interface g0/0.30
```

```
encapsulation dot1Q 30
```

```
ip address 172.16.4.129 255.255.255.192
```

```
description SARPRAS
```

```
interface g0/0.40
```

```
encapsulation dot1Q 40
```

```
ip address 172.16.4.193 255.255.255.224
```

```
description PEMBINAAN
```

```
interface g0/0.50
```

```
encapsulation dot1Q 50
```

```
ip address 172.16.4.225 255.255.255.240
```

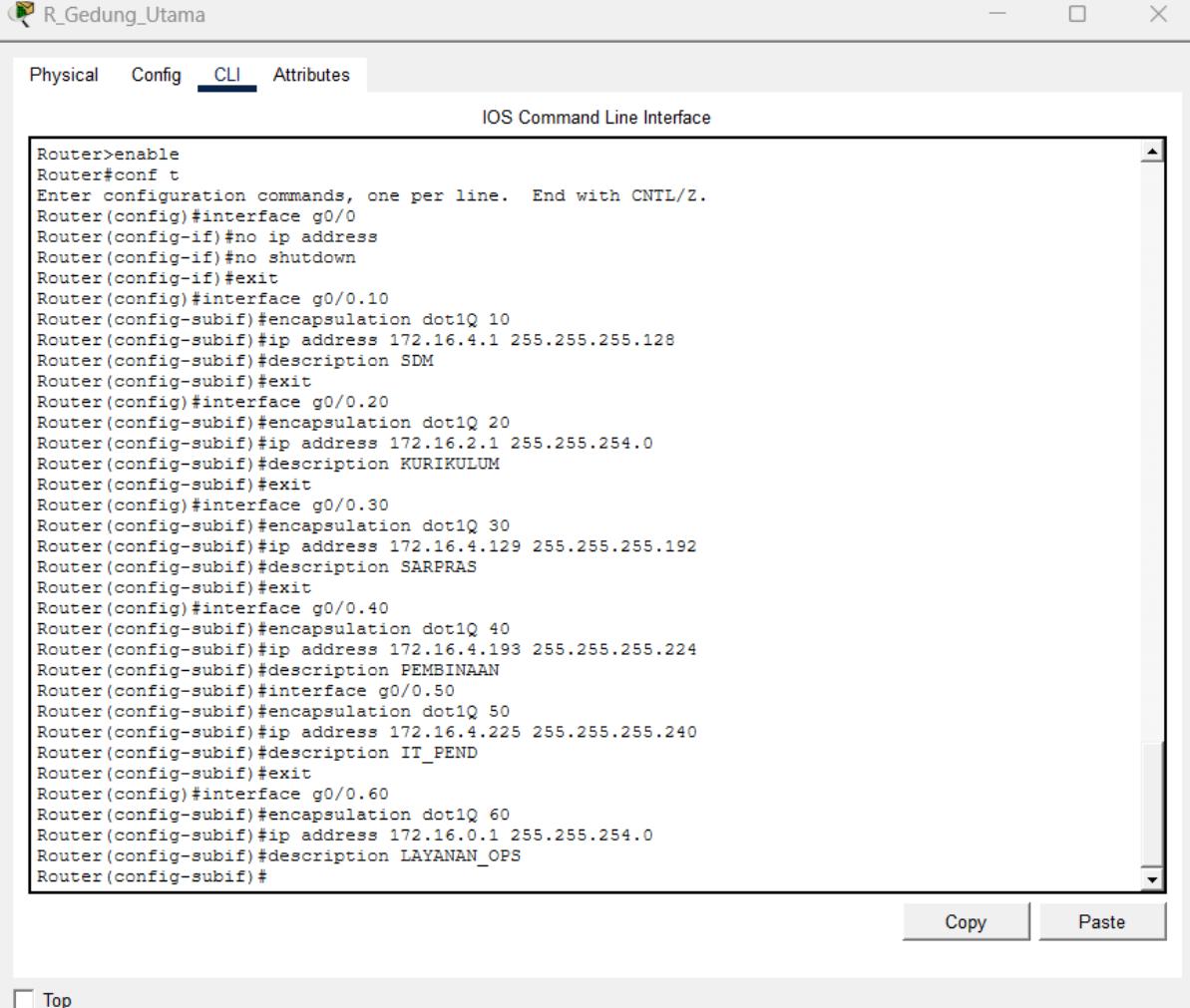
```
description IT_PEND
```

```
interface g0/0.60
```

```
encapsulation dot1Q 60
```

```
ip address 172.16.0.1 255.255.254.0
```

description LAYANAN_OPS



The screenshot shows a Cisco IOS CLI interface titled "R_Gedung_Utama". The "CLI" tab is selected. The command-line area displays the following configuration script:

```
Router>enable
Router>conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface g0/0
Router(config-if)#no ip address
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#interface g0/0.10
Router(config-subif)#encapsulation dot1Q 10
Router(config-subif)#ip address 172.16.4.1 255.255.255.128
Router(config-subif)#description SDM
Router(config-subif)#exit
Router(config)#interface g0/0.20
Router(config-subif)#encapsulation dot1Q 20
Router(config-subif)#ip address 172.16.2.1 255.255.254.0
Router(config-subif)#description KURIKULUM
Router(config-subif)#exit
Router(config)#interface g0/0.30
Router(config-subif)#encapsulation dot1Q 30
Router(config-subif)#ip address 172.16.4.129 255.255.255.192
Router(config-subif)#description SARPRAS
Router(config-subif)#exit
Router(config)#interface g0/0.40
Router(config-subif)#encapsulation dot1Q 40
Router(config-subif)#ip address 172.16.4.193 255.255.255.224
Router(config-subif)#description PEMBINAAN
Router(config-subif)#interface g0/0.50
Router(config-subif)#encapsulation dot1Q 50
Router(config-subif)#ip address 172.16.4.225 255.255.255.240
Router(config-subif)#description IT_PEND
Router(config-subif)#exit
Router(config)#interface g0/0.60
Router(config-subif)#encapsulation dot1Q 60
Router(config-subif)#ip address 172.16.0.1 255.255.254.0
Router(config-subif)#description LAYANAN_OPS
Router(config-subif)#
```

At the bottom right of the CLI window, there are "Copy" and "Paste" buttons. A "Top" button is located at the bottom left.

Link ke ARA Tech

```
interface s0/3/0
ip address 192.168.0.2 255.255.255.252
no shutdown
```

```
Router(config)#interface s0/3/0
Router(config-if)#ip address 192.168.0.2 255.255.255.252
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config) #
```

DHCP SERVER – GEDUNG UTAMA

```
ip dhcp excluded-address 172.16.4.1 172.16.4.10
ip dhcp excluded-address 172.16.2.1 172.16.2.10
ip dhcp excluded-address 172.16.4.129 172.16.4.138
ip dhcp excluded-address 172.16.4.193 172.16.4.200
ip dhcp excluded-address 172.16.4.225 172.16.4.228
ip dhcp excluded-address 172.16.0.1 172.16.0.10
```

```
ip dhcp pool SDM
network 172.16.4.0 255.255.255.128
default-router 172.16.4.1
```

```
ip dhcp pool KURIKULUM
network 172.16.2.0 255.255.254.0
default-router 172.16.2.1
```

```
ip dhcp pool SARPRAS
network 172.16.4.128 255.255.255.192
default-router 172.16.4.129
```

```
ip dhcp pool PEMBINAAN
network 172.16.4.192 255.255.255.224
default-router 172.16.4.193
```

```
ip dhcp pool IT_PEND
network 172.16.4.224 255.255.255.240
default-router 172.16.4.225
```

```
ip dhcp pool LAYANAN_OPS
network 172.16.0.0 255.255.254.0
default-router 172.16.0.1
```

R_Gedung_Utama

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Router(config)#ip dhcp excluded-address 172.16.4.1 172.16.4.10
Router(config)#ip dhcp excluded-address 172.16.2.1 172.16.2.10
Router(config)#ip dhcp excluded-address 172.16.4.129 172.16.4.138
Router(config)#ip dhcp excluded-address 172.16.4.193 172.16.4.200
Router(config)#ip dhcp excluded-address 172.16.4.225 172.16.4.228
Router(config)#ip dhcp excluded-address 172.16.0.1 172.16.0.10
Router(config)#ip dhcp pool SDM
Router(dhcp-config)#network 172.16.4.0 255.255.255.128
Router(dhcp-config)#default-router 172.16.4.1
Router(dhcp-config)#exit
Router(config)#ip dhcp pool KURIKULUM
Router(dhcp-config)#network 172.16.2.0 255.255.254.0
Router(dhcp-config)#default-router 172.16.2.1
Router(dhcp-config)#exit
^
% Invalid input detected at '^' marker.

Router(dhcp-config)#exit
Router(config)#ip dhcp pool SARPRAS
Router(dhcp-config)#network 172.16.4.128 255.255.255.192
Router(dhcp-config)#default-router 172.16.4.129
Router(dhcp-config)#exit
Router(config)#ip dhcp pool PEMBINAAN
Router(dhcp-config)#network 172.16.4.192 255.255.255.224
Router(dhcp-config)#default-router 172.16.4.193
Router(dhcp-config)#ip dhcp pool IT_PEND
Router(dhcp-config)#network 172.16.4.224 255.255.255.240
Router(dhcp-config)#default-router 172.16.4.225
Router(dhcp-config)#exit
Router(config)#ip dhcp pool LAYANAN_OPS
Router(dhcp-config)#network 172.16.0.0 255.255.254.0
Router(dhcp-config)#default-router 172.16.0.1
Router(dhcp-config)#exit
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#wr
Building configuration...
[OK]
Router#
```

Top

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R ARA TECH

Interface VLAN Lantai

```
interface g0/0
```

```
no ip address
```

```
no shutdown
```

```
interface g0/0.100
```

```
encapsulation dot1Q 100
```

```
ip address 10.0.0.1 255.255.255.128
```

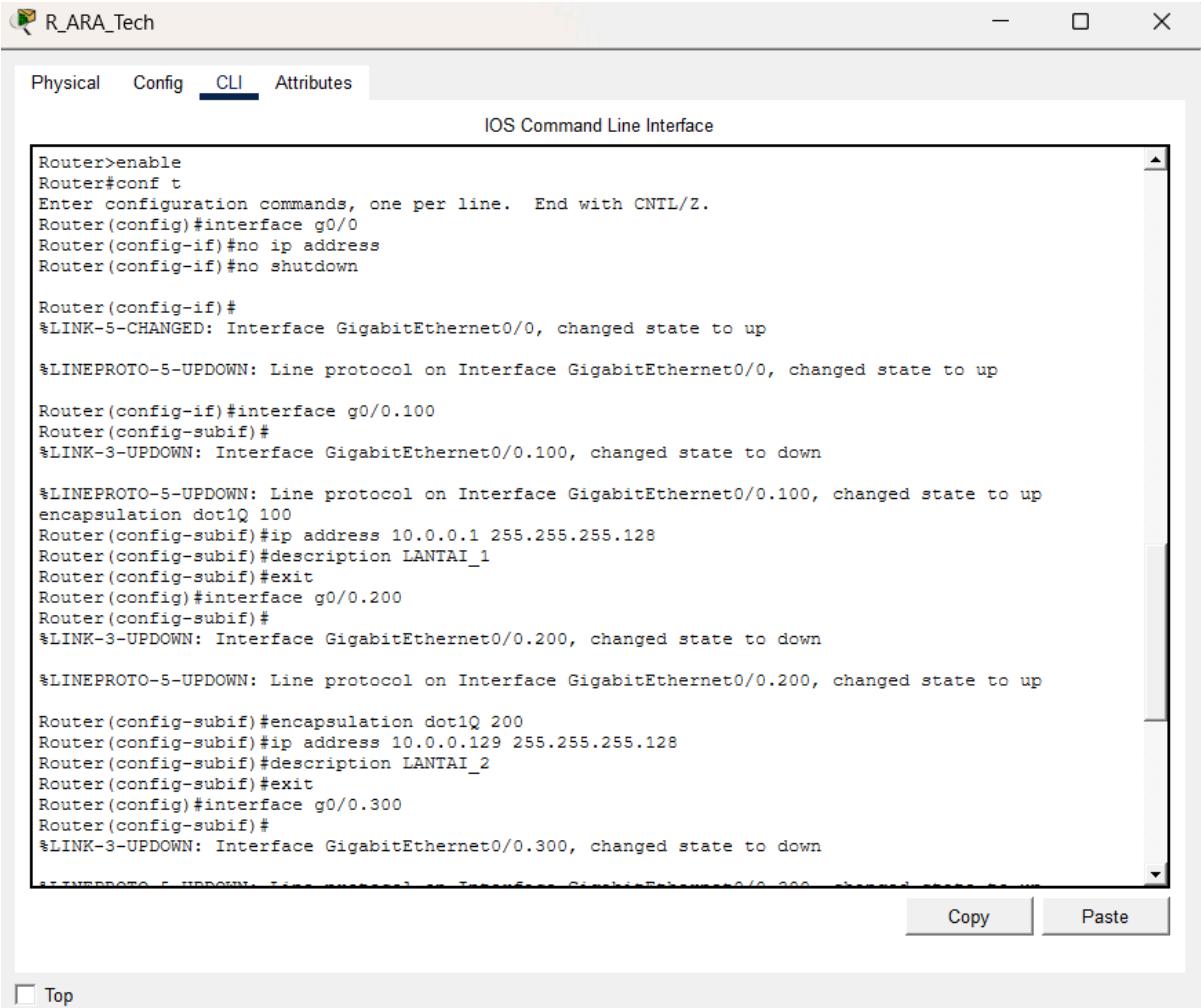
```
description LANTAI_1
```

```
interface g0/0.200
encapsulation dot1Q 200
ip address 10.0.0.129 255.255.255.128
description LANTAI_2
```

```
interface g0/0.300
encapsulation dot1Q 300
ip address 10.0.1.1 255.255.255.128
description LANTAI_3
```

```
interface g0/0.400
encapsulation dot1Q 400
ip address 10.0.1.129 255.255.255.128
description LANTAI_4
```

```
interface g0/0.500
encapsulation dot1Q 500
ip address 10.0.2.1 255.255.255.192
description LANTAI_5
```



```
Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface g0/0
Router(config-if)#no ip address
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

Router(config-if)#interface g0/0.100
Router(config-subif)#
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.100, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.100, changed state to up
encapsulation dot1Q 100
Router(config-subif)#ip address 10.0.0.1 255.255.255.128
Router(config-subif)#description LANTAI_1
Router(config-subif)#exit
Router(config)#interface g0/0.200
Router(config-subif)#
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.200, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.200, changed state to up

Router(config-subif)#encapsulation dot1Q 200
Router(config-subif)#ip address 10.0.0.129 255.255.255.128
Router(config-subif)#description LANTAI_2
Router(config-subif)#exit
Router(config)#interface g0/0.300
Router(config-subif)#
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.300, changed state to down
```

R_ARA_Tech

Physical Config **CLI** Attributes

IOS Command Line Interface

```
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.300, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.300, changed state to up
Router(config-subif)#encapsulation dot1Q 300
Router(config-subif)#ip address 10.0.1.1 255.255.255.128
Router(config-subif)#description LANTAI_3
Router(config-subif)#exit
Router(config)#interface g0/0.400
Router(config-subif)#
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.400, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.400, changed state to up
Router(config-subif)#encapsulation dot1Q 400
Router(config-subif)#ip address 10.0.1.129 255.255.255.128
Router(config-subif)#description LANTAI_4
Router(config-subif)#exit
Router(config)#interface g0/0.500
Router(config-subif)#
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.500, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.500, changed state to up
Router(config-subif)#encapsulation dot1Q 500
Router(config-subif)#ip address 10.0.2.1 255.255.255.192
Router(config-subif)#
Router(config-subif)#description LANTAI_5
Router(config-subif)#exit
Router(config)#
 Top
```

Copy Paste

Link Antar Gedung

```
interface s0/3/0
ip address 192.168.0.1 255.255.255.252
no shutdown
```

```
interface s0/3/1
ip address 192.168.1.1 255.255.255.252
no shutdown
```

```
Router(config)#interface s0/3/0
Router(config-if)#ip address 192.168.0.1 255.255.255.252
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial0/3/0, changed state to up

Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3/0, changed state to up
interface s0/3/1
Router(config-if)#ip address 192.168.1.1 255.255.255.252
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/3/1, changed state to down
Router(config-if)#exit
Router(config)#

 Top
```

DHCP SERVER – ARA TECH

```
ip dhcp excluded-address 10.0.0.1 10.0.0.10
ip dhcp excluded-address 10.0.0.129 10.0.0.138
ip dhcp excluded-address 10.0.1.1 10.0.1.10
ip dhcp excluded-address 10.0.1.129 10.0.1.138
ip dhcp excluded-address 10.0.2.1 10.0.2.10
```

```
ip dhcp pool LANTAI1
network 10.0.0.0 255.255.255.128
default-router 10.0.0.1
```

```
ip dhcp pool LANTAI2
network 10.0.0.128 255.255.255.128
default-router 10.0.0.129
```

```
ip dhcp pool LANTAI3
network 10.0.1.0 255.255.255.128
default-router 10.0.1.1
```

```
ip dhcp pool LANTAI4
network 10.0.1.128 255.255.255.128
default-router 10.0.1.129
```

```
ip dhcp pool LANTAI5
network 10.0.2.0 255.255.255.192
default-router 10.0.2.1
```

R_ARA_Tech

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Router#config t/exit
Router(config)#ip dhcp excluded-address 10.0.0.1 10.0.0.10
Router(config)#ip dhcp excluded-address 10.0.0.129 10.0.0.138
Router(config)#ip dhcp excluded-address 10.0.1.1 10.0.1.10
Router(config)#ip dhcp excluded-address 10.0.1.129 10.0.1.138
Router(config)#ip dhcp excluded-address 10.0.2.1 10.0.2.10
Router(config)#ip dhcp pool LANTAI1
Router(dhcp-config)#network 10.0.0.0 255.255.255.128
Router(dhcp-config)#default-router 10.0.0.1
Router(dhcp-config)#exit
Router(config)#ip dhcp pool LANTAI2
Router(dhcp-config)#network 10.0.0.128 255.255.255.128
Router(dhcp-config)#default-router 10.0.0.129
Router(dhcp-config)#exit
Router(config)#ip dhcp pool LANTAI3
Router(dhcp-config)#network 10.0.1.0 255.255.255.128
Router(dhcp-config)#default-router 10.0.1.1
Router(dhcp-config)#exit
Router(config)#ip dhcp pool LANTAI4
Router(dhcp-config)#network 10.0.1.128 255.255.255.128
Router(dhcp-config)#default-router 10.0.1.129
Router(dhcp-config)#exit
Router(config)#ip dhcp pool LANTAI5
Router(dhcp-config)#network 10.0.2.0 255.255.255.192
Router(dhcp-config)#default-router 10.0.2.1
Router(dhcp-config)#exit
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#wr
Building configuration...
[OK]
Router#
```

Top

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R KANTOR CABANG

```
interface g0/0
no ip address
no shutdown
```

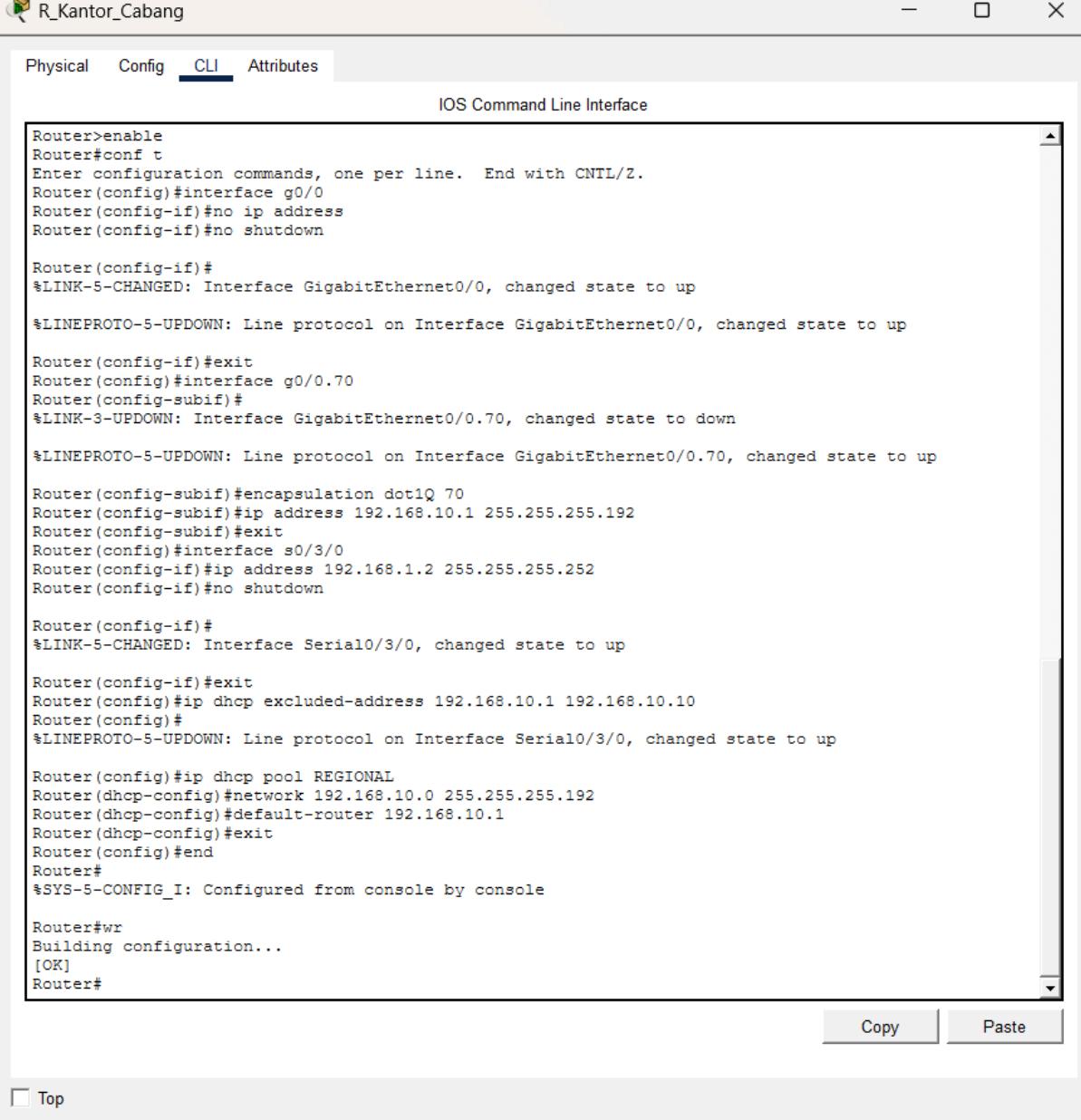
```
interface g0/0.70
encapsulation dot1Q 70
ip address 192.168.10.1 255.255.255.192
```

```
interface s0/3/0
ip address 192.168.1.2 255.255.255.252
no shutdown
```

```
ip dhcp excluded-address 192.168.10.1 192.168.10.10
```

```
ip dhcp pool REGIONAL
network 192.168.10.0 255.255.255.192
```

default-router 192.168.10.1



The screenshot shows a Cisco IOS Command Line Interface window titled "R_Kantor_Cabang". The tab bar at the top has "Physical", "Config", "CLI" (which is selected), and "Attributes". The main area is labeled "IOS Command Line Interface". The command history is as follows:

```
Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface g0/0
Router(config-if)#no ip address
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#interface g0/0.70
Router(config-subif)#
%LINK-3-UPDOWN: Interface GigabitEthernet0/0.70, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.70, changed state to up

Router(config-subif)#encapsulation dot1Q 70
Router(config-subif)#ip address 192.168.10.1 255.255.255.192
Router(config-subif)#exit
Router(config)#interface s0/3/0
Router(config-if)#ip address 192.168.1.2 255.255.255.252
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial0/3/0, changed state to up

Router(config-if)#exit
Router(config)#ip dhcp excluded-address 192.168.10.1 192.168.10.10
Router(config)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3/0, changed state to up

Router(config)#ip dhcp pool REGIONAL
Router(dhcp-config)#network 192.168.10.0 255.255.255.192
Router(dhcp-config)#default-router 192.168.10.1
Router(dhcp-config)#exit
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#wr
Building configuration...
[OK]
Router#
```

At the bottom right are "Copy" and "Paste" buttons. At the bottom left is a "Top" button.

SWITCH DISTRIBUSI UTAMA

```
enable
conf t

vlan 10
 name SDM
vlan 20
 name KURIKULUM
vlan 30
```

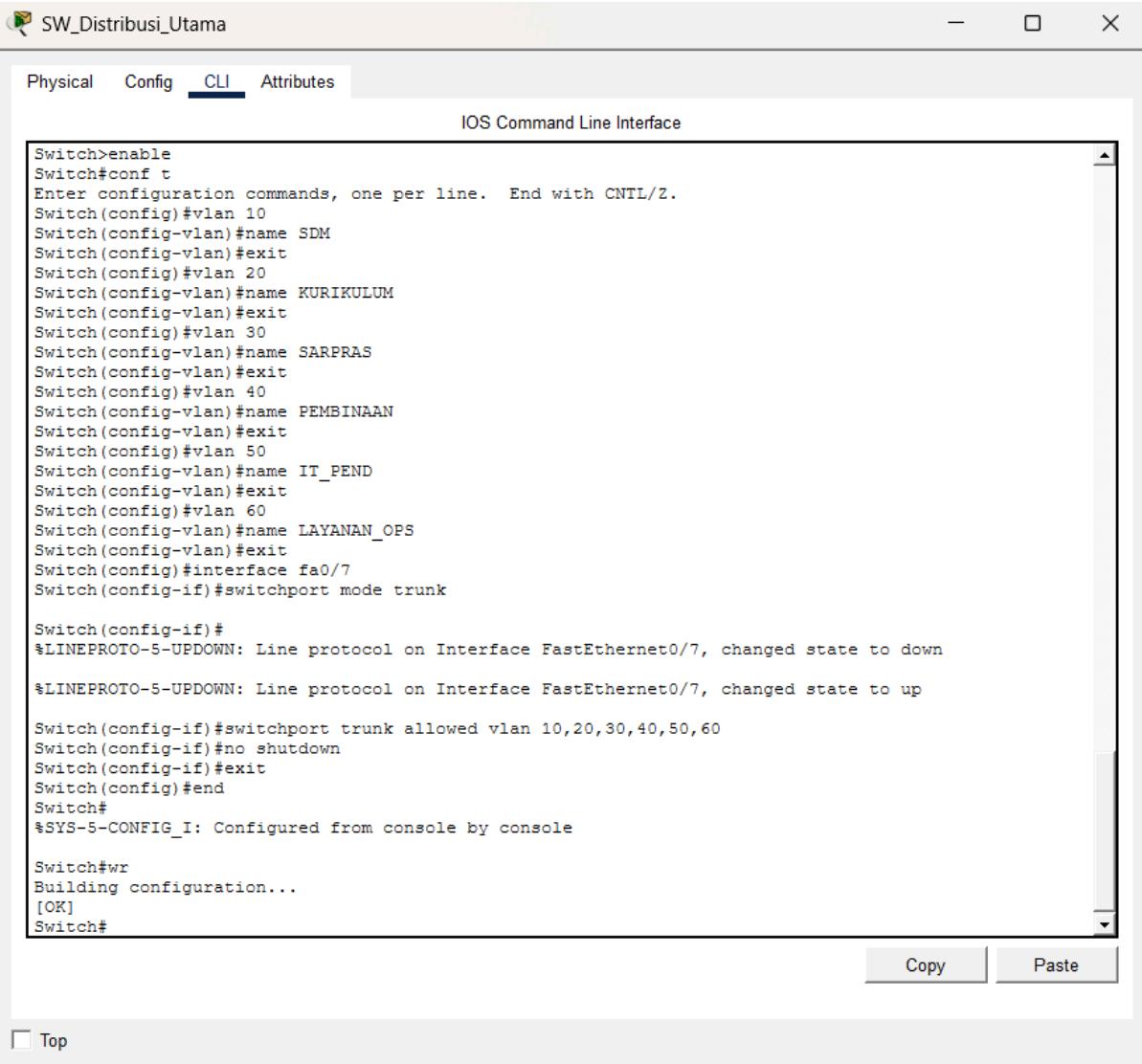
```

name SARPRAS
vlan 40
name PEMBINAAN
vlan 50
name IT_PEND
vlan 60
name LAYANAN_OPS

interface fa0/7
switchport mode trunk
switchport trunk allowed vlan 10,20,30,40,50,60
no shutdown

end
wr

```

A screenshot of a software interface titled "SW_Distribusi_Utama". The window has tabs for "Physical", "Config", "CLI", and "Attributes", with "CLI" being the active tab. The main area is labeled "IOS Command Line Interface" and contains the configuration commands shown above. At the bottom right of the CLI window are "Copy" and "Paste" buttons. Below the CLI window is a toolbar with a "Top" button.

```

Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name SDM
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name KURIKULUM
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name SARPRAS
Switch(config-vlan)#exit
Switch(config)#vlan 40
Switch(config-vlan)#name PEMBINAAN
Switch(config-vlan)#exit
Switch(config)#vlan 50
Switch(config-vlan)#name IT_PEND
Switch(config-vlan)#exit
Switch(config)#vlan 60
Switch(config-vlan)#name LAYANAN_OPS
Switch(config-vlan)#exit
Switch(config)#interface fa0/7
Switch(config-if)#switchport mode trunk

Switch(config-if)#
*LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed state to down
*LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed state to up

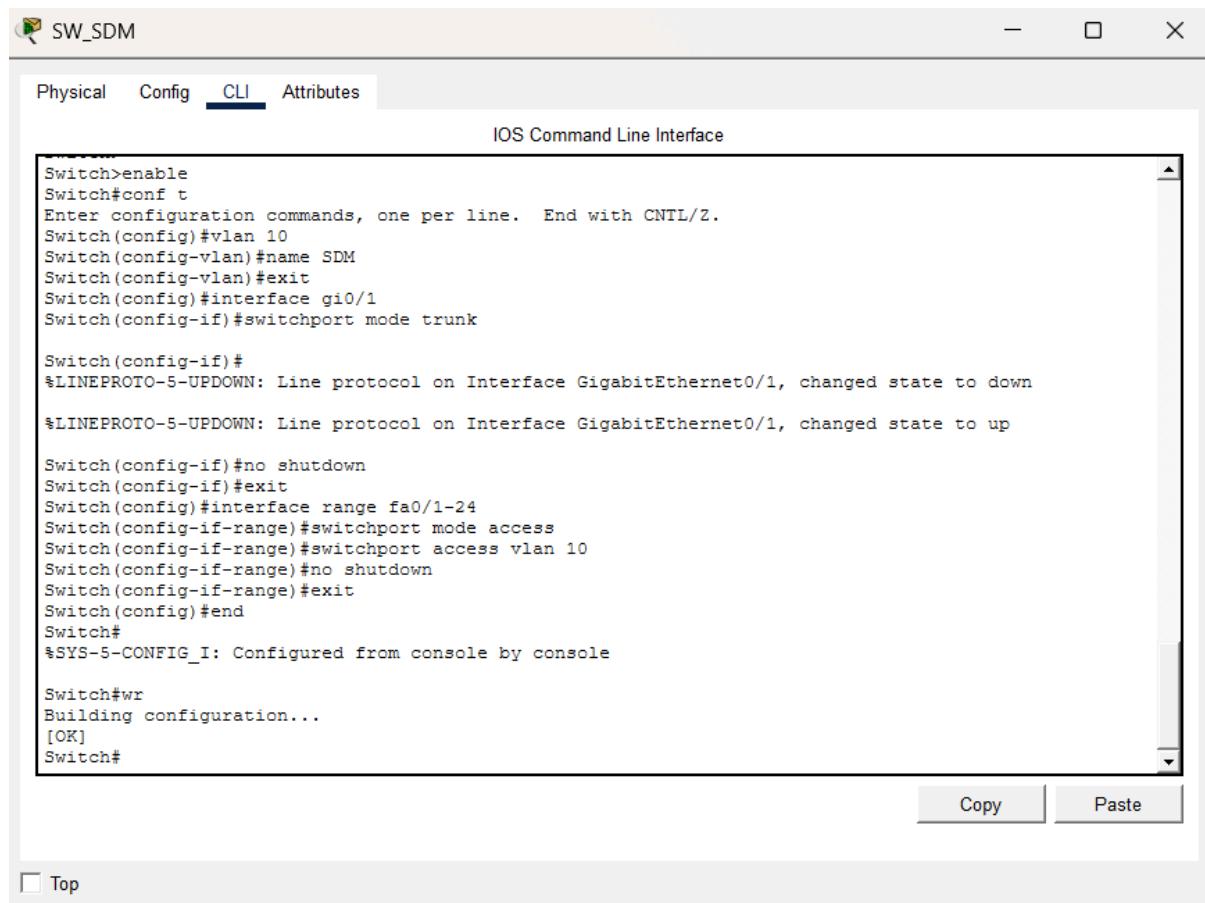
Switch(config-if)#switchport trunk allowed vlan 10,20,30,40,50,60
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#end
Switch#
*SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#

```

SWITCH SDM

```
conf t  
  
vlan 10  
name SDM  
  
interface gi0/1  
switchport mode trunk  
no shutdown  
  
interface range fa0/1-24  
switchport mode access  
switchport access vlan 10  
no shutdown  
  
end  
wr
```



```
Switch>enable
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name SDM
Switch(config-vlan)#exit
Switch(config)#interface gi0/1
Switch(config-if)#switchport mode trunk

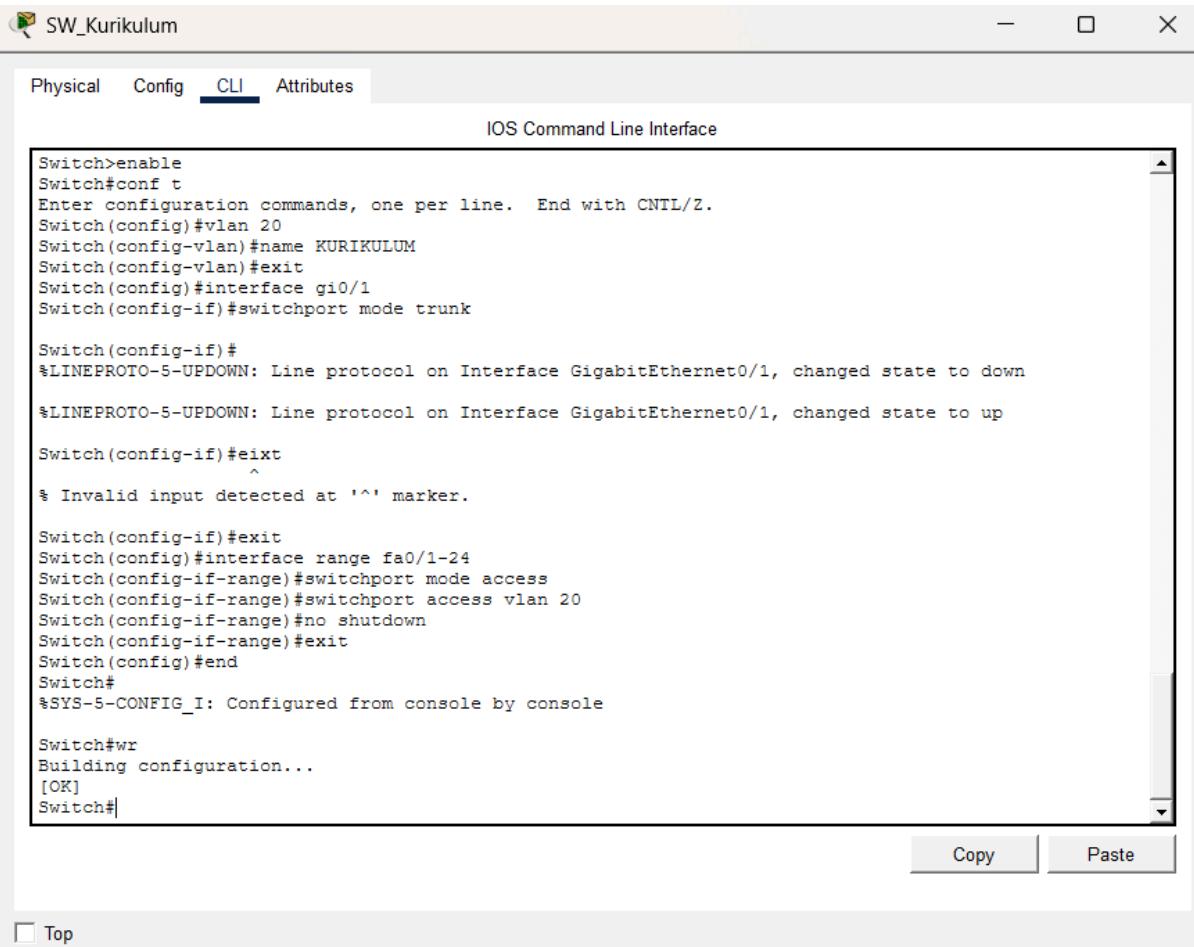
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#interface range fa0/1-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 10
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#
```

SWITCH KURIKULUM

```
conf t  
  
vlan 20  
name KURIKULUM  
  
interface gi0/1  
switchport mode trunk  
  
interface range fa0/1-24  
switchport mode access  
switchport access vlan 20  
no shutdown  
  
end  
wr
```



The screenshot shows a window titled "SW_Kurikulum" with tabs for "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is selected, displaying the IOS Command Line Interface. The terminal window contains the following configuration commands:

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 20
Switch(config-vlan)#name KURIKULUM
Switch(config-vlan)#exit
Switch(config)#interface gi0/1
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
Switch(config-if)#exit
^
% Invalid input detected at '^' marker.

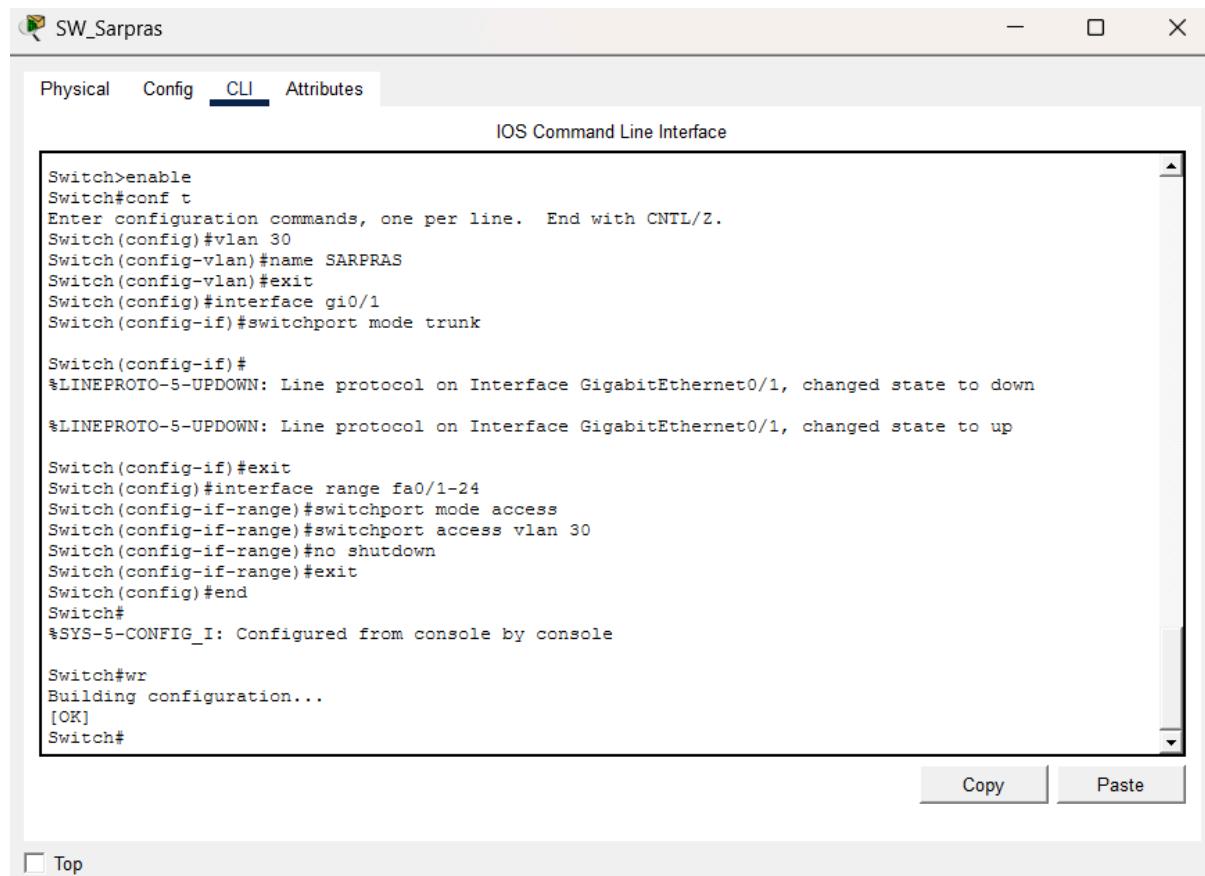
Switch(config-if)#exit
Switch(config)#interface range fa0/1-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#
```

At the bottom right of the terminal window are "Copy" and "Paste" buttons. At the bottom left is a "Top" button.

SWITCH SARPRAS

```
conf t  
  
vlan 30  
name SARPRAS  
  
interface gi0/1  
switchport mode trunk  
  
interface range fa0/1-24  
switchport mode access  
switchport access vlan 30  
no shutdown  
  
end  
wr
```



The screenshot shows a Cisco IOS CLI window titled "SW_Sarpras". The window has tabs for "Physical", "Config", "CLI" (which is selected), and "Attributes". The main area is labeled "IOS Command Line Interface". The command history is as follows:

```
Switch>enable  
Switch#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Switch(config)#vlan 30  
Switch(config-vlan)#name SARPRAS  
Switch(config-vlan)#exit  
Switch(config)#interface gi0/1  
Switch(config-if)#switchport mode trunk  
  
Switch(config-if)#  
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down  
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up  
  
Switch(config-if)#exit  
Switch(config)#interface range fa0/1-24  
Switch(config-if-range)#switchport mode access  
Switch(config-if-range)#switchport access vlan 30  
Switch(config-if-range)#no shutdown  
Switch(config-if-range)#exit  
Switch(config)#end  
Switch#  
%SYS-5-CONFIG_I: Configured from console by console  
  
Switch#wr  
Building configuration...  
[OK]  
Switch#
```

At the bottom right of the CLI window are "Copy" and "Paste" buttons. At the bottom left is a "Top" button.

SWITCH PEMBINAAN

```

conf t

vlan 40
  name PEMBINAAN

interface gi0/1
  switchport mode trunk

interface range fa0/1-24
  switchport mode access
  switchport access vlan 40
  no shutdown

end
wr

```

The screenshot shows a Cisco IOS CLI interface titled "SW_Pembinaan". The window has tabs for "Physical", "Config", "CLI" (which is selected), and "Attributes". The main area displays the following configuration commands:

```

Switch>
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 40
Switch(config-vlan)#name PEMBINAAN
Switch(config-vlan)#exit
Switch(config)#interface gi0/1
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

Switch(config-if)#interface range fa0/1-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 40
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#

```

At the bottom right of the CLI window are "Copy" and "Paste" buttons. At the bottom left is a "Top" button.

SWITCH IT_PEND

conf t

```

vlan 50
name IT_PEND

interface gi0/1
switchport mode trunk

interface range fa0/1-24
switchport mode access
switchport access vlan 50
no shutdown

end
wr

```

SW_IT_Pendidikan

Physical Config **CLI** Attributes

IOS Command Line Interface

```

Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 50
Switch(config-vlan)#name IT_PEND
Switch(config-vlan)#exit
Switch(config)#interface gi0/1
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

Switch(config-if)#exit
Switch(config)#
Switch(config)#interface range fa0/1-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 50
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#

```

Top

SWITCH LAYANAN OPS

conf t

```

vlan 60
name LAYANAN_OPS

interface gi0/1
switchport mode trunk

interface range fa0/1-24
switchport mode access
switchport access vlan 60
no shutdown

end
wr

```

SW_Layanan_Ops

Physical Config **CLI** Attributes

IOS Command Line Interface

```

Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 60
Switch(config-vlan)#name LAYANAN_OPS
Switch(config-vlan)#exit
Switch(config)#interface gi0/1
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

Switch(config-if)#exit
Switch(config)#interface range fa0/1-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 60
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#

```

Top

Copy Paste

SWITCH CORE ARA TECH

```

enable
conf t

vlan 100
name LANTAI_1

```

```

vlan 200
name LANTAI_2
vlan 300
name LANTAI_3
vlan 400
name LANTAI_4
vlan 500
name LANTAI_5

interface fa0/6
switchport mode trunk
switchport trunk allowed vlan 100,200,300,400,500
no shutdown

end
wr

```

SW_Core_Tech

Physical Config **CLI** Attributes

IOS Command Line Interface

```

Switch>enable
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan 100
Switch(config-vlan)#name LANTAI_1
Switch(config-vlan)#exit
Switch(config)#vlan 200
Switch(config-vlan)#name LANTAI_2
Switch(config-vlan)#exit
Switch(config)#vlan 300
Switch(config-vlan)#name LANTAI_3
Switch(config-vlan)#exit
Switch(config)#vlan 400
Switch(config-vlan)#name LANTAI_4
Switch(config-vlan)#exit
Switch(config)#vlan 500
Switch(config-vlan)#name LANTAI_5
Switch(config-vlan)#exit
Switch(config)#interface fa0/6
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up

Switch(config-if)#switchport trunk allowed vlan 100,200,300,400,500
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#

```

Top

Copy **Paste**

SWITCH LANTAI 1

```
conf t
vlan 100
name LANTAI_1

interface fa0/4
switchport mode trunk
switchport trunk allowed vlan 100
no shutdown
interface range fa0/1-3
switchport mode access
switchport access vlan 100
no shutdown
interface range fa0/5-24
switchport mode access
switchport access vlan 100
no shutdown
end
wr
```

The screenshot shows a software window titled "SW_Lantai_1" with tabs for "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is selected, displaying the IOS Command Line Interface. The terminal window shows the configuration commands entered, including enabling global configuration mode, creating VLAN 100, naming it "LANTAI_1", and configuring various interfaces (fa0/4, fa0/1-3, fa0/5-24) with specific port modes and access VLANs. It also shows the "wr" command being issued to save the configuration. At the bottom of the terminal window, there are "Copy" and "Paste" buttons.

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan 100
Switch(config-vlan)#name LANTAI_1
Switch(config-vlan)#exit
Switch(config)#interface fa0/4
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up

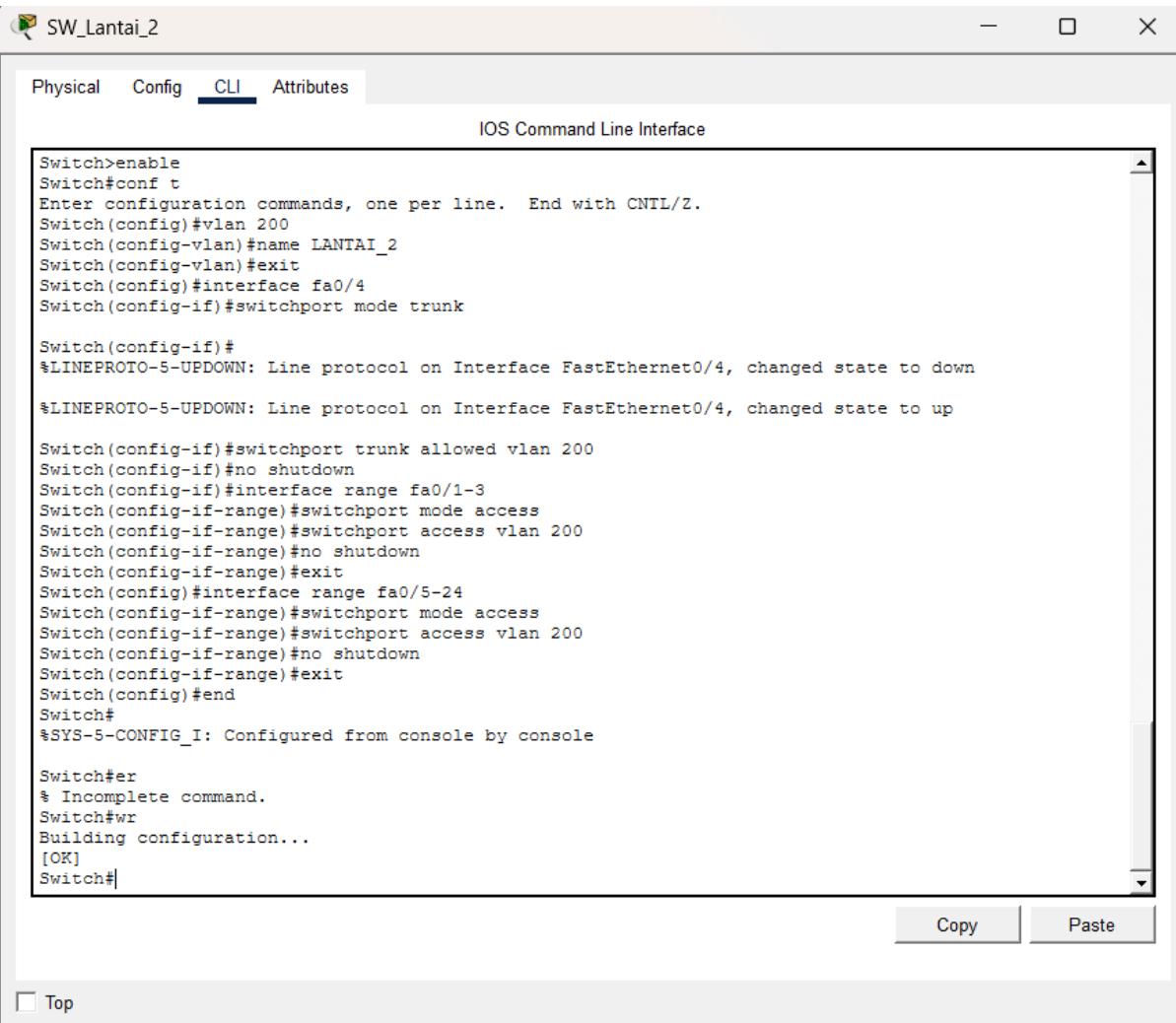
Switch(config-if)#switchport trunk allowed vlan 100
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#interface range fa0/1-3
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 100
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#interface range fa0/5-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 100
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#
```

SWITCH LANTAI 2

```
conf t
vlan 200
name LANTAI_2

interface fa0/4
switchport mode trunk
switchport trunk allowed vlan 200
no shutdown
interface range fa0/1-3
switchport mode access
switchport access vlan 200
no shutdown
interface range fa0/5-24
switchport mode access
switchport access vlan 200
no shutdown
end
wr
```



The screenshot shows a software interface for managing network switches. The window title is "SW_Lantai_2". Below the title bar are tabs: "Physical", "Config", "CLI" (which is highlighted), and "Attributes". The main area is titled "IOS Command Line Interface". It contains the following configuration commands:

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 200
Switch(config-vlan)#name LANTAI_2
Switch(config-vlan)#exit
Switch(config)#interface fa0/4
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up

Switch(config-if)#switchport trunk allowed vlan 200
Switch(config-if)#no shutdown
Switch(config-if)#interface range fa0/1-3
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 200
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#interface range fa0/5-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 200
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

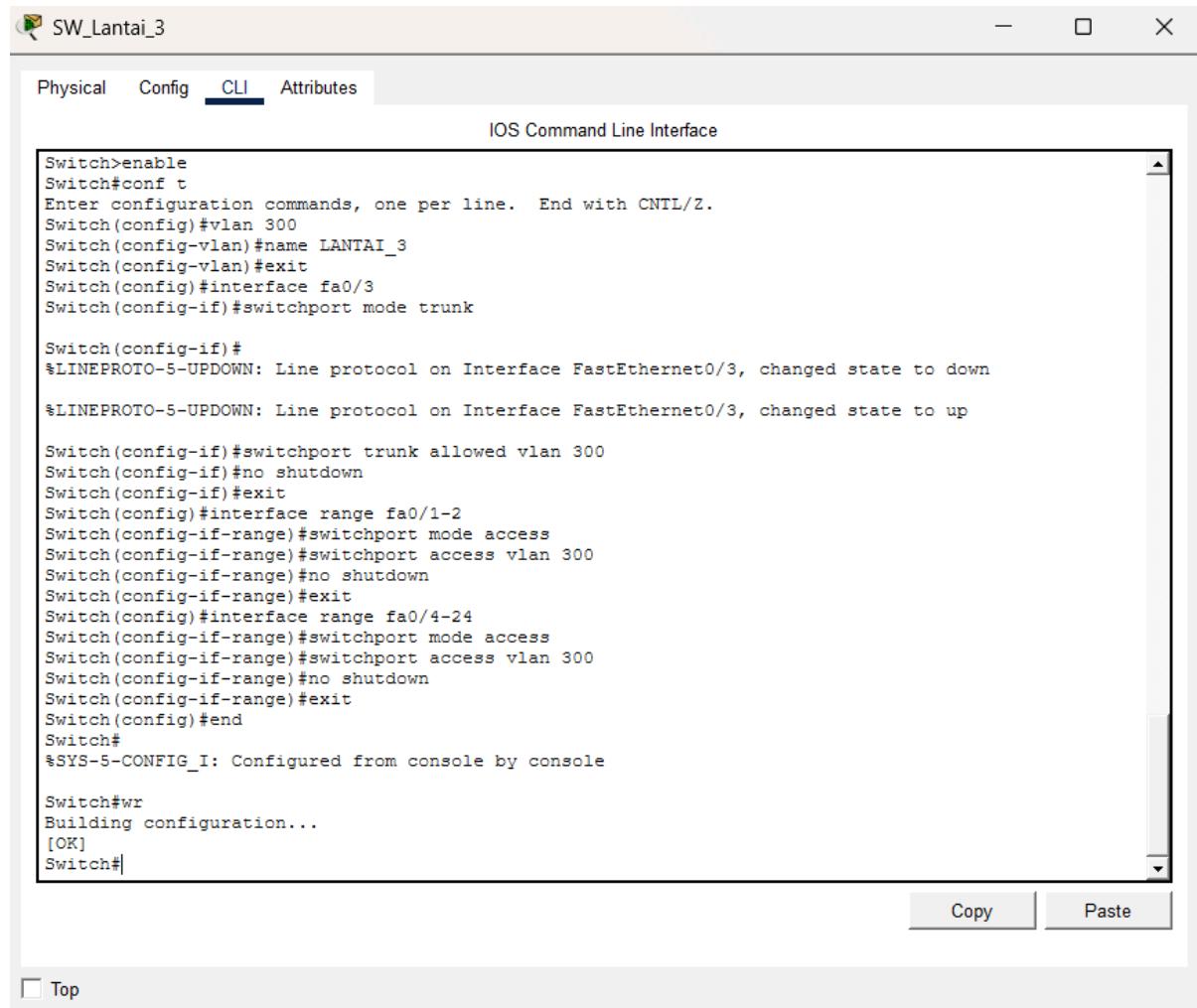
Switch#er
% Incomplete command.
Switch#wr
Building configuration...
[OK]
Switch#
```

At the bottom right of the CLI window are "Copy" and "Paste" buttons. At the bottom left is a "Top" button.

SWITCH LANTAI 3

```
conf t
vlan 300
name LANTAI_3

interface fa0/3
switchport mode trunk
switchport trunk allowed vlan 300
no shutdown
interface range fa0/1-2
switchport mode access
switchport access vlan 300
no shutdown
interface range fa0/4-24
switchport mode access
switchport access vlan 300
no shutdown
end
wr
```



The screenshot shows a Windows application window titled "SW_Lantai_3". The tab bar at the top has "Physical", "Config", "CLI" (which is selected), and "Attributes". Below the tabs is a title bar "IOS Command Line Interface". The main area contains the CLI session output:

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 300
Switch(config-vlan)#name LANTAI_3
Switch(config-vlan)#exit
Switch(config)#interface fa0/3
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up

Switch(config-if)#switchport trunk allowed vlan 300
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#interface range fa0/1-2
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 300
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#interface range fa0/4-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 300
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#
```

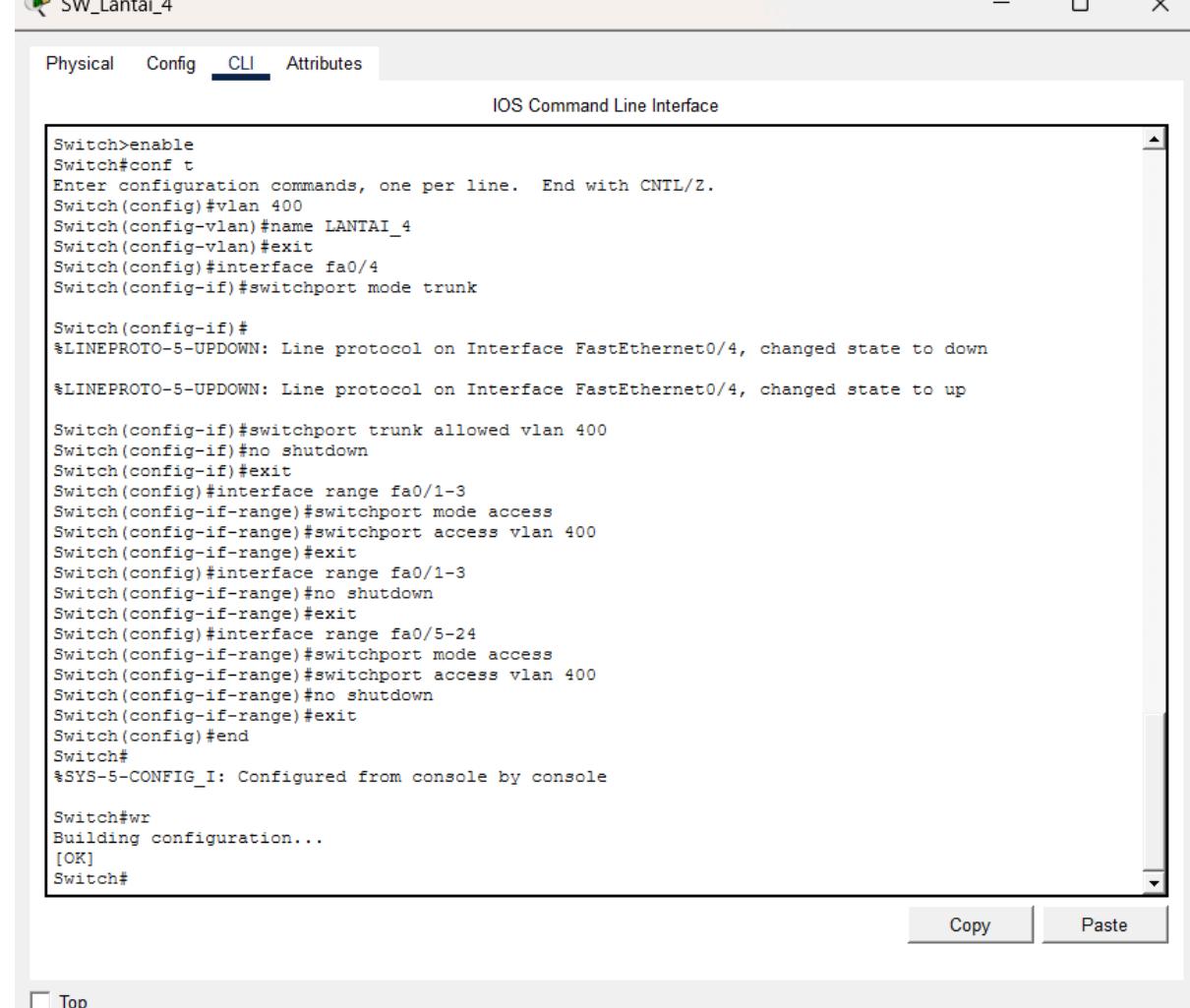
At the bottom right of the window are "Copy" and "Paste" buttons. At the bottom left is a "Top" button.

SWITCH LANTAI 4

```
conf t
vlan 400
name LANTAI_4

interface fa0/4
switchport mode trunk
switchport trunk allowed vlan 400
no shutdown
interface range fa0/1-3
switchport mode access
switchport access vlan 400
no shutdown
interface range fa0/5-24
switchport mode access
switchport access vlan 400
no shutdown
end
```

wr



The screenshot shows a Cisco IOS CLI interface titled "SW_Lantai_4". The window has tabs for "Physical", "Config", "CLI" (which is selected), and "Attributes". The main area displays the following configuration commands:

```
Switch#enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 400
Switch(config-vlan)#name LANTAI_4
Switch(config-vlan)#exit
Switch(config)#interface fa0/4
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up

Switch(config-if)#switchport trunk allowed vlan 400
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#interface range fa0/1-3
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 400
Switch(config-if-range)#exit
Switch(config)#interface range fa0/1-3
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#interface range fa0/5-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 400
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

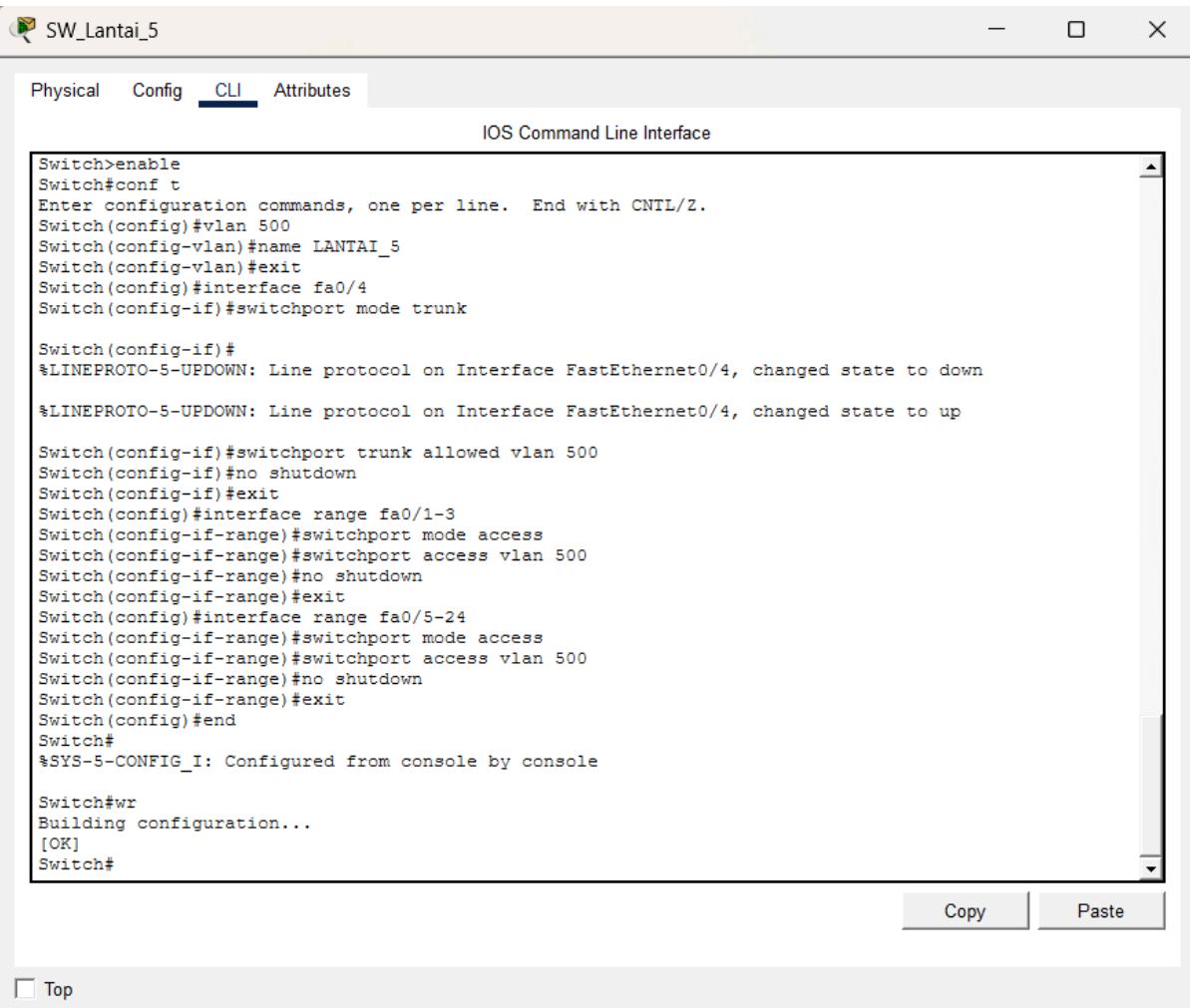
Switch#wr
Building configuration...
[OK]
Switch#
```

At the bottom right of the window are "Copy" and "Paste" buttons. At the bottom left is a "Top" button.

SWITCH LANTAI 5

```
conf t
vlan 500
name LANTAI_5

interface fa0/4
switchport mode trunk
switchport trunk allowed vlan 500
no shutdown
interface range fa0/1-3
switchport mode access
switchport access vlan 500
no shutdown
interface range fa0/5-24
switchport mode access
switchport access vlan 500
no shutdown
end
wr
```



The screenshot shows a software interface for managing network switches. The window title is "SW_Lantai_5". Below the title bar are tabs: "Physical", "Config", "CLI" (which is highlighted), and "Attributes". The main area is titled "IOS Command Line Interface". It contains the configuration commands you provided:

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 500
Switch(config-vlan)#name LANTAI_5
Switch(config-vlan)#exit
Switch(config)#interface fa0/4
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up

Switch(config-if)#switchport trunk allowed vlan 500
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#interface range fa0/1-3
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 500
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#interface range fa0/5-24
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 500
Switch(config-if-range)#no shutdown
Switch(config-if-range)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#
```

At the bottom right of the CLI window are "Copy" and "Paste" buttons. At the very bottom left is a "Top" button.

SWITCH KANTOR CABANG

```
enable
conf t
vlan 70
name REGIONAL

interface fa0/2
switchport mode trunk
switchport trunk allowed vlan 70
no shutdown

interface fa0/1
switchport mode access
switchport access vlan 70
no shutdown

end
wr
```

The screenshot shows a window titled "SW_Cabang" with a tab bar containing "Physical", "Config", "CLI" (which is selected), and "Attributes". The main area is titled "IOS Command Line Interface". It displays the following configuration commands:

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 70
Switch(config-vlan)#name REGIONAL
Switch(config-vlan)#exit
Switch(config)#interface fa0/2
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up

Switch(config-if)#switchport trunk allowed vlan 70
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#interface fa0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 70
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#
Switch(config)#wr
^
% Invalid input detected at '^' marker.

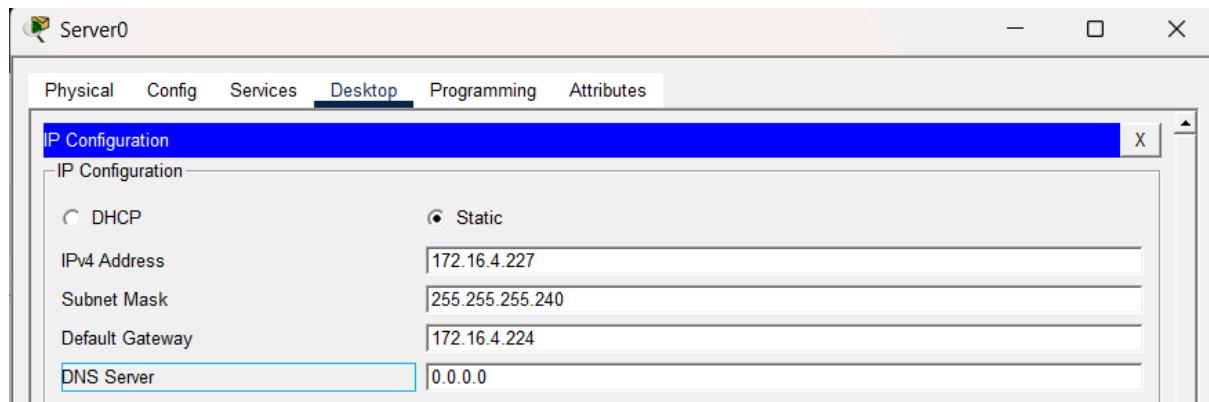
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr
Building configuration...
[OK]
Switch#
```

At the bottom right of the window are "Copy" and "Paste" buttons. At the bottom left is a "Top" button.

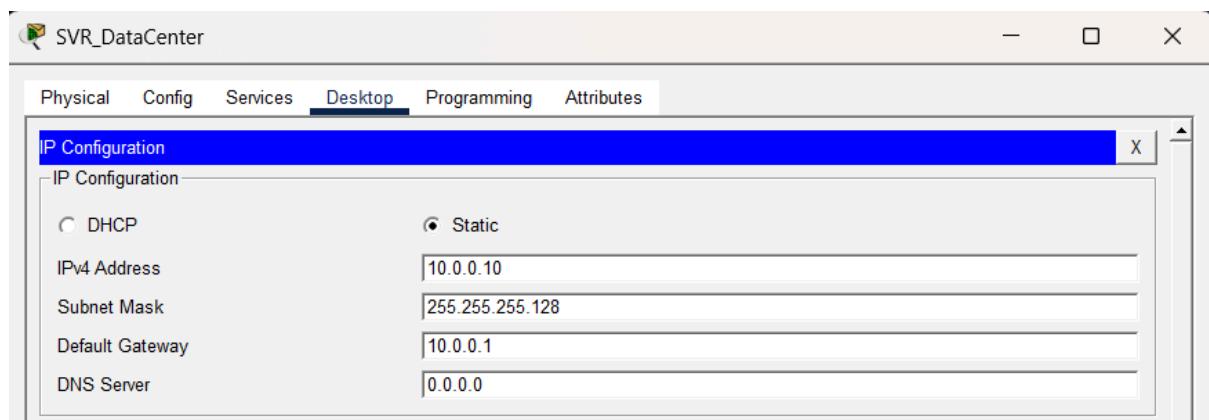
SERVER0 IT_PEND

172.16.4.227
255.255.255.240
172.16.4.224



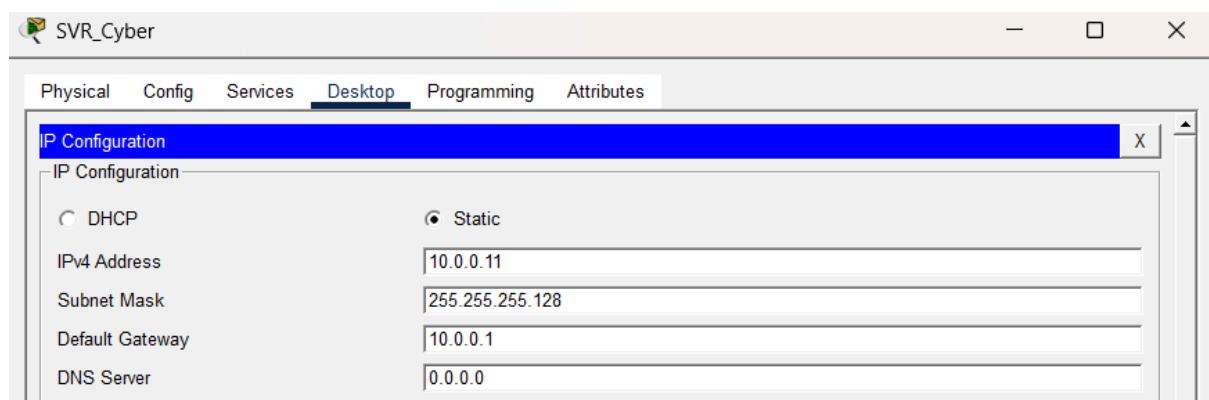
SERVER DATCEN

10.0.0.10
255.255.255.128
10.0.0.1



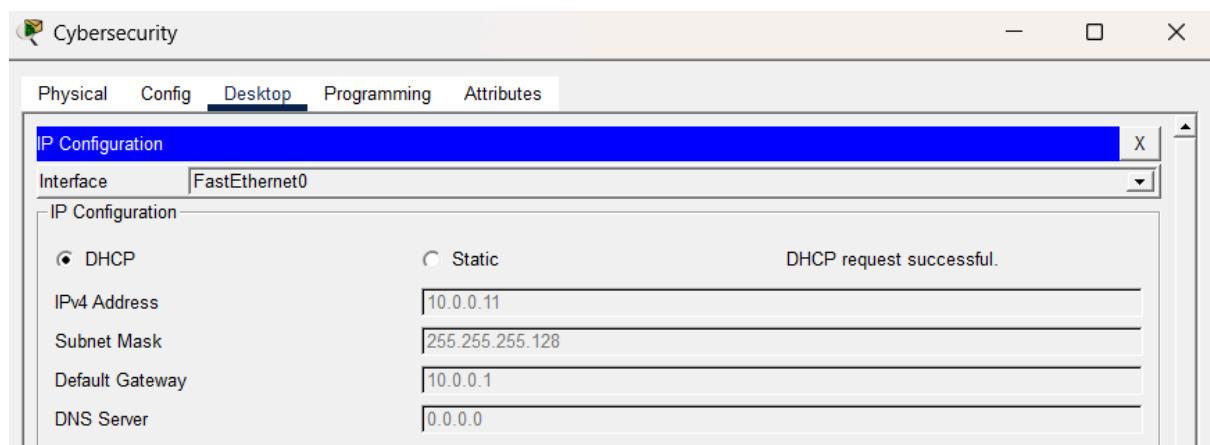
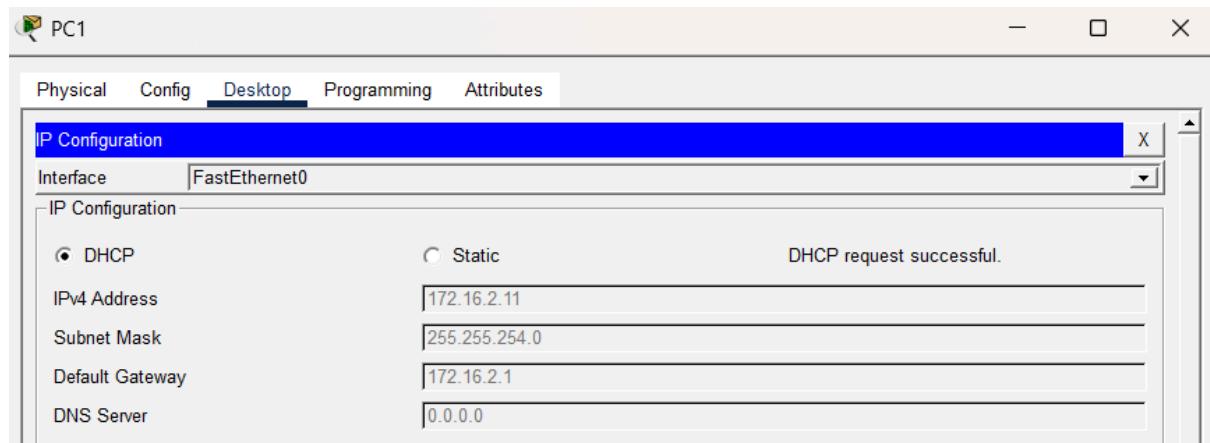
SERVER CYBER

10.0.0.11
255.255.255.128
10.0.0.1



ALL PC

ke desktop > ganti ip dari statuc ke dhcp, contoh berhasil:



Contoh ping

Gedung Utama

PC0 SDM > Router (Default Gateway)

```
C:\>ipconfig

FastEthernet0 Connection: (default port)

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: FE80::207:ECFF:FE82:73B0
IPv6 Address.....: ::
IPv4 Address.....: 172.16.4.11
Subnet Mask.....: 255.255.255.128
Default Gateway.....: ::
                           172.16.4.1

Bluetooth Connection:

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: ::
IPv6 Address.....: ::
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: ::
                           0.0.0.0
```

```
C:\>ping 172.16.4.1

Pinging 172.16.4.1 with 32 bytes of data:

Reply from 172.16.4.1: bytes=32 time<1ms TTL=255
Reply from 172.16.4.1: bytes=32 time<1ms TTL=255
Reply from 172.16.4.1: bytes=32 time<1ms TTL=255
Reply from 172.16.4.1: bytes=32 time=96ms TTL=255

Ping statistics for 172.16.4.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 96ms, Average = 24ms
```

PC0 SDM > PC5 LAYANAN_OPS

```
C:\>ping 172.16.0.11

Pinging 172.16.0.11 with 32 bytes of data:

Request timed out.
Reply from 172.16.0.11: bytes=32 time<1ms TTL=127
Reply from 172.16.0.11: bytes=32 time<1ms TTL=127
Reply from 172.16.0.11: bytes=32 time<1ms TTL=127

Ping statistics for 172.16.0.11:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

ARA

PC Server Room > Router (Default Gateway)

```
C:\>ipconfig

FastEthernet0 Connection: (default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address.....: FE80::20D:BDFF:FECD:2496
    IPv6 Address.....: ::
    IPv4 Address.....: 10.0.0.12
    Subnet Mask.....: 255.255.255.128
    Default Gateway.....: ::
                           10.0.0.1

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address.....: ::
    IPv6 Address.....: ::
    IPv4 Address.....: 0.0.0.0
    Subnet Mask.....: 0.0.0.0
    Default Gateway.....: ::
                           0.0.0.0
```

```
C:\>ping 10.0.0.1

Pinging 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes=32 time<1ms TTL=255
Reply from 10.0.0.1: bytes=32 time=11ms TTL=255
Reply from 10.0.0.1: bytes=32 time<1ms TTL=255
Reply from 10.0.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 11ms, Average = 2ms
```

PC Legal > PC Marketing

```
C:\>ping 10.0.0.139

Pinging 10.0.0.139 with 32 bytes of data:

Request timed out.
Reply from 10.0.0.139: bytes=32 time<1ms TTL=127
Reply from 10.0.0.139: bytes=32 time=14ms TTL=127
Reply from 10.0.0.139: bytes=32 time<1ms TTL=127

Ping statistics for 10.0.0.139:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 14ms, Average = 4ms

C:\>
```

Cabang

PC Regional > Router (Default Gateway)

```
C:\>ipconfig

FastEthernet0 Connection: (default port)

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: FE80::290:CFF:FE5C:2AA9
IPv6 Address.....: ::
IPv4 Address.....: 192.168.10.11
Subnet Mask.....: 255.255.255.192
Default Gateway.....: ::
                           192.168.10.1

Bluetooth Connection:

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: ::
IPv6 Address.....: ::
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: ::
                           0.0.0.0
```

```
C:\>ping 192.168.10.1

Pinging 192.168.10.1 with 32 bytes of data:

Reply from 192.168.10.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.10.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Nomer 5 (StatRoute & OSPF)

STATIS ROUTING & OSPF

ROUTING STATIS (LANTAI ARA TECH)

R ARA TECH

```
ip route 0.0.0.0 0.0.0.0 192.168.0.2
```

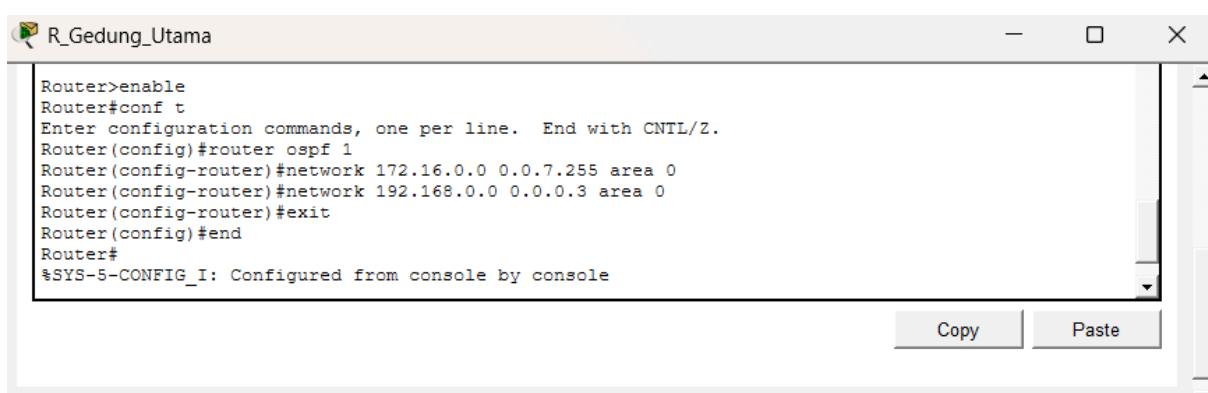
```
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 0.0.0.0 0.0.0.0 192.168.0.2
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#wr
Building configuration...
[OK]
Router#
```

OSPF ANTAR GEDUNG & CABANG

R GEDUNG UTAMA

```
router ospf 1
network 172.16.0.0 0.0.7.255 area 0
network 192.168.0.0 0.0.0.3 area 0
```



The screenshot shows a terminal window titled "R_Gedung_Utama". The window contains the following configuration commands:

```
Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#network 172.16.0.0 0.0.7.255 area 0
Router(config-router)#network 192.168.0.0 0.0.0.3 area 0
Router(config-router)#exit
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

At the bottom of the window, there are "Copy" and "Paste" buttons.

R ARA TECH

```
router ospf 1
network 10.0.0.0 0.0.3.255 area 0
network 192.168.0.0 0.0.0.3 area 0
network 192.168.1.0 0.0.0.3 area 0
```

R_ARA_Tech

```
[OK]
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#network 10.0.0.0 0.0.3.255 area 0
Router(config-router)#network 192.168.0.0 0.0.0.3 area 0
Router(config-router)#network 192.168.1.0 0.0.0.3 area 0
Router(config-router)#exit
Router(config)#en
03:09:59: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.0.2 on Serial0/3/0 from LOADING to FULL, Loading
Done
d
Router#
%SYS-5-CONFIG_I: Configured from console by console
wr
Building configuration...
[OK]
Router#-
```

Top

Copy Paste

R CABANG

```
router ospf 1
network 192.168.10.0 0.0.0.63 area 0
network 192.168.1.0 0.0.0.3 area 0
```

R_Kantor_Cabang

```
Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#network 192.168.10.0 0.0.0.63 area 0
Router(config-router)#network 192.168.1.0 0.0.0.3 area 0
Router(config-router)#exit
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console
03:11:23: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.1.1 on Serial0/3/0 from LOADING to FULL, Loading
Done

Router#wr
Building configuration...
[OK]
```

Top

Copy Paste

Contoh Testing

PC > PC VLAN LAIN

PC Pembinaan (Gedung Utama) > PC Keuangan (ARA)

```
C:\>ping 10.0.1.139

Pinging 10.0.1.139 with 32 bytes of data:

Request timed out.
Reply from 10.0.1.139: bytes=32 time=9ms TTL=126
Reply from 10.0.1.139: bytes=32 time=1ms TTL=126
Reply from 10.0.1.139: bytes=32 time=13ms TTL=126

Ping statistics for 10.0.1.139:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 13ms, Average = 7ms

C:\>
```

PC Pendidikan (Gedung Utama) > PC Regional Office (Cabang)

```
C:\>ping 192.168.10.11

Pinging 192.168.10.11 with 32 bytes of data:

Reply from 192.168.10.11: bytes=32 time=4ms TTL=125
Reply from 192.168.10.11: bytes=32 time=3ms TTL=125
Reply from 192.168.10.11: bytes=32 time=2ms TTL=125
Reply from 192.168.10.11: bytes=32 time=3ms TTL=125

Ping statistics for 192.168.10.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 4ms, Average = 3ms
```

PC Auditorium (ARA) > PC Sarpras (Gedung Utama)

```
C:\>ping 172.16.4.139

Pinging 172.16.4.139 with 32 bytes of data:

Request timed out.
Reply from 172.16.4.139: bytes=32 time=2ms TTL=126
Reply from 172.16.4.139: bytes=32 time=1ms TTL=126
Reply from 172.16.4.139: bytes=32 time=2ms TTL=126

Ping statistics for 172.16.4.139:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms
```

PC > ROUTER GEDUNG LAIN

PC Kurikulum (Gedung Utama) > Router ARA Tech

```
C:\>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time=1ms TTL=254

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 1ms, Average = 1ms
```

PC Rnd (ARA) > Router Gedung Utama

```
C:\>ping 192.168.0.2

Pinging 192.168.0.2 with 32 bytes of data:

Reply from 192.168.0.2: bytes=32 time=1ms TTL=254
Reply from 192.168.0.2: bytes=32 time=1ms TTL=254
Reply from 192.168.0.2: bytes=32 time=18ms TTL=254
Reply from 192.168.0.2: bytes=32 time=1ms TTL=254

Ping statistics for 192.168.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 18ms, Average = 5ms
```

PC Sales (ARA) > Router Gedung Cabang

```
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time=1ms TTL=254
Reply from 192.168.1.2: bytes=32 time=20ms TTL=254
Reply from 192.168.1.2: bytes=32 time=3ms TTL=254
Reply from 192.168.1.2: bytes=32 time=1ms TTL=254

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 20ms, Average = 6ms
```

CEK ROUTING TABLE

R Gedung Utama

```
Router>enable
Router#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      P - periodic downloaded static route

Gateway of last resort is not set

  10.0.0.0/8 is variably subnetted, 5 subnets, 2 masks
O    10.0.0.0/25 [110/65] via 192.168.0.1, 00:14:17, Serial0/3/0
O    10.0.0.128/25 [110/65] via 192.168.0.1, 00:14:17, Serial0/3/0
O    10.0.1.0/25 [110/65] via 192.168.0.1, 00:14:17, Serial0/3/0
O    10.0.1.128/25 [110/65] via 192.168.0.1, 00:14:17, Serial0/3/0
O    10.0.2.0/26 [110/65] via 192.168.0.1, 00:14:17, Serial0/3/0
  172.16.0.0/16 is variably subnetted, 12 subnets, 6 masks
C    172.16.0.0/23 is directly connected, GigabitEthernet0/0.60
L    172.16.0.1/32 is directly connected, GigabitEthernet0/0.60
C    172.16.2.0/23 is directly connected, GigabitEthernet0/0.20
L    172.16.2.1/32 is directly connected, GigabitEthernet0/0.20
C    172.16.4.0/25 is directly connected, GigabitEthernet0/0.10
L    172.16.4.1/32 is directly connected, GigabitEthernet0/0.10
C    172.16.4.128/26 is directly connected, GigabitEthernet0/0.30
L    172.16.4.129/32 is directly connected, GigabitEthernet0/0.30
C    172.16.4.192/27 is directly connected, GigabitEthernet0/0.40
L    172.16.4.193/32 is directly connected, GigabitEthernet0/0.40
C    172.16.4.224/28 is directly connected, GigabitEthernet0/0.50
L    172.16.4.225/32 is directly connected, GigabitEthernet0/0.50
  192.168.0.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.0.0/30 is directly connected, Serial0/3/0
L    192.168.0.2/32 is directly connected, Serial0/3/0
  192.168.1.0/30 is subnetted, 1 subnets
O    192.168.1.0/30 [110/128] via 192.168.0.1, 00:14:17, Serial0/3/0
  192.168.10.0/26 is subnetted, 1 subnets
O    192.168.10.0/26 [110/129] via 192.168.0.1, 00:12:30, Serial0/3/0

Router#
```

Top

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Hasil OSPF nya yang O depan route, itu dapet dari router lain

R ARA

R_ARA_Tech

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Router>enable
Router#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      P - periodic downloaded static route

Gateway of last resort is 192.168.0.2 to network 0.0.0.0

  10.0.0.0/8 is variably subnetted, 10 subnets, 3 masks
C    10.0.0.0/25 is directly connected, GigabitEthernet0/0.100
L    10.0.0.1/32 is directly connected, GigabitEthernet0/0.100
C    10.0.0.128/25 is directly connected, GigabitEthernet0/0.200
L    10.0.0.129/32 is directly connected, GigabitEthernet0/0.200
C    10.0.1.0/25 is directly connected, GigabitEthernet0/0.300
L    10.0.1.1/32 is directly connected, GigabitEthernet0/0.300
C    10.0.1.128/25 is directly connected, GigabitEthernet0/0.400
L    10.0.1.129/32 is directly connected, GigabitEthernet0/0.400
C    10.0.2.0/26 is directly connected, GigabitEthernet0/0.500
L    10.0.2.1/32 is directly connected, GigabitEthernet0/0.500
  172.16.0.0/16 is variably subnetted, 6 subnets, 5 masks
O    172.16.0.0/23 [110/65] via 192.168.0.2, 00:18:49, Serial0/3/0
O    172.16.2.0/23 [110/65] via 192.168.0.2, 00:18:49, Serial0/3/0
O    172.16.4.0/25 [110/65] via 192.168.0.2, 00:18:49, Serial0/3/0
O    172.16.4.128/26 [110/65] via 192.168.0.2, 00:18:49, Serial0/3/0
O    172.16.4.192/27 [110/65] via 192.168.0.2, 00:18:49, Serial0/3/0
O    172.16.4.224/28 [110/65] via 192.168.0.2, 00:18:49, Serial0/3/0
  192.168.0.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.0.0/30 is directly connected, Serial0/3/0
L    192.168.0.1/32 is directly connected, Serial0/3/0
  192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.1.0/30 is directly connected, Serial0/3/1
L    192.168.1.1/32 is directly connected, Serial0/3/1
  192.168.10.0/26 is subnetted, 1 subnets
O    192.168.10.0/26 [110/65] via 192.168.1.2, 00:17:12, Serial0/3/1
S*   0.0.0.0/0 [1/0] via 192.168.0.2

Router#
```

Top

R CABANG

R_Kantor_Cabang

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Router>enable
Router#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      P - periodic downloaded static route

Gateway of last resort is not set

  10.0.0.0/8 is variably subnetted, 5 subnets, 2 masks
O   10.0.0.0/25 [110/65] via 192.168.1.1, 00:19:08, Serial0/3/0
O   10.0.0.128/25 [110/65] via 192.168.1.1, 00:19:08, Serial0/3/0
O   10.0.1.0/25 [110/65] via 192.168.1.1, 00:19:08, Serial0/3/0
O   10.0.1.128/25 [110/65] via 192.168.1.1, 00:19:08, Serial0/3/0
O   10.0.2.0/26 [110/65] via 192.168.1.1, 00:19:08, Serial0/3/0
  172.16.0.0/16 is variably subnetted, 6 subnets, 5 masks
O   172.16.0.0/23 [110/129] via 192.168.1.1, 00:19:08, Serial0/3/0
O   172.16.2.0/23 [110/129] via 192.168.1.1, 00:19:08, Serial0/3/0
O   172.16.4.0/25 [110/129] via 192.168.1.1, 00:19:08, Serial0/3/0
O   172.16.4.128/26 [110/129] via 192.168.1.1, 00:19:08, Serial0/3/0
O   172.16.4.192/27 [110/129] via 192.168.1.1, 00:19:08, Serial0/3/0
O   172.16.4.224/28 [110/129] via 192.168.1.1, 00:19:08, Serial0/3/0
  192.168.0.0/30 is subnetted, 1 subnets
O   192.168.0.0/30 [110/128] via 192.168.1.1, 00:19:08, Serial0/3/0
  192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C     192.168.1.0/30 is directly connected, Serial0/3/0
L     192.168.1.2/32 is directly connected, Serial0/3/0
  192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
C     192.168.10.0/26 is directly connected, GigabitEthernet0/0.70
L     192.168.10.1/32 is directly connected, GigabitEthernet0/0.70

Router#
```

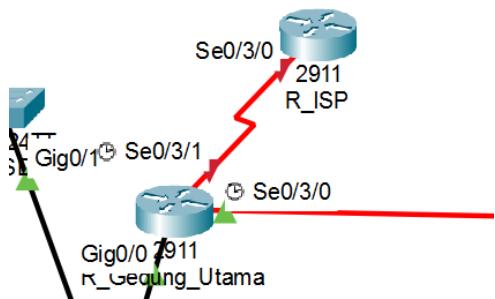
Top

[Copy](#) [Paste](#)

Nomer 6 (NAT)

NAT OVERLOAD (PAT) + INTERNET ACCESS

Konfigurasi ISP



R ISP

```
conf t  
  
interface s0/3/0  
ip address 203.0.113.2 255.255.255.252  
no shutdown
```

```
interface loopback0  
ip address 8.8.8.8 255.255.255.255
```

```
ip route 172.16.0.0 255.255.248.0 203.0.113.1  
ip route 10.0.0.0 255.255.252.0 203.0.113.1  
ip route 192.168.10.0 255.255.255.192 203.0.113.1
```

```
R_ISP  
Router#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#interface s0/3/0  
Router(config-if)#ip address 203.0.113.2 255.255.255.252  
Router(config-if)#no shutdown  
Router(config-if)#exit  
Router(config)#interface loopback0  
Router(config-if)#ip address 8.8.8.8 255.255.255.255  
Router(config-if)#exit  
Router(config)#ip route 172.16.0.0 255.255.248.0 203.0.113.1  
Router(config)#ip route 10.0.0.0 255.255.252.0 203.0.113.1  
Router(config)#ip route 192.168.10.0 255.255.255.192 203.0.113.1  
Router(config)#exit  
Router#  
%SYS-5-CONFIG_I: Configured from console by console  
  
Router#wr  
Building configuration...  
[OK]  
Router#
```

Konfigurasi NAT

ROUTER GEDUNG UTAMA

```
conf t

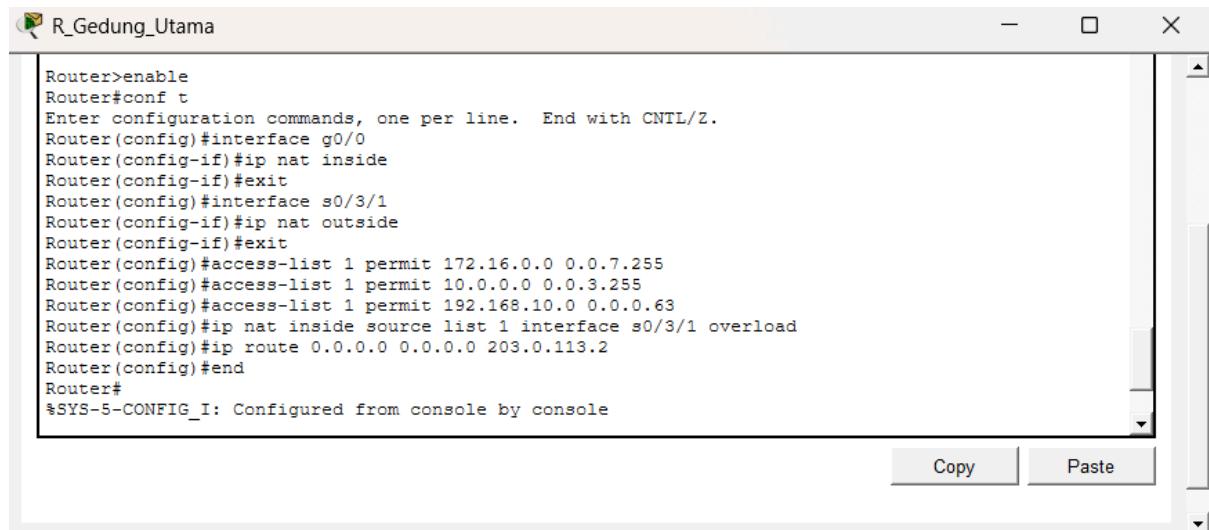
interface g0/0
 ip nat inside

interface s0/3/1
 ip nat outside

access-list 1 permit 172.16.0.0 0.0.7.255
access-list 1 permit 10.0.0.0 0.0.3.255
access-list 1 permit 192.168.10.0 0.0.0.63

ip nat inside source list 1 interface s0/3/1 overload

ip route 0.0.0.0 0.0.0.0 203.0.113.2
```



The screenshot shows a terminal window titled "R_Gedung_Utama". The window displays the configuration commands entered into the router's configuration mode. The commands include enabling the configuration mode, setting the IP address for interface g0/0 as the inside interface, setting the IP address for interface s0/3/1 as the outside interface, defining an access list (list 1) to permit specific IP ranges, applying this access list as a source list for NAT on interface s0/3/1, and finally defining a static route to 0.0.0.0 via 203.0.113.2. A message at the bottom indicates the configuration was done from the console.

```
Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface g0/0
Router(config-if)#ip nat inside
Router(config-if)#exit
Router(config)#interface s0/3/1
Router(config-if)#ip nat outside
Router(config-if)#exit
Router(config)#access-list 1 permit 172.16.0.0 0.0.7.255
Router(config)#access-list 1 permit 10.0.0.0 0.0.3.255
Router(config)#access-list 1 permit 192.168.10.0 0.0.0.63
Router(config)#ip nat inside source list 1 interface s0/3/1 overload
Router(config)#ip route 0.0.0.0 0.0.0.0 203.0.113.2
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

```
conf t

interface g0/0.10
 ip nat inside

interface g0/0.20
 ip nat inside

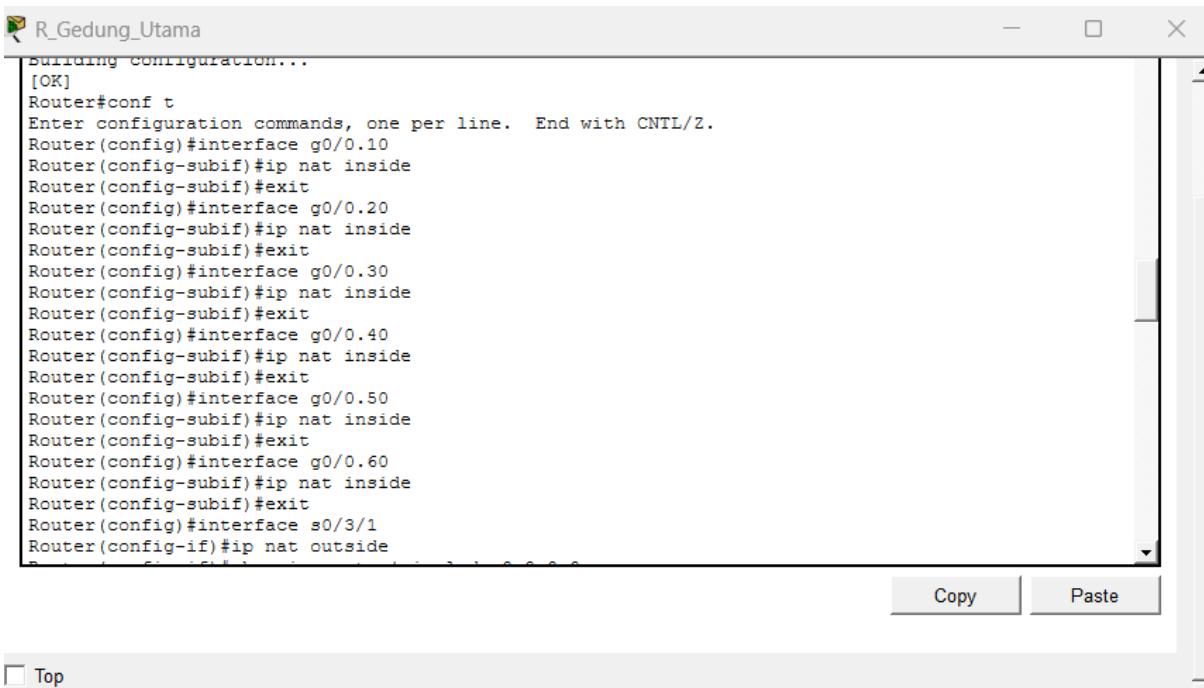
interface g0/0.30
 ip nat inside
```

```
interface g0/0.40
ip nat inside
```

```
interface g0/0.50
ip nat inside
```

```
interface g0/0.60
ip nat inside
```

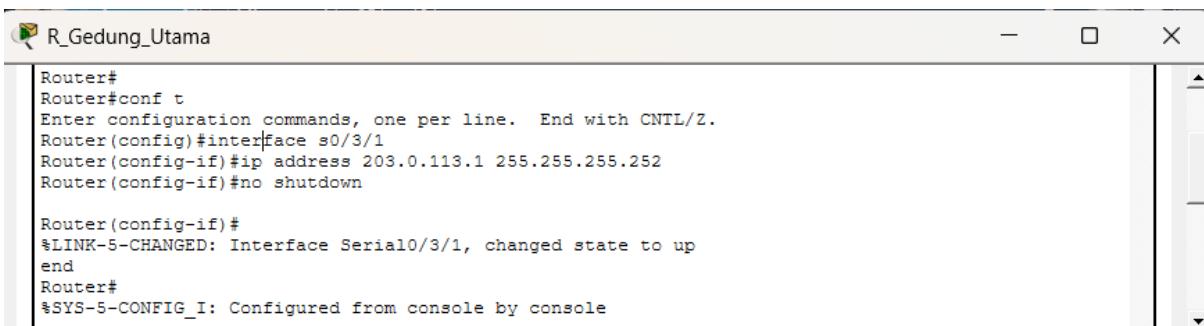
```
interface s0/3/1
ip nat outside
```



```
R_Gedung_Utama
Building configuration...
[OK]
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface g0/0.10
Router(config-subif)#ip nat inside
Router(config-subif)#exit
Router(config)#interface g0/0.20
Router(config-subif)#ip nat inside
Router(config-subif)#exit
Router(config)#interface g0/0.30
Router(config-subif)#ip nat inside
Router(config-subif)#exit
Router(config)#interface g0/0.40
Router(config-subif)#ip nat inside
Router(config-subif)#exit
Router(config)#interface g0/0.50
Router(config-subif)#ip nat inside
Router(config-subif)#exit
Router(config)#interface g0/0.60
Router(config-subif)#ip nat inside
Router(config-subif)#exit
Router(config)#interface s0/3/1
Router(config-if)#ip nat outside
```

Top

```
interface s0/3/1
ip address 203.0.113.1 255.255.255.252
no shutdown
```

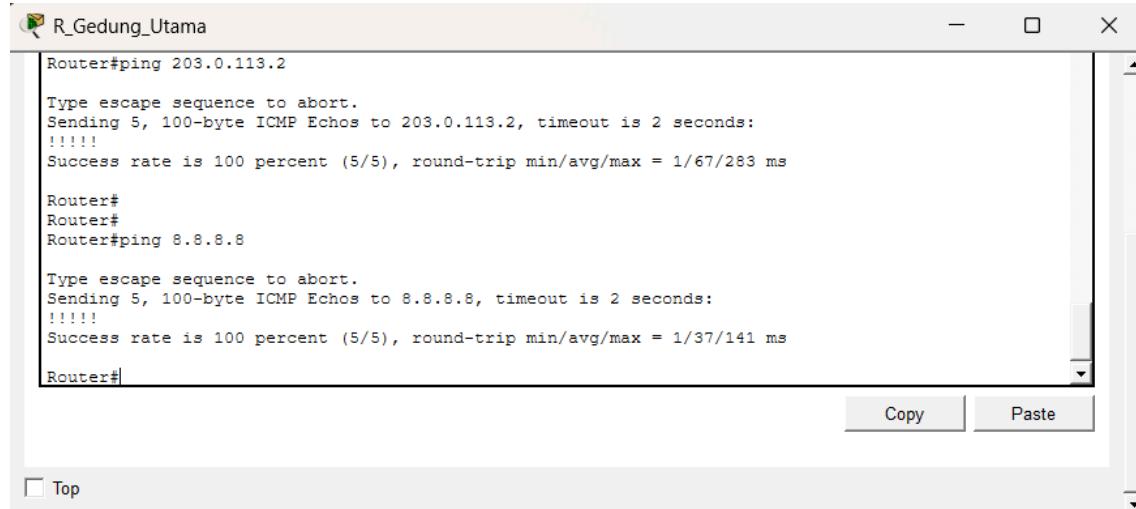


```
R_Gedung_Utama
Router#
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface s0/3/1
Router(config-if)#ip address 203.0.113.1 255.255.255.252
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial0/3/1, changed state to up
end
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Testing Internet

Router > Internet



```
R_Gedung_Utama
Router#ping 203.0.113.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 203.0.113.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/67/283 ms

Router#
Router#
Router#ping 8.8.8.8

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.8, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/37/141 ms

Router#
```

Copy Paste

Top

PC > Internet

PC SDM (Gedung Utama)

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time=2ms TTL=254
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms
```

PC CustService (ARA)

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time=12ms TTL=253
Reply from 8.8.8.8: bytes=32 time=2ms TTL=253
Reply from 8.8.8.8: bytes=32 time=2ms TTL=253
Reply from 8.8.8.8: bytes=32 time=2ms TTL=253

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 12ms, Average = 4ms
```

Bukti PAT

```
Router#show ip nat translations
Pro Inside global      Inside local      Outside local      Outside global
icmp 203.0.113.1:21    172.16.4.11:21   8.8.8.8:21        8.8.8.8:21
icmp 203.0.113.1:22    172.16.4.11:22   8.8.8.8:22        8.8.8.8:22
icmp 203.0.113.1:23    172.16.4.11:23   8.8.8.8:23        8.8.8.8:23
```

Nomer 7 (GRE Tunnel)

GRE Tunnel

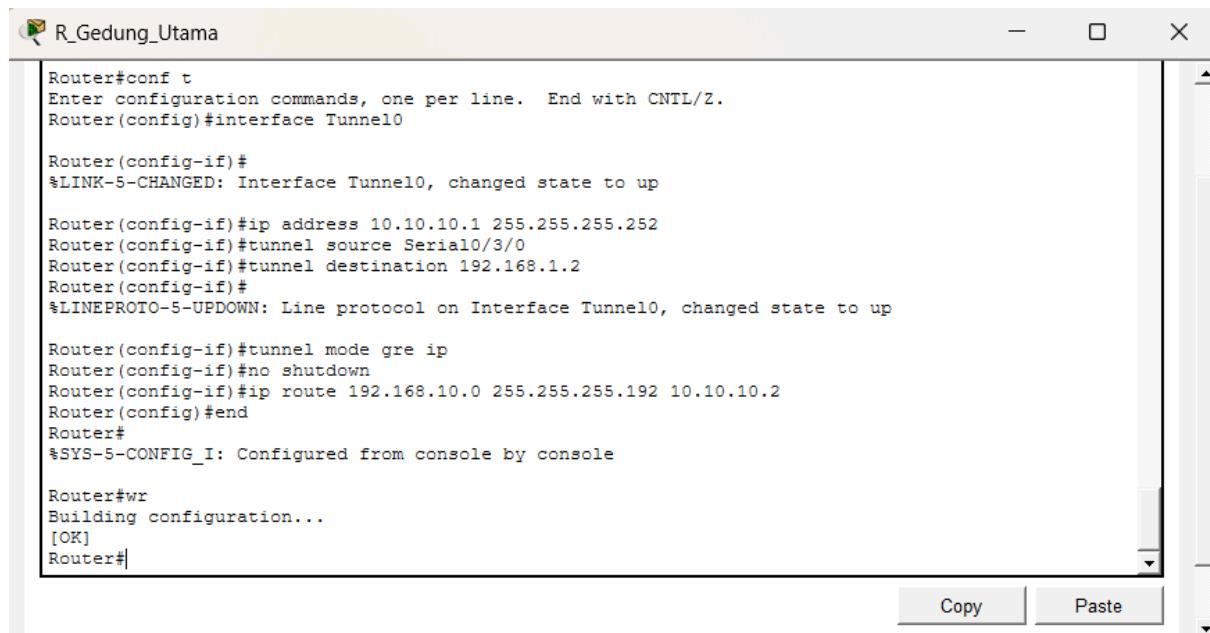
ROUTER GEDUNG UTAMA

```
conf t
```

```
interface Tunnel0
ip address 10.10.10.1 255.255.255.252
tunnel source Serial0/3/0
tunnel destination 192.168.1.2
tunnel mode gre ip
no shutdown
```

Route Lewat Tunnel

```
ip route 192.168.10.0 255.255.255.192 10.10.10.2
```



```
R_Gedung_Utama
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Tunnel0

Router(config-if)#
%LINK-5-CHANGED: Interface Tunnel0, changed state to up

Router(config-if)#ip address 10.10.10.1 255.255.255.252
Router(config-if)#tunnel source Serial0/3/0
Router(config-if)#tunnel destination 192.168.1.2
Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to up

Router(config-if)#tunnel mode gre ip
Router(config-if)#no shutdown
Router(config-if)#ip route 192.168.10.0 255.255.255.192 10.10.10.2
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#wr
Building configuration...
[OK]
Router#
```

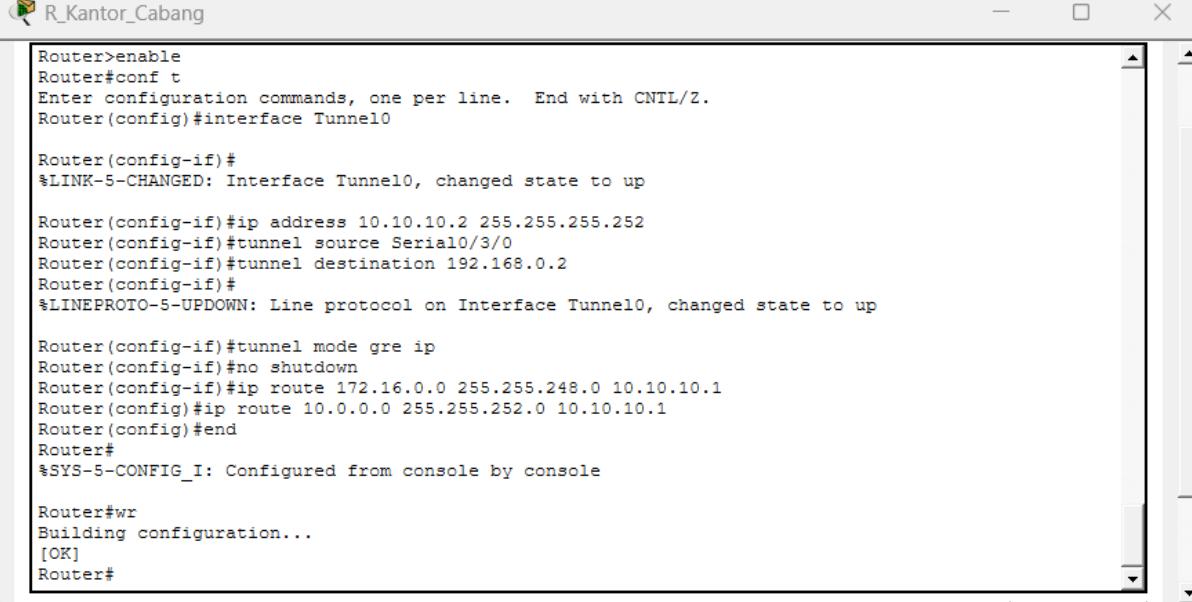
ROUTER GEDUNG CABANG

```
conf t
```

```
interface Tunnel0
ip address 10.10.10.2 255.255.255.252
tunnel source Serial0/3/0
tunnel destination 192.168.0.2
tunnel mode gre ip
no shutdown
```

Route Lewat Tunnel

```
ip route 172.16.0.0 255.255.248.0 10.10.10.1  
ip route 10.0.0.0 255.255.252.0 10.10.10.1
```



R_Kantor_Cabang

```
Router>enable
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface Tunnel0

Router(config-if)#
%LINK-5-CHANGED: Interface Tunnel0, changed state to up

Router(config-if)#ip address 10.10.10.2 255.255.255.252
Router(config-if)#tunnel source Serial0/3/0
Router(config-if)#tunnel destination 192.168.0.2
Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to up

Router(config-if)#tunnel mode gre ip
Router(config-if)#no shutdown
Router(config-if)#ip route 172.16.0.0 255.255.248.0 10.10.10.1
Router(config)#ip route 10.0.0.0 255.255.252.0 10.10.10.1
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#wr
Building configuration...
[OK]
Router#
```

Testing GRE

Cek Status Tunnel

R_Kantor_Cabang

```
Router#show ip interface brief
Interface          IP-Address      OK? Method Status       Protocol
GigabitEthernet0/0 unassigned      YES unset up           up
GigabitEthernet0/0.70 192.168.10.1 YES manual up          up
GigabitEthernet0/1   unassigned      YES unset administratively down down
GigabitEthernet0/2   unassigned      YES unset administratively down down
Serial0/3/0          192.168.1.2   YES manual up          up
Serial0/3/1          unassigned      YES unset administratively down down
Tunnel0              10.10.10.2    YES manual up          up
Vlan1                unassigned      YES unset administratively down down
Router#
```

R_Gedung_Utama

```
Router#show ip interface brief
Interface          IP-Address      OK? Method Status       Protocol
GigabitEthernet0/0 unassigned      YES unset up           up
GigabitEthernet0/0.10 172.16.4.1   YES manual up          up
GigabitEthernet0/0.20 172.16.2.1   YES manual up          up
GigabitEthernet0/0.30 172.16.4.129 YES manual up          up
GigabitEthernet0/0.40 172.16.4.193 YES manual up          up
GigabitEthernet0/0.50 172.16.4.225 YES manual up          up
GigabitEthernet0/0.60 172.16.0.1   YES manual up          up
GigabitEthernet0/1   unassigned      YES unset administratively down down
GigabitEthernet0/2   unassigned      YES unset administratively down down
Serial0/3/0          192.168.0.2   YES manual up          up
Serial0/3/1          203.0.113.1  YES manual up          up
Tunnel0              10.10.10.1    YES manual up          up
Vlan1                unassigned      YES unset administratively down down
Router#
```

Di keduanya si Tunnel0 udah yes manual up

Ping Antar Tunnel

R_Kantor_Cabang

```
Router#ping 10.10.10.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.10.10.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 10/35/106 ms
Router#
```

R_Gedung_Utama

```
Router#ping 10.10.10.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.10.10.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 3/38/130 ms
Router#
```

Ping Antar PC Tunnel

PC SDM (Gedung Utama) > PC Regional (Cabang)

```
C:\>ping 192.168.10.11

Pinging 192.168.10.11 with 32 bytes of data:

Reply from 192.168.10.11: bytes=32 time=12ms TTL=126
Reply from 192.168.10.11: bytes=32 time=2ms TTL=126
Reply from 192.168.10.11: bytes=32 time=2ms TTL=126
Reply from 192.168.10.11: bytes=32 time=3ms TTL=126

Ping statistics for 192.168.10.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 12ms, Average = 4ms
```

PC Regional (Cabang) > PC SDM (Gedung Utama)

```
C:\>ping 172.16.4.11

Pinging 172.16.4.11 with 32 bytes of data:

Reply from 172.16.4.11: bytes=32 time=2ms TTL=126
Reply from 172.16.4.11: bytes=32 time=2ms TTL=126
Reply from 172.16.4.11: bytes=32 time=3ms TTL=126
Reply from 172.16.4.11: bytes=32 time=11ms TTL=126

Ping statistics for 172.16.4.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 11ms, Average = 4ms
```

Tambahan notes:

"Walaupun OSPF telah digunakan antar gedung, GRE Tunnel tetap dikonfigurasikan untuk mensimulasikan koneksi virtual point-to-point yang aman antara Gedung Utama dan Kantor Cabang."