LAPORAN PRAKTIKUM JARINGAN KOMPUTER

MODUL 11

"PERANCANGAN JARINGAN LABORATORIUM SEDERHANA MENGGUNAKAN PACKET TRACER"

Oleh:

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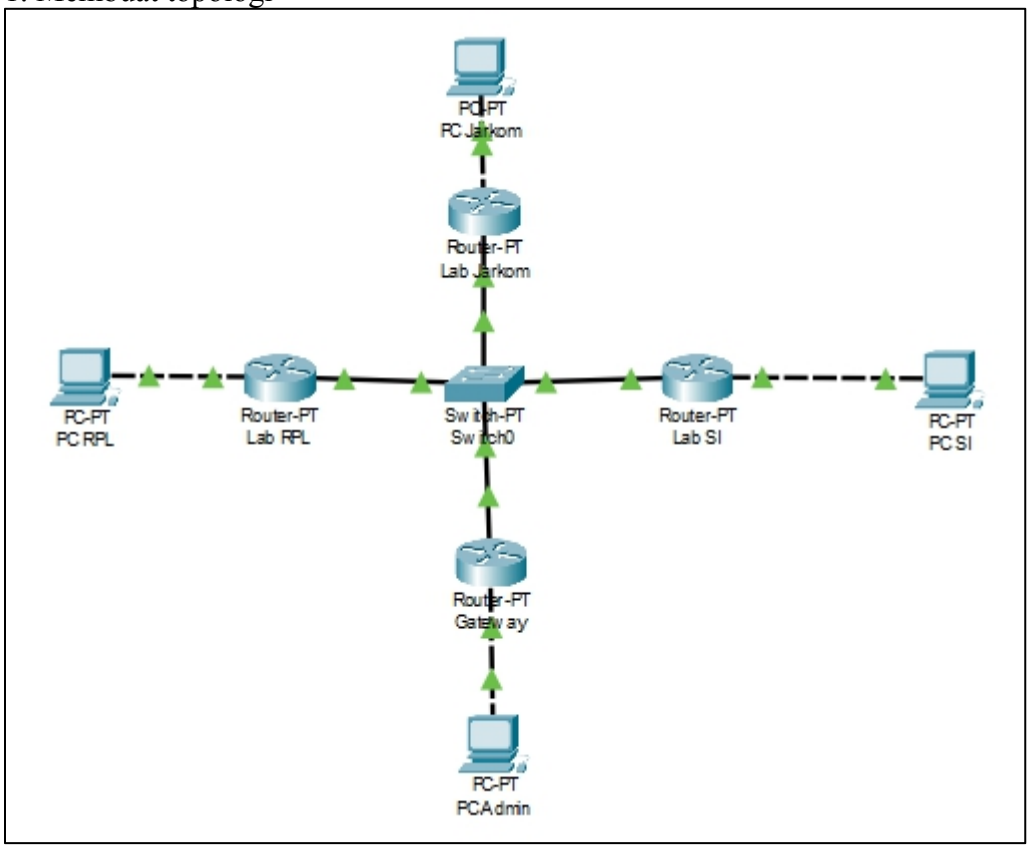
NIM : L200190031
KELAS : A
PRODI : INFORMATIKA

Fakultas Komunikasi dan Informatika Universitas Muhammadiyah Surakarta

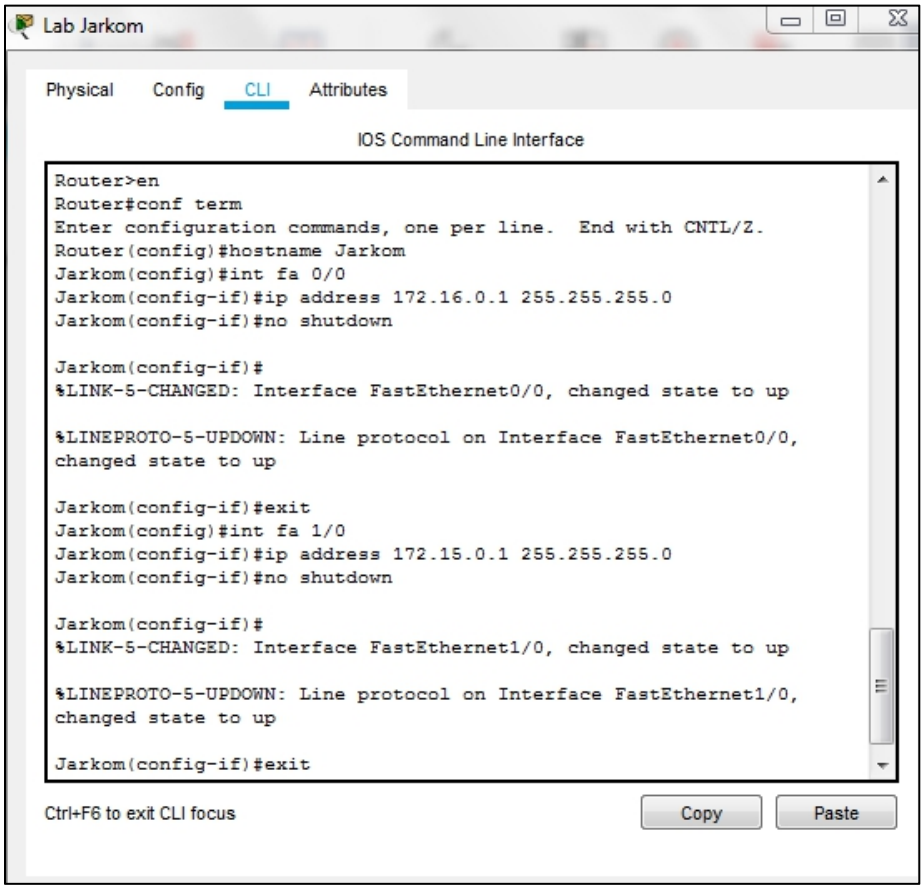
D. Kegiatan Praktikum

1. Membuat topologi

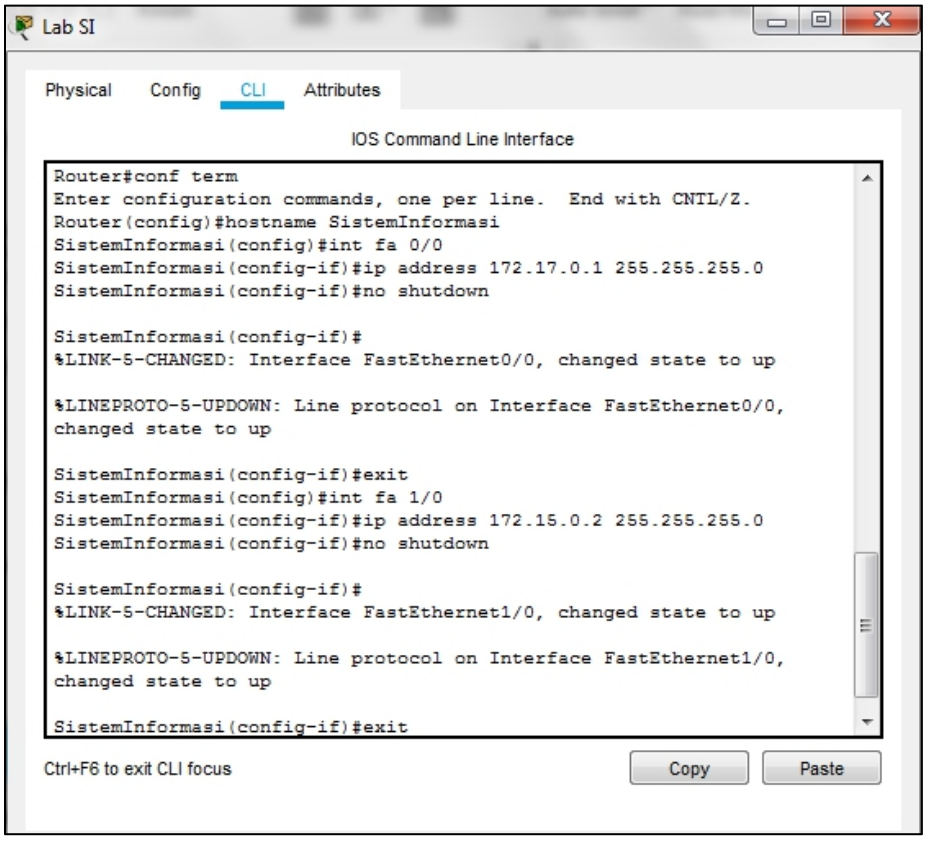


2. Konfigurasi Router

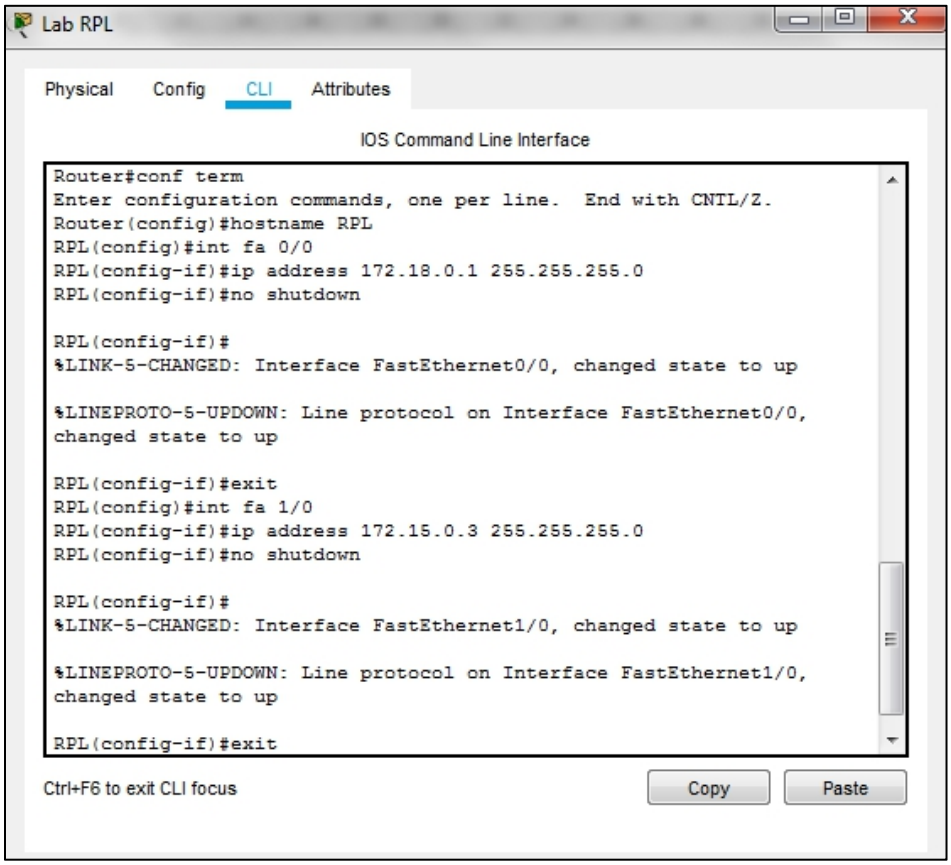
a. Router Lab Jarkom



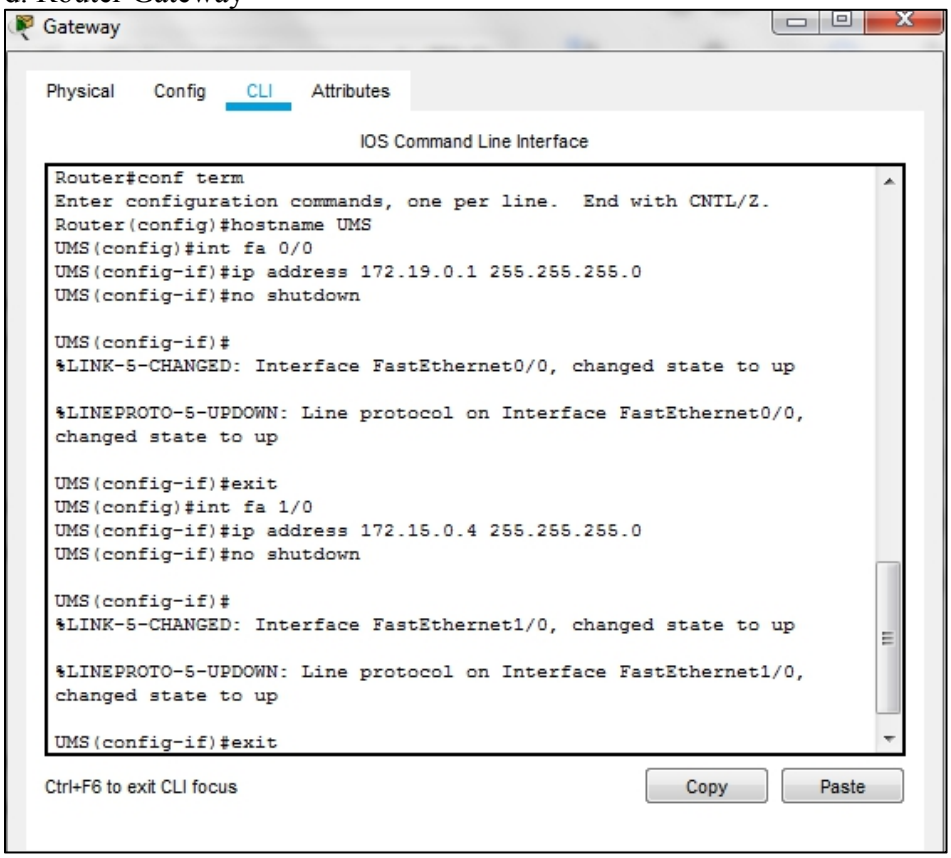
b. Router Lab SI



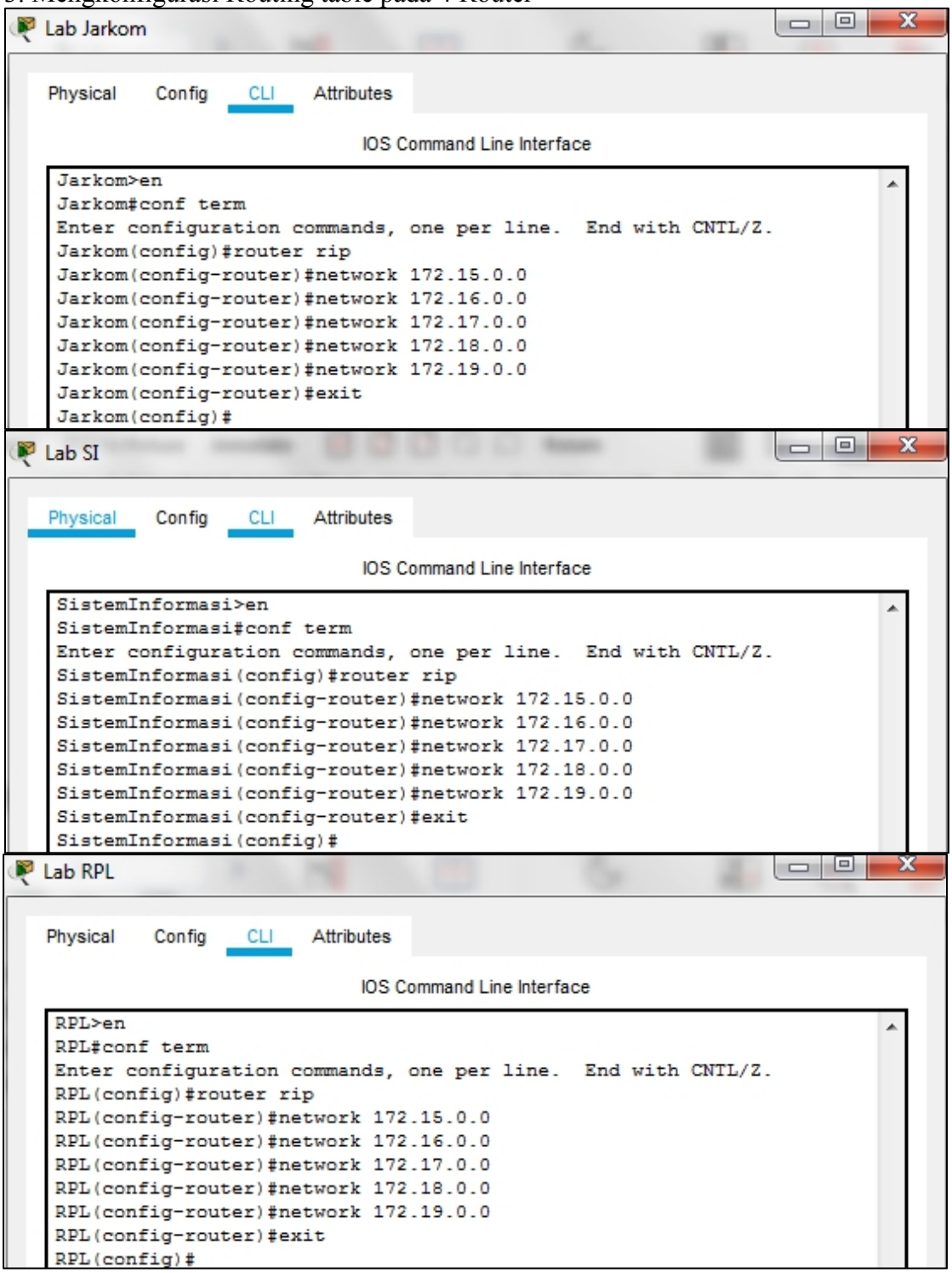
c. Router Lab RPL

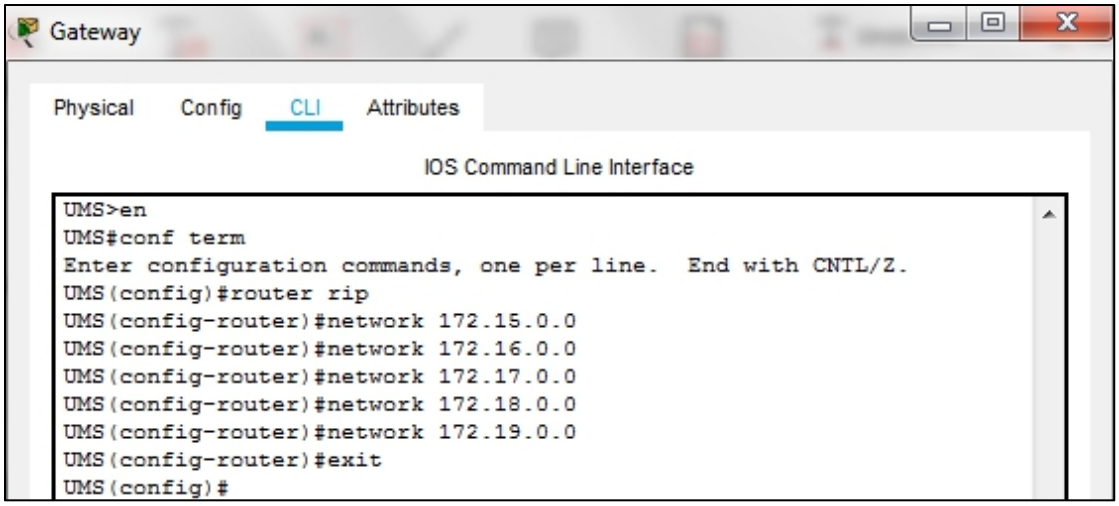


d. Router Gateway

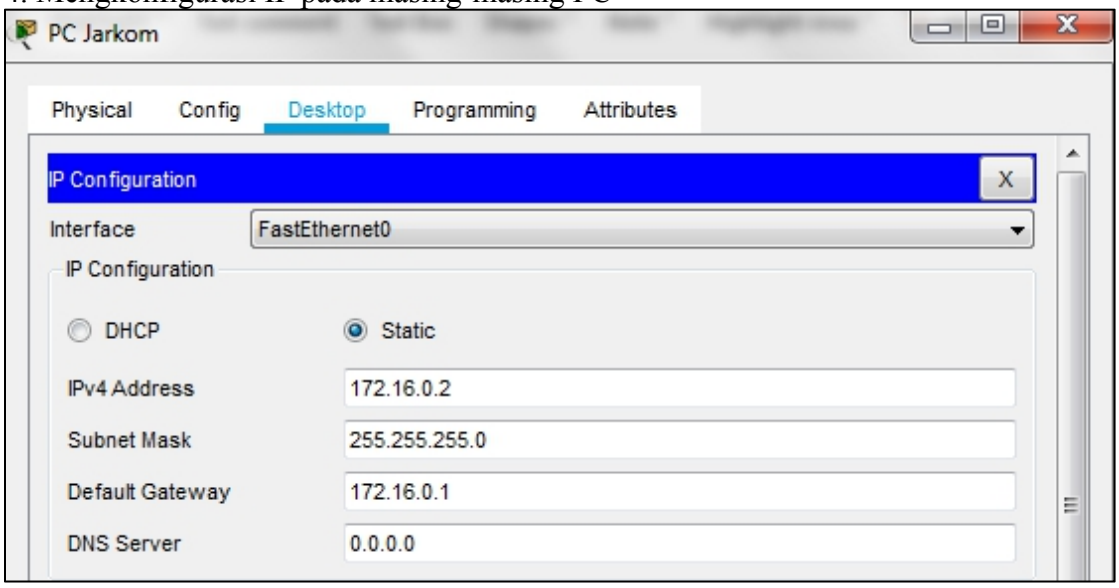


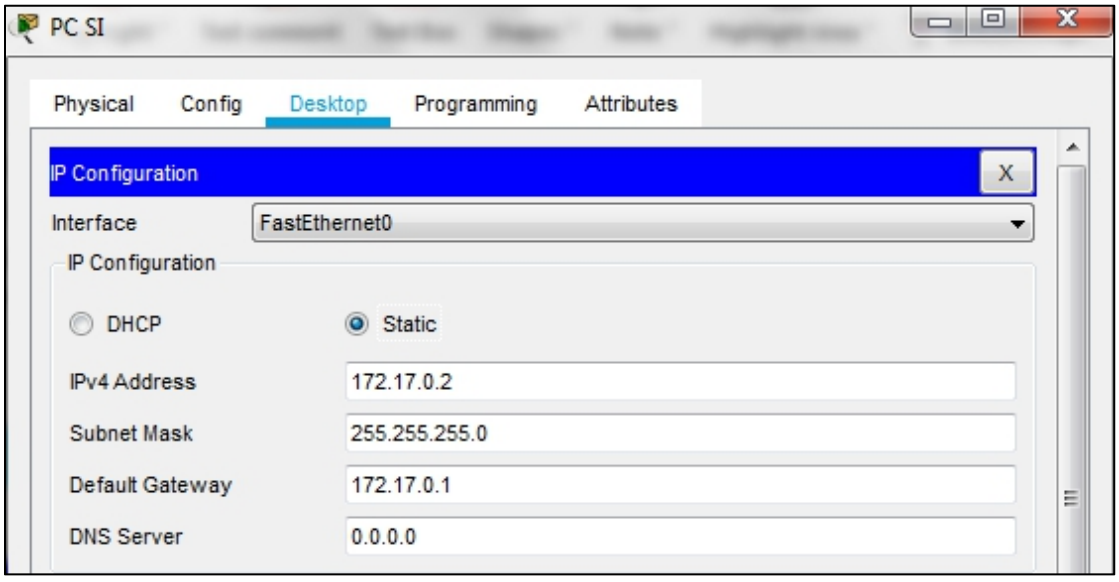
3. Mengkonfigurasi Routing table pada 4 Router

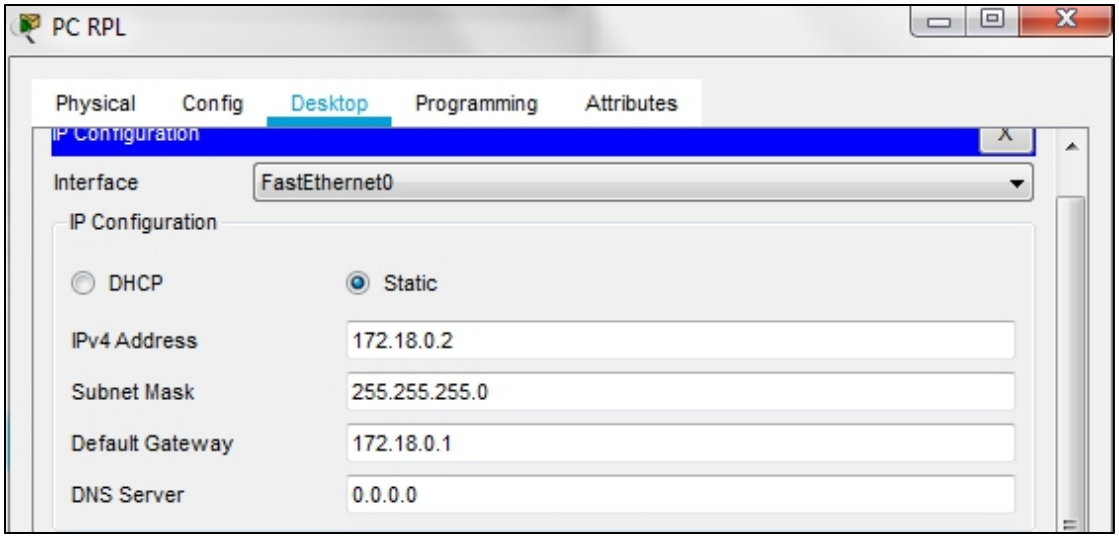


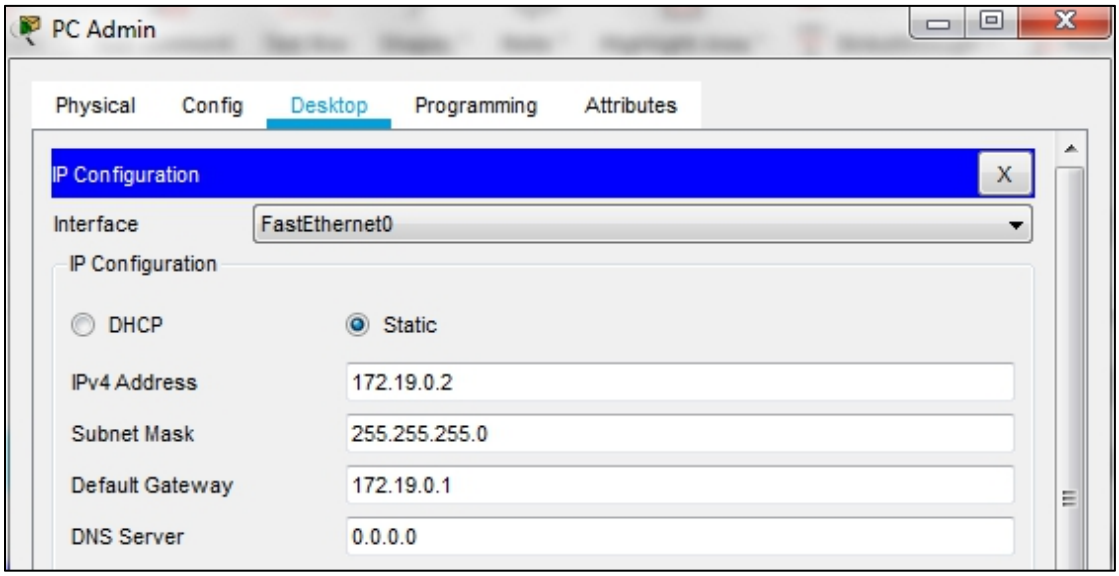


4. Mengkonfigurasi IP pada masing-masing PC



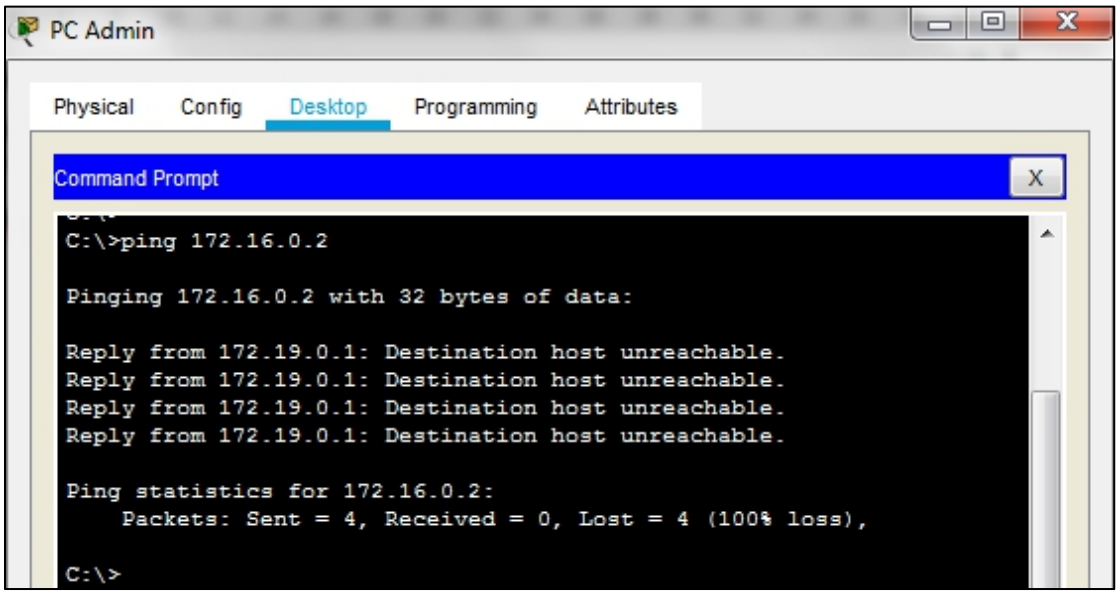



PC RPL
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
172.18.0.2
Subnet Mask
255.255.255.0
Default Gateway
172.18.0.1
DNS Server
0.0.0.0

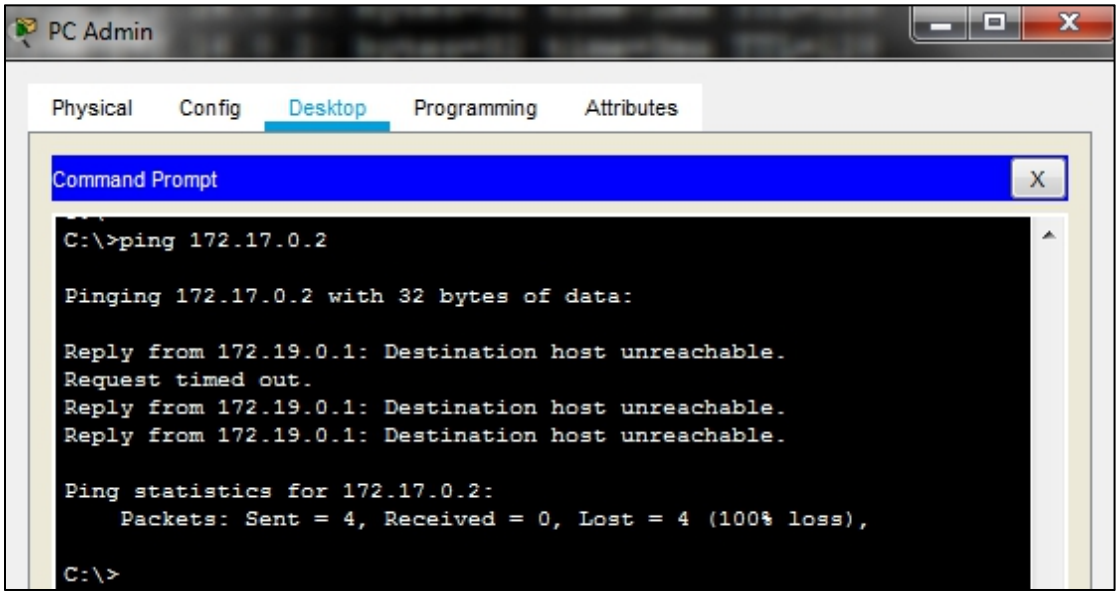

PC Admin
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
172.19.0.2
Subnet Mask
255.255.255.0
Default Gateway
172.19.0.1
DNS Server
0.0.0.0

5. Melakukan ping dari PC Admin ke semua PC

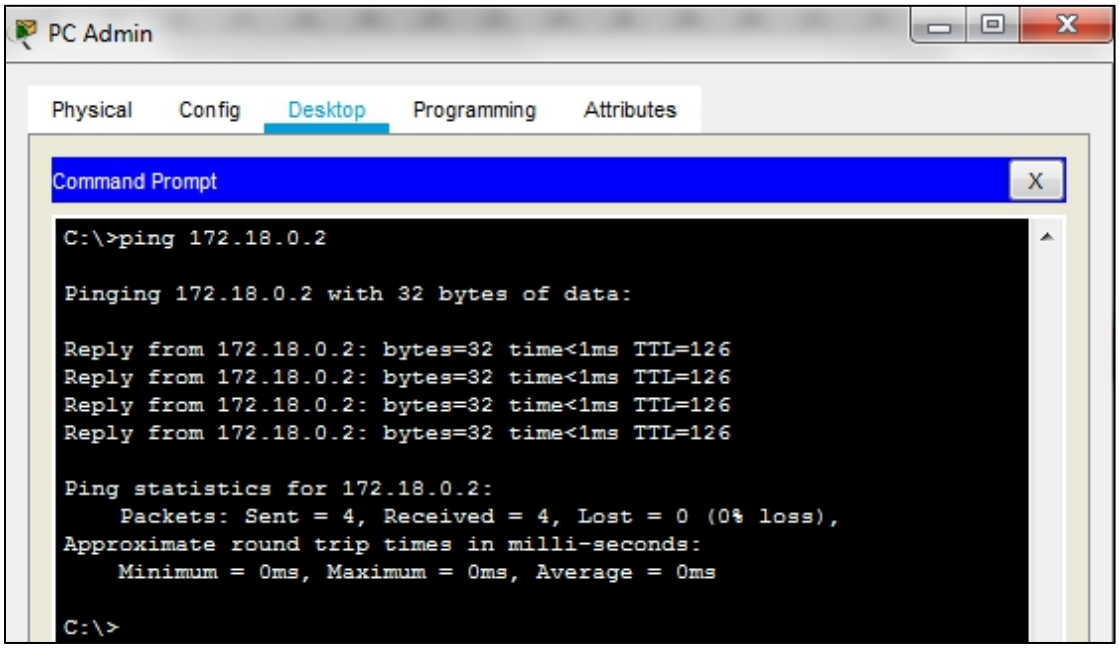
a. PC Admin ke PC Jarkom



b. PC Admin ke PC SI

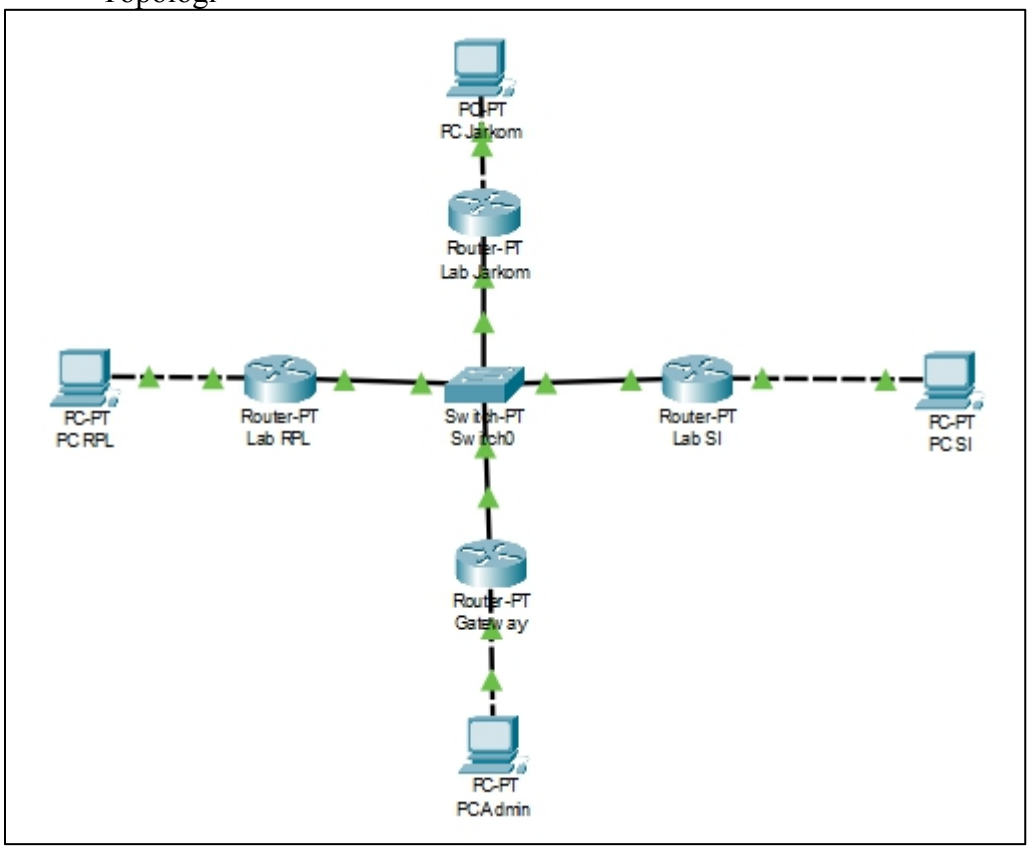


c. PC Admin ke PC RPL



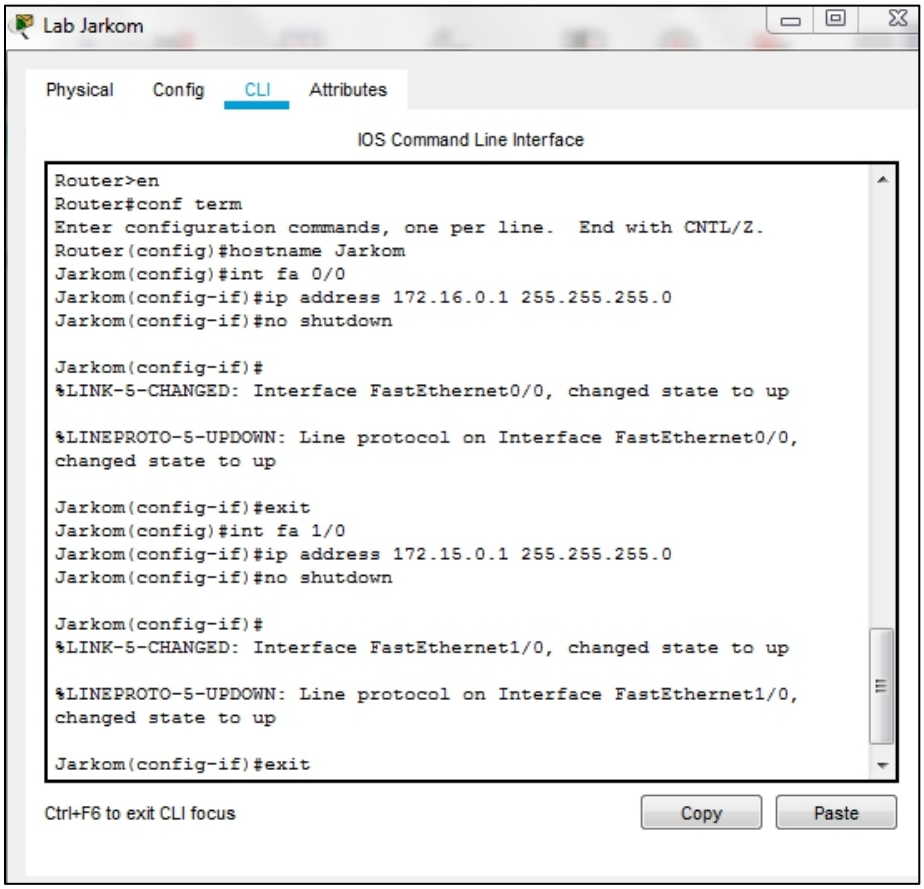
Tugas

1. Membuat topologi jaringan menggunakan routing statis.
   a. Membuat routing statis dari soal nomor 1.
   - Topologi

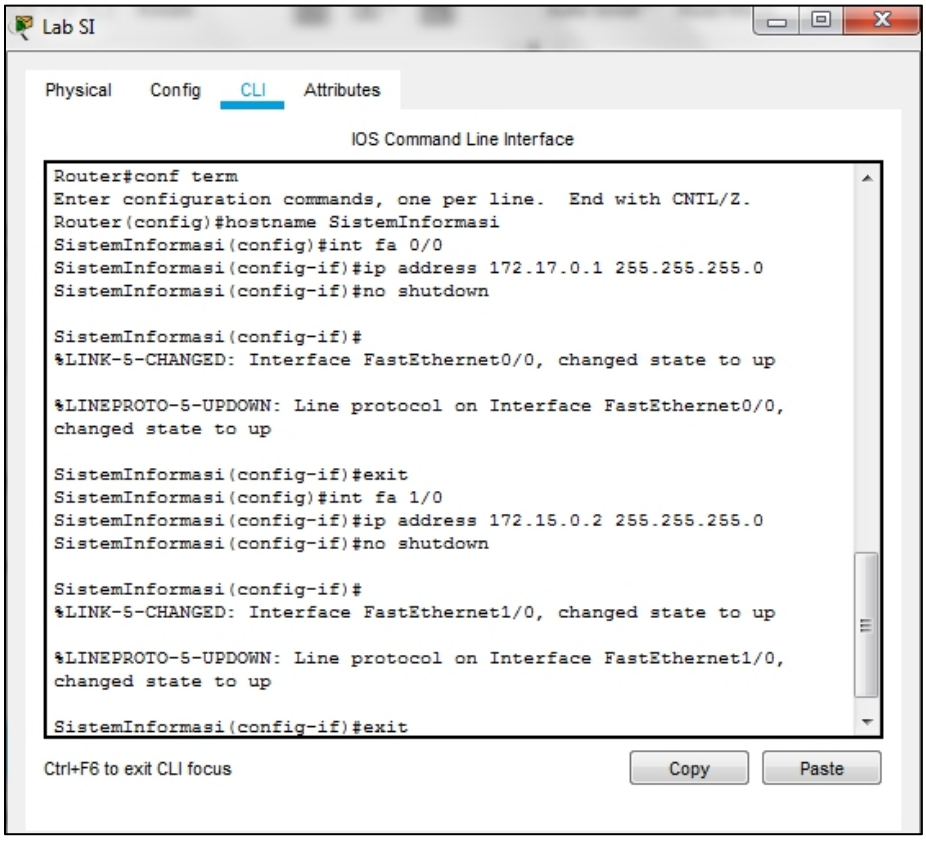


2. Konfigurasi Router

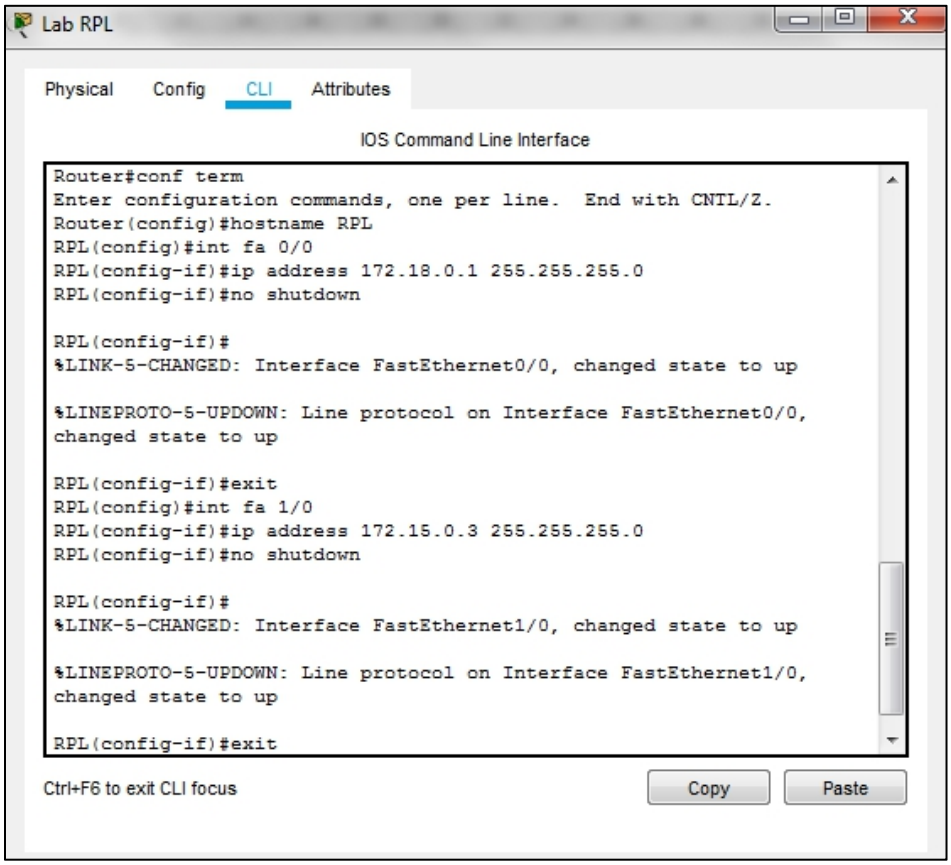
a. Router Lab Jarkom



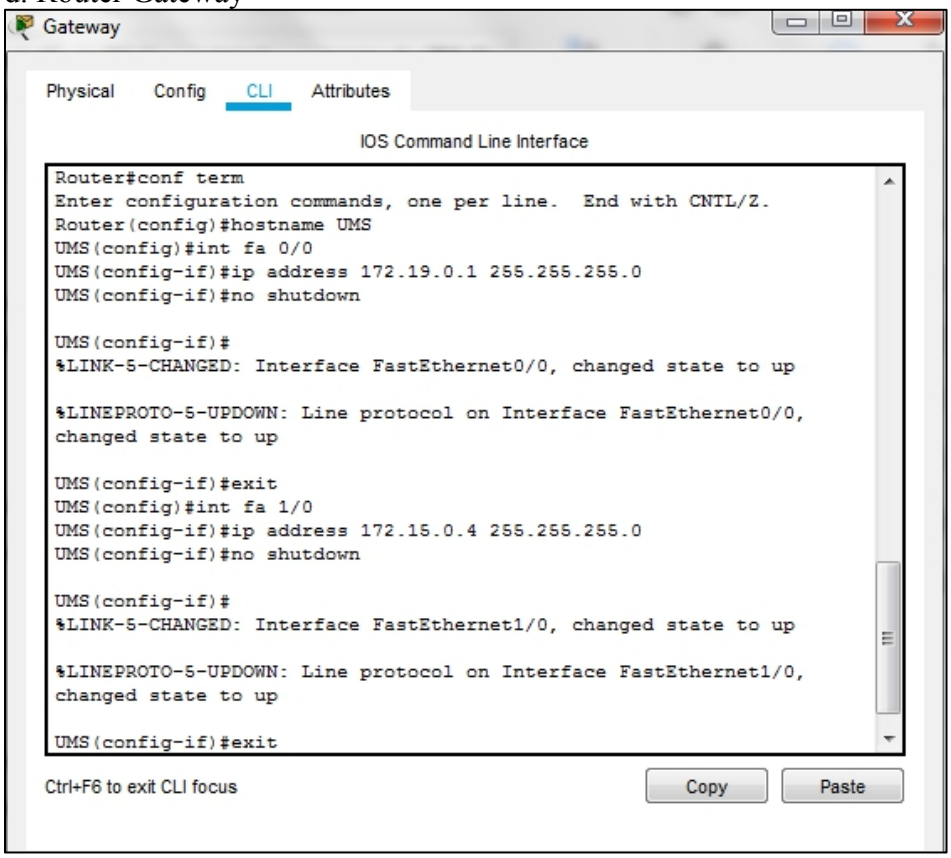
b. Router Lab SI



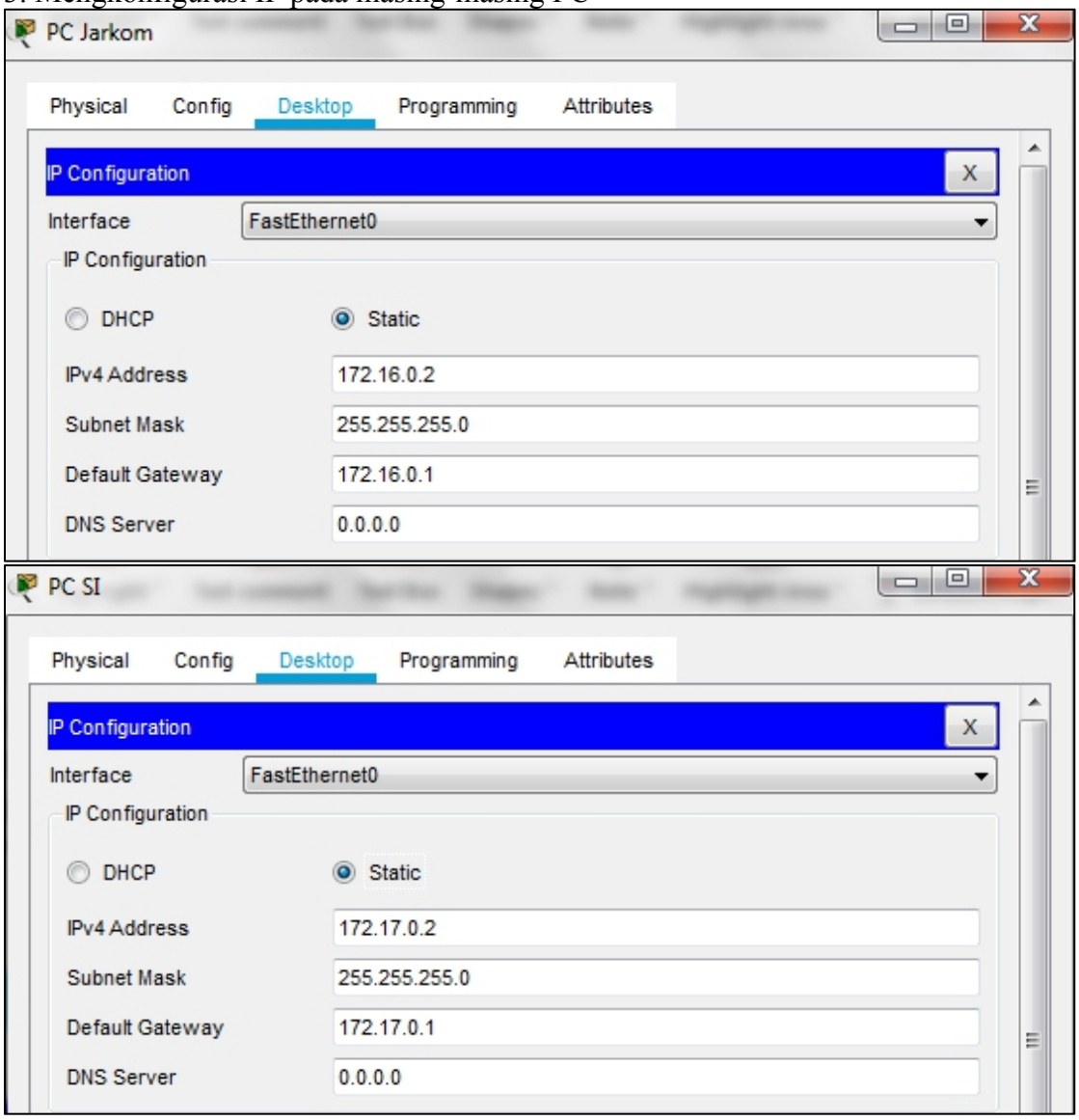
c. Router Lab RPL

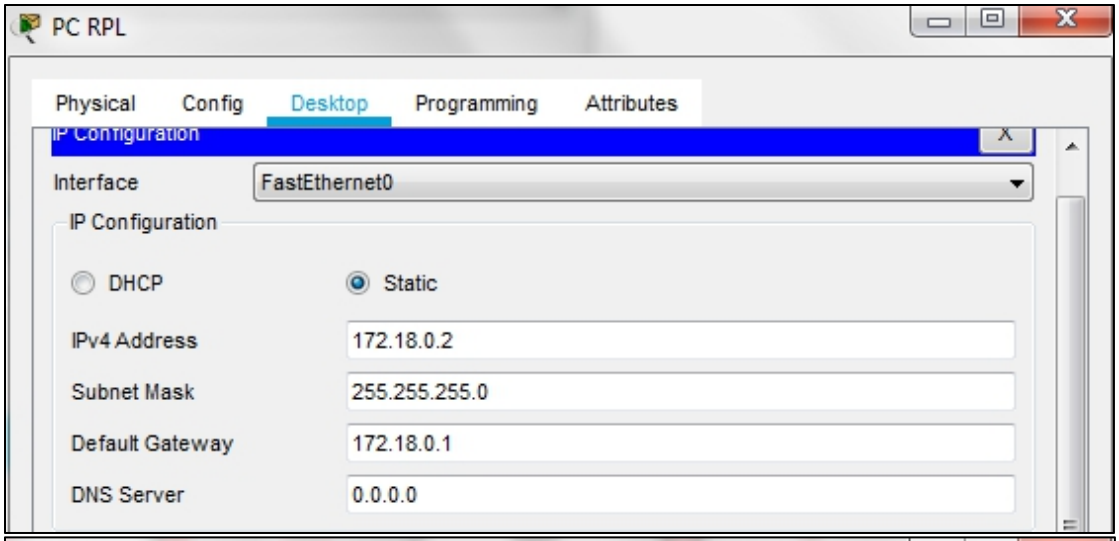


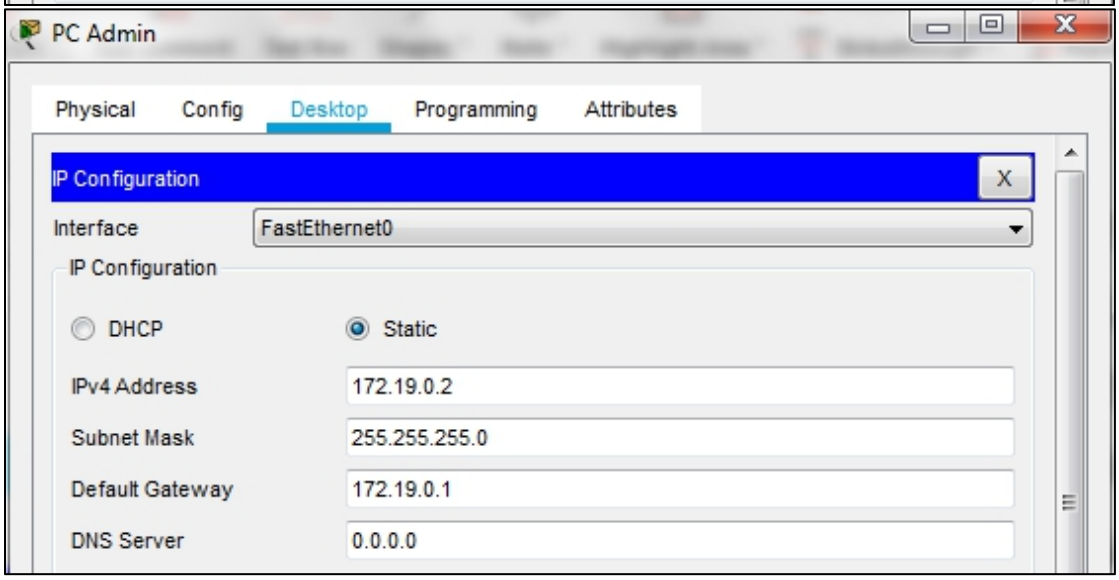
d. Router Gateway



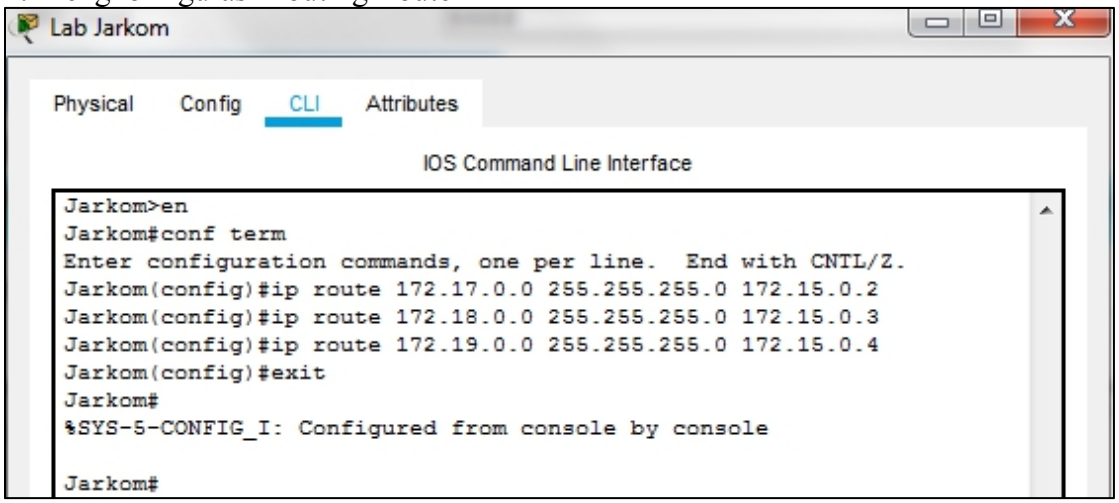
3. Mengkonfigurasi IP pada masing-masing PC

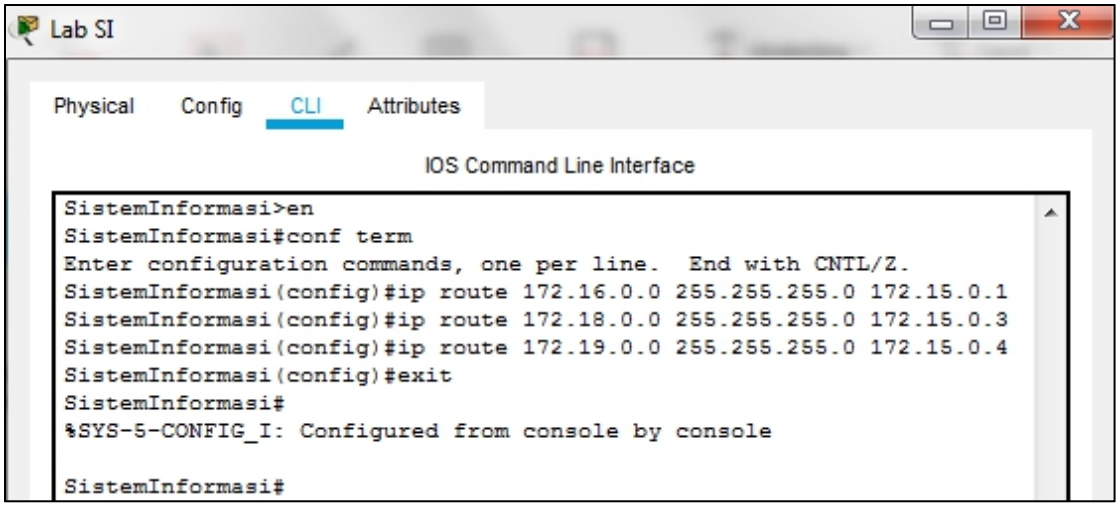


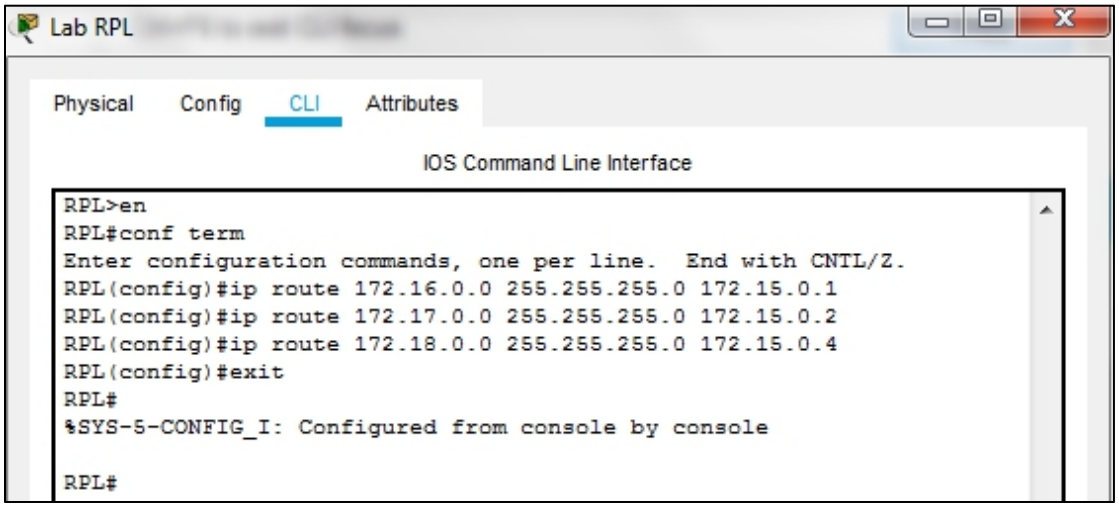


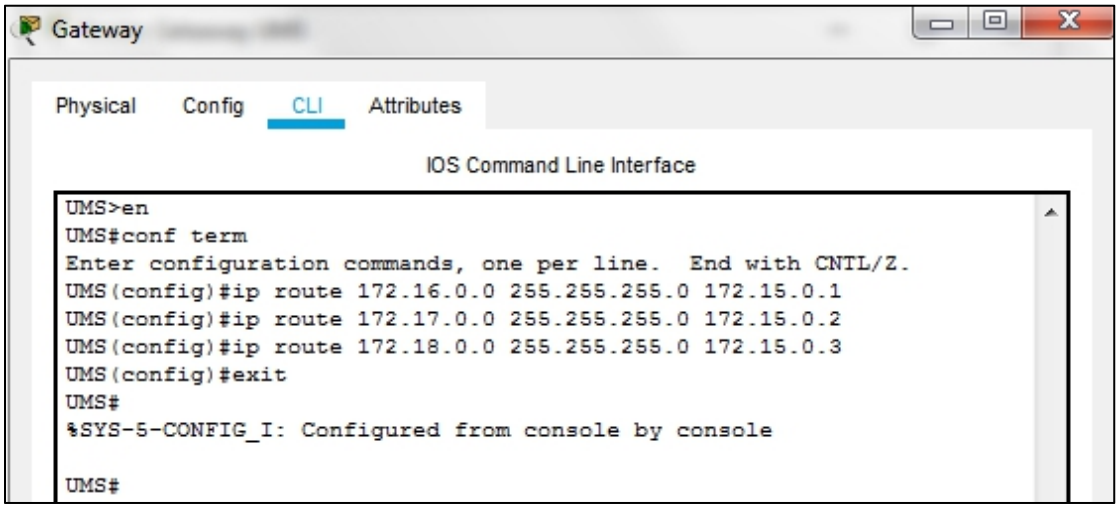


4. Mengkonfigurasi Routing Router



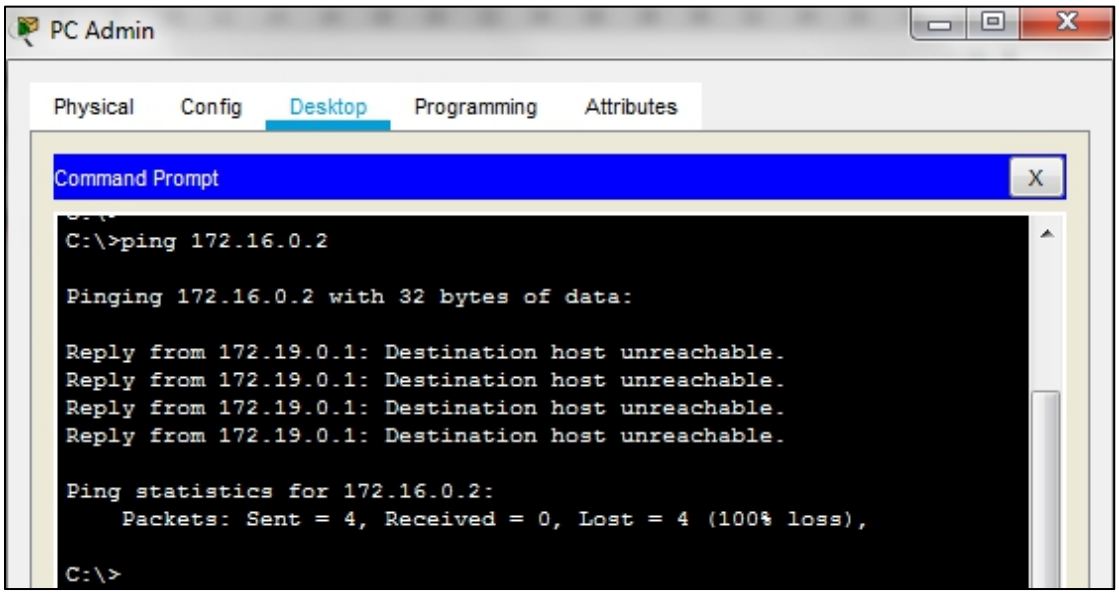

Lab SI
Physical
Config
CLI
Attributes
IOS Command Line Interface
SistemInformasi>en
SistemInformasi#conf term
Enter configuration commands, one per line. End with CNTL/Z.
SistemInformasi(config)#ip route 172.16.0.0 255.255.255.0 172.15.0.1
SistemInformasi(config)#ip route 172.18.0.0 255.255.255.0 172.15.0.3
SistemInformasi(config)#ip route 172.19.0.0 255.255.255.0 172.15.0.4
SistemInformasi(config)#exit
SistemInformasi#
%SYS-5-CONFIG_I: Configured from console by console
SistemInformasi#


Lab RPL
Physical
Config
CLI
Attributes
IOS Command Line Interface
RPL>en
RPL#conf term
Enter configuration commands, one per line. End with CNTL/Z.
RPL(config)#ip route 172.16.0.0 255.255.255.0 172.15.0.1
RPL(config)#ip route 172.17.0.0 255.255.255.0 172.15.0.2
RPL(config)#ip route 172.18.0.0 255.255.255.0 172.15.0.4
RPL(config)#exit
RPL#
%SYS-5-CONFIG_I: Configured from console by console
RPL#

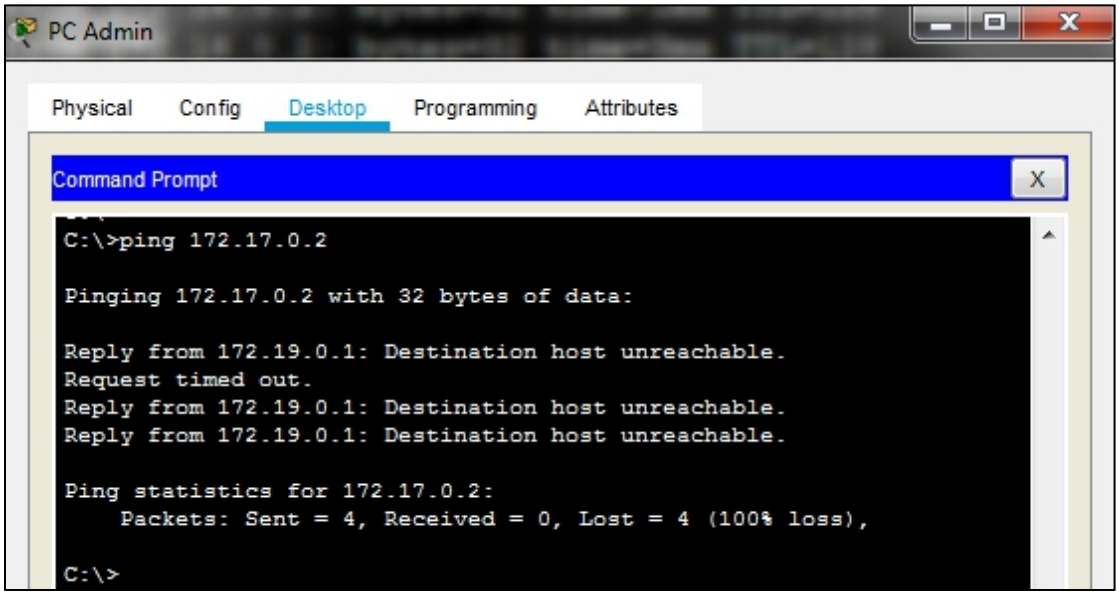

Gateway
Physical
Config
CLI
Attributes
IOS Command Line Interface
UMS>en
UMS#conf term
Enter configuration commands, one per line. End with CNTL/Z.
UMS(config)#ip route 172.16.0.0 255.255.255.0 172.15.0.1
UMS(config)#ip route 172.17.0.0 255.255.255.0 172.15.0.2
UMS(config)#ip route 172.18.0.0 255.255.255.0 172.15.0.3
UMS(config)#exit
UMS#
%SYS-5-CONFIG_I: Configured from console by console
UMS#

5. Menguji konektivitas antar PC klien.

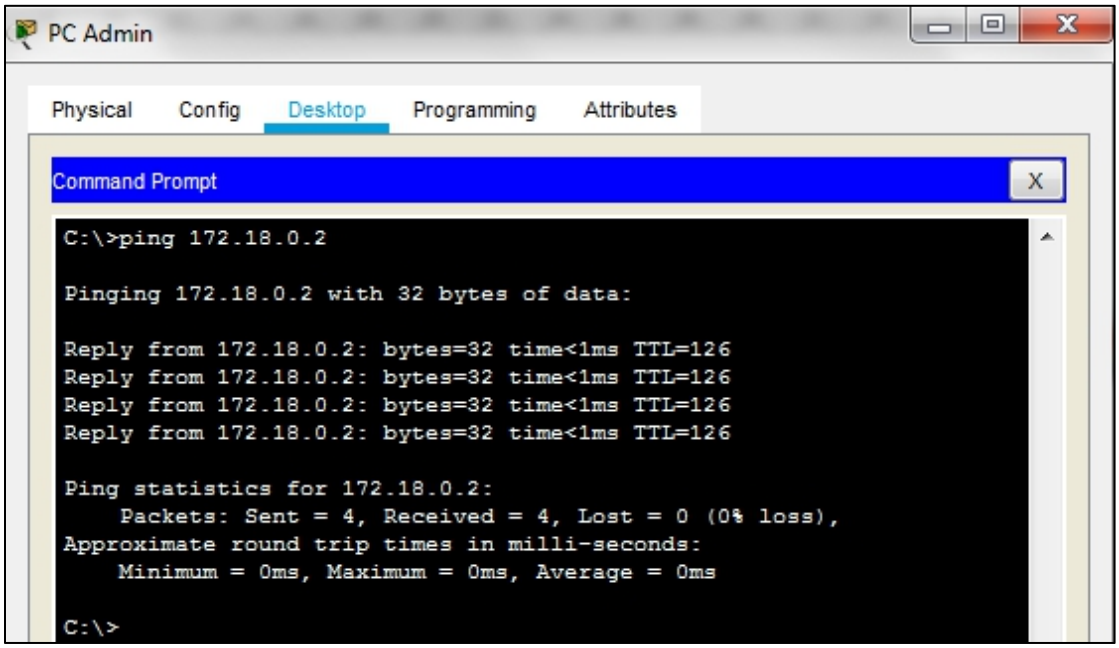
a. PC Admin ke PC Jarkom



b. PC Admin ke PC SI



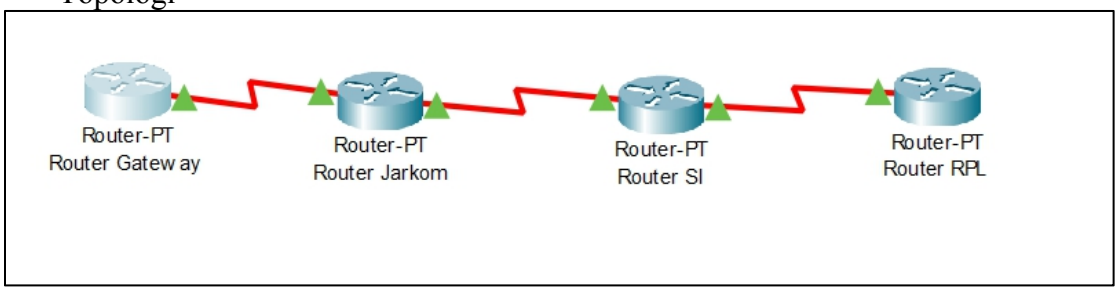
c. PC Admin ke PC RPL



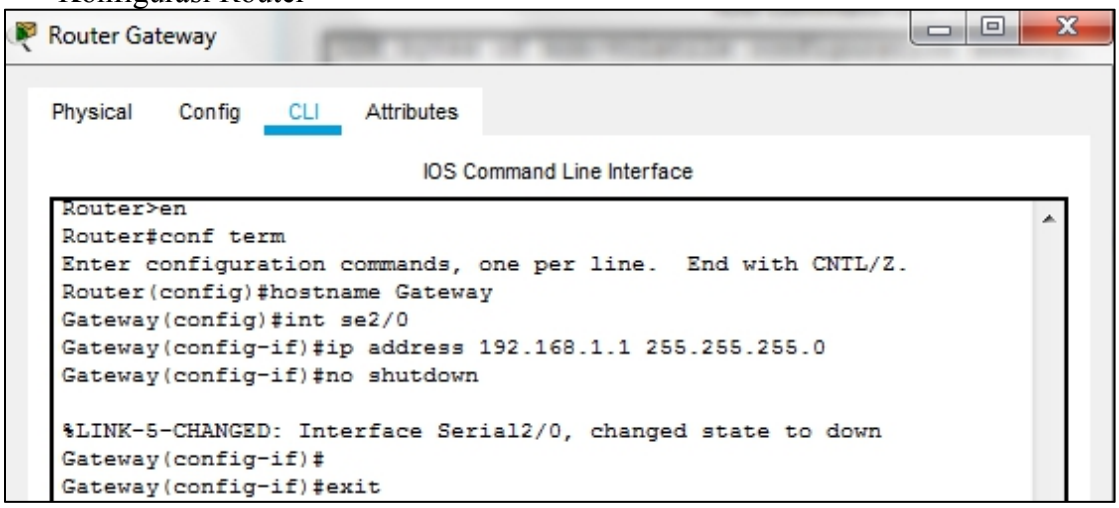
2. Membuat topologi jaringan BUS untuk membangun sebuah laboratorium komputer yang terdiri dari 3 router (jarkom, rpl, SI) dan berpusat pada 1 router gateaway, dengan metode routing :

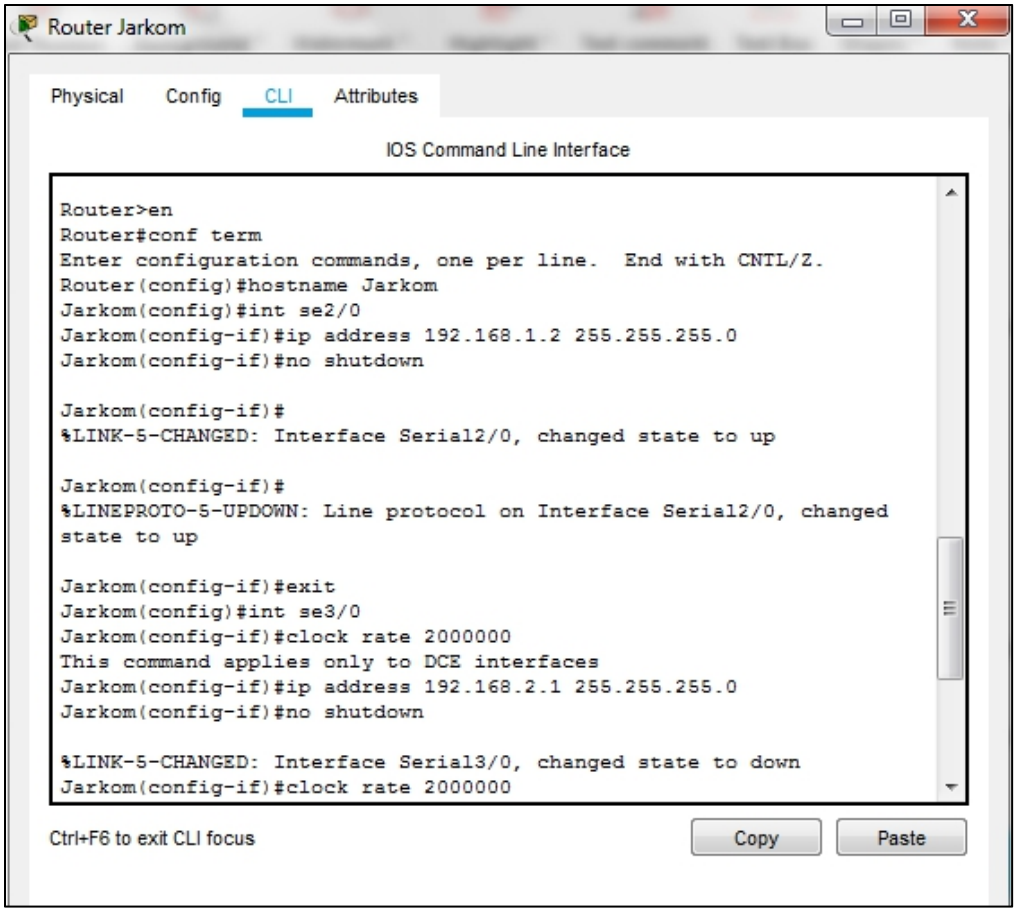
a. Statis

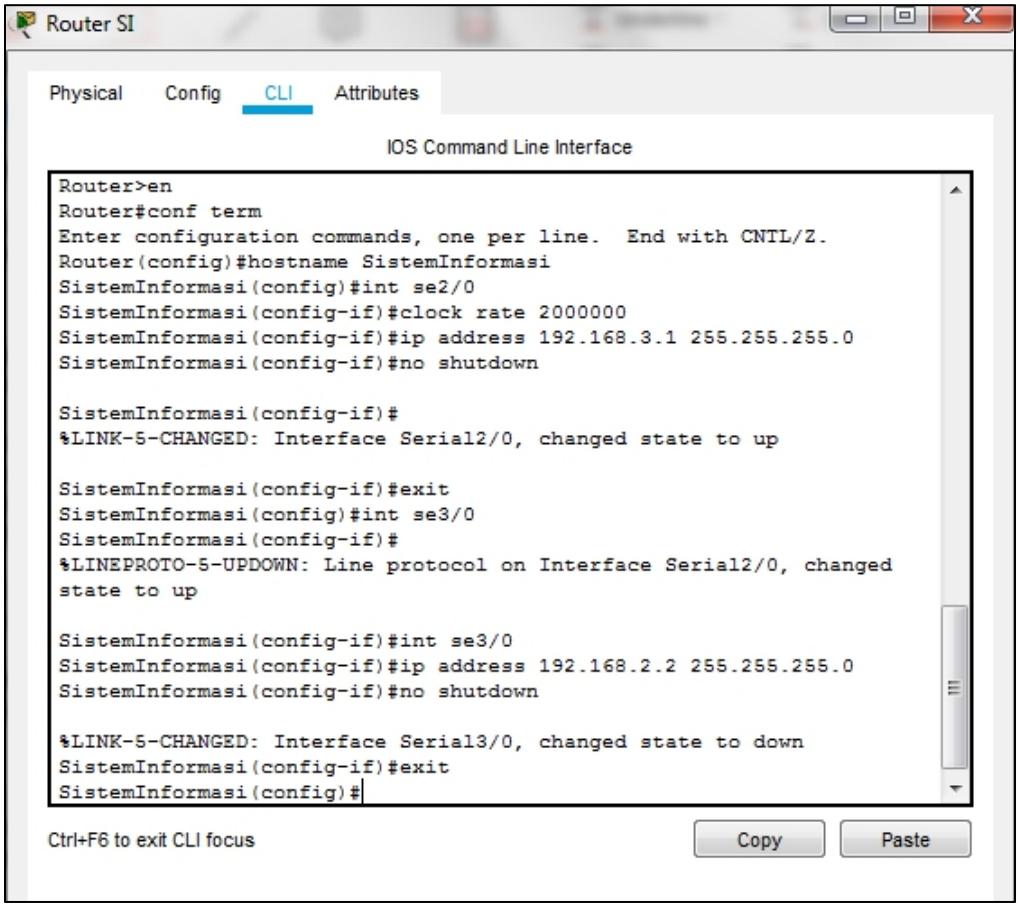
==>Topologi

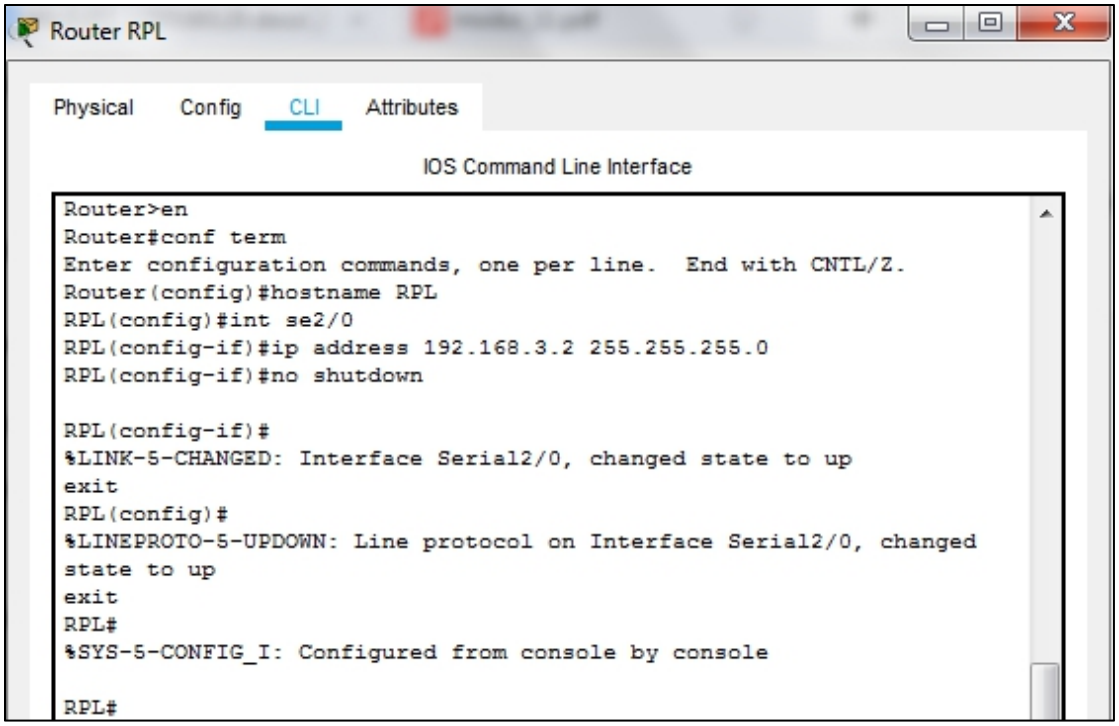


==>Konfigurasi Router

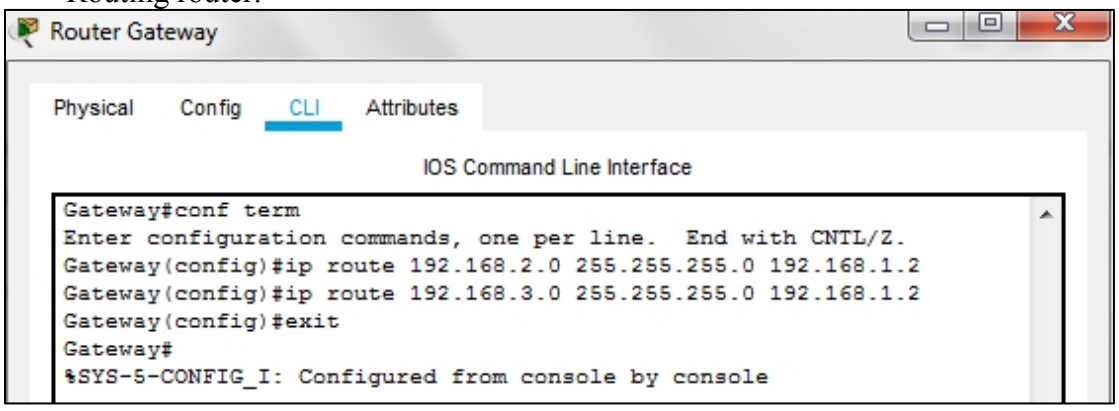


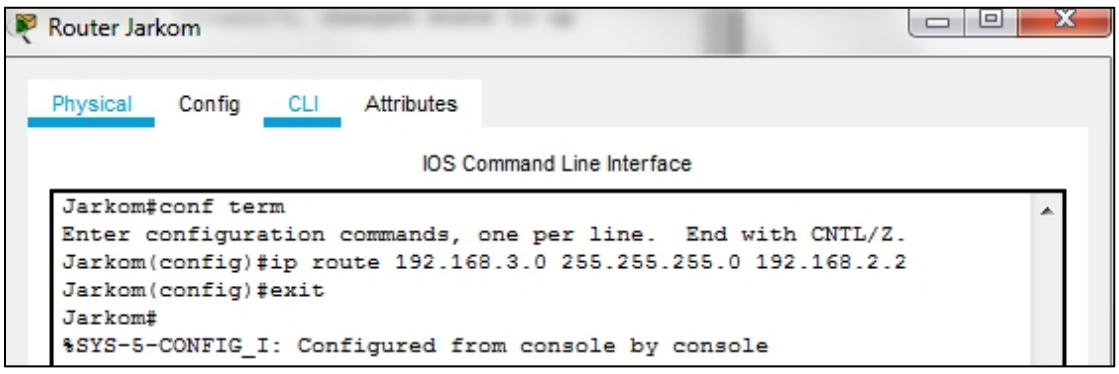

Router Jarkom
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname Jarkom
Jarkom(config)#int se2/0
Jarkom(config-if)#ip address 192.168.1.2 255.255.255.0
Jarkom(config-if)#no shutdown
Jarkom(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
Jarkom(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed
state to up
Jarkom(config-if)#exit
Jarkom(config)#int se3/0
Jarkom(config-if)#clock rate 2000000
This command applies only to DCE interfaces
Jarkom(config-if)#ip address 192.168.2.1 255.255.255.0
Jarkom(config-if)#no shutdown
%LINK-5-CHANGED: Interface Serial3/0, changed state to down
Jarkom(config-if)#clock rate 2000000
Ctrl+F6 to exit CLI focus
Copy
Paste

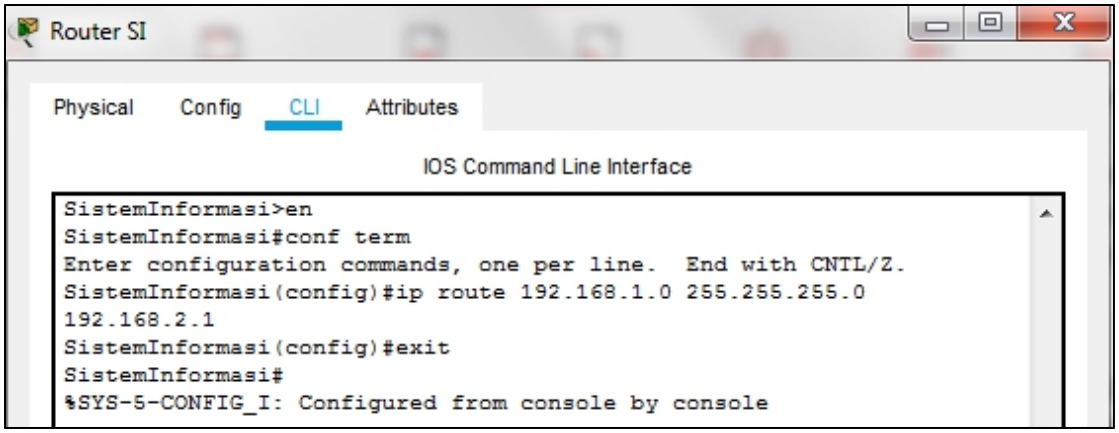

Router SI
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname SistemInformasi
SistemInformasi(config)#int se2/0
SistemInformasi(config-if)#clock rate 2000000
SistemInformasi(config-if)#ip address 192.168.3.1 255.255.255.0
SistemInformasi(config-if)#no shutdown
SistemInformasi(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
SistemInformasi(config-if)#exit
SistemInformasi(config)#int se3/0
SistemInformasi(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed
state to up
SistemInformasi(config-if)#int se3/0
SistemInformasi(config-if)#ip address 192.168.2.2 255.255.255.0
SistemInformasi(config-if)#no shutdown
%LINK-5-CHANGED: Interface Serial3/0, changed state to down
SistemInformasi(config-if)#exit
SistemInformasi(config)#
Ctrl+F6 to exit CLI focus
Copy
Paste

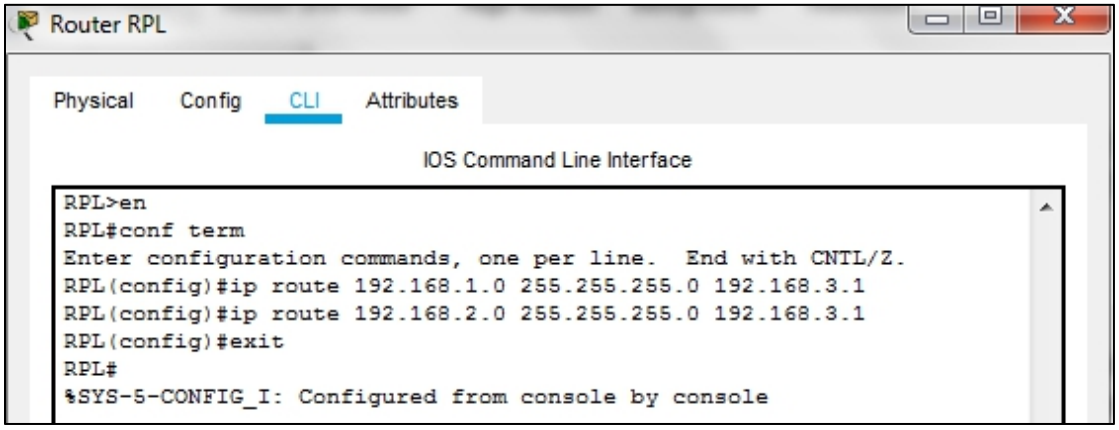


==> Routing router.

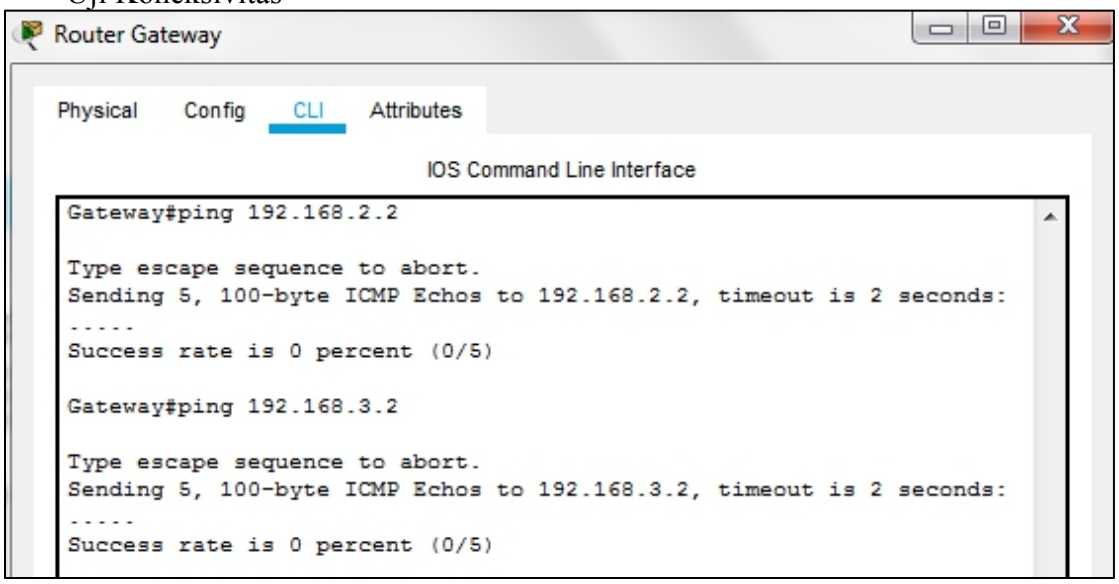




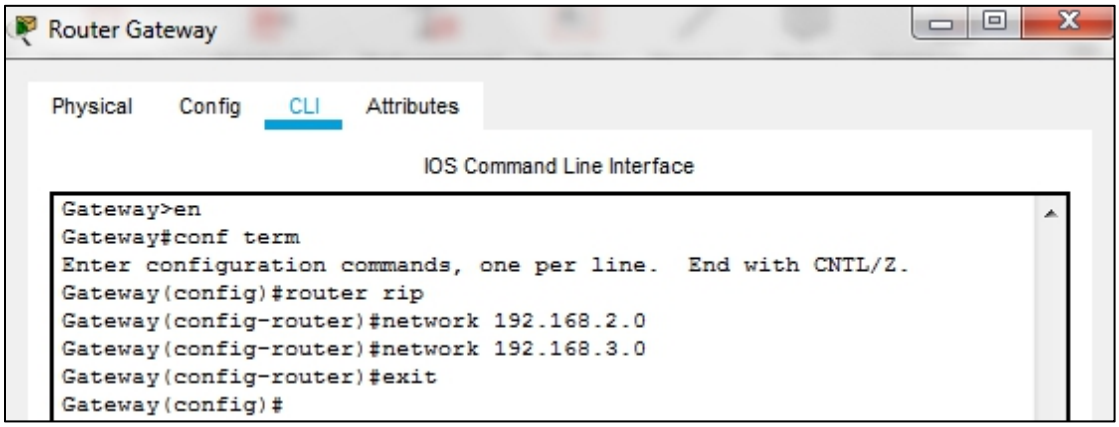


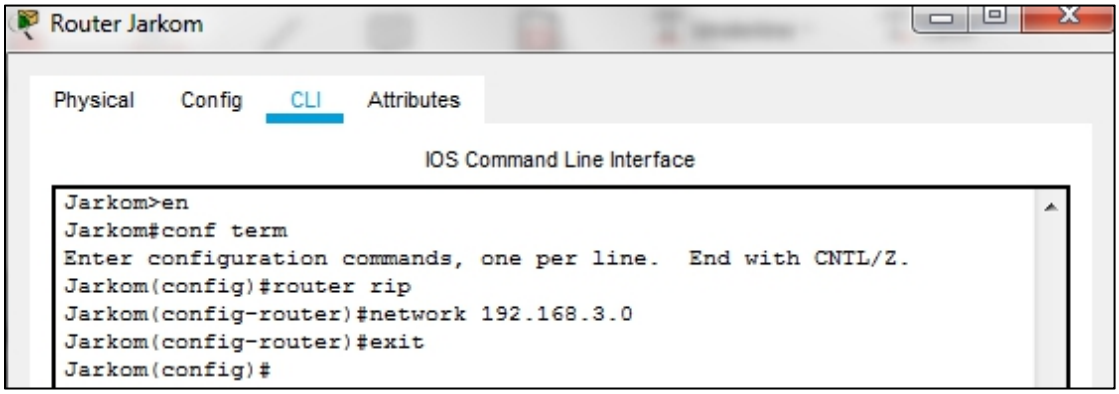


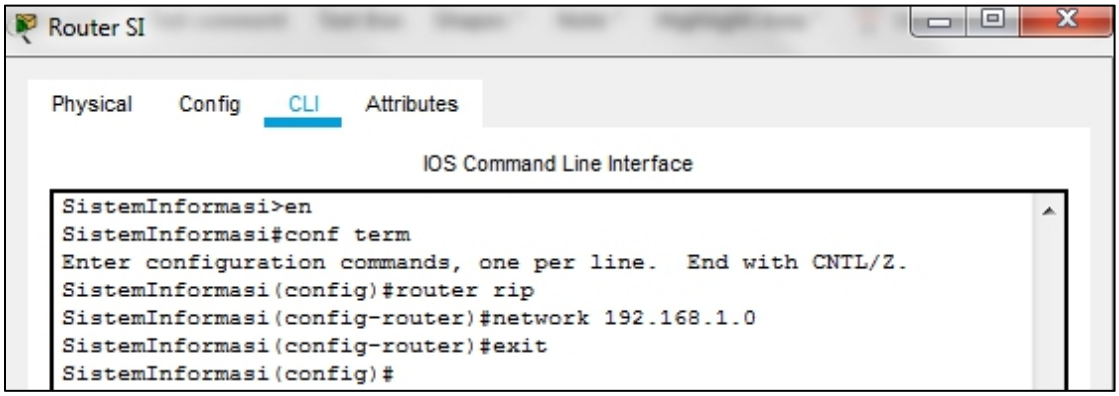
==> Uji Koneksivitas

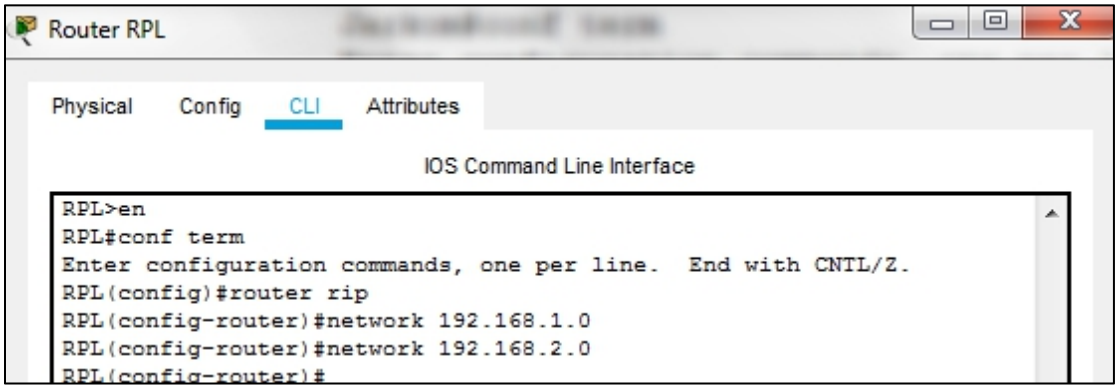


b. Dinamis


Router Gateway
Physical
Config
CLI
Attributes
IOS Command Line Interface
Gateway>en
Gateway#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Gateway(config)#router rip
Gateway(config-router)#network 192.168.2.0
Gateway(config-router)#network 192.168.3.0
Gateway(config-router)#exit
Gateway(config)#


Router Jarkom
Physical
Config
CLI
Attributes
IOS Command Line Interface
Jarkom>en
Jarkom#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Jarkom(config)#router rip
Jarkom(config-router)#network 192.168.3.0
Jarkom(config-router)#exit
Jarkom(config)#


Router SI
Physical
Config
CLI
Attributes
IOS Command Line Interface
SistemInformasi>en
SistemInformasi#conf term
Enter configuration commands, one per line. End with CNTL/Z.
SistemInformasi(config)#router rip
SistemInformasi(config-router)#network 192.168.1.0
SistemInformasi(config-router)#exit
SistemInformasi(config)#


Router RPL
Physical
Config
CLI
Attributes
IOS Command Line Interface
RPL>en
RPL#conf term
Enter configuration commands, one per line. End with CNTL/Z.
RPL(config)#router rip
RPL(config-router)#network 192.168.1.0
RPL(config-router)#network 192.168.2.0
RPL(config-router)#

==> Cek koneksivitas