

LAPORAN AKHIR PRAKTIKUM

Mata Praktikum : JARINGAN KOMPUTER
Kelas : 3IA11
Praktikum ke- : 4
Tanggal : 5/11/2024
Materi : ROUTING
NPM : 51422161
Nama : MUHAMMAD TARMIDZI BARIQ
Ketua Asisten : RAFI
Jumlah Lembar : 14



LABORATORIUM TEKNIK INFORMATIKA

UNIVERSITAS GUNADARMA

2024

1. Masukkan server sebanyak 2



2. Masukkan “switch 2950-24” sebanyak 2



3. masukkan “PT-Router” sebanyak 2



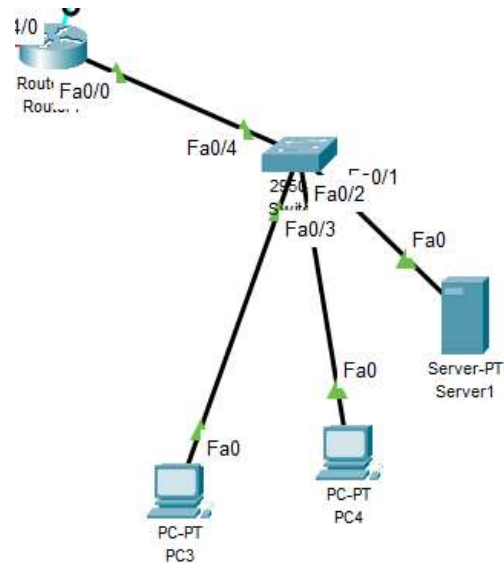
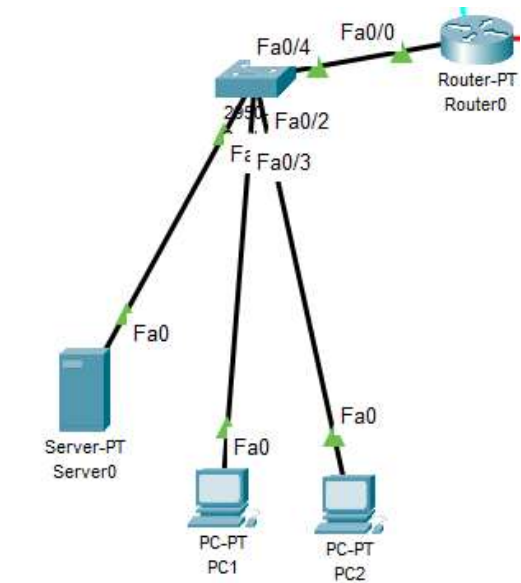
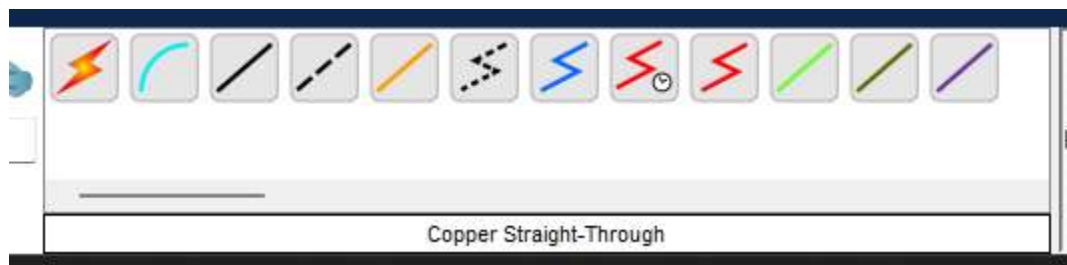
4. Masukkan “Laptop” sebanyak 2



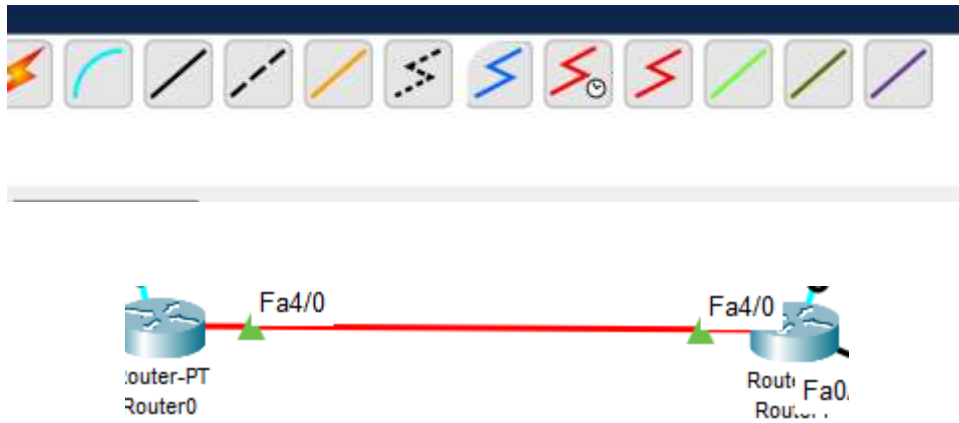
5. Masukkan “PC” sebanyak 4



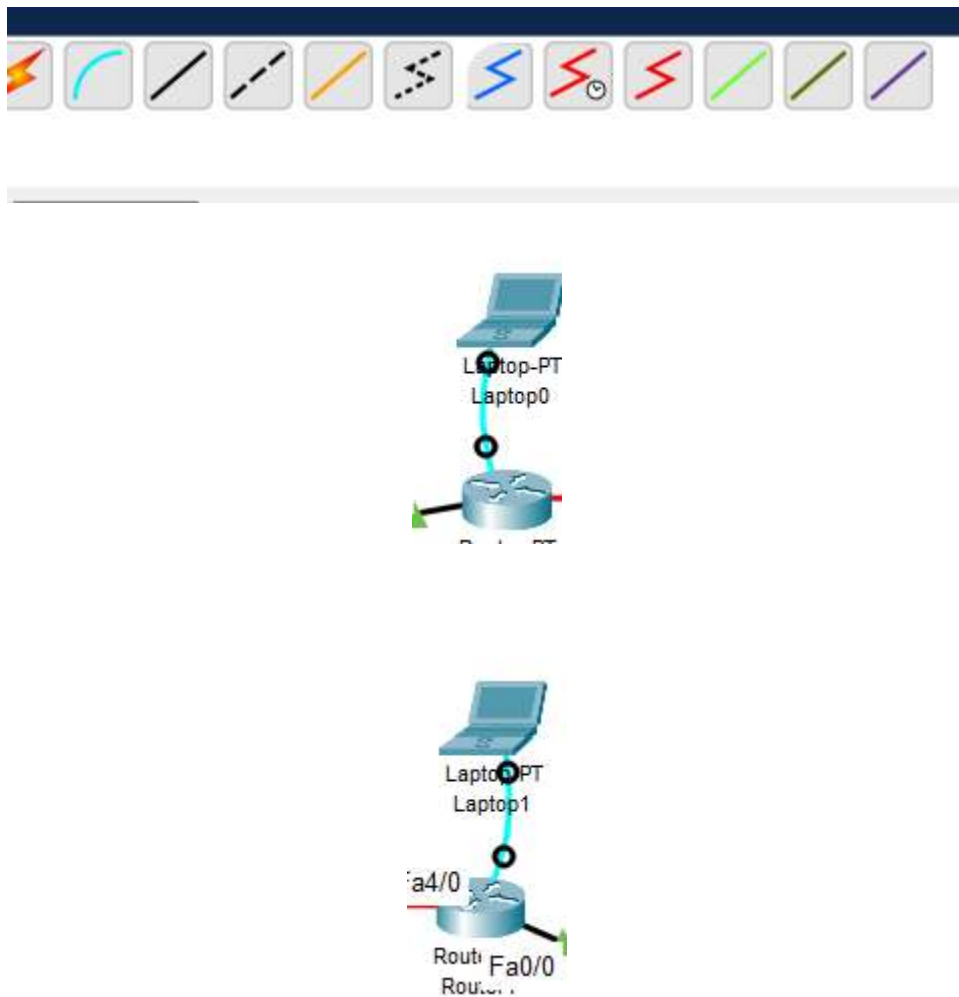
6. Masukkan kabel “Copper Straight Through” arahkan Server ke Switch, PC ke Switch, Router ke Switch

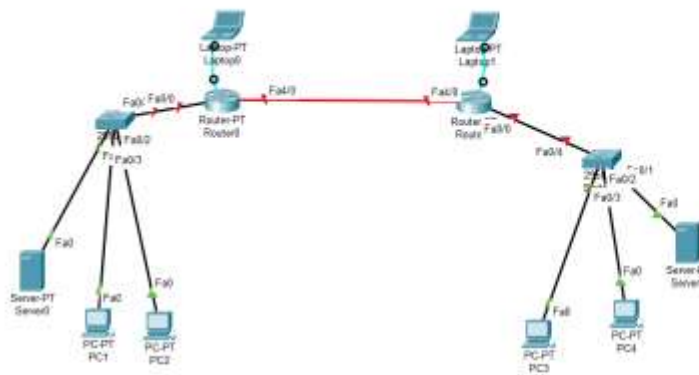


7. Masukkan kabel “fiber” router ke router

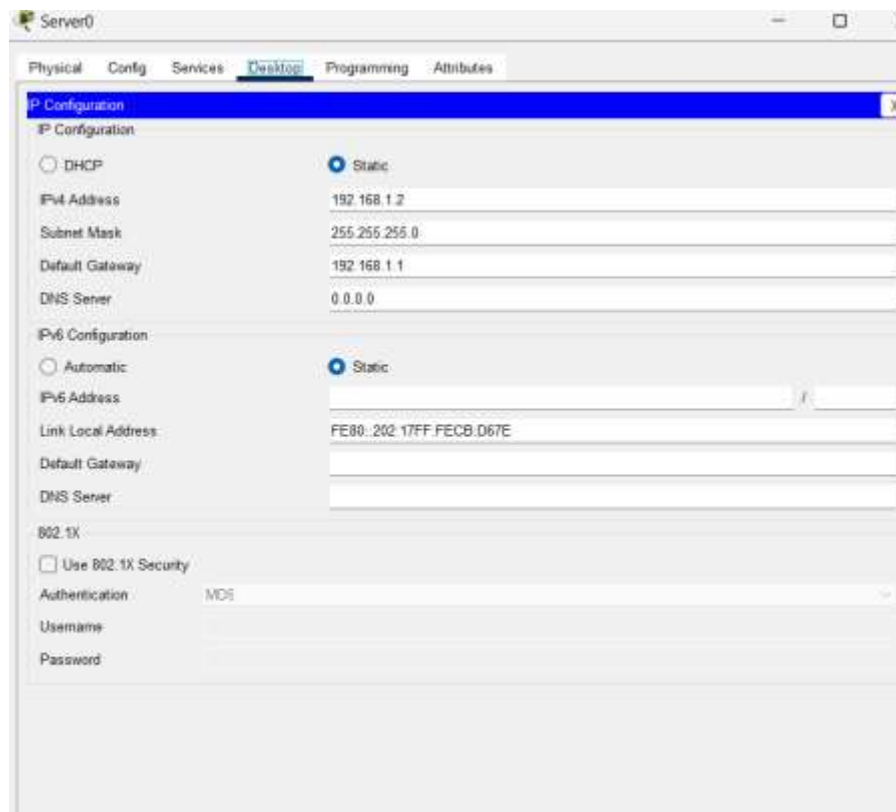


8. Masukkan kabel “Coaxial” Laptop ke router





9. Konfigurasi Server0 (Desktop -> IP Configuration)



10. Konfiguraasi Server0 (Services -> DHCP)

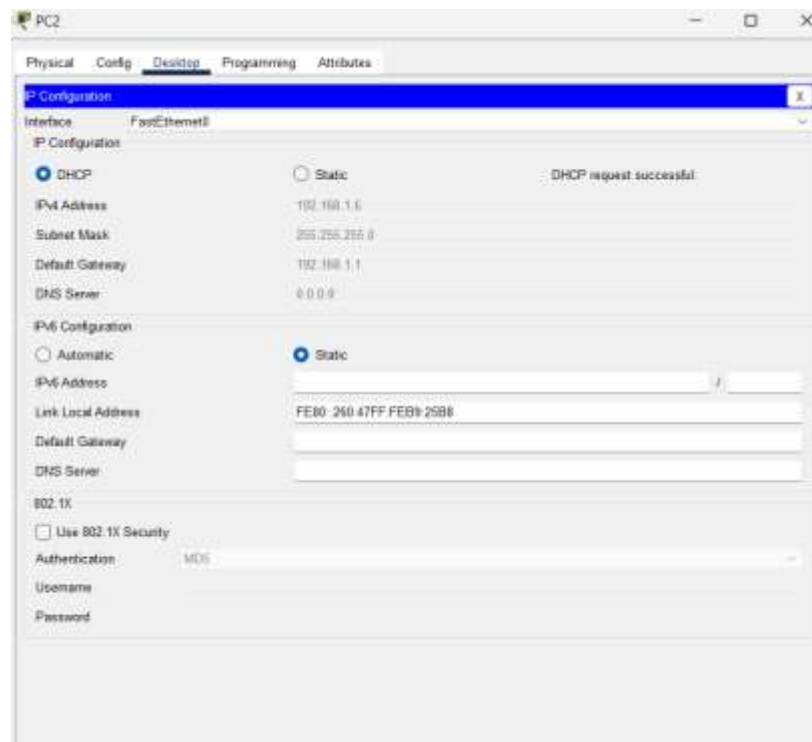
The screenshot shows the 'Server0' configuration window with the 'Services' tab selected. The 'DHCP' service is configured for the 'FastEthernet0' interface. The 'Service' is set to 'On'. The configuration includes a pool named 'serverPool' with a default gateway of 192.168.1.1, a DNS server of 0.0.0.0, and a start IP address of 192.168.1.5 with a subnet mask of 255.255.255.0. The maximum number of users is 251. The TFTP server and WLC address are both set to 0.0.0.0. A table at the bottom lists the configured DHCP pool.

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168.1.1	0.0.0.0	192.168.1.5	255.255.2.0	251	0.0.0.0	0.0.0.0

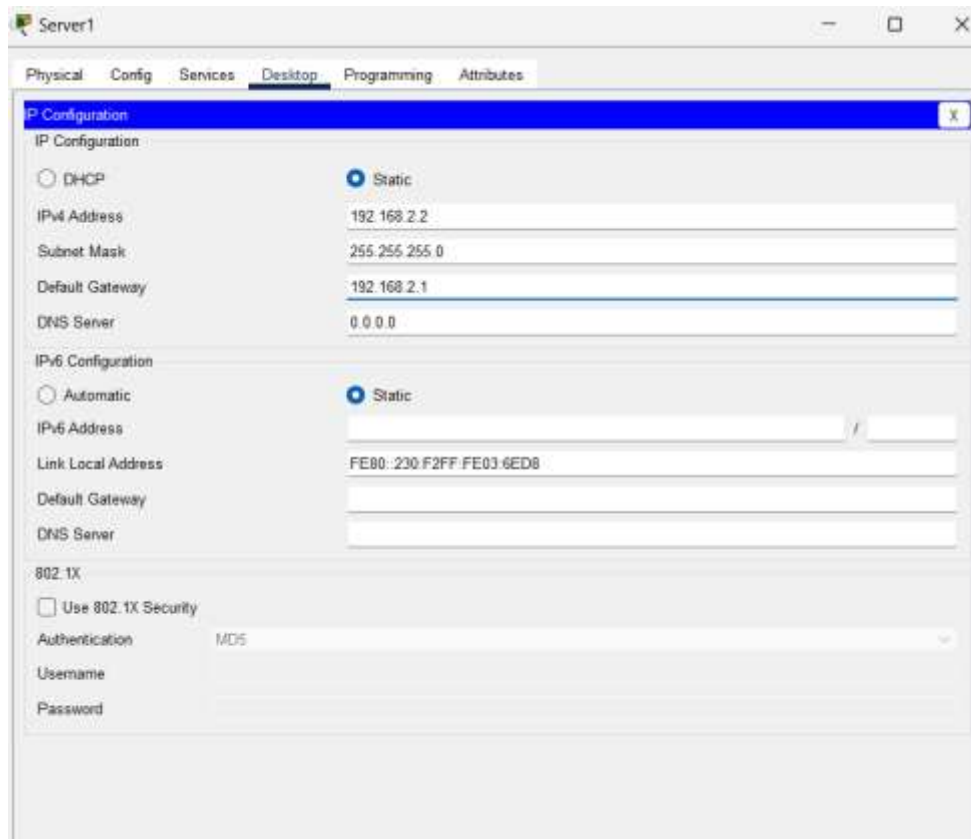
11. Konfigurasi PC1 (Desktop -> IP Configuration)

The screenshot shows the 'PC1' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is expanded, showing the 'FastEthernet0' interface. The 'DHCP' option is selected, and the 'Static' option is also visible. The configuration includes an IPv4 address of 192.168.1.5, a subnet mask of 255.255.255.0, a default gateway of 192.168.1.1, and a DNS server of 0.0.0.0. The IPv6 configuration section shows the 'Static' option selected, with a link-local address of FE80::202:17FF:FE97:BBAE. The BGP 1X section is also visible, with the 'Use BGP 1X Security' checkbox unchecked.

12. Konfigurasi PC1 (Dekstop -> IP Configuration)



13. Konfigurasi Server1 (Dekstop -> IP Configuration)



14. Konfigurasi Server1 (Services -> DHCP)

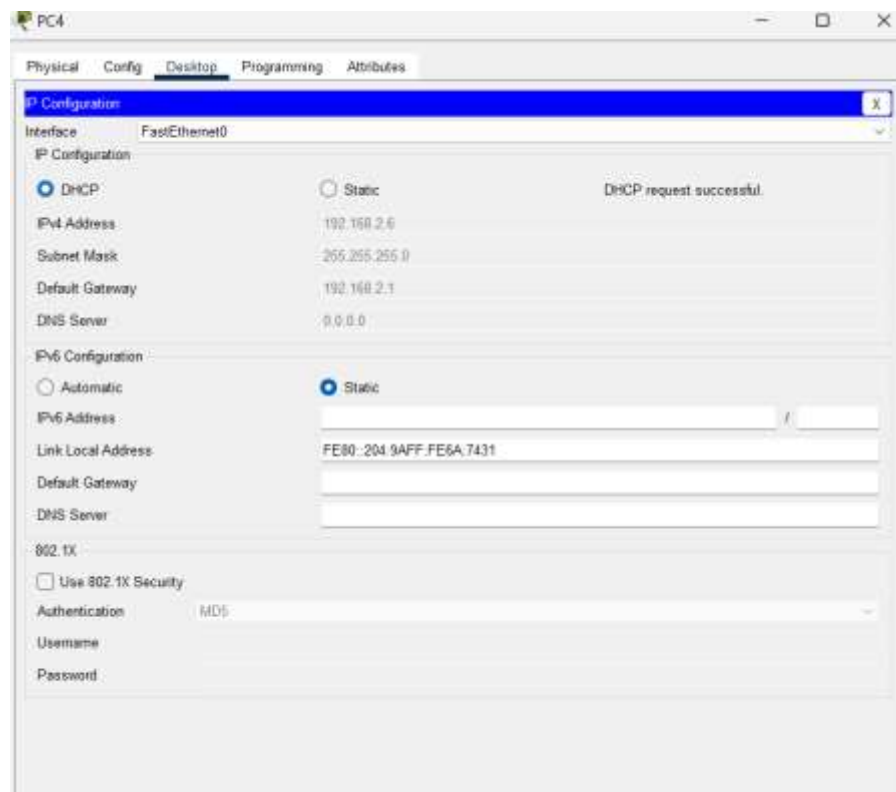
The screenshot shows the 'Server1' configuration window with the 'Services' tab selected. The 'DHCP' service is configured for the 'FastEthernet0' interface. The 'Service' is set to 'On'. The 'Pool Name' is 'serverPool'. The 'Default Gateway' is '192.168.2.1'. The 'DNS Server' is '0.0.0.0'. The 'Start IP Address' is '192.168.2.2' and the 'Subnet Mask' is '255.255.255.0'. The 'Maximum Number of Users' is '251'. The 'TFTP Server' is '0.0.0.0' and the 'WLC Address' is '0.0.0.0'. A table at the bottom lists the DHCP pool configuration.

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168.2.1	0.0.0.0	192.168.2.2	255.255.255.0	251	0.0.0.0	0.0.0.0

15. Konfigurasi PC3 (Desktop -> IP Configuration)

The screenshot shows the 'PC3' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is expanded. The 'Interface' is 'FastEthernet0'. The 'IP Configuration' is set to 'DHCP'. The 'IPv4 Address' is '192.168.2.5', the 'Subnet Mask' is '255.255.255.0', the 'Default Gateway' is '192.168.2.1', and the 'DNS Server' is '0.0.0.0'. The 'IPv6 Configuration' is set to 'Static'. The 'IPv6 Address' is 'FE80::200:BDFF:FE88:B905', the 'Link Local Address' is 'FE80::200:BDFF:FE88:B905', the 'Default Gateway' is empty, and the 'DNS Server' is empty. The '802.1X' section is expanded, showing 'Use 802.1X Security' is unchecked, 'Authentication' is 'MD5', 'Username' is empty, and 'Password' is empty.

16. Konfigurasi PC4 (Dekstop -> IP Configuration)



The screenshot shows the 'PC4' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is active, showing settings for the 'FastEthernet0' interface. The 'DHCP' option is selected, and a message indicates 'DHCP request successful'. The IPv4 configuration shows an address of 192.168.2.6, subnet mask 255.255.255.0, default gateway 192.168.2.1, and DNS server 0.0.0.0. The IPv6 configuration shows the 'Static' option selected, with a link local address of FE80::204:9AFF:FE6A:7431. The 802.1X section is also visible, with 'Use 802.1X Security' unchecked and 'Authentication' set to 'MD5'.

PC4

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IPv4 Address 192.168.2.6

Subnet Mask 255.255.255.0

Default Gateway 192.168.2.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80::204:9AFF:FE6A:7431

Default Gateway

DNS Server

802.1X

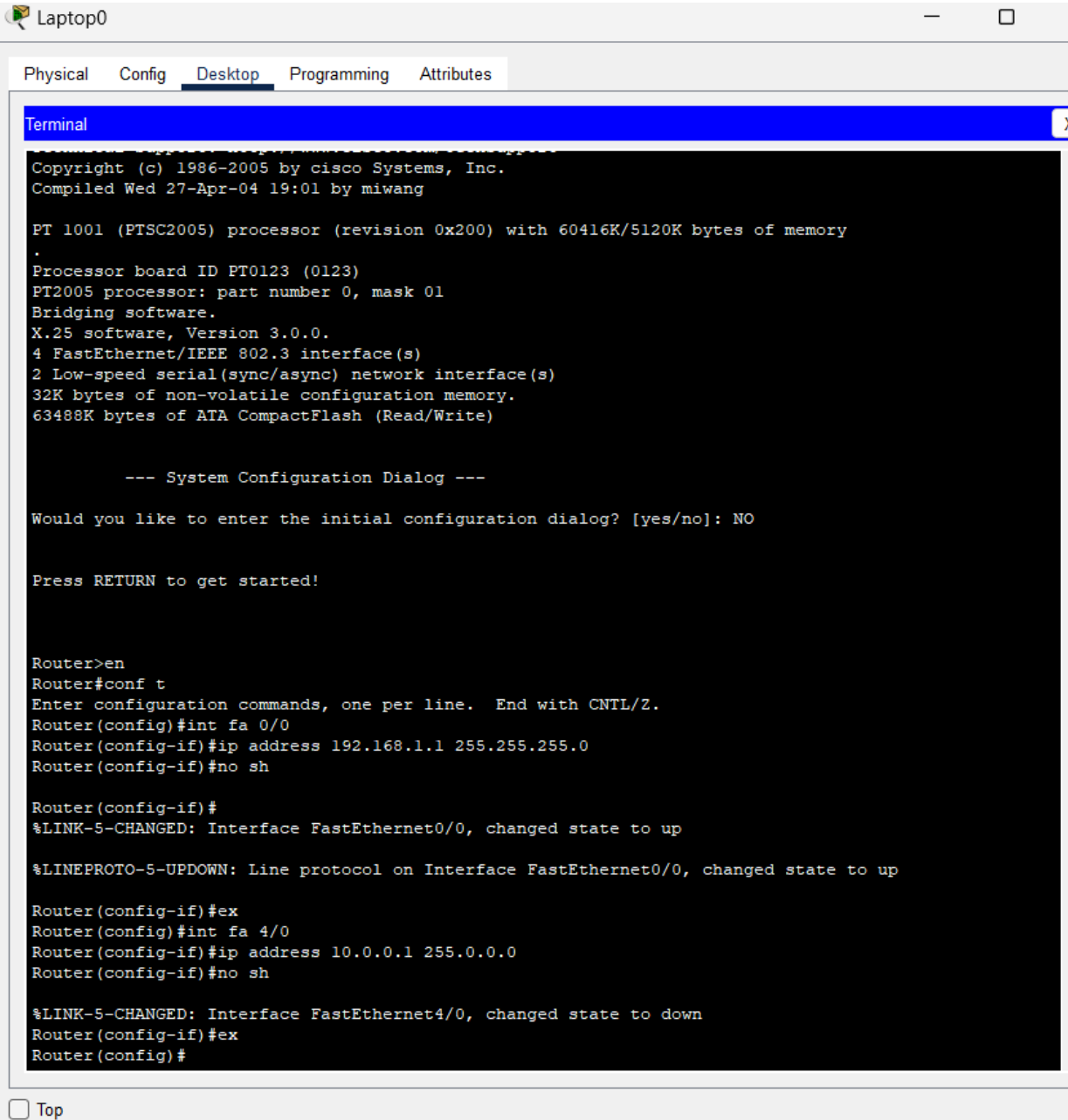
☐ Use 802.1X Security

Authentication MD5

Username

Password

17. Konfigurasi Routing Laptop0 (Desktop -> Terminal)

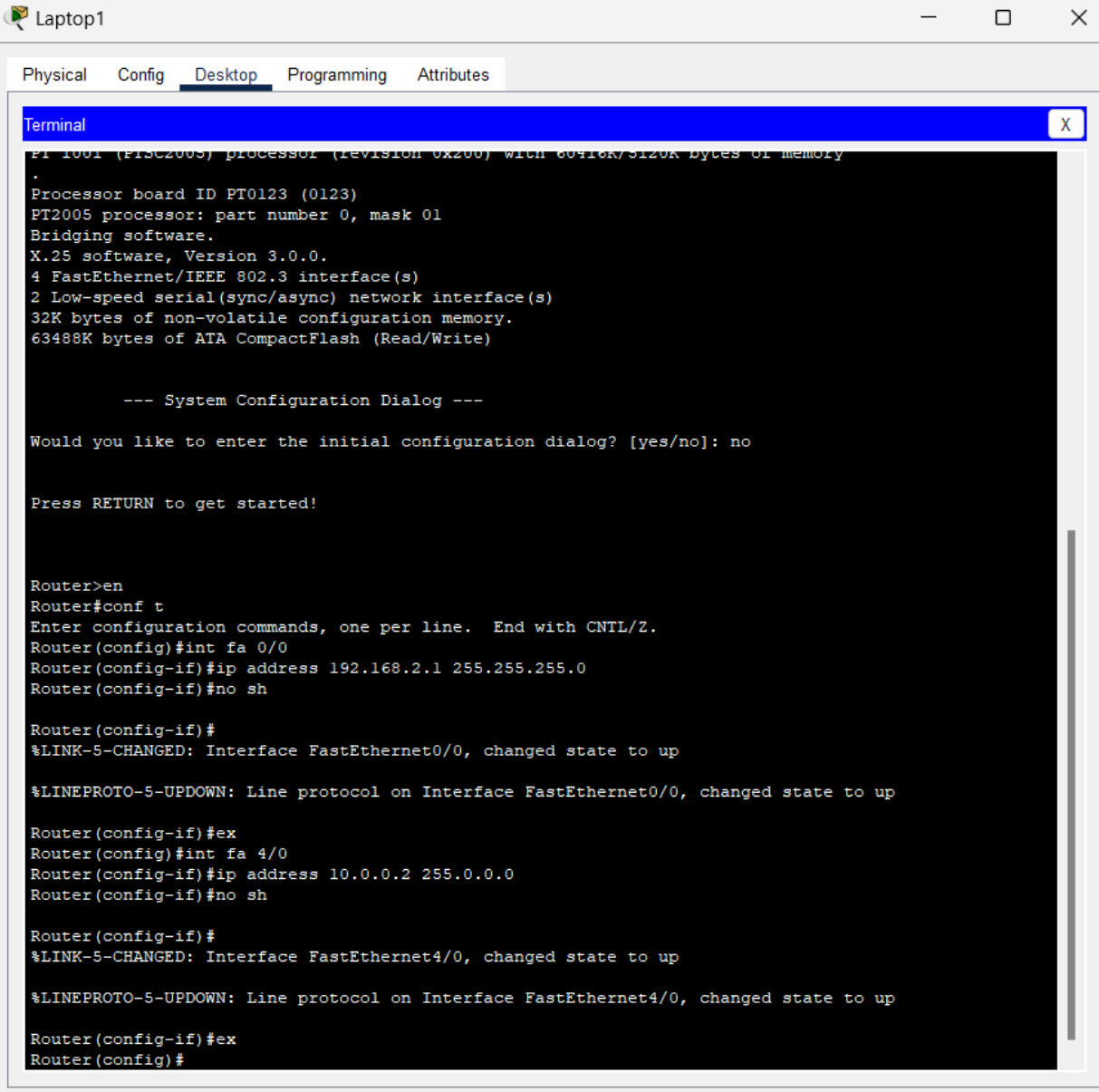


The screenshot shows a Packet Tracer window titled "Laptop0". The "Desktop" tab is selected, displaying a terminal window. The terminal output shows the following sequence of events:

```
Copyright (c) 1986-2005 by cisco Systems, Inc.  
Compiled Wed 27-Apr-04 19:01 by miwang  
  
PT 1001 (PTSC2005) processor (revision 0x200) with 60416K/5120K bytes of memory  
.  
Processor board ID PT0123 (0123)  
PT2005 processor: part number 0, mask 01  
Bridging software.  
X.25 software, Version 3.0.0.  
4 FastEthernet/IEEE 802.3 interface(s)  
2 Low-speed serial(sync/async) network interface(s)  
32K bytes of non-volatile configuration memory.  
63488K bytes of ATA CompactFlash (Read/Write)  
  
--- System Configuration Dialog ---  
  
Would you like to enter the initial configuration dialog? [yes/no]: NO  
  
Press RETURN to get started!  
  
Router>en  
Router#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#int fa 0/0  
Router(config-if)#ip address 192.168.1.1 255.255.255.0  
Router(config-if)#no sh  
  
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  
  
Router(config-if)#ex  
Router(config)#int fa 4/0  
Router(config-if)#ip address 10.0.0.1 255.0.0.0  
Router(config-if)#no sh  
  
%LINK-5-CHANGED: Interface FastEthernet4/0, changed state to down  
Router(config-if)#ex  
Router(config)#
```

At the bottom of the window, there is a "Top" button.

18. Konfigurasi Laptop1 (Desktop -> Terminal)



```
PT 1001 (PTSC2005) processor (revision 0x200) with 6416K/5120K bytes of memory
.
Processor board ID PT0123 (0123)
PT2005 processor: part number 0, mask 01
Bridging software.
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa 0/0
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#no sh

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

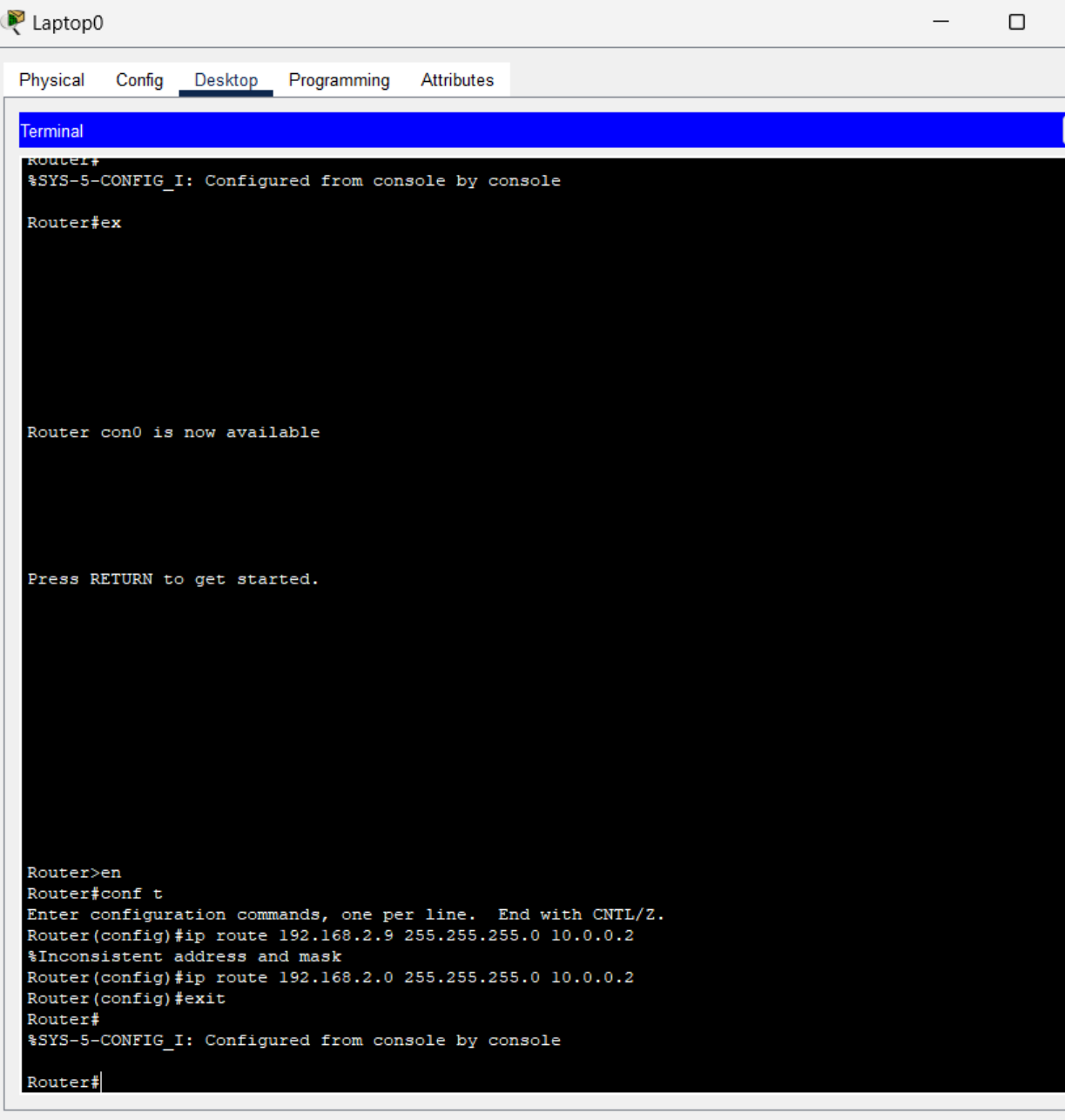
Router(config-if)#ex
Router(config)#int fa 4/0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet4/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet4/0, changed state to up

Router(config-if)#ex
Router(config)#
```

19. Konfigurasi Laptop0, IP Route (Desktop -> Terminal)



```
Router#
%SYS-5-CONFIG_I: Configured from console by console

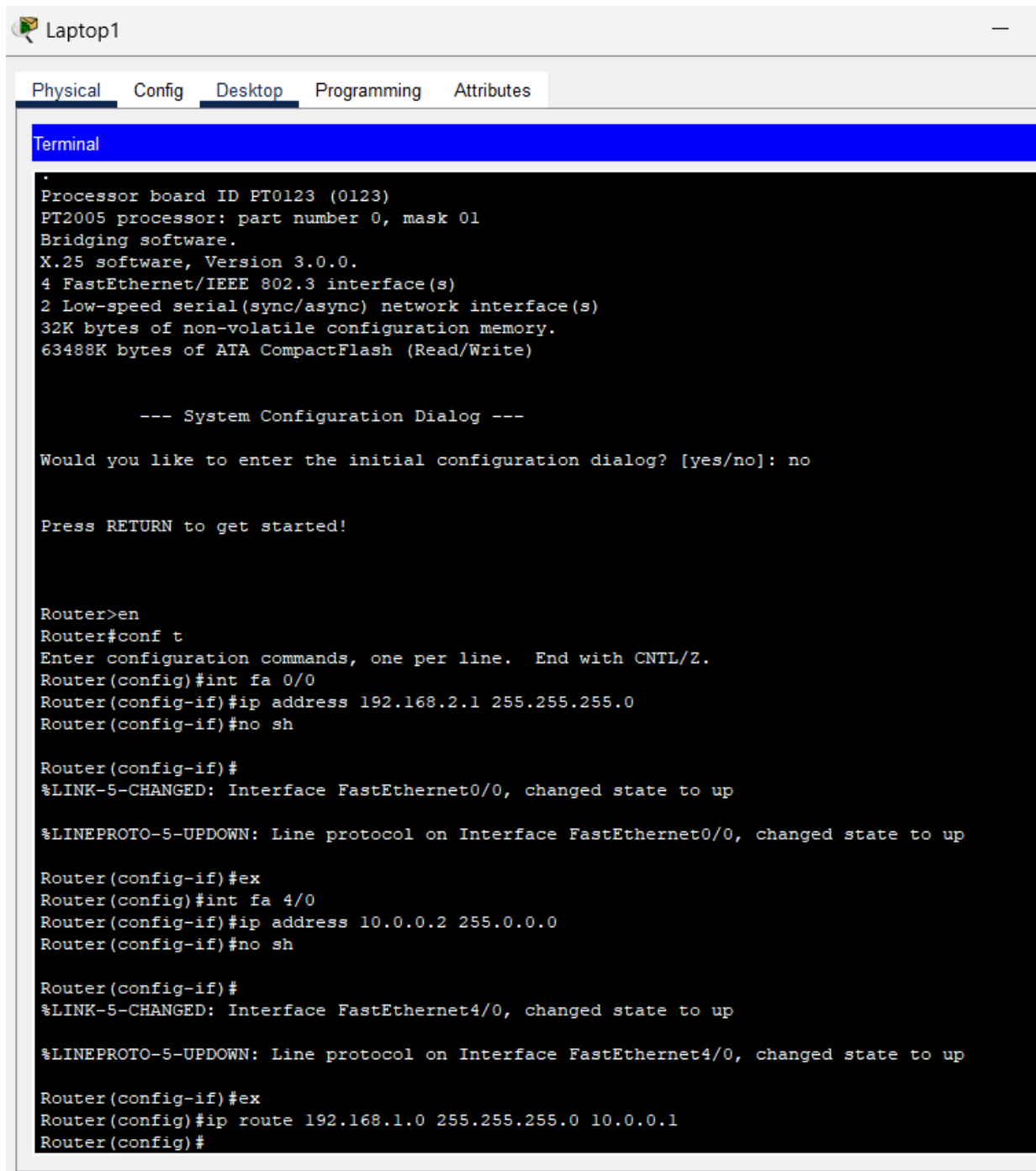
Router#ex

Router con0 is now available

Press RETURN to get started.

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 192.168.2.9 255.255.255.0 10.0.0.2
%Inconsistent address and mask
Router(config)#ip route 192.168.2.0 255.255.255.0 10.0.0.2
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
Router#
```

20. Konfigurasi Laptop1, IP Route (Desktop -> Terminal)



```
Laptop1
Physical Config Desktop Programming Attributes
Terminal
*
Processor board ID PT0123 (0123)
PT2005 processor: part number 0, mask 01
Bridging software.
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa 0/0
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

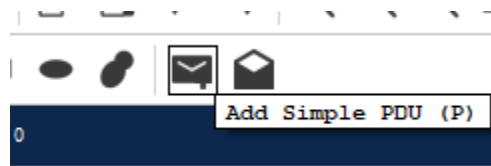
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up









Router(config-if)#ex
Router(config)#int fa 4/0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet4/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet4/0, changed state to up

Router(config-if)#ex
Router(config)#ip route 192.168.1.0 255.255.255.0 10.0.0.1
Router(config)#
```



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Del
	Successful	PC1	PC3	ICMP		0.000	N	0	(edit)	
	Successful	PC2	PC4	ICMP		0.000	N	1	(edit)	
	Successful	PC1	PC4	ICMP		0.000	N	2	(edit)	
	Successful	PC2	PC3	ICMP		0.000	N	3	(edit)	