

Comunicazione tra Laptop0 e PC1, questi device stanno sulla medesima rete 192.168.100.0

The image shows a network diagram and two configuration windows from a simulation software. The diagram on the left illustrates a network topology where a 2601-24TT Switch is connected to three devices: Laptop-PT Laptop1, Laptop-PT 192.168.100.100, and PC-PT 192.168.100.103. The two configuration windows on the right show the settings for the FastEthernet0 interface on the 192.168.100.100 and 192.168.100.103 devices. Both windows have tabs for Physical, Config, Desktop, Programming, and Attributes. The IP Configuration section is active, showing static IP settings. The IPv6 Configuration section is also visible, showing static IPv6 settings. The 802.1X section is expanded, showing authentication settings (MD5) and fields for Username and Password.

192.168.100.100

Physical Config Desktop Programming

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.100.100

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80::207:ECFF:F

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

192.168.100.103

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.100.103

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address

Link Local Address FE80::201:96FF:FE3D:1478

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

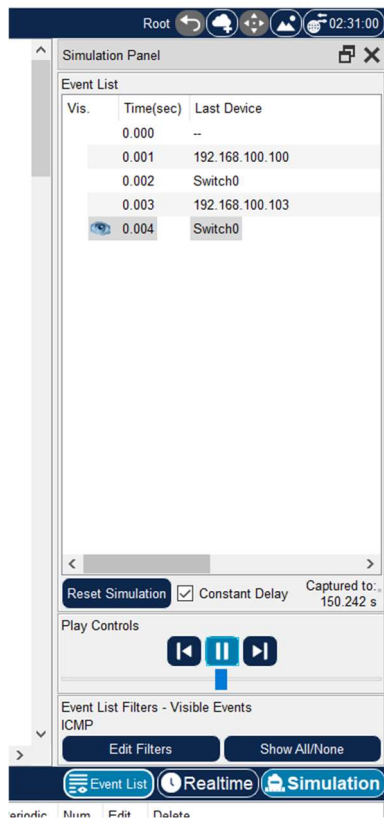
Automatically Choose Connection Type

Delete

Simulazione comunicazione in realtime dei due pc

Realtime Simulation										
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	192.168.100.100	192.168.100.103	ICMP		0.000	N	0	(edit)	(delete)

Simulazione comunicazione tra i due pc evidenziando solamente il protocollo ICMP



Configurazione interfacce router

Router0

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0/0

GigabitEthernet0/0/1

GigabitEthernet0/0/2

GigabitEthernet0/0/0

Port Status ☒ On

Bandwidth ☐ 1000 Mbps ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00D0.FFB8.6501

IP Configuration

IPv4 Address 192.168.100.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

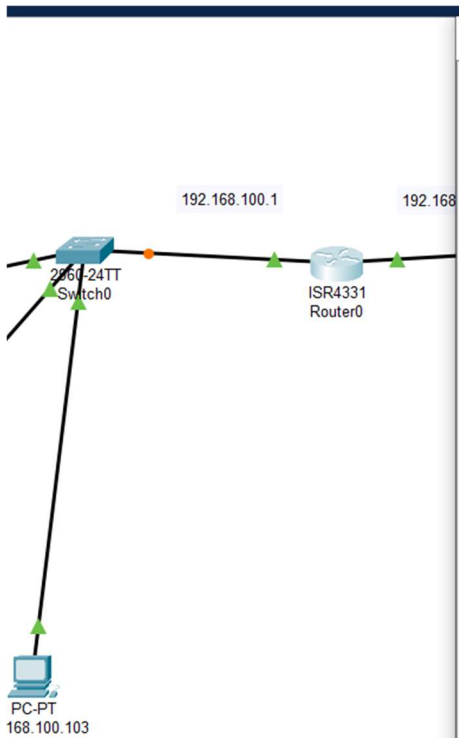
```
Router(config)#interface GigabitEthernet0/0/1
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0, changed state to up
ip address 192.168.200.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#
```

Scenario 0

New Delete

Toggle PDU List Window

Top



Router0

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0/0

GigabitEthernet0/0/1

GigabitEthernet0/0/2

GigabitEthernet0/0/1

Port Status ☒ On

Bandwidth ☐ 1000 Mbps ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00D0.FFB8.6502

IP Configuration

IPv4 Address 192.168.200.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0, changed state to up
ip address 192.168.200.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0/1
Router(config-if)#
```

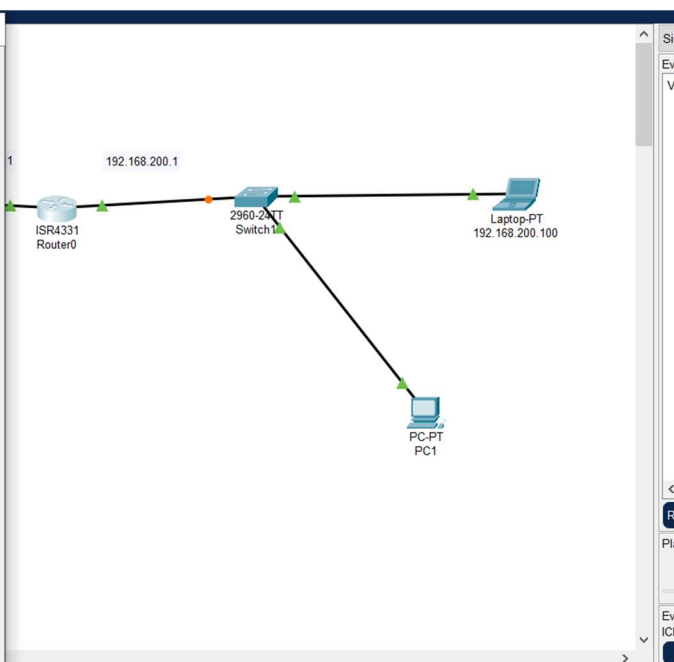
Scenario 0

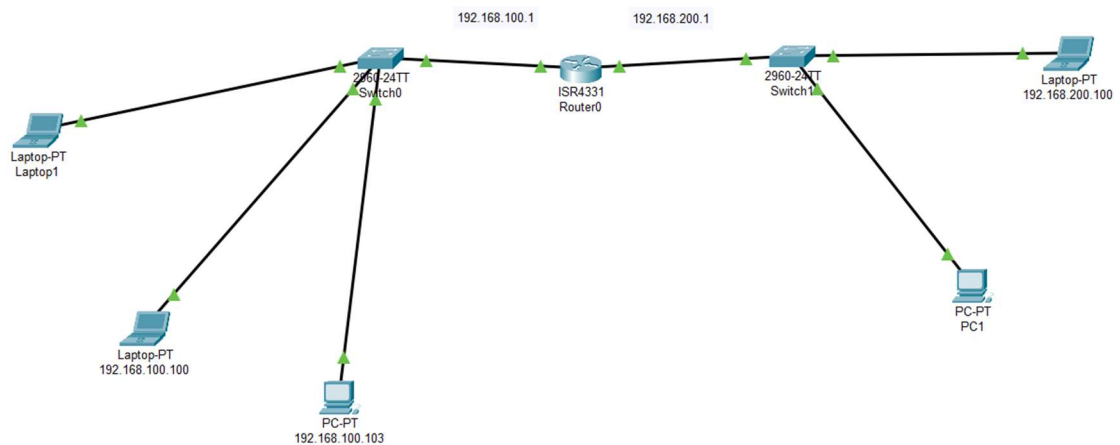
New Delete

Fire

Last Status Source Destination Type Color Time(sec) Periodic

In Progress 192.168.100.100 192.168.100.103 ICMP 0.000 N





Configurazione del gateway per ogni pc che deve comunicare

The screenshot displays the configuration windows for three devices in Cisco Packet Tracer. Each window shows the 'IP Configuration' tab with the following settings:

- Interface:** FastEthernet0
- IP Configuration:** Static
- IPv4 Address:** [Device-specific IP]
- Subnet Mask:** 255.255.255.0
- Default Gateway:** 192.168.100.1
- DNS Server:** 0.0.0.0

Corretta comunicazione tra pc su reti differenti

Successful	192.168.100.100	192.168.200.100	ICMP	0.000	N	10	(edit)	(delete)
Successful	192.168.100.103	192.168.200.100	ICMP	0.000	N	11	(edit)	(delete)

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.100

Pinging 192.168.200.100 with 32 bytes of data:

Reply from 192.168.200.100: bytes=32 time<1ms TTL=127
Reply from 192.168.200.100: bytes=32 time<1ms TTL=127
Reply from 192.168.200.100: bytes=32 time<1ms TTL=127
Reply from 192.168.200.100: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.200.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

PDU Information at Device: Switch0

OSI Model

Inbound PDU Details

Outbound PDU Details

At Device: Switch0
Source: 192.168.100.100
Destination: 192.168.200.100

In Layers

Layer7
Layer6
Layer5
Layer4
Layer3
Layer 2: Ethernet II Header
0007.EC6E.C1C2 >> 00D0.FFB8.6501
Layer 1: Port FastEthernet0/1

Out Layers

Layer7
Layer6
Layer5
Layer4
Layer3
Layer 2: Ethernet II Header
0007.EC6E.C1C2 >> 00D0.FFB8.6501
Layer 1: Port(s): FastEthernet0/4

1. The frame source MAC address was found in the MAC table of Switch.
2. This is a unicast frame. Switch looks in its MAC table for the destination MAC address.

Challenge Me

<< Previous Layer

Next Layer >>

PDU Information at Device: Router0

OSI Model

Inbound PDU Details

Outbound PDU Details

At Device: Router0
Source: 192.168.100.100
Destination: 192.168.200.100

In Layers

Layer7
Layer6
Layer5
Layer4
Layer 3: IP Header Src. IP: 192.168.100.100, Dest. IP: 192.168.200.100 ICMP Message Type: 8
Layer 2: Ethernet II Header 0007.EC6E.C1C2 >> 00D0.FFB8.6501
Layer 1: Port GigabitEthernet0/0/0

Out Layers

Layer7
Layer6
Layer5
Layer4
Layer 3: IP Header Src. IP: 192.168.100.100, Dest. IP: 192.168.200.100 ICMP Message Type: 8
Layer 2: Ethernet II Header 00D0.FFB8.6502 >> 0009.7C4D.925C
Layer 1: Port(s): GigabitEthernet0/0/1

1. GigabitEthernet0/0/0 receives the frame.

Challenge Me

<< Previous Layer

Next Layer >>

PDU Information at Device: Switch1



OSI Model

Inbound PDU Details

Outbound PDU Details

At Device: Switch1
Source: 192.168.100.100
Destination: 192.168.200.100

In Layers

Layer7
Layer6
Layer5
Layer4
Layer3
Layer 2: Ethernet II Header
00D0.FFB8.6502 >> 0009.7C4D.925C
Layer 1: Port FastEthernet0/3

Out Layers

Layer7
Layer6
Layer5
Layer4
Layer3
Layer 2: Ethernet II Header
00D0.FFB8.6502 >> 0009.7C4D.925C
Layer 1: Port(s): FastEthernet0/2

1. FastEthernet0/3 receives the frame.

Challenge Me

<< Previous Layer

Next Layer >>

PDU Information at Device: 192.168.200.100

OSI Model

Inbound PDU Details

Outbound PDU Details

At Device: 192.168.200.100

Source: 192.168.100.100

Destination: 192.168.200.100

In Layers

Layer7

Layer6

Layer5

Layer4

Layer 3: IP Header Src. IP:
192.168.100.100, Dest. IP:
192.168.200.100 ICMP Message Type: 8

Layer 2: Ethernet II Header
00D0.FFB8.6502 >> 0009.7C4D.925C

Layer 1: Port FastEthernet0

Out Layers

Layer7

Layer6

Layer5

Layer4

Layer 3: IP Header Src. IP:
192.168.200.100, Dest. IP:
192.168.100.100 ICMP Message Type: 0

Layer 2: Ethernet II Header 0009.7C4D.
925C >> 00D0.FFB8.6502

Layer 1: Port(s): FastEthernet0

1. FastEthernet0 receives the frame.

Challenge Me

<< Previous Layer

Next Layer >>