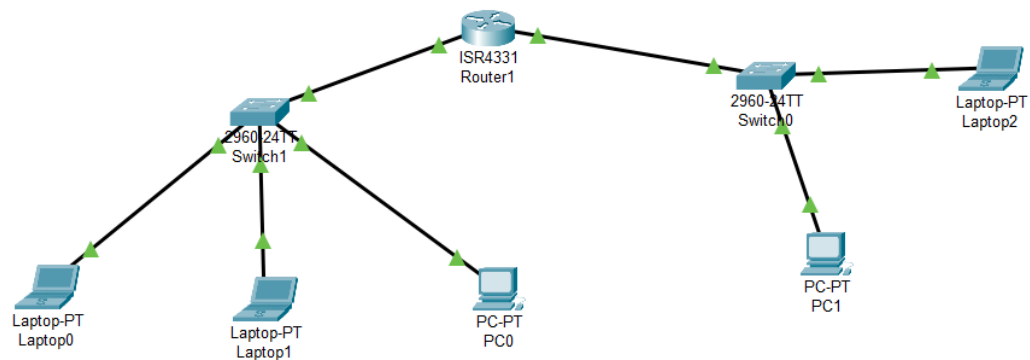
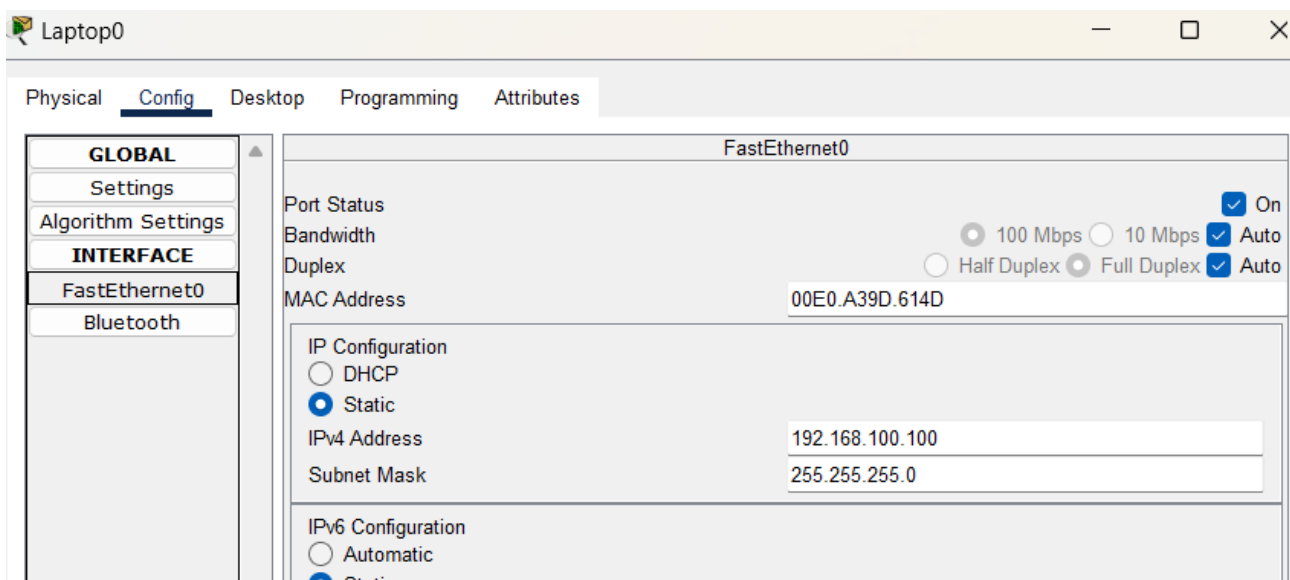


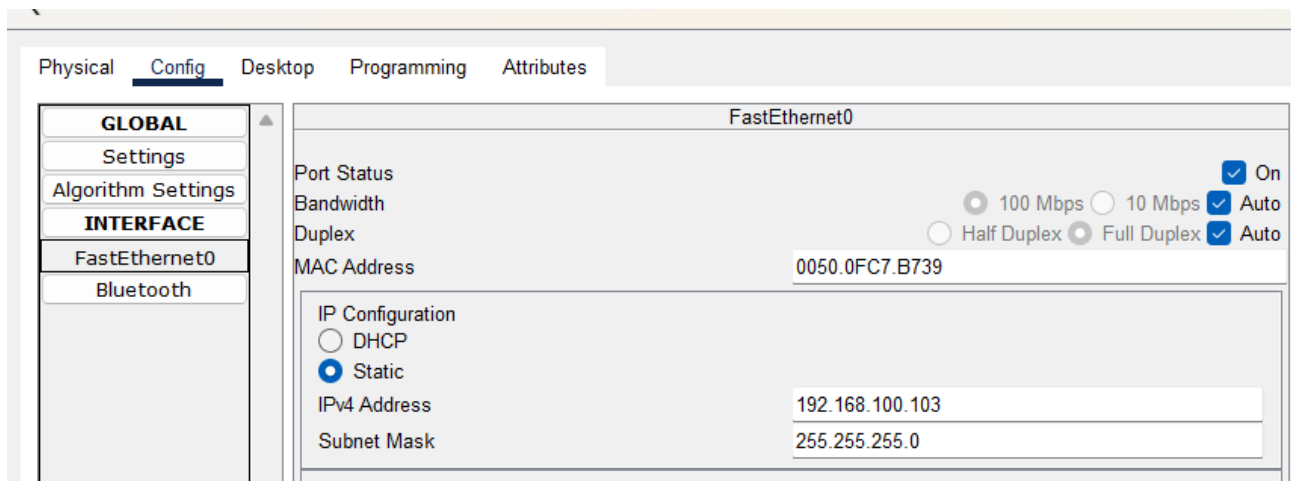
CONFIGURAZIONE RETE CON CISCO



Per prima cosa, creare i vari collegamenti fra i nodi con gli strumenti del programma cisco.



Cliccare sul Laptop-PT Laptop 0 e inserire l'indirizzo IP.



Allo stesso modo, inserire IP su PC-PT PC0.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100.103

Pinging 192.168.100.103 with 32 bytes of data:

Reply from 192.168.100.103: bytes=32 time<1ms TTL=128
Reply from 192.168.100.103: bytes=32 time<1ms TTL=128
Reply from 192.168.100.103: bytes=32 time<1ms TTL=128
Reply from 192.168.100.103: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.100.103:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Provare ping fra i due dispositivi per vedere se comunicano.

PDU Information at Device: PC0

At Device: PC0
Source: Laptop0
Destination: Broadcast

In Layers

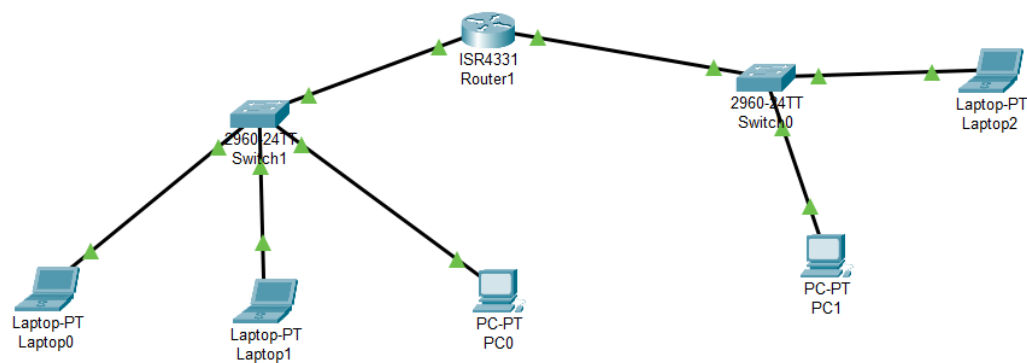
Layer7
Layer6
Layer5
Layer4
Layer3
Layer 2: Ethernet II Header 00E0.A39D.614D >> FFFF.FFFF.FFFF ARP Packet Src. IP: 192.168.100.100, Dest. IP: 192.168.100.103
Layer 1: Port FastEthernet0

Out Layers

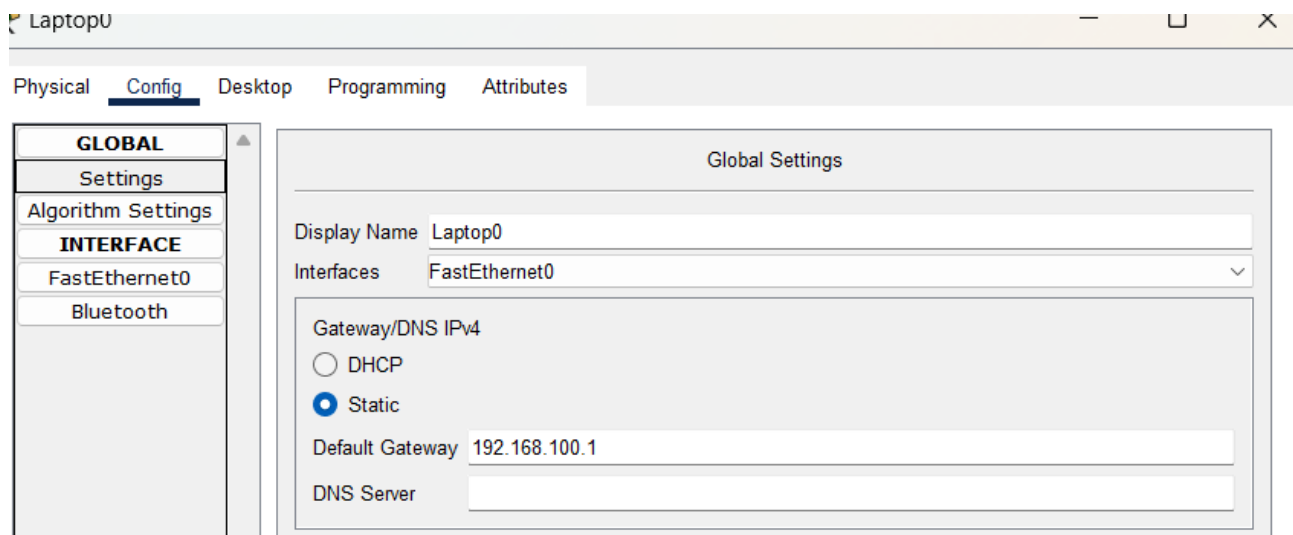
Layer7
Layer6
Layer5
Layer4
Layer3
Layer 2: Ethernet II Header 0050.0FC7.B739 >> 00E0.A39D.614D ARP Packet Src. IP: 192.168.100.103, Dest. IP: 192.168.100.100
Layer 1: Port(s): FastEthernet0

1. FastEthernet0 sends out the frame.

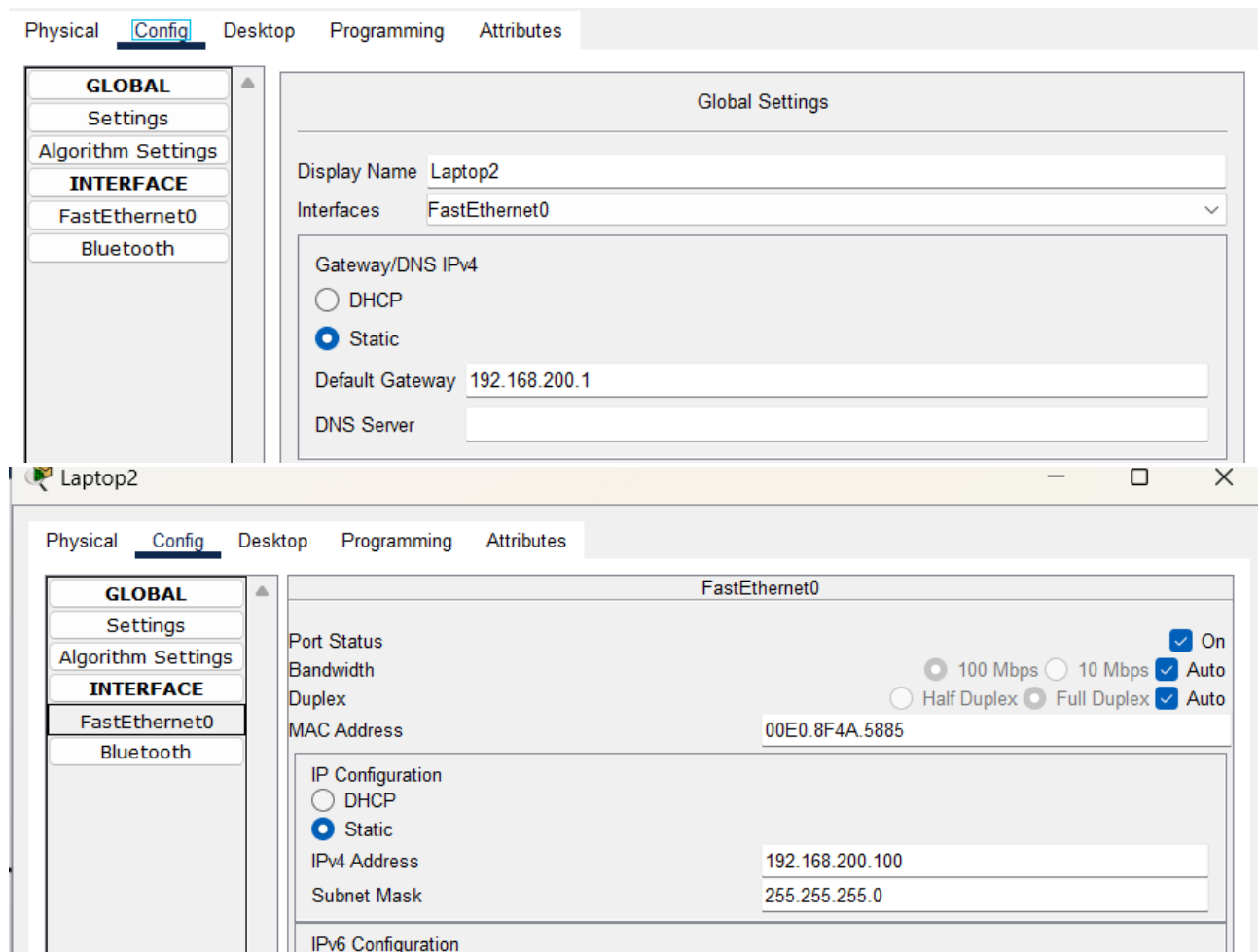
Il risultato sarà che i pacchetti si saranno scambiati con successo senza cambiare gli indirizzi source IP-MAC e gli indirizzi di destinazione.



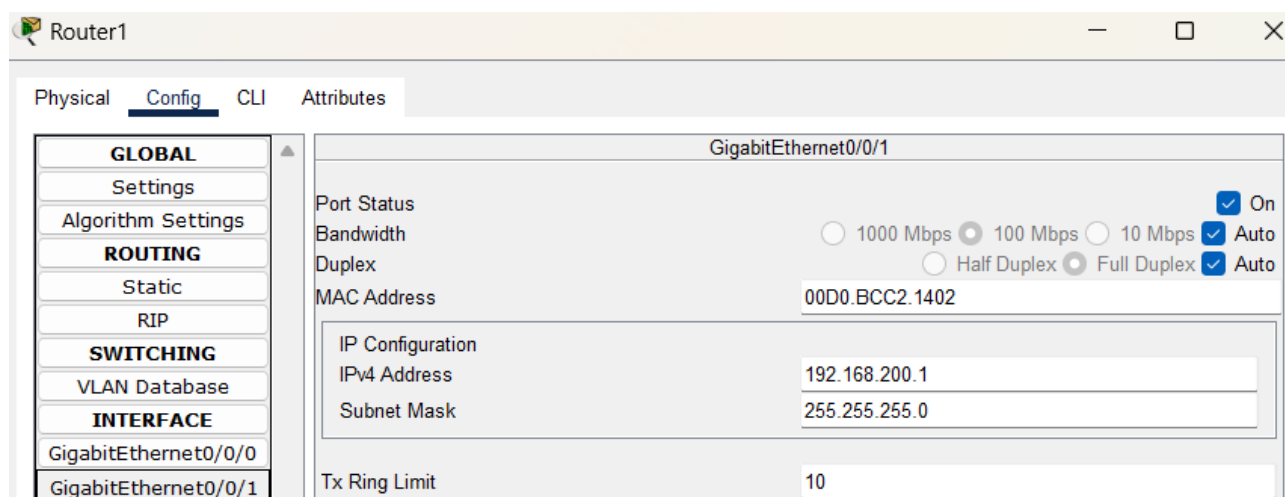
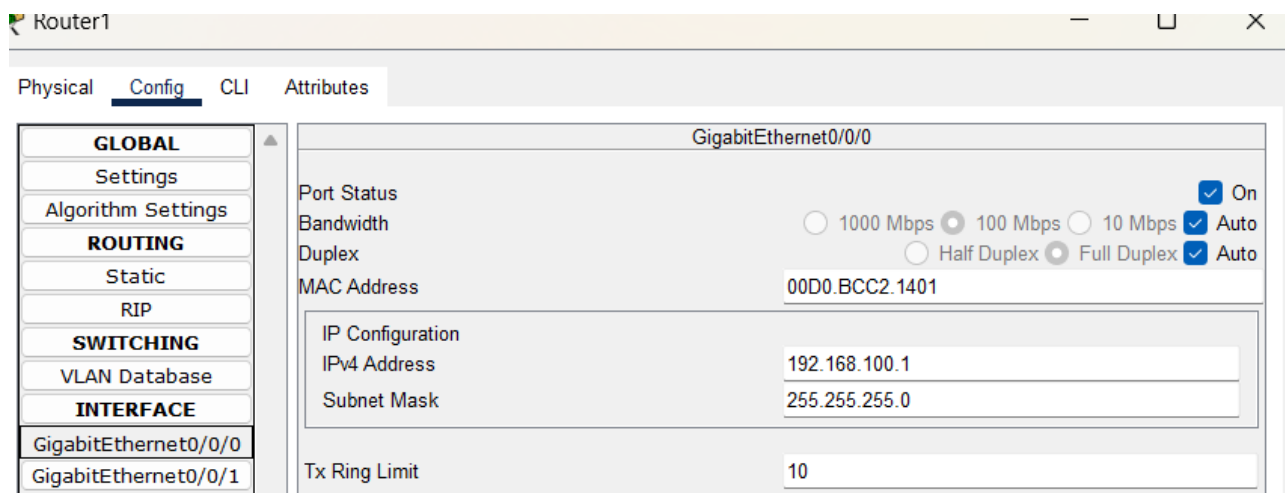
Come secondo punto dell'esempio si collegherà il laptop0 al laptop2.



Cliccare su laptop0 e inserire il gateway.



Cliccare sul laptop2 e inserire sia l'indirizzo ip che il gateway.



Cliccare sul router1, e inserire nella GigabitEthernet0/0/0 il gateway del laptop0 mentre nel GigabitEthernet0/0/1 il gateway del laptop2

```
Pinging 192.168.200.100 with 32 bytes of data:

Request timed out.
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 = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Effettuare un ping dal laptop0 al laptop2 (se nella prima riga compare scritto request timed out non è un problema).

PDU Information at Device: Laptop2

OSI Model Inbound PDU Details Outbound PDU Details

At Device: Laptop2
Source: Laptop0
Destination: 192.168.200.100

In Layers	Out Layers
Layer7	Layer7
Layer6	Layer6
Layer5	Layer5
Layer4	Layer4
Layer 3: IP Header Src. IP: 192.168.100.100, Dest. IP: 192.168.200.100 ICMP Message Type: 8	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 00D0.BCC2.1402 >> 00E0.8F4A.5885	Layer 2: Ethernet II Header 00E0.8F4A.5885 >> 00D0.BCC2.1402
Layer 1: Port FastEthernet0	Layer 1: Port(s): FastEthernet0

1. FastEthernet0 receives the frame.

I pacchetti si sono scambiati con successo. In questo caso l'indirizzo MAC del laptop0 è cambiato fino ad arrivare al laptop2 con un MAC diverso perché passando per il router il MAC varia per permettere la comunicazione. L'indirizzo IP rimane invariato.