

LAB 4

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ITIT - 13104



Imagen de configuracion de interfaces del router, 6 Vlans e IP subnets (6 reactivos)

The image displays a network configuration in a Packet Tracer environment. On the left, a physical topology shows six PC-PT devices connected to a central switch (2960-24TT Switch Jorge) via their Fa0 interfaces. The PCs are configured with the following VLANs and IP subnets:

- PC-PT VLAN 201 /28
- PC-PT VLAN 202 /27
- PC-PT VLAN 203 /26
- PC-PT VLAN 204 /25
- PC-PT VLAN 206 /23
- PC-PT VLAN 208 /21

The switch is connected to a Router Jorge (2911) via its Fa0/24 interface. The router's configuration is shown in the CLI window on the right, which is titled "IOS Command Line Interface". The configuration includes the following commands:

```
interface GigabitEthernet0/0
no ip address
duplex auto
speed auto
!
interface GigabitEthernet0/0.201
encapsulation dot1Q 201
ip address 10.10.201.1 255.255.255.240
!
interface GigabitEthernet0/0.202
encapsulation dot1Q 202
ip address 10.10.202.1 255.255.255.224
!
interface GigabitEthernet0/0.203
encapsulation dot1Q 203
ip address 10.10.203.1 255.255.255.192
!
interface GigabitEthernet0/0.204
encapsulation dot1Q 204
ip address 10.10.204.1 255.255.255.128
!
interface GigabitEthernet0/0.206
encapsulation dot1Q 206
ip address 10.10.206.1 255.255.254.0
!
interface GigabitEthernet0/0.208
encapsulation dot1Q 208
ip address 10.10.208.1 255.255.248.0
--More--
```

The CLI window also shows tabs for Physical, Config, CLI, and Attributes. At the bottom of the CLI window, there are "Copy" and "Paste" buttons. A "Top" button is located at the bottom left of the CLI window.

Imagen de configuracion de cada PC con la ultima IP usable de la subnet (6 reactivos)

VLAN 201 /28

Physical **Config** Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 000B.BE29.78D6

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 10.10.201.14

Subnet Mask 255.255.255.240

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address /

Link Local Address: FE80::20B:BEFF:FE29:78D6

VLAN 202 /27

Physical **Config** Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00D0.BA9B.4CE6

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 10.10.202.30

Subnet Mask 255.255.255.224

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address /

Link Local Address: FE80::2D0:BAFF:FE9B:4CE6

Imagen de configuracion de cada PC con la ultima IP usable de la subnet (6 reactivos)

VLAN 203 /26

Physical **Config** Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0060.3EE5.83EE

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 10.10.203.62

Subnet Mask 255.255.255.192

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address /

Link Local Address: FE80::260:3EFF:FEE5:83EE

VLAN 204 /25

Physical **Config** Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00E0.8FD1.C45C

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 10.10.204.126

Subnet Mask 255.255.255.128

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address /

Link Local Address: FE80::2E0:8FFF:FED1:C45C

Imagen de configuracion de cada PC con la ultima IP usable de la subnet (6 reactivos)

VLAN 206 /23

Physical **Config** Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0009.7C25.6740

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 10.10.207.254

Subnet Mask 255.255.254.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address: FE80::209:7CFF:FE25:6740

VLAN 208 /21

Physical **Config** Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0009.7C8C.25C1

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 10.10.215.254

Subnet Mask 255.255.248.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address: FE80::209:7CFF:FE8C:25C1

Imagen de show ip route del router, 6 IP subnets (6 reactivos)

```
Router Jorge
Physical Config CLI Attributes
IOS Command Line Interface

Router>
Router>
Router>enable
Router#show ip rou
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

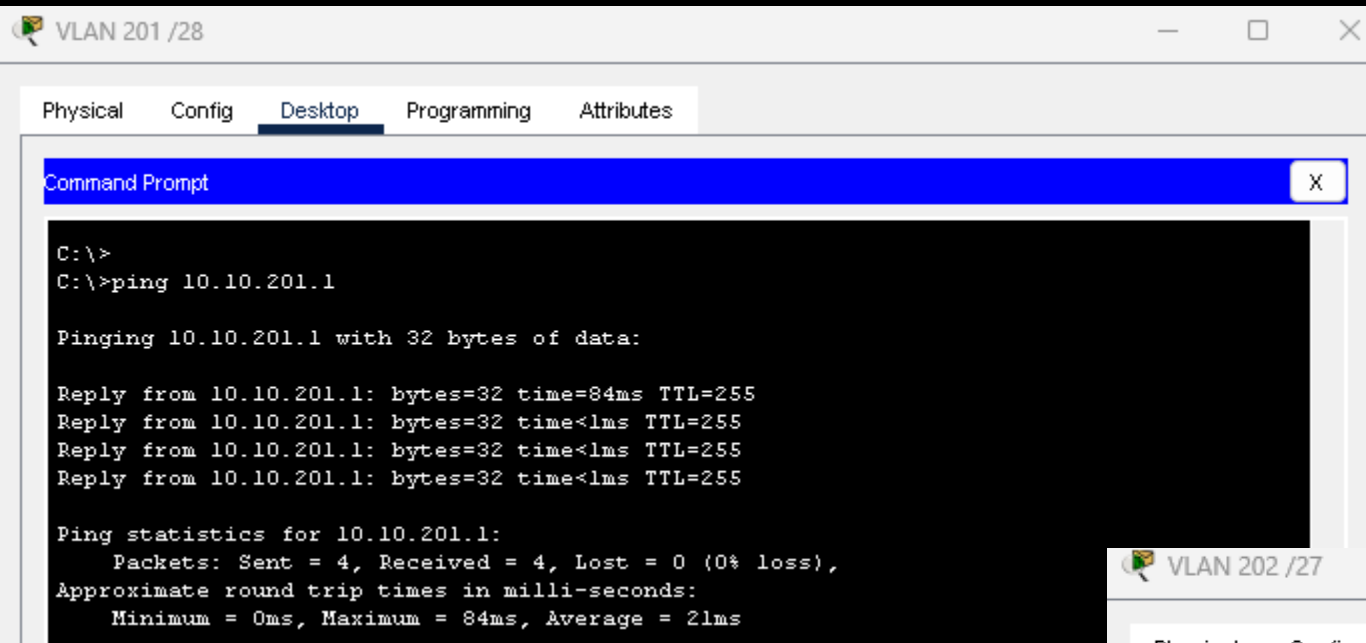
    10.0.0.0/8 is variably subnetted, 12 subnets, 7 masks
C       10.10.201.0/28 is directly connected, GigabitEthernet0/0.201
L       10.10.201.1/32 is directly connected, GigabitEthernet0/0.201
C       10.10.202.0/27 is directly connected, GigabitEthernet0/0.202
L       10.10.202.1/32 is directly connected, GigabitEthernet0/0.202
C       10.10.203.0/26 is directly connected, GigabitEthernet0/0.203
L       10.10.203.1/32 is directly connected, GigabitEthernet0/0.203
C       10.10.204.0/25 is directly connected, GigabitEthernet0/0.204
L       10.10.204.1/32 is directly connected, GigabitEthernet0/0.204
C       10.10.206.0/23 is directly connected, GigabitEthernet0/0.206
L       10.10.206.1/32 is directly connected, GigabitEthernet0/0.206
C       10.10.208.0/21 is directly connected, GigabitEthernet0/0.208
L       10.10.208.1/32 is directly connected, GigabitEthernet0/0.208

Router#
Router#
Router#
Router#
```

Copy Paste

☐ Top

Imagen de Ping exitoso de PC a Router por cada Vlan, 6 Pings (6 reactivos)



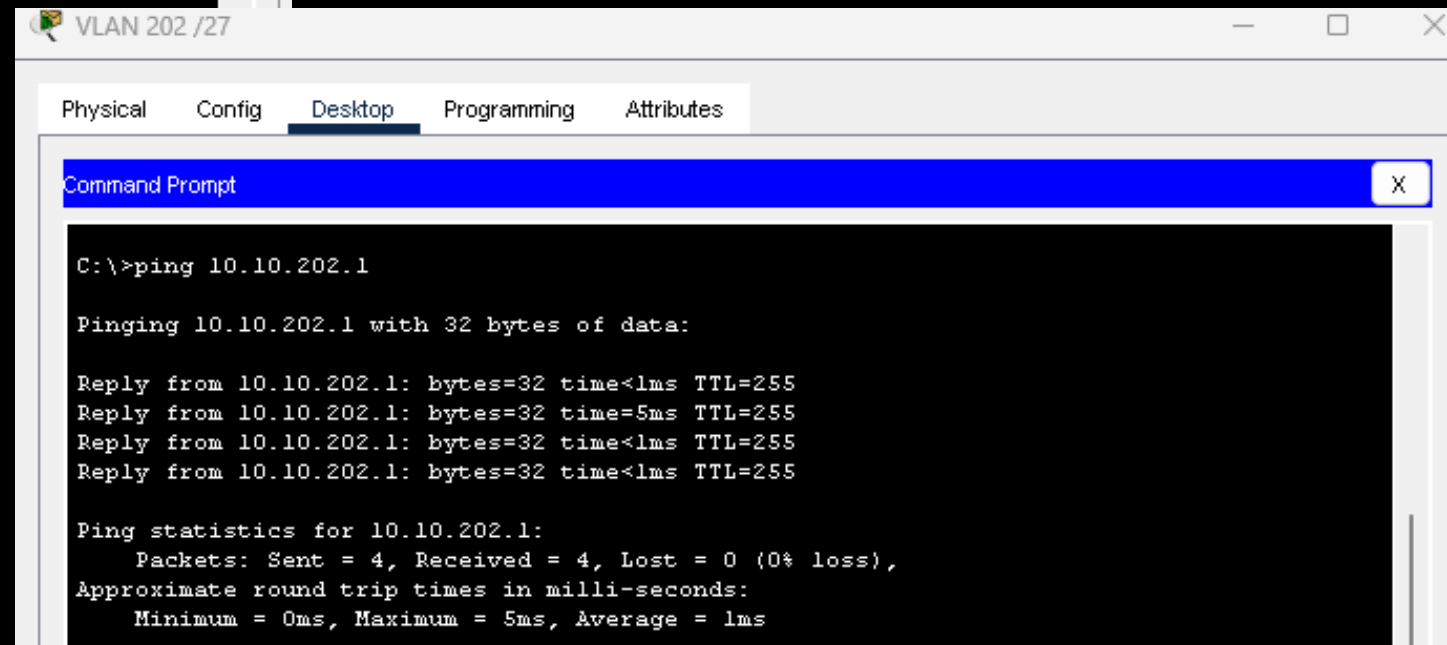
The screenshot shows a Packet Tracer window titled "VLAN 201 /28". It has tabs for "Physical", "Config", "Desktop", "Programming", and "Attributes". The "Desktop" tab is active, displaying a "Command Prompt" window. The command prompt shows the execution of a ping command from a PC to a router.

```
C:\>
C:\>ping 10.10.201.1

Pinging 10.10.201.1 with 32 bytes of data:

Reply from 10.10.201.1: bytes=32 time=84ms TTL=255
Reply from 10.10.201.1: bytes=32 time<1ms TTL=255
Reply from 10.10.201.1: bytes=32 time<1ms TTL=255
Reply from 10.10.201.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.10.201.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 84ms, Average = 21ms
```



The screenshot shows a Packet Tracer window titled "VLAN 202 /27". It has tabs for "Physical", "Config", "Desktop", "Programming", and "Attributes". The "Desktop" tab is active, displaying a "Command Prompt" window. The command prompt shows the execution of a ping command from a PC to a router.

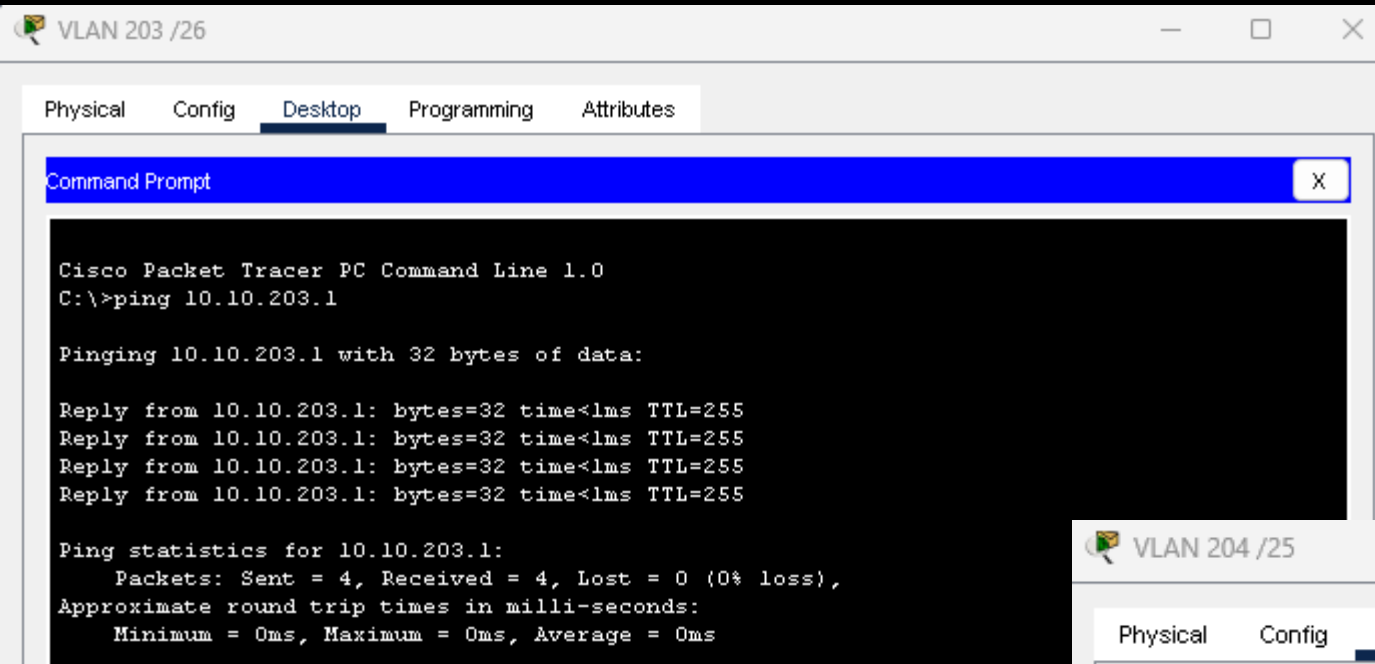
```
C:\>ping 10.10.202.1

Pinging 10.10.202.1 with 32 bytes of data:

Reply from 10.10.202.1: bytes=32 time<1ms TTL=255
Reply from 10.10.202.1: bytes=32 time=5ms TTL=255
Reply from 10.10.202.1: bytes=32 time<1ms TTL=255
Reply from 10.10.202.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.10.202.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 5ms, Average = 1ms
```

Imagen de Ping exitoso de PC a Router por cada Vlan, 6 Pings (6 reactivos)

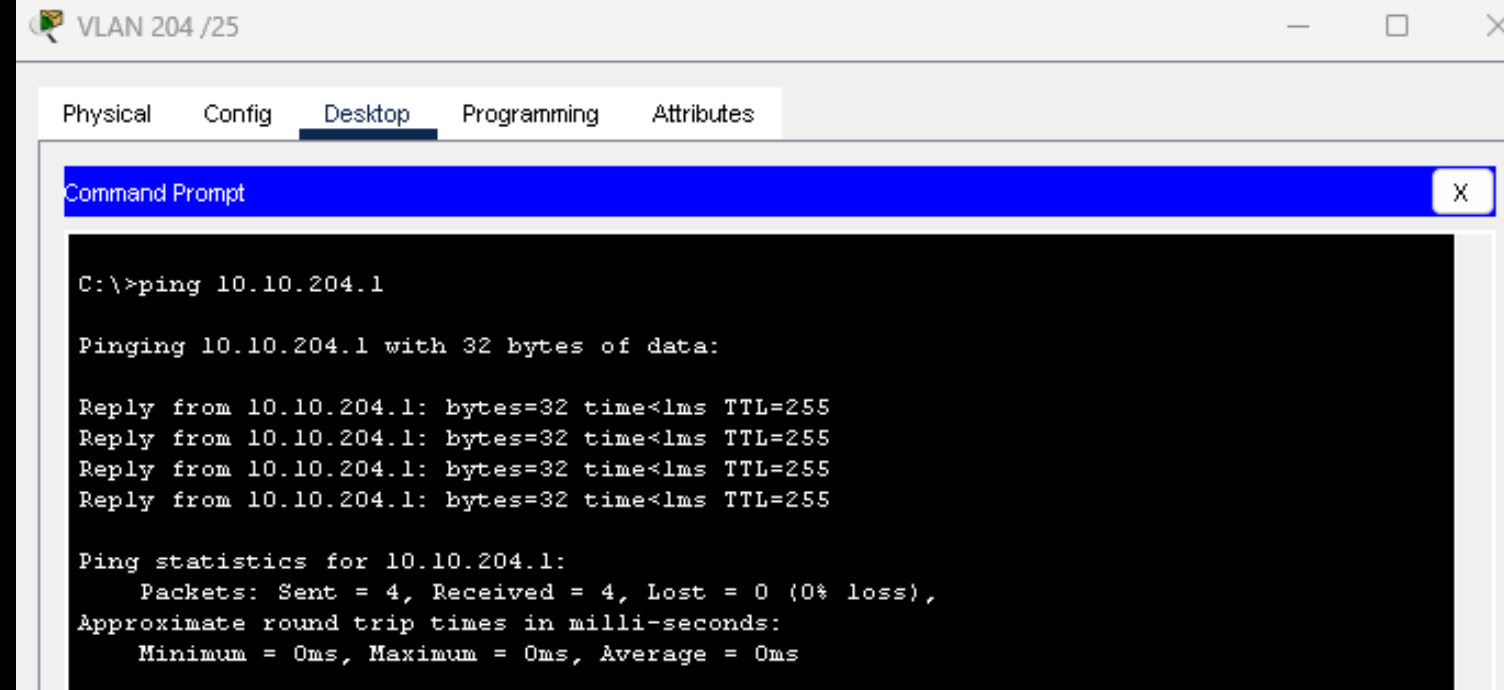


```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.10.203.1

Pinging 10.10.203.1 with 32 bytes of data:

Reply from 10.10.203.1: bytes=32 time<1ms TTL=255
Reply from 10.10.203.1: bytes=32 time<1ms TTL=255
Reply from 10.10.203.1: bytes=32 time<1ms TTL=255
Reply from 10.10.203.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.10.203.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```



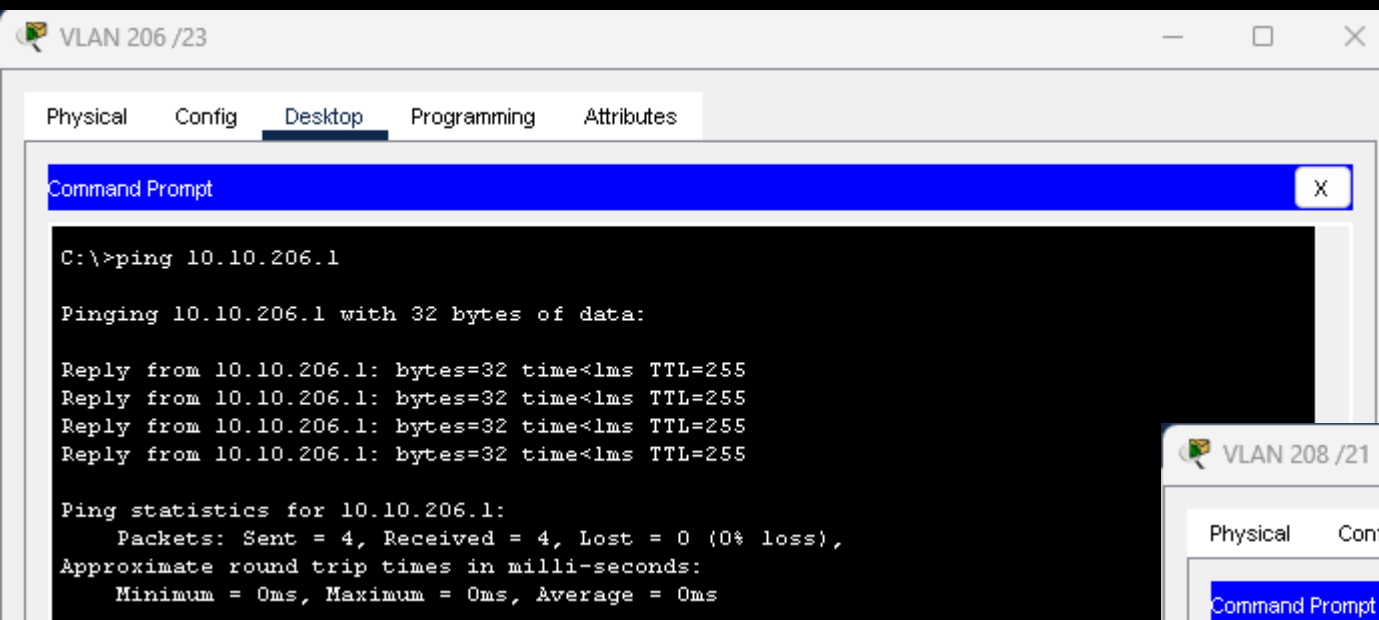
```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.10.204.1

Pinging 10.10.204.1 with 32 bytes of data:

Reply from 10.10.204.1: bytes=32 time<1ms TTL=255
Reply from 10.10.204.1: bytes=32 time<1ms TTL=255
Reply from 10.10.204.1: bytes=32 time<1ms TTL=255
Reply from 10.10.204.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.10.204.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```


Imagen de Ping exitoso de PC a Router por cada Vlan, 6 Pings (6 reactivos)

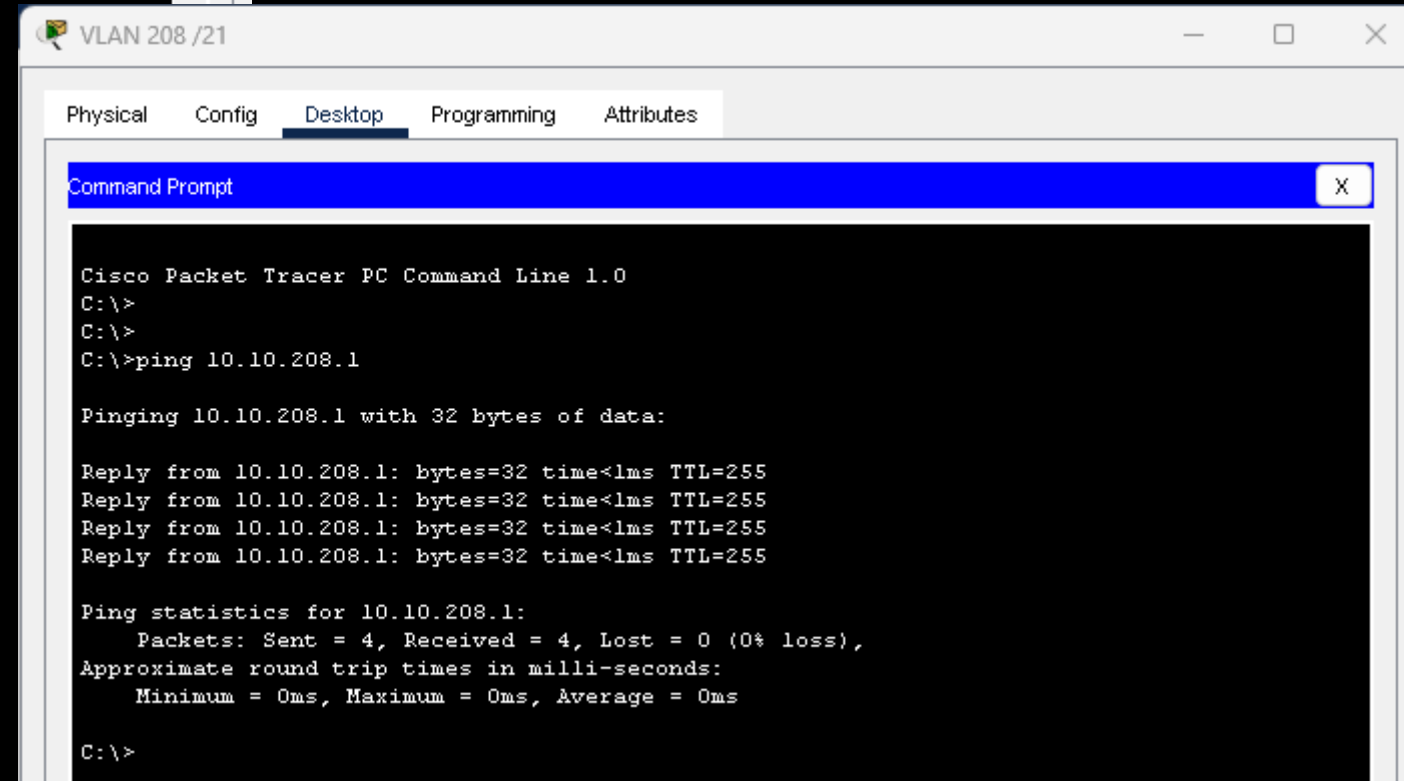


```
VLAN 206 /23
Physical Config Desktop Programming Attributes
Command Prompt
C:\>ping 10.10.206.1

Pinging 10.10.206.1 with 32 bytes of data:

Reply from 10.10.206.1: bytes=32 time<1ms TTL=255
Reply from 10.10.206.1: bytes=32 time<1ms TTL=255
Reply from 10.10.206.1: bytes=32 time<1ms TTL=255
Reply from 10.10.206.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.10.206.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```



```
VLAN 208 /21
Physical Config Desktop Programming Attributes
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>
C:\>
C:\>ping 10.10.208.1

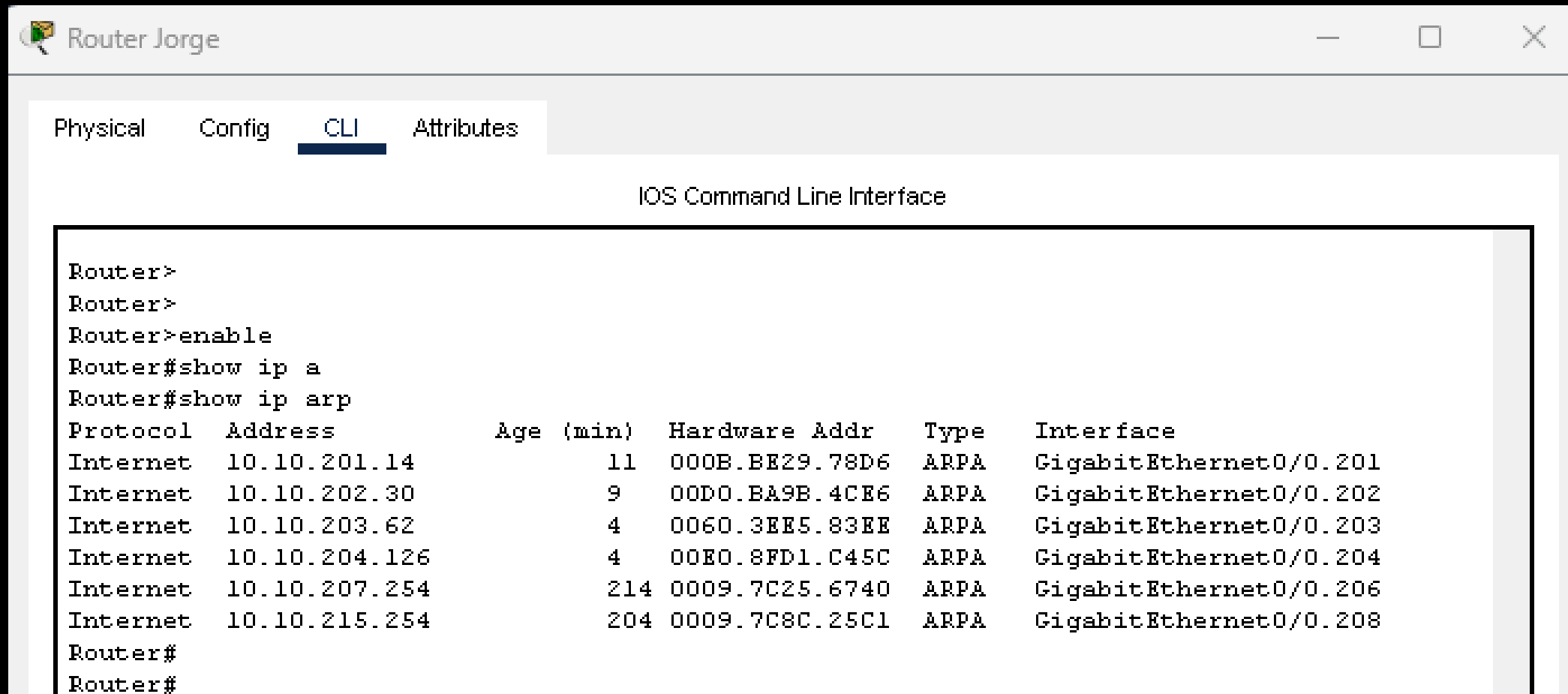
Pinging 10.10.208.1 with 32 bytes of data:

Reply from 10.10.208.1: bytes=32 time<1ms TTL=255
Reply from 10.10.208.1: bytes=32 time<1ms TTL=255
Reply from 10.10.208.1: bytes=32 time<1ms TTL=255
Reply from 10.10.208.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.10.208.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

1. Imagen de show ip arp del Router, debe incluir la mac address e IPs de las 6 PCs (6 reactivos)



The screenshot shows a web-based interface for a device named 'Router Jorge'. It has four tabs: 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is selected, showing the 'IOS Command Line Interface'. The terminal output is as follows:

```
Router>
Router>
Router>enable
Router#show ip a
Router#show ip arp
Protocol    Address            Age (min)  Hardware Addr  Type   Interface
-----
Internet    10.10.201.14        11         000E.BE29.78D6  ARPA   GigabitEthernet0/0.201
Internet    10.10.202.30        9          00D0.BA9B.4CE6  ARPA   GigabitEthernet0/0.202
Internet    10.10.203.62        4          0060.3EE5.83EE  ARPA   GigabitEthernet0/0.203
Internet    10.10.204.126       4          00E0.8FD1.C45C  ARPA   GigabitEthernet0/0.204
Internet    10.10.207.254       214        0009.7C25.6740  ARPA   GigabitEthernet0/0.206
Internet    10.10.215.254       204        0009.7C8C.25C1  ARPA   GigabitEthernet0/0.208
Router#
Router#
```