

Laboratorio 3: Implementación de Redes TCP IPv4

GitHub Laboratorio. PKT=

[https://github.com/LeoR22/Universidad/tree/main/Redes datos/Lab 4](https://github.com/LeoR22/Universidad/tree/main/Redes%20datos/Lab%204)

Cálculo de subredes

Router-1:

- Fa0/0: FE80::2D0:FFFF:FEA0:E501
- Se0/0/0: FE80::2D0:FFFF:FEA0:E501
- Router-2:
 - Se0/0/0: FE80::260:3EFF:FE00:9901
 - Se0/0/1: FE80::260:3EFF:FE00:9901
- Router-3:
 - Se0/0/1: FE80::200:CFF:FE8C:7D01
 - Fa0/0: FE80::200:CFF:FE8C:7D01

Asignación:

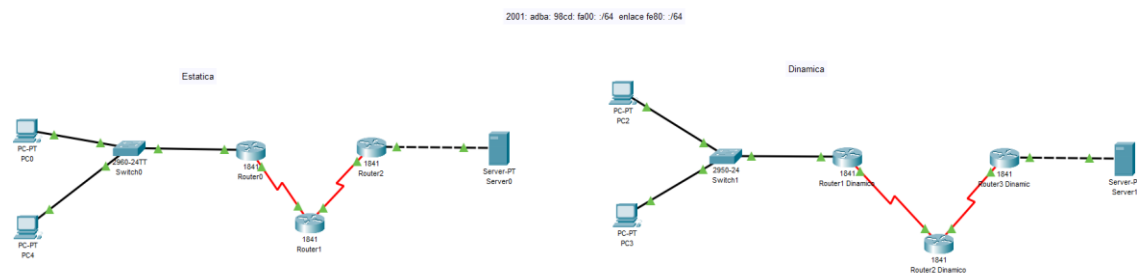
Subred	Dispositivo	IP asignada
Subred 1	Router-1 Fa0/0	2001:ADBA:98CD:FA01::1/64
Subred 1	PC1	2001:ADBA:98CD:FA01::10/64
Subred 1	PC2	2001:ADBA:98CD:FA01::20/64
Subred 2	Router-1 Se0/0/0	2001:ADBA:98CD:FA02::1/64
Subred 2	Router-2 Se0/0/0	2001:ADBA:98CD:FA02::2/64
Subred 3	Router-2 Se0/0/1	2001:ADBA:98CD:FA03::1/64
Subred 3	Router-3 Se0/0/1	2001:ADBA:98CD:FA03::2/64
Subred 4	Router-3 Fa0/0	2001:ADBA:98CD:FA04::1/64
Subred 4	Server-1	2001:ADBA:98CD:FA04::100/64

Asignación de direcciones IP

Dispositivo	IP asignada	Máscara	Gateway
PC0	40.29.0.10	255.255.248.0	40.29.0.1
PC2	40.29.0.20	255.255.248.0	40.29.0.1

Server0	40.29.8.18	255.255.255.248	40.29.8.17
Router1 G0/0	40.29.0.1	255.255.248.0	—
Router1 S0/0/0	40.29.8.1	255.255.255.248	—
Router1 S0/0/1	40.29.8.9	255.255.255.248	—
Router3 S0/0/0	40.29.8.2	255.255.255.248	—
Router3 S0/0/1	40.29.8.17	255.255.255.248	—
Router2 S0/0/0	40.29.8.10	255.255.255.248	—

Resultados



Pruebas estaticas

```

PC0
Physical Config Desktop Programming Attributes
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 2001:ADBA:98CD:FA04::100

Pinging 2001:ADBA:98CD:FA04::100 with 32 bytes of data:

Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=2ms TTL=125
Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=18ms TTL=125
Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=14ms TTL=125
Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=12ms TTL=125

Ping statistics for 2001:ADBA:98CD:FA04::100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 18ms, Average = 11ms

C:\>

```

PC4

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 2001:ADBA:98CD:FA01::1

Pinging 2001:ADBA:98CD:FA01::1 with 32 bytes of data:

Reply from 2001:ADBA:98CD:FA01::1: bytes=32 time<1ms TTL=255
Reply from 2001:ADBA:98CD:FA01::1: bytes=32 time<1ms TTL=255
Reply from 2001:ADBA:98CD:FA01::1: bytes=32 time<1ms TTL=255
Reply from 2001:ADBA:98CD:FA01::1: bytes=32 time<1ms TTL=255

Ping statistics for 2001:ADBA:98CD:FA01::1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Server0

Physical Config Services Desktop Programming Attributes

Command Prompt

```
Reply from 2001:ADBA:98CD:FA01::1: bytes=32 time=13ms TTL=253
Reply from 2001:ADBA:98CD:FA01::1: bytes=32 time=9ms TTL=253
Reply from 2001:ADBA:98CD:FA01::1: bytes=32 time=17ms TTL=253
Reply from 2001:ADBA:98CD:FA01::1: bytes=32 time=10ms TTL=253

Ping statistics for 2001:ADBA:98CD:FA01::1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 9ms, Maximum = 17ms, Average = 12ms

C:\>ping 2001:ADBA:98CD:FA01::2

Pinging 2001:ADBA:98CD:FA01::2 with 32 bytes of data:

Reply from 2001:ADBA:98CD:FA01::2: bytes=32 time=14ms TTL=125
Reply from 2001:ADBA:98CD:FA01::2: bytes=32 time=2ms TTL=125
Reply from 2001:ADBA:98CD:FA01::2: bytes=32 time=13ms TTL=125
Reply from 2001:ADBA:98CD:FA01::2: bytes=32 time=10ms TTL=125

Ping statistics for 2001:ADBA:98CD:FA01::2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 14ms, Average = 9ms

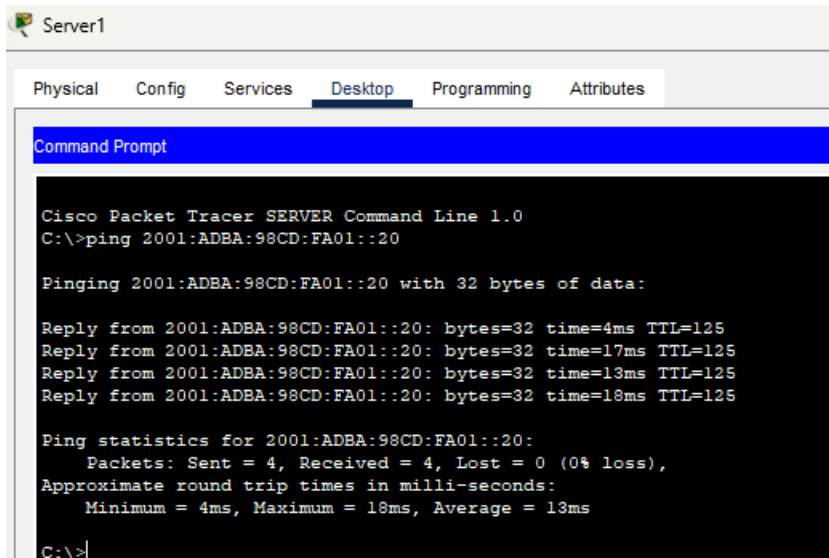
C:\>ping 2001:ADBA:98CD:FA01::20

Pinging 2001:ADBA:98CD:FA01::20 with 32 bytes of data:

Reply from 2001:ADBA:98CD:FA01::20: bytes=32 time=10ms TTL=125
Reply from 2001:ADBA:98CD:FA01::20: bytes=32 time=2ms TTL=125
Reply from 2001:ADBA:98CD:FA01::20: bytes=32 time=26ms TTL=125
Reply from 2001:ADBA:98CD:FA01::20: bytes=32 time=12ms TTL=125

Ping statistics for 2001:ADBA:98CD:FA01::20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 26ms, Average = 12ms
```

Pruabs dinamicas



Server1

Physical Config Services **Desktop** Programming Attributes

Command Prompt

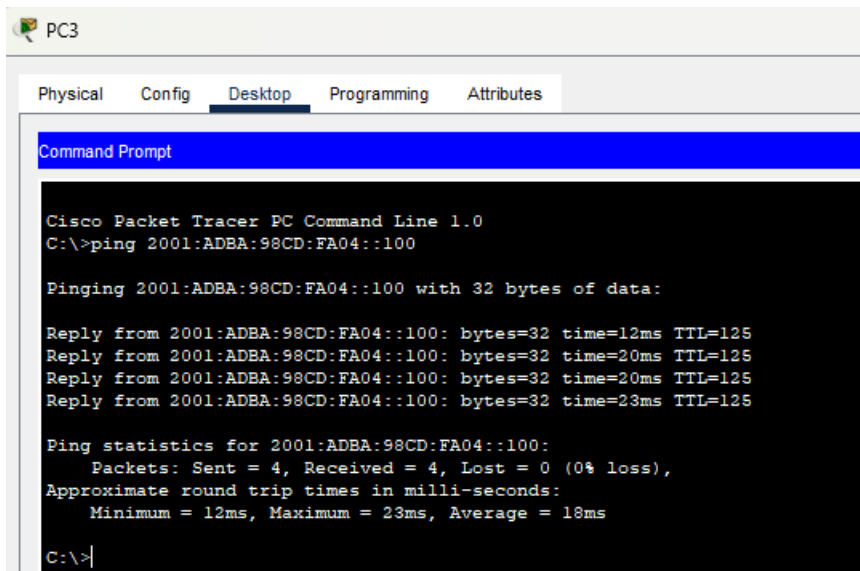
```
Cisco Packet Tracer SERVER Command Line 1.0
C:\>ping 2001:ADBA:98CD:FA01::20

Pinging 2001:ADBA:98CD:FA01::20 with 32 bytes of data:

Reply from 2001:ADBA:98CD:FA01::20: bytes=32 time=4ms TTL=125
Reply from 2001:ADBA:98CD:FA01::20: bytes=32 time=17ms TTL=125
Reply from 2001:ADBA:98CD:FA01::20: bytes=32 time=13ms TTL=125
Reply from 2001:ADBA:98CD:FA01::20: bytes=32 time=18ms TTL=125

Ping statistics for 2001:ADBA:98CD:FA01::20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 4ms, Maximum = 18ms, Average = 13ms

C:\>
```



PC3

Physical Config **Desktop** Programming Attributes

Command Prompt

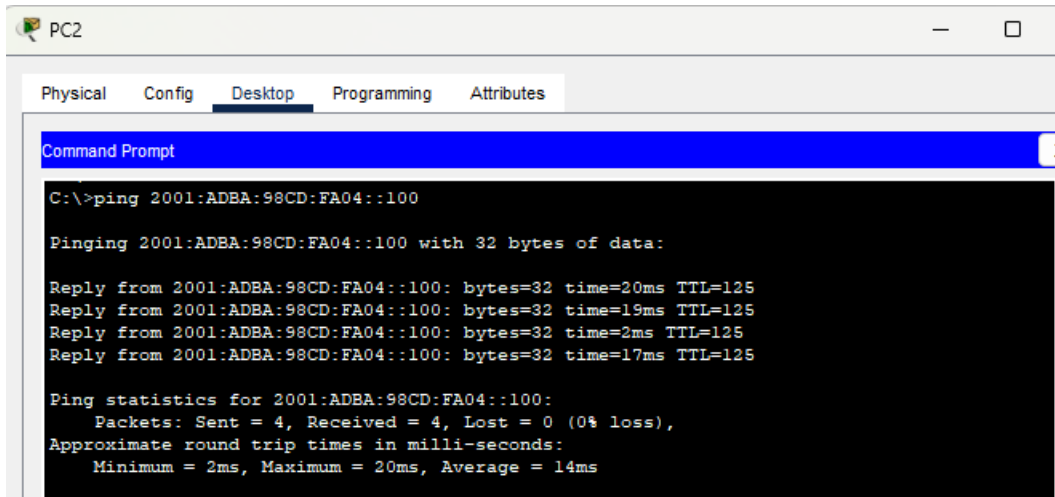
```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 2001:ADBA:98CD:FA04::100

Pinging 2001:ADBA:98CD:FA04::100 with 32 bytes of data:

Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=12ms TTL=125
Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=20ms TTL=125
Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=20ms TTL=125
Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=23ms TTL=125

Ping statistics for 2001:ADBA:98CD:FA04::100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 12ms, Maximum = 23ms, Average = 18ms

C:\>
```



The image shows a window titled "PC2" with a standard Windows-style title bar (minimize, maximize, close buttons). Below the title bar is a tabbed interface with four tabs: "Physical", "Config", "Desktop", "Programming", and "Attributes". The "Desktop" tab is currently selected. Inside the "Desktop" tab, there is a "Command Prompt" window. The Command Prompt has a blue title bar and a black background with white text. The text in the Command Prompt shows a successful ping command being executed from the C:\ directory to the IP address 2001:ADBA:98CD:FA04::100. The output includes four individual replies and a summary of ping statistics.

```
C:\>ping 2001:ADBA:98CD:FA04::100

Pinging 2001:ADBA:98CD:FA04::100 with 32 bytes of data:

Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=20ms TTL=125
Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=19ms TTL=125
Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=2ms TTL=125
Reply from 2001:ADBA:98CD:FA04::100: bytes=32 time=17ms TTL=125

Ping statistics for 2001:ADBA:98CD:FA04::100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 20ms, Average = 14ms
```