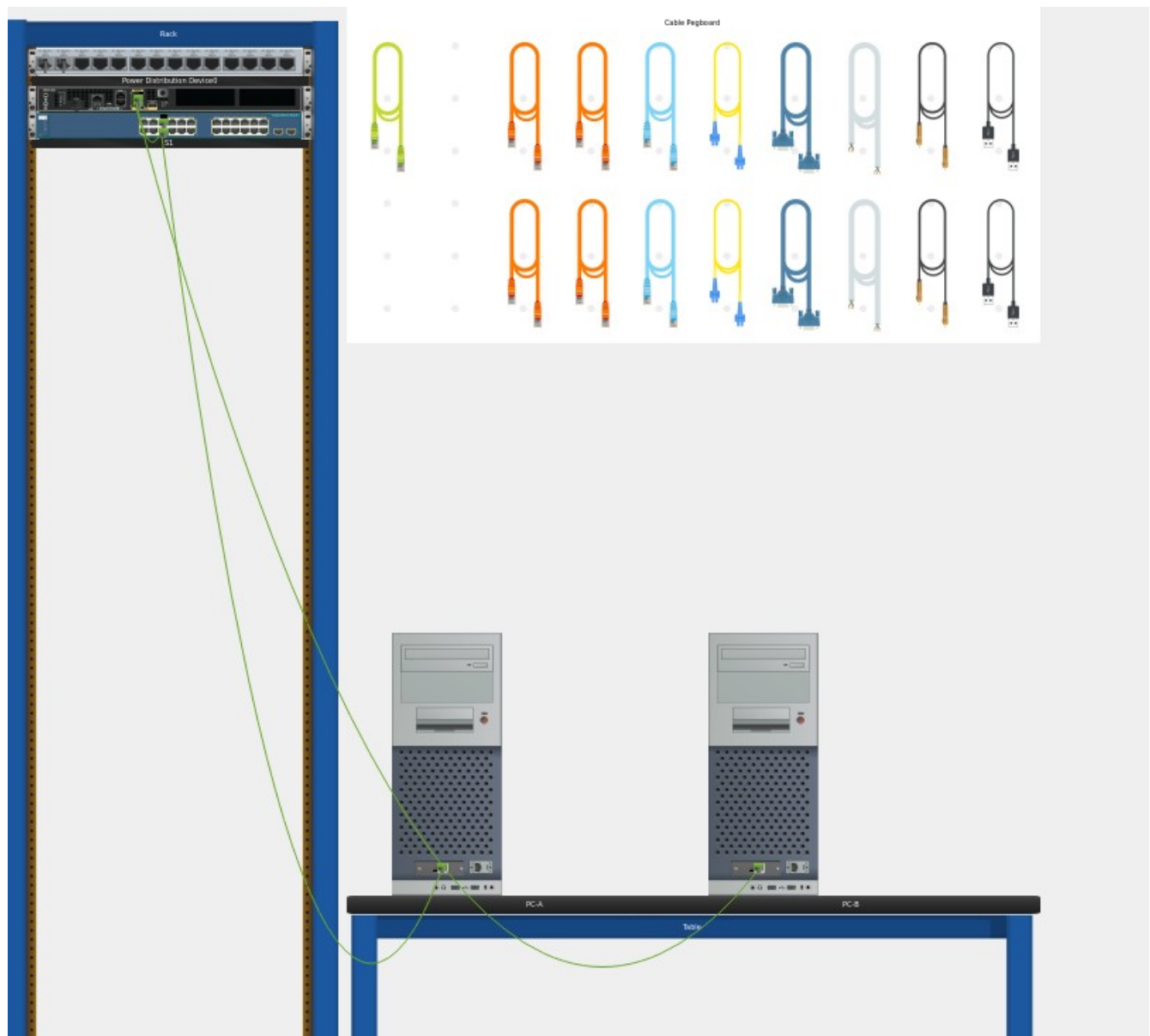


Modulo # 12 – Laboratorio # 12.9.2



PC-B

Physical Config **Desktop** Programming

Terminal X

3223551K bytes of flash memory at bootflash:.

--- System Configuration Dialog ---

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

Press RETURN to get started!

```
Router>enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname R1
R1(config)#enable secret class
R1(config)#banner motd $Unauthorized access is prohibited!$
R1(config)#line con 0
R1(config-line)#password ccna
R1(config-line)#login
R1(config-line)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console
```

```
R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#servi
R1(config)#service pas
R1(config)#service password-encryption
R1(config)#no ip domain
R1(config)#no ip domain lo
R1(config)#no ip domain lookup
R1(config)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console
```

R1#

☐ Top

PC-A

Physical Config **Desktop** Programming

Terminal

Switch	Ports	Model	SW Version	SW Image
* 1	26	WS-C3560-24PS	12.2	C3560-ADVIPSERVICESK

Cisco IOS Software, C3560 Software (C3560-ADVIPSERVICESK9-M), Version 12.2(37)SE1, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Thu 05-Jul-07 22:22 by pt_team

Press RETURN to get started!

```
Switch>ena
Switch>enable
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname S1
S1(config)#banner motd $Unauthorized access is prohibited!$
S1(config)#line con 0
S1(config-line)#password ccna
S1(config-line)#login
S1(config-line)#line vty 0 15
S1(config-line)#password ccna
S1(config-line)#login
S1(config-line)#exit
S1(config)#servi
S1(config)#service pa
S1(config)#service password-encryption
S1(config)#no ip domain li
S1(config)#no ip domain lo
S1(config)#no ip domain lookup
S1(config)#end
S1#
%SYS-5-CONFIG_I: Configured from console by console
S1#
```

☐ Top

PC-B

Physical Config **Desktop** Programming

Terminal

```
R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#servi
R1(config)#service pas
R1(config)#service password-encryption
R1(config)#no ip domain
R1(config)#no ip domain lo
R1(config)#no ip domain lookup
R1(config)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#int g0/0
%Invalid interface type and number
R1(config)#int g0/0/0
R1(config-if)#ipv6 address 2001:db8:acad:a::1/64
R1(config-if)#no shutdown

R1(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

R1(config-if)#int g0/0/1
R1(config-if)#ipv6 address 2001:db8:acad:1::1/64
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1, changed state to up

R1(config-if)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console
R1#
```

☐ Top

PC-B

Physical Config **Desktop** Programming

Terminal X

```
R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#int g0/0
%Invalid interface type and number
R1(config)#int g0/0/0
R1(config-if)#ipv6 address 2001:db8:acad:a::1/64
R1(config-if)#no shutdown

R1(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

R1(config-if)#int g0/0/1
R1(config-if)#ipv6 address 2001:db8:acad:1::1/64
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1, changed state to up

R1(config-if)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#show ipv
R1#show ipv6 int
R1#show ipv6 interface brief
GigabitEthernet0/0/0      [up/up]
    FE80::201:63FF:FE06:C001
    2001:DB8:ACAD:A::1
GigabitEthernet0/0/1      [up/up]
    FE80::201:63FF:FE06:C002
    2001:DB8:ACAD:1::1
Vlan1                     [administratively down/down]
    unassigned
R1#
```

☐ Top

PC-B

Physical Config Desktop Programming

Terminal

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0, changed state to up

R1(config-if)#int g0/0/1
R1(config-if)#ipv6 address 2001:db8:acad:1::1/64
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1, changed state to up

R1(config-if)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#show ipv
R1#show ipv6 int
R1#show ipv6 interface brief
GigabitEthernet0/0/0      [up/up]
    FE80::201:63FF:FE06:C001
    2001:DB8:ACAD:A::1
GigabitEthernet0/0/1      [up/up]
    FE80::201:63FF:FE06:C002
    2001:DB8:ACAD:1::1
Vlan1                     [administratively down/down]
    unassigned
R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#int g0/0/0
R1(config-if)#ipv
R1(config-if)#ipv6 add
R1(config-if)#ipv6 address fe80::1 link-local
R1(config-if)#int g0/0/1
R1(config-if)#ipv6 address fe80::1 link-local
R1(config-if)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#
```

☐ Top

PC-B

Physical Config **Desktop** Programming

Terminal X

```
FF02::1
FF02::1:FF00:1
MTU is 1500 bytes
ICMP error messages limited to one every 100 milliseconds
ICMP redirects are enabled
ICMP unreachable are sent
ND DAD is enabled, number of DAD attempts: 1
ND reachable time is 30000 milliseconds
R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#ipv6 unicast
R1(config)#ipv6 unicast-routing
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#show ipv6 interface g0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
IPv6 is enabled, link-local address is FE80::1
No Virtual link-local address(es):
Global unicast address(es):
  2001:DB8:ACAD:A::1, subnet is 2001:DB8:ACAD:A::/64
Joined group address(es):
  FF02::1
  FF02::2
  FF02::1:FF00:1
MTU is 1500 bytes
ICMP error messages limited to one every 100 milliseconds
ICMP redirects are enabled
ICMP unreachable are sent
ND DAD is enabled, number of DAD attempts: 1
ND reachable time is 30000 milliseconds
ND advertised reachable time is 0 (unspecified)
ND advertised retransmit interval is 0 (unspecified)
ND router advertisements are sent every 200 seconds
ND router advertisements live for 1800 seconds
ND advertised default router preference is Medium
Hosts use stateless autoconfig for addresses.
R1#
```

☐ Top

Terminal

```
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname S1
S1(config)#banner motd $Unauthorized access is prohibited!$
S1(config)#line con 0
S1(config-line)#password ccna
S1(config-line)#login
S1(config-line)#line vty 0 15
S1(config-line)#password ccna
S1(config-line)#login
S1(config-line)#exit
S1(config)#servi
S1(config)#service pa
S1(config)#service password-encryption
S1(config)#no ip domain li
S1(config)#no ip domain lo
S1(config)#no ip domain lookup
S1(config)#end
S1#
%SYS-5-CONFIG_I: Configured from console by console

S1#
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up

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

S1#con
S1#confi
S1#configure t
Enter configuration commands, one per line. End with CNTL/Z.
S1(config)#int vlan1
S1(config-if)#
S1(config-if)#ipv
S1(config-if)#ipv6 address 2001:db8:acad:1::b/64
S1(config-if)#ipv6 address fe80::b link-local
S1(config-if)#end
S1#
%SYS-5-CONFIG_I: Configured from console by console

S1#
```

PC-A

Physical Config Desktop Programming

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping fe80::1

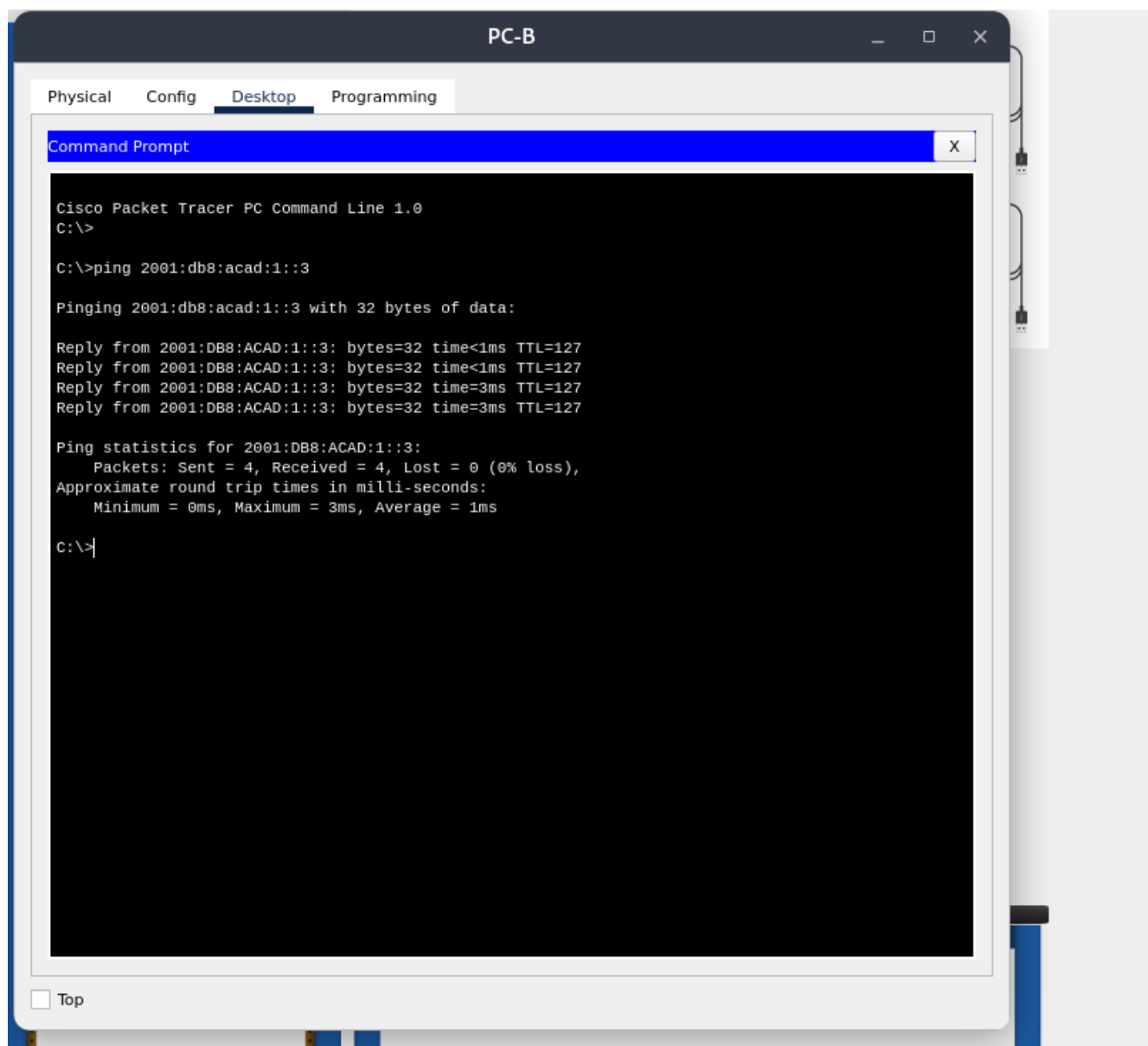
Pinging fe80::1 with 32 bytes of data:

Reply from FE80::1: bytes=32 time<1ms TTL=255
Reply from FE80::1: bytes=32 time<1ms TTL=255
Reply from FE80::1: bytes=32 time<1ms TTL=255
Reply from FE80::1: bytes=32 time<1ms TTL=255

Ping statistics for FE80::1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

☐ Top



¿Por qué se puede asignar la misma dirección link-local, fe80::1, a ambas interfaces Ethernet en R1?

Los paquetes link-local nunca salen de la red local, por lo que se puede usar la misma dirección link-local en una interfaz asociada a una red local diferente.

¿Cuál es el ID de subred de la dirección unicast IPv6 2001:db8:acad::aaaa:1234/64?

0 (cero) o 0000 (ceros). El cuarto hexteto es el ID de subred de una dirección IPv6 con un prefijo de /64. En el ejemplo, el cuarto hexteto contiene solo ceros y la regla de omisión de segmentos de solo ceros de IPv6 utiliza el doble dos puntos (::) para representar el ID de subred y los dos primeros hextetos del ID de interfaz. Por eso, la subred de la dirección global unicast 2001:db8:acad::aaaa:1234/64 es **2001:db8:acad::/64**.

