Memòria Laboratori 1: Configuració de IPv6 i encaminament RIPng

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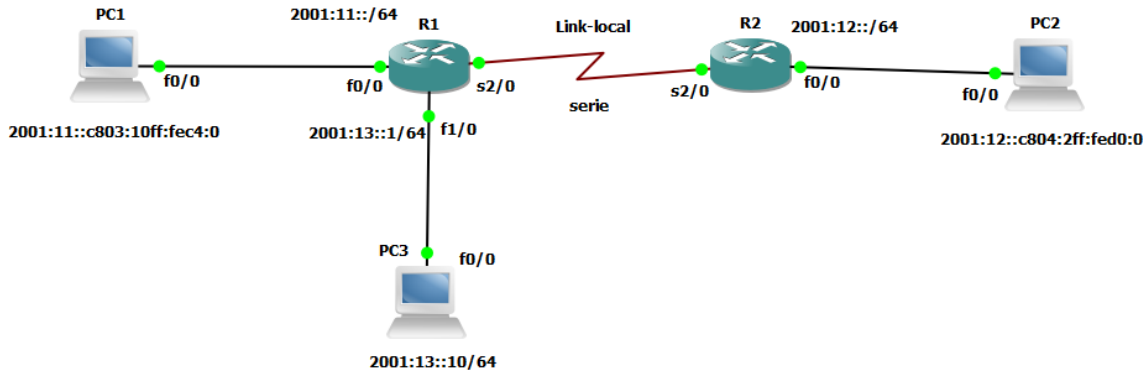
XC2

Esquema de la xarxa



Relació de les línies de programació

PC1

```
PC1# show run
interface FastEthernet0/0
 no ip address
 duplex half
 ipv6 address autoconfig
!

PC1#show ipv6 interface brief
FastEthernet0/0        [up/up]
    FE80::C803:10FF:FEC4:0
    2001:11::C803:10FF:FEC4:0
```

PC2

```
PC2# show run
interface FastEthernet0/0
 no ip address
 duplex half
 ipv6 address autoconfig
!

PC2#show ipv6 interface brief
FastEthernet0/0        [up/up]
    FE80::C804:2FF:FED0:0
    2001:12::C804:2FF:FED0:0
```

PC3

```
PC3# show run
interface FastEthernet0/0
 no ip address
 duplex half
 ipv6 address 2001:13::10/64
!
ipv6 route ::/0 FastEthernet1/0

PC3#show ipv6 interface brief
FastEthernet0/0        [up/up]
    FE80::C805:31FF:FEB4:0
    2001:13::10
```

R1

```
R1# show run
interface FastEthernet0/0
 no ip address
 duplex half
 ipv6 address 2001:11::/64 eui-64
 ipv6 rip prorip enable
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 ipv6 address 2001:13::1/64
 ipv6 rip prorip enable
!
interface Serial2/0
 no ip address
 ipv6 enable
 ipv6 rip prorip enable
 serial restart-delay 0
 clock rate 56000
!
ipv6 router rip prorip
```

R2

```
interface FastEthernet0/0
 no ip address
 duplex half
 ipv6 address 2001:12::/64 eui-64
 ipv6 rip pro2rip enable
!
interface Serial2/0
 no ip address
 ipv6 enable
 ipv6 rip pro2rip enable
 serial restart-delay 0
!
ipv6 router rip pro2rip
```

Resultats

R1

```
R1#show ipv6 route
IPv6 Routing Table - default - 6 entries
C   2001:11::/64 [0/0]
     via FastEthernet0/0, directly connected
L   2001:11::C801:28FF:FE98:0/128 [0/0]
     via FastEthernet0/0, receive
R   2001:12::/64 [120/2]
     via FE80::C802:8FF:FEE8:0, Serial2/0
C   2001:13::/64 [0/0]
     via FastEthernet1/0, directly connected
L   2001:13::1/128 [0/0]
     via FastEthernet1/0, receive
L   FF00::/8 [0/0]
     via Null0, receive
```

R2

```
R2#show ipv6 route
IPv6 Routing Table - default - 5 entries
R   2001:11::/64 [120/2]
     via FE80::C801:28FF:FE98:0, Serial2/0
C   2001:12::/64 [0/0]
     via FastEthernet0/0, directly connected
L   2001:12::C802:8FF:FEE8:0/128 [0/0]
     via FastEthernet0/0, receive
R   2001:13::/64 [120/2]
     via FE80::C801:28FF:FE98:0, Serial2/0
L   FF00::/8 [0/0]
     via Null0, receive
```

Ping i Traceroute de PC1 a PC2

```
PC1#ping 2001:12::c804:2ff:fed0:0
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2001:12::C804:2FF:FED0:0, timeout is 2
seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 176/200/228 ms

PC1#traceroute 2001:12::c804:2ff:fed0:0
Type escape sequence to abort.
Tracing the route to 2001:12::C804:2FF:FED0:0

  1 2001:11::C801:28FF:FE98:0 144 msec 72 msec 52 msec
  2 2001:12::C802:8FF:FEE8:0 144 msec 140 msec 116 msec
  3 2001:12::C804:2FF:FED0:0 208 msec 180 msec 188 msec
```

######

Ping i Traceroute de PC2 a PC3

```
PC2#ping 2001:13::10
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2001:13::10, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 196/200/204 ms

PC2#traceroute 2001:13::10
Type escape sequence to abort.
Tracing the route to 2001:13::10

  1 2001:12::C802:8FF:FEE8:0 36 msec 48 msec 76 msec
  2 2001:13::1 120 msec 128 msec 148 msec
  3 2001:13::10 164 msec 252 msec 184 msec
```

######

Ping i Traceroute de PC3 a PC1

```
PC3#ping 2001:11::c803:10ff:fec4:0
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 2001:11::C803:10FF:FEC4:0, timeout is 2
seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 88/136/172 ms

PC3#traceroute 2001:11::c803:10ff:fec4:0
Type escape sequence to abort.
Tracing the route to 2001:11::C803:10FF:FEC4:0

  1 2001:13::1 64 msec 96 msec 36 msec
  2 2001:11::C803:10FF:FEC4:0 160 msec 128 msec 128 msec
```