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Xarxes i Protocols

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Lab 5

RIP Protocol. Version 1 and 2.

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# Part 1

## Test the connectivity end to end

Texto

Descripción generada automáticamente

Texto

Descripción generada automáticamente con confianza media

## Show the IP routing tables

Router 5:

Texto

Descripción generada automáticamente

Router 4:

Texto

Descripción generada automáticamente

Router 3:

Texto

Descripción generada automáticamente

Router 2:

Texto

Descripción generada automáticamente

Router 1:

Texto

Descripción generada automáticamente

Router 0:

Texto

Descripción generada automáticamente

## Try to find where the metric is in the routing table and explain the values obtained. The path chosen is always the best?

The metric is [120/x]. The metric is 120 and the number on the x spot is the hop count.

The chosen path is not always the best as it is not determined by the metric.

## How often RIP sends its updates? Where can you obtain that information?

Every 30 seconds approximately. It is obtained on the router’s user manual or documentation.

## Capture an RIP packet and explain in detail

Tabla

Descripción generada automáticamente con confianza media

Tabla

Descripción generada automáticamente con confianza media

Tabla

Descripción generada automáticamente

This packet contains the routing information from Router2. It contains the routing tables of this router and it compares them with the obtained routing tables so it can save the routes that it doesn’t have for future operations.

## Cut the serial link between R0 and R1 and show how the routing tables have been updated

Previous Router 1 routing table:

Texto

Descripción generada automáticamente

New Router 1 routing table:

Texto, Carta

Descripción generada automáticamente

Previous Router 0 routing table:

Texto

Descripción generada automáticamente

New Router 0 routing table:

Texto, Carta

Descripción generada automáticamente

# Part 2

## Try the connectivity end to end

Texto

Descripción generada automáticamente

## Examine the ip routing tables and try to explain the results obtained

Router 5:

Texto, Carta

Descripción generada automáticamente

Router 4:

Texto, Carta

Descripción generada automáticamente

Router 3:

Texto, Carta

Descripción generada automáticamente

Router 2:

Texto, Carta

Descripción generada automáticamente

Router 1:

Texto, Carta

Descripción generada automáticamente

Router 0:

Texto, Carta

Descripción generada automáticamente

## Examine the routing table. Do you think that the connectivity end to end is now working correctly? Test the connectivity

Previous Router 0 routing table:

Texto, Carta

Descripción generada automáticamente

New Router 0 routing table:

Texto, Carta

Descripción generada automáticamente

It is now showing the routing table as it should be so it should be working now.

Test:

Texto

Descripción generada automáticamente

## Capture the RIP v2 packet and examine the differences with RIP v1

Tabla

Descripción generada automáticamente

RIP v1 does not have authentication and RIP v2 does have it.

RIP v2 packet also sends the subnet mask, thanks to this, it does not route with classes.

The RIP v1 metric is based on hops, RIP v2 so does and also adds bandwidth or route delay.