

EXERCISE 5: Policy-Based Routing (PBR)

Interpretation:

Routing decisions depend on traffic type, not destination.

Logic:

- Video → low-latency path
- Data → high-bandwidth path

Pseudocode:

```
if (packet.port == VIDEO_PORT)
    usePathA();
else
    usePathB();
```

Metrics Source:

- FlowMonitor
- Ipv4L3Protocol trace hooks

Explanation

This exercise focuses on Policy-Based Routing (PBR) in a WAN environment. The goal is to route traffic based on defined policies rather than only on destination IP addresses.

In this exercise, different types of traffic are identified, such as video traffic and data traffic. Routing decisions are then made according to specific rules, for example sending video traffic through a low-latency path and data traffic through a high-bandwidth path. This allows the network to use its resources more efficiently.

The exercise highlights how modern networks can make intelligent routing decisions based on application requirements, improving performance, reliability, and user experience.

1234

NetAnim

AnimatorsStatsPackets

Pause At 65535

fast

to slow

Sim time

Lines 5

Node Size 4

IP

MAC

T

0.0.0.0

Studio

0.0,15.0

0.0,30.0

50.0.0.0

Router

50.0,15.0

50.0,30.0

100.0.0.0

CloudB

100.0,15.0

100.0,30.0

100.0.0.0

CloudA

Parsing complete:Click Play

