

Virtual Routing

Application Layer Virtual Routing

- ☐ A cartoon demonstration application is good.

Self-organized

RIP

Main Reference: [Route Information Protocol](#)

Components:

- DV routing:
 - Bellman-Ford algorithm
 - Ford-Fulkerson
- RIP hop count metric
- split horizon, route poisoning, holddown
- RIP version 2: 224.0.0.9 is used to broadcast
- UDP on port 520
- Timers
 - Update
 - Invalid
 - Flush
 - Holddown
- RIPv2 message
 - request
 - response

 RIPv2 message 4 threads:

- listenUDPTThread
 - event driven
- routerWatchThread
 - determine whether to remove a router
- updateThread
- mainThread

1. How to send and receive data? check the buffer regularly.
2. Is it necessary to maintain the route table?

OSPF

No explicit status

Package: Hello, LSU, broadcast, normal, traceRoute, echo

Broadcast: RPF

features:

1. multi-path
2. tackle with routing loops, using md5

Timers:

1. hello
2. dead

Centralized

Server

Client