Localized RSVP (LRSVP)

draft-manner-tsvwg-lrsvp-00.txt

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History

- draft-manner-lrsvp-00.txt submitted in Spring 2002

- -01, -02, -03, -04 submitted in 2003-2004

- Presented in nsis wg (IETF-54)

- Presented twice in tsvwg (IETF-56, IETF-60)

- Now: draft-manner-tsvwg-lrsvp-00.txt

Background and Motivation

- End-to-end QoS seldom available

- Backbones often quite fast and reliable

- Access networks, especially mobile and wireless access networks, can often be the bottleneck and point of congestion

- Need some way to set up reservation in the local access network (Eg. in a WLAN access network)

Solution

- A small enhancement to standard RSVP

- May coexists with standard RSVP: both can be in use at the same time

- A LRSVP proxy terminates the signaling in the local (access) network

  - The "local" area is up to local network administrator

What Is "Small"?

- 2 bits from unused bits in the Session Object:
  - *Local Indication (LI) bit*
    - separates local and E2E signaling
  - *Expedited Refresh (ER) bit*
    - used to force a Path refresh to go all the way to the mobile end-host

- 2 new message types (no new message structures, though)

  - *PathRequest* and *PathRequestTear* messages to initiate and tear down a downstream resource reservation
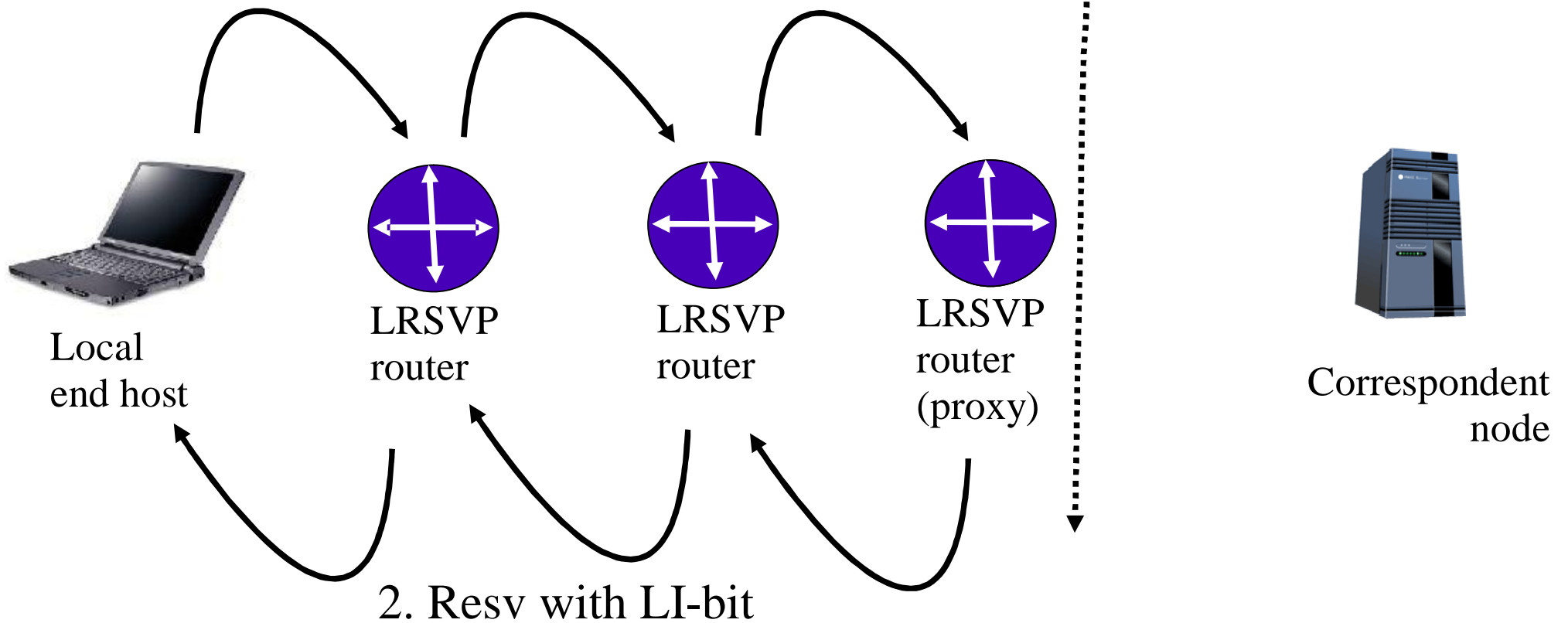
- An RSVP router running LRSVP proxy process

Upstream Reservations

Access network   Internet

Edge of access network

1. Path with LI-bit

Local
end host

LRSVP
router

LRSVP
router

LRSVP
router
(proxy)

Correspondent
node

2. Resv with LI-bit

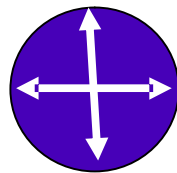# Downstream Reservations

Access network

Internet

Edge of access network
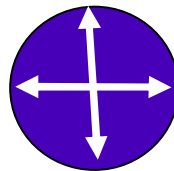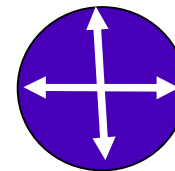
1. Path Request with LI-bit

Local
end host

LRSVP
router

LRSVP
router

LRSVP
router
(proxy)

Correspondent
node

2. Path with LI-bit

3. Resv with LI-bit

What Next?

- The base spec and operation has been stable since -01 (Jan 2003)

- Some minor potential updates:

  – Clarify and simplify operation of downstream reservations (and operation with mobile IP)

  – Add discussion on API requirements?

  – General clean-up

- **Q: Is there any interest to get this kind of idea to be published as an Experimental RFC?**