DLEP 'Relay Point' Extension

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The Problem

- MANET link-state routing protocols often use 'Designated Routers'

- Multicast protocols use 'Rendezvous Points'

But:

- There may be a mismatch between the assumed topology used by the selection algorithm and the actual radio network:

  – Some radio networks are hub-and-spoke

  – Some have special relay nodes

The Proposal

- Allow a modem to inform a router if it is a good candidate to be a relay.

- Allow a router to inform other routers if it is willing and/or already elected to be a relay point.

Note:

- This is unrelated to multicast destinations and the local modem's ability to multicast

How?

- A DLEP Extension! (of course)

- 2 new Destination Data Items:
  - Router Relay Point
    - Willingness to be a relay
    - Elected to be a relay
  - Modem Relay Point
    - Good candidate for a relay

Drafts to be written

- DLEP Relay Point Extension draft (in progress)
  - Data Item descriptions, layout, usage, etc.

- PIM draft
  - How to use with PIM

- OLSRv2 draft?
  - How to use with OLSRv2
    - Need an expert for this!

- OSPF-MDR draft?
  - As above!

Questions?