

Dynamic Link Exchange Protocol DLEP

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What we're trying to address

- Link speed and quality can vary moment-to-moment
- Multiple physical connection types (bus, Ethernet, USB, Serial, etc)
- Net result is reduced sensitivity to link characteristics
- In mobility deployments, independent layer 3 timers produce sub-optimal convergence

DLEP

- A protocol running between a router and attached modem device(s)
- Modem advises router about link quality
- Modem also advises about the presence or loss of potential routing neighbors
- Router may request specific bandwidth from the modem (important in DAMA implementations)

DLEP

- A set of TLVs based on RFC 5444 (packetbb)
- Could be implemented in multiple physical connection modes
 - Message passing scheme in bus-connected environments
 - RFC 5444 over UDP in Ethernet-connected environments
- Signals allow for better QoS and convergence
 - Neighbor Up/Down drive convergence
 - Metrics drive QoS

Next Steps

- Will formally submit when tool re-opens
- Ultimately, we would like for DLEP to become a working group document
- More discussion to come on the mailing list

Thanks!