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!