Dynamic MANET On-demand Routing Protocol

DYMO-06
Ian D. Chakeres
Charles E. Perkins
IETF 67
Changes DYMO-06

- PacketBB naming & TLVs
- Packet diagram nits
- Removed some items that had little interest
- Administrative model for future MIB document
- Checking routing information freshness…
DYMO-06
Checking routing information freshness

- When routing information is received, it is compared with the information in the routing table
- Sequence Number, Hop Count, Valid/Invalid, RREQ/RREP
- Information categories
  - Stale
  - Loop-prone
  - Inferior
  - Superior
- See DYMO-06 for descriptions & pseudo-code
DYMO-06
Timeouts

- Explicit events with clear state changes
  - MIN_AGE
  - MAX_AGE
  - NEW
  - USED
  - DELETE
Intermediate node replies in DYMO-07

RREP behavior at intermediate is simple

Avoiding incrementing of OwnSeqNum at the RREQ TargetNode when issuing RREP is tricky

- If the RREQ TargetNode does not increment OwnSeqNum, then an intermediate node might not consider the information superior, causing a blackhole effect
- To remove the blackhole situation, an intermediate node will send a message to the RREP originator (RREQ TargetNode) that the RREP routing information was not superior, and that the RREQ TargetNode should then increment OwnSeqNum

Must preserve non-mutable DYMO messages
Open Discussion

Questions & Comments
http://moment.cs.ucsb.edu/dymo

Implementation Issues
https://lists.sourceforge.net/lists/listinfo/aodvimpl-public