

AODVv2

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Outline of Presentation

- History
- Differences from RFC 3561
- Recent Changes
- Issues to be resolved
- Please hold long questions until the end

History

- AODVv2 (was, DYMO) combines:
 - AODV (RFC 3561) and DSR (RFC 4728)
 - Metrics
 - RFC 5444 Generalised MANET packet/message ...
- Feb 2005: DYMO introduced
 - datatracker.ietf.org/doc/draft-ietf-manet-dymo/
- December 2013: Renamed AODVv2
- November 2016: AODVv2 removed from charter
- March 2017: AD-sponsored AODVv2
- 2020-2023: COVID, nobody working on AODVv2
 - But, publication has been requested for aodv-rpl
- 2024: draft-perkins-manet-aodvv2-04

Comparison to RFC 3561

- Route discovery is basically the same
- No intermediate RREP or expanding ring
- RFC 5444 conformant (Packet/Message/Address Block TLVs)
- RFC 5498 conformant (port #, etc)
- RFC 7182 security (TIMESTAMP and ICV TLVs)
- Better verification of link bidirectionality
- Alternate metrics may be used
- Better support for multiple interfaces
- Support for multi-interface IP addresses
- End to end integrity checks enabled
- Multihoming (SeqNoRtr)
- No Hello messages or local repair
- RREP_Ack and route maintenance prioritized
- Careful handling for rebooting routers (losing SeqNum)

“Recent” Changes

- Handling for rebooting routers (lost SeqNum)
- Clarified safety issues, new crypto algorithms
- Many editorial changes (e.g., terminology)
- New ICMP Destination Unreachable code
- Optional precursor lists for better RERR performance
- MAC-layer hints about bidirectionality

Issues to be resolved

- Implementability
- IANA response needed
 - MetricType and Address Type TLV Registries?
 - New Type 1 - Destination Unreachable needed
- I-D.ietf-manet-ibs → RFC 7859
- Asymmetric routing?
- Has been extensively reviewed
 - Need to make sure all comments resolved
- More review expected/appreciated

Questions

It's probably about 1:00am here where I am. In order to avoid silly mistakes I would like to defer answers to difficult questions for discussion on the mailing list.

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