AODVv2

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IETF91 Honolulu
13th November 2014

Overview

- Recent changes
- Issues raised
- Next steps

Recent changes

- Normative text moved out of definitions.
- Clarified that different metrics may have different data types and ranges
- Made terminology more consistent.
- Replaced "retransmit" by the slightly more accurate term "regenerate".
- Error case for definition of LoopFree
  - Now, LoopFree := {Cost(AdvRte) <= Cost(Route)}
    - (Namjoshi/Trefler)
  - Replaced R1 by RteMsg and R2 by Route.

Recent changes

- Emphasize the proper use of RFC 5444 in section "RteMsg Structure"

- Included within the main body of the specification the mandatory setting of the TLV flag *thassingleindex* for TLVs OrigSeqNum and TargSeqNum.

- Made more extensive use of the AdvRte terminology, in order to better distinguish between the incoming RREQ or RREP message (i.e., RteMsg) versus the route advertised by the RteMsg (i.e., AdvRte).

- As usual, editorial improvements

Previous issues

ISSUE	Description	Status
19	Use of square brackets	clarified
20	Idle routes must be marked as active after re-use	done
21	Document hard to read	Improvements
22	Multiple terms for same concept	Improvements
23	Format of processing algorithms	Re-opened
24	Ordering of processing instructions	Pending
25	Meaning of "suppose"	Eliminated
26	Specification of optional features	Improvements
27	Processing AckReq	Text added
28	Routers with multiple interfaces	clarified
29	Choice of IP address	clarified

Previous issues

ISSUE	Description	Status
31	Suitability for implementation on commodity OS	Pending
32	Multicast transmission	Pending
33	RFC 5444 processing constraint	Improvements
34	Section 13 must be removed	Pending/reject
35	A constant is constant	reject
36	Security Considerations: Reactive protocol concept	Pending
37	Security Considerations: what needs to be implemented?	Pending
38	difficulty to do security, in case messages are mutable	Improvements
39	Route.Broken flag redundant	done
40	AckReq vs RREP_ACK	Pending
41	AckReq vs RREP_ACK	duplicate/reject
42	What happens if Active routes exceed RERR packet size?	Pending

New issues from Issue Tracker

ISSUE	Description	Status
#56	Issue concerning RREQ redundancy check methodology and order	pending
#57	Need to further restrict "LoopFree" condition	fixed

Recent issues raised, not in Tracker

- Put message formats before descriptions?
- New section 8.3: "RERR Structure" ?
- New section "Message format considerations"?
- Request "bullet-point" specifications for algorithms
- Draft uses both CamelCase and Snake_Case

Recent issues raised, not in Tracker

- Use metric extension types
- Harmonize blacklists & adjacency monitoring

Recent issues raised, not in Tracker

- msg-orig-addr
- Expired versus broken?
- Orig.Tail should be Orig.Mid
  – similarly Targ.Tail should be Targ.Mid
- Confusion between a node and its address
  – Eg. OrigNode is used also as an address

Timeline markers: a, b, c, d, e, f, g, h, i

Dec. 31 (at e)
Jan. 31 (at g)
IETF 92 (at i)
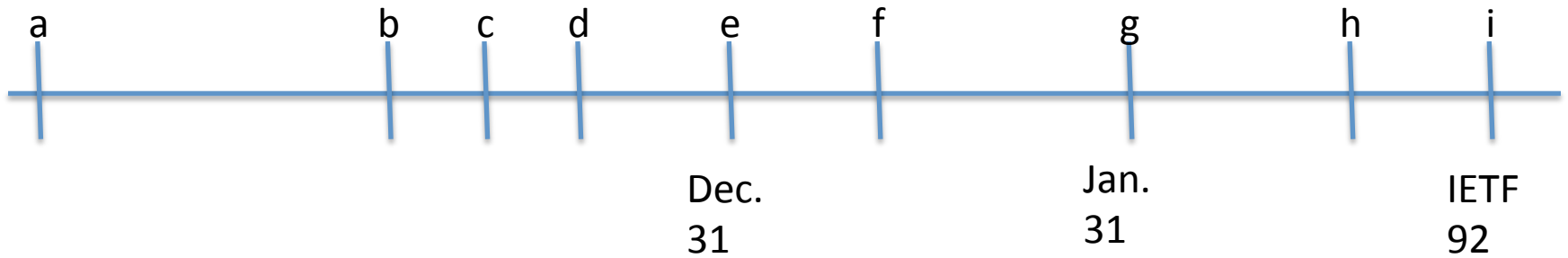
a) Mark closed tickets as closed, resolve others
b) Improve consistency and terminology.
c) Check text on router IP addresses.
d) Improve the Ack and AckReq text.
e) Add in comments from implementer(s).
f) Continue moving text to the most useful place
g) New applicability statement re: security.
h) Decide if a security threats draft is needed.
i) WGLC

Next Steps

- Recover resolution status for old issues
- Resolve remaining open issues

Future work

- MPR integration (or other CDS)
- NS-2 / NS-3 Simulation
- Python
- Possible integration with AODV-UU code