Neighbour Discovery updates (RFC2461bis)

draft-soliman-ipv6-2461-bis-01.txt

Background

- Several issues have been raised against RFC 2461

- The aim of this work is to update 2461 and publish as DS

- The work primarily aims to increase clarity and fix bugs without introducing new functions

Issues breakdown

- Mobility-related: 5 issues (unresolved)
- Security: 1 issue (mostly resolved)
- Misc ND issues: 9 (2 unresolved issues)

Unresolved mobility issues

- 255: Relax requirements on frequency of RA transmission
- 256: Eliminate random delay in RS transmission
- 257: Eliminate random delay in RA transmission
- 258: Eliminate random delay in NS transmission
- Question to WG: How do we move forward with these issues ??

Security issue

- Removed all references to IPsec in message validation and message format sections.
- Described limitations on using IPsec and its applicability in a new section (3.3).
- Rewrote section 11 to elaborate on threats.
- Outstanding issues: KEYWORD for SEND, MAY, SHOULD, MUST
- When making this decision, we need to consider that on some link layers (and deployments) SEND is not necessary.

Reception of a prefix option with length > 64

- 2461 is inconsistent with ADDRARCH because it allows the prefix length to be larger than 64 bits. Two consequences to be considered:
  - Mere inconsistency needs to be clarified for implementers/readers
  - Impacts on address configuration (2462bis, 3041, and DHCP??)

- 255: Relax requirements on frequency of RA transmission
- 256: Eliminate random delay in RS transmission
- 257: Eliminate random delay in RA transmission
- 258: Eliminate random delay in NS transmission
- 245: Mixed host/router behaviour (resolved)
- 249: Clarify the M and O flag and use of DHCPv6 (resolved)
- 250: Reception of a prefix option with length > 64
- 252: Security considerations issues