

RFC6434-bis

IPv6 Node Requirements update

Tim Chown, tim.chown@jisc.ac.uk

Tim Winters, twinters@iol.unh.edu

John Loughney, john.loughney@gmail.com

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Context

- Two previous IPv6 Node Requirements RFCs:
 - RFC4294, April 2006
 - RFC6434, December 2011
- Work done to date:
 - draft-clw-rfc6434-bis-00; suggested changes
 - draft-clw-rfc6434-bis-01; started on real edits
 - ****BIS**** in the document indicates further changes
- In this slot we'll list some changes already made, and ask for views on some specific topics
- Will sync router-specific text with draft-ali-ipv6rtr-reqs-02

Some changes so far

- Examples:
 - Changes related to RFC2460-bis, e.g. atomic fragments (RFC8021), oversized header chains (RFC7112)
 - ND enhancements, e.g. impatient NUD (RFC7048)
 - Provision of multiple global addresses to hosts (RFC7934)
 - Privacy addresses (RFC4941): SHOULD be supported, and MUST be configurable
 - RFC7217 alternative to RFC4862 SLAAC
 - MIPv6 text removed; 3GPP added (RFC7066, 7278)
 - RFC6724 address selection update
 - A6 Historic

Q1: RFC8106 support

- Section 7.3
- RFC8106 defines option to carry DNS resolver addresses in an RA
- Not (yet) implemented in all platforms, which hinders effective deployment
- Current text says SHOULD support
- Proposal:
 - Change text to say RFC8106 MUST be supported

Q2: MLDv2 support

- Section 5.10
- The MBONED WG has long recommended use of source-specific multicast, which requires MLDv2
- RFC6434 says MLDv1 **MUST** be supported, and MLDv2 **SHOULD** be supported
- Proposal:
 - Change text to say MLDv2 **MUST** be supported
 - Say nothing about MLDv1

Q3: PLPMTUD support

- Section 5.6.1
- Packetization Layer Path MTU Discovery (RFC4821) avoids dependency on PTB messages
- Mentioned in RFC6434, which says RFC1981 SHOULD be supported
- Proposal:
 - Add text to say RFC4821 SHOULD be supported
 - No longer state that RFC1981 SHOULD be supported

Q4: DHCP-PD for hosts?

- RFC7934 recommends that when hosts attach they are offered multiple IPv6 global addresses
- Currently likely to be implemented via RAs; should we encourage DHCP-PD as well?
- Proposal:
 - Add text to say hosts SHOULD support DHCP-PD
 - Also emphasize that hosts SHOULD also support RA-based configuration

Q5: Node management?

- Currently says two MIBs SHOULD be supported (IP Forwarding Table and IP MIB)
- Much recent activity in Netconf and Yang
- Proposal:
 - Add text to say Netconf/Yang model SHOULD be supported?
 - Leave MIB text as it is

Q6: Privacy for IPv6 Nodes?

- Added Privacy addresses (RFC4941): SHOULD be supported, and MUST be configurable.
- Do we want to suggest nodes SHOULD follow RFC 7844 (Anonymity Profiles for DHCP Clients) as a method for privacy?
 - And that the behaviour SHOULD be configurable
- Any others?

Other comments?

- Are changes heading in the right direction?
- Still deemed useful work?
- If so, is it ready for WG adoption?

- Should target be Informational or BCP?