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IPv6 Hop-by-Hop Options Processing Procedures

<draft-ietf-6man-hbh-processing-08>

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Overview



- Progress
- Changes from -06 to -07 draft
- Changes from -07 to -08 draft
- Summary of Updates to RFC8200
- Next Steps

Progress



- 6MAN W.G. last call started on 12 April 2023
- Two new drafts published (-07 -08)
- Authors think document was considerably improved based on the last call comments – *Thanks*.

Changes -06 to -07 draft



- Changed document that is no longer updates [RFC7045], it now clarifies it using the language of BCP 14.
- Added additional clarifications to Section 4 “Background”.
- Editorial changes.

Changes -07 to -08 draft



- Revised Section 3 definition of fast/slow path and processing.
- Restructured Section 5 to separate Hop-by-Hop Options header and Hop-by-Hop options processing and configuration.
- Revised MUST/SHOULD language in Section 5.2.
- Revised text to use consistent names for Hop-by-Hop Options header and Hop-by-Hop options (from RFC8200).
- Revised Section 5.2 regarding the modified behavior of the action bits "01", "02", and "03" to MAY to be consistent with text earlier in that section.
- Added to Section 6 that new Hop-by-Hop options SHOULD be designed expecting that routers might drop packets with the new option.
- Added new Section 6.1 on "Example of Robust Usage".
- Other editorial changes to improve readability and clarity.

Summary of Updates to RFC8200



- Routers should process first HBH option at full forwarding rate. Additional processing allowed, if configured.
 - If routers do not process the HBH Option header, they should forward the packet normally (**i.e., don't drop**).
 - Routers should treat options they can't process with actions bits of "00", **that is, forward the packet**.
 - Changed the definitions of "01", "10", and "11" action bits.
- Sources sending packets with HBH options should use a robust mechanism that assumes only one HBH option would be processed.
- Added specific rules for creating new HBH options (updates Section 4.8 of RFC8200).

Next Steps



- We made a lot of improvements in -07, good to get more people to review it.
- Authors think this document is ready to advance.



QUESTIONS / COMMENTS?

<https://github.com/ietf-6man/hbh-processing/issues>