IPv6 Hop-by-Hop Options
Processing Procedures

<draft-ietf-6man-hbh-processing-01>

Bob Hinden
Gorry Fairhurst

July 2022
IETF114
Changes from -00 draft

- Added text to Section 1 that the focus of this document is to set a **minimum bound** on the number of Hop-by-Hop Options a node should process.
- Added text to Section 4 that the authors expect some Hop-by-Hop options will be supported Internet wide, and others only in limited domains.
- #7, Added reference to RFC 7872 in Section 4.
- #6, Revised text in Section 4 to reflect the constraints on publishing RFC 8200 to progress on standards track.
- Fixed typo in last paragraph of Section 5.2.
- #21, Changed text in Section 6 that new options **SHOULD NOT** (from MUST NOT) be defined that are not expected to be processed at full forwarding rates.
Issue Tracker

- **Captured Issues** raised in Adoption Call
  
  https://github.com/ietf-6man/hbh-processing/issues
  
  Currently 9 open issues
Open Issues Summary

#18 : What status will the recommendations/requirements have?
   - Expect WG to discuss this issue

#9 #15 : Should we deprecate Router Alert?
   Are routers required to process (RAO)?
   - Expect WG to discuss this issue in another draft

#5 #12 : slow/fast path
   - we think resolved?

#8 : Lack of graceful handling of malformed EHs?
   - Ready for offers of text

#4 : RFC9098 notes that nodes do need to process payload
   - Expect WG to discuss this issue

#3 : Does the WG have ASIC experience with EH?
   - May be relevant to a different draft, we expect to close this issue

#2 : Leading edge line-speed routers might ignore HBH EH!
   - ?
Issue #5, #12 - Definition of Fast Path and Slow Path?

- Current draft discusses full forwarding rate.
Issue #8 - Lack of graceful handling of malformed EHs

- One of the main security problems associated with IPv6 EHs is that too many implementations seem fail to gracefully handle malformed/malicious Ehs.

- Is this different from other headers (IPv6, EH, Transport)?
- Editors: Please suggest text for the security considerations.
Issue #4 - RFC9098 notes that nodes do need to process payload

- Misses the discussion in RFC9098: quite often forwarding nodes do need to process IPv6 payloads.

- Are HBH Options considered payloads?

- Editors: What text do we add about this?
Next Steps

- Resolve issues.
- Receive more comments/issues?
- Revise the ID.
QUESTIONS / COMMENTS?

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