

MPLS Post-Stack Extension Header

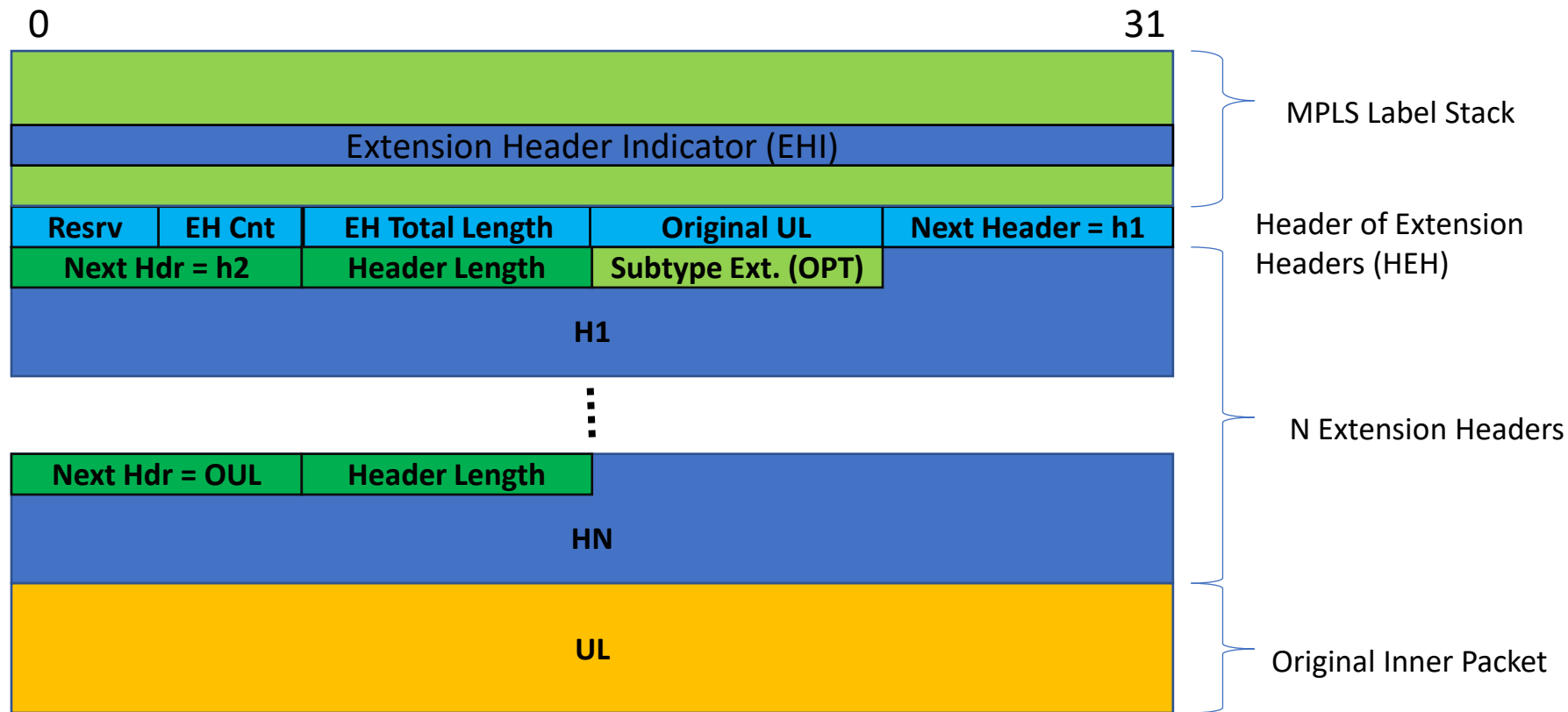
[draft-song-mpls-extension-header-07](#)

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Version History

- MPLS Extension Header (EH) draft -00 published in July 2018, evolves to -07 today
- Title changed to “MPLS **Post-Stack** Extension Header” to reflect the solution focus
- Aligned with the terms used in MNA requirements and framework documents
- New authors added

MPLS EH Recap



- Up to 15 EHs in one packet allowed
- Maximum lengths of EHs is 1K Bytes
- Allow HEH + 0 EH
 - can be used to indicate the type of UL
 - Possible add/remove EHs on the path

MPLS EH Recap

- Next Header type encoding
 - Share the codepoint with IP protocol numbers
 - New types defined in this document
 - “NONE”: no next EH and payload, for special packets (e.g., probe)
 - “UNKNOWN”: only in last EH, indicate the payload type is unknown
 - “MPLS”: another MPLS label stack follows the EH – for hierarchical use cases
- All EHs can be skipped in one step to access the original UL
 - A Header of EH summarizes the EH stack
- Support E2E and HBH EH types
 - E2E EHs must be located below HBH EHs for better performance
- Each EH is a standard container for a post-stack MNA

Other companion documents

- [draft-song-mpls-eh-indicator](#)
 - Summary of possible methods for MPLS EH indicator
 - Will retire once a method is chosen by the MPLS WG
- [draft-andersson-mpls-eh-architecture](#)
 - Describe the terms and network architecture for MPLS EH application
 - EH path vs LSP, EH capable/incapable nodes, capability announcement, etc.
 - Concept applicable to in-stack MNA
 - Possibly evolve to a document for MNA network architecture
- [draft-andersson-mpls-eh-label-stack-operations](#)
 - Performance optimization using EH FEC label
 - Concept applicable to in-stack MNA
 - Possibly evolve to be a generic method for MNA

Next Steps

- Request for WG adoption as the solution for supporting post-stack MNAs
- Determine the EH indicator scheme coherent with in-stack MNA indicating
- Expand the scope of the other EH companion documents for MNA