

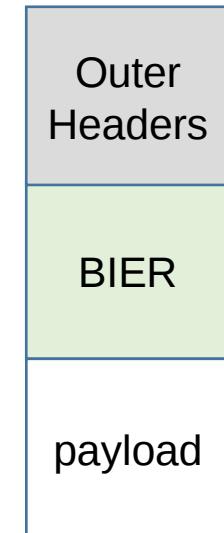
Supporting BIER in non-MPLS IPv6 Networks (BIERin6)

IETF 117

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How to do BIER in non-MPLS IPv6 Networks

- Generalized to “BIER in non-MPLS Networks”
 - IPv6 is orthogonal
- Non-MPLS Encapsulation following one/more outer headers, which could be:
 - Ethernet header (with EtherType 0xAB37)
 - Any outer header with a codepoint indicating payload type is non-MPLS BIER
 - E.g., GRE header (with Protocol Type 0xAB37)
 - E.g., IPv6 header (with a to-be-assigned Protocol number)
 - Used for native IPv6 tunneling or even hop-by-hop
 - Hop-by-hop with IPv6 header is optional - for when hardware does not support BIER codepoint in outer header and software-based forwarding is acceptable



Brief introduction of BIERin6

- Existing procedures defined for IPv4 non-MPLS networks apply to IPv6 with no need for any changes or enhancements.
- All the overlay technologies inherited unchanged, such as MVPN, EVPN, PIM and MLD, etc.
- All the BIER OAM technologies applied with no changing, such as BIER ping, BFD and PM, etc.
- Draft-ietf-bier-lsr-non-mpls-extensions, draft-ietf-bier-prefix-redistribute, draft-ietf-bier-idr-extensions are used for BIER signaling.

- Adopted after IETF109#.
- The underlay drafts all passed WGLC.
- We'd like to request for WGLC for more review. ☐

Thanks!