

BIER IPv6 Requirements
draft-ietf-bier-ipv6-requirements-06

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Since last ietf:

- Removed the ipv6 scenarios
 - replaced with transport independent and native ipv6 models
- Divided requirements into mandatory and optional
- Removed commentary from the solutions evaluation

In newest -06 rev, comments from Greg:

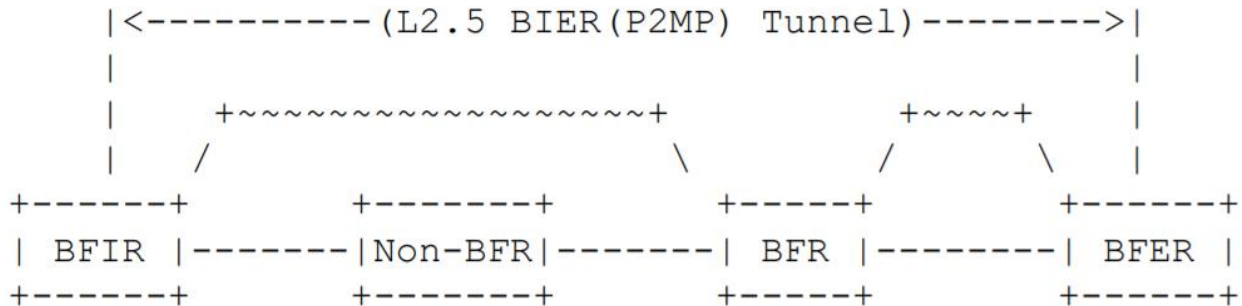
- “...which depend on these same unicast technologies **to traverse through Non-BFR routers**”.
- “the BIER header is integrated into the IPv6 extension header and processing of the BIER header (e.g., the BitString) is implemented as part of the IPv6 extension header processing.” instead of BIER integrated into the IPv6 data plane

Draft Purpose

- Specify the requirements for transporting packets, with bier headers, in an IPv6 environment.
- Summarize solutions (in appendix).
- Help the BIER WG come to a conclusion, outside the draft, on which solution(s) to rally behind and adopt.

Encapsulation Approaches

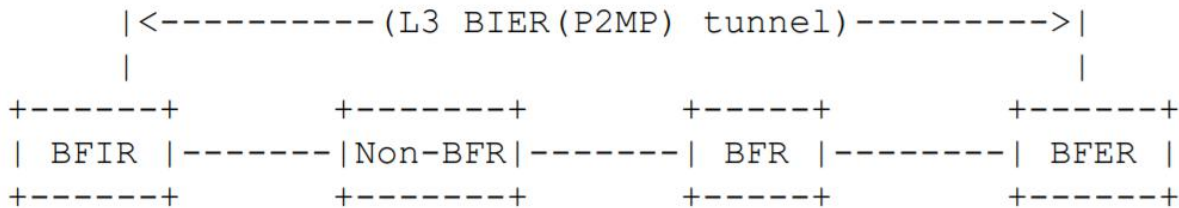
- Transport-Independent Model approaches
 - Transport-Independent BIER [I-D.xu-bier-encapsulation]
 - BIERin6 [I-D.zhang-bier-bierin6]



An IPv6 tunnel works as a link-layer of BIER, and BIER works as a transport-independent layer (or layer-2.5) over a virtual-link (IPv6 tunnel).

Encapsulation Approaches

- Native IPv6 Model approaches
 - BIER-over-IPv6 [I-D.pfister-bier-over-ipv6]
 - BIERv6 [I-D.xie-bier-ipv6-encapsulation]



The BIER header is integrated into the IPv6 extension header and processing of the BIER header (e.g., the BitString) is implemented as part of the IPv6 extension header processing.

Requirements

Mandatory

L2 agnostic

Support BIER architecture

Conform to existing IPv6 Spec

Support deployment with Non-BFR routers

Support inter-AS multicast deployment

Support Simple Encapsulation

Support Deployment Security

Optional

Support MVPN

Support OAM

Support IPSec

Support Fragmentation

Support hardware fastpath

Summary

Has it helped?

- Yes? Please consider solution adoptions
- No? What is it lacking?