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Multiple Ethernet - IPv6 mapped IPv6 address (ME6A) draft-matsuhira-me6a-06

Abstract

This document specifies Multiple Ethernet - IPv6 mapped IPv6 address(ME6A) spefification. ME6A is Ethernet mapped IPv6 address with plane ID. Unique allocation of plane id value enable duplicated MAC address unique in IPv6 address space. This address may use Ethernet over IPv6 encapsulation.

Requirements Language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [RFC2119].

Status of this Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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This Internet-Draft will expire on December 3, 2019.

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1. Introduction

This document specifies Multiple Ethernet - IPv6 mapped IPv6 address(ME6A) spefification. ME6A is Ethernet mapped IPv6 address with plane ID. Unique allocation of plane ID value enable duplicated MAC address unique in IPv6 address space.

This address may use Ethernet over IPv6 encapsulation such as Multiple Ethernet - IPv6 mapping encapsulation - fixed prefix (ME6E-FP) [I-D.draft-matsuhira-me6e-fp] and Multiple Ethernet - IPv6 mapping encapsulation - prefix resolution (ME6E-PR)[I-D.draft-matsuhira-me6e-pr].

2. ME6A architecture

Figure 1 shows ME6A architecture.

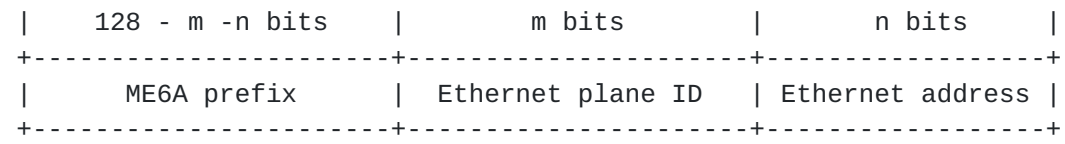

Figure 1

ME6A consists of three parts as follows.

ME6A prefix

ME6A prefix. This value is fixed value with M46E-FP, and non fixed value with M46E-PR.

Ethernet plane ID

Ethernet network plane ID is network identification of Ethernet network plane.

Ethernet address

Ethernet MAC address. EUI-48 address or EUI-64 address.

3. IANA Considerations

This document makes no request of IANA.

Note to RFC Editor: this section may be removed on publication as an

RFC.

4. Security Considerations

5. References

5.1. Normative References

[I-D.draft-matsuhira-me6e-fp]
Matsuhira, N., "Multiple Ethernet - IPv6 mapping encapsulation - fixed prefix", June 2019.

[I-D.draft-matsuhira-me6e-pr]
Matsuhira, N., "Multiple Ethernet - IPv6 address mapping encapsulation - prefix resolution", June 2019.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <http://www.rfc-editor.org/info/rfc2119>.

5.2. References

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