

# MP-BGP Extension and Procedures for IPv4/IPv6 Mapping Advertisement

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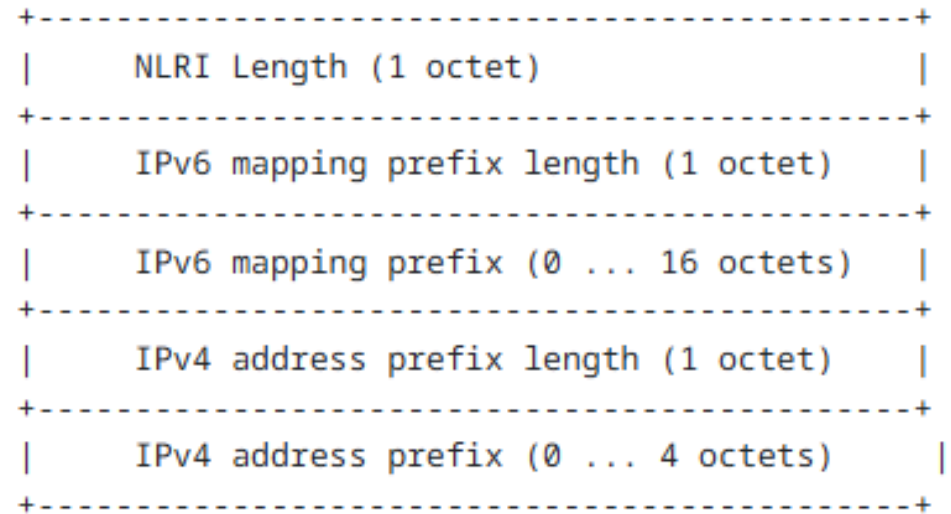
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# Overview

- This document defines MP-BGP extension, i.e. 4map6, and the procedures for IPv4 service delivery in multi-domain IPv6-only underlay network.
- This document was proposed in Jan. 2023, firstly presented in IETF 116, adopted after IETF 118.

# MP-BGP Extension in this Document

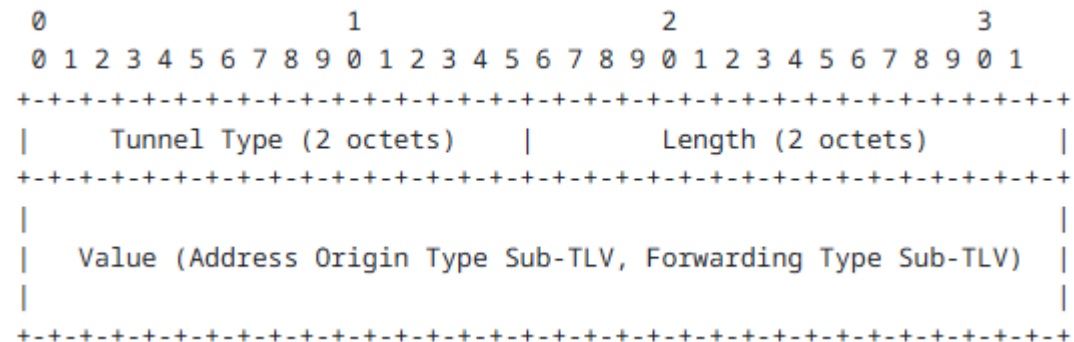
- A new SAFI is used to identify new 4map6 extension
  - AFI = 2 (IPv6)
  - SAFI = xxx (4map6)
- The new SAFI's NLRI is encoded as:



- The fields of “Forwarding Type(1 octet)” and “Address Origin Type(1 octet)” are encoded in new 4map6 Tunnel TLV in BGP tunnel attribute.

# Revisions made since IETF 119(1/2)

- The format of 4map6 Tunnel TLV in section 3.2 is revised by changing the parameters of "Address Origin Type" and "Forwarding Type" into two Sub-TLVs.
  - a) The Address Origin Type Sub-TLV (Type Code yy1)
  - b) The Forwarding Type Sub-TLV (Type Code yy2)



- Utilization of validation rules in RFC9012 for the TLV and Sub-TLV in this case is added.

# Revisions made since IETF 119(2/2)

- In section 4.2, the behavior of ingress PE is updated by adding the checking the reachability of mapping prefix received in the IPv6 underlay network.
- The section of “IANA considerations” is revised and moved to section 8.
- Several editorial changes.

# Next Steps

- System implementation and interworking test
- Comments and suggestions are welcome, and further refinement will be made to improve the document.

Thank you !  
Q&A