

Provisioning, Auto-Discovery, and Signaling in L2VPNs for IPv6 Remote PE

draft-abhattacharya-bess-l2vpn-ipv6-remotepe

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Problem

- Excerpt form RFC7439 (Gap analysis for MPLS in IPv6 networks)
 - “[[RFC6074](#)] is the only RFC that appears to have a gap for IPv6-only operation.”
 - “In its discovery procedures (Sections 3.2.2 and 6 of [RFC 6074](#) [[RFC6074](#)]), it suggests encoding PE IP addresses in the Virtual Switching Instance ID (VSI-ID)”
 - “means that a PE IP address cannot be an IPv6 address.”
 - “Also, in its signaling procedures it suggests encoding PE_addr in the Source Attachment Individual Identifier (SAII) and the Target Attachment Individual Identifier (TAII), which are limited to 32 bits (All Type=1) at the moment.”
- This I-D fills this void

Update#1 to RFC6074

- Update the BGP NLRI encoding defined in Section 3.2.2.1 to carry an IPv4 address or an IPv6 address
 - OLD: PE_addr (4 octets)
 - NEW: PE_addr (4 or 16 octets)

Update#2 to RFC6074

- Specify a new type for All carrying IPv6 address as TAll or SAll: Type (0x02)
 - A FEC 0x81 TLV MUST contain SAll and TAll of the same type (either type 1 or type 2)
- Update Section 3.2.3 to allow All Type=1 or 2

What's Next?

- This is a missing “piece” as per the RFC7439 analysis
- The proposed fixes are straightforward
- Suggestions for the next step?