EVPN Inter-Domain Option-B Solution

draft-rabadan-bess-evpn-inter-domain-opt-b-06

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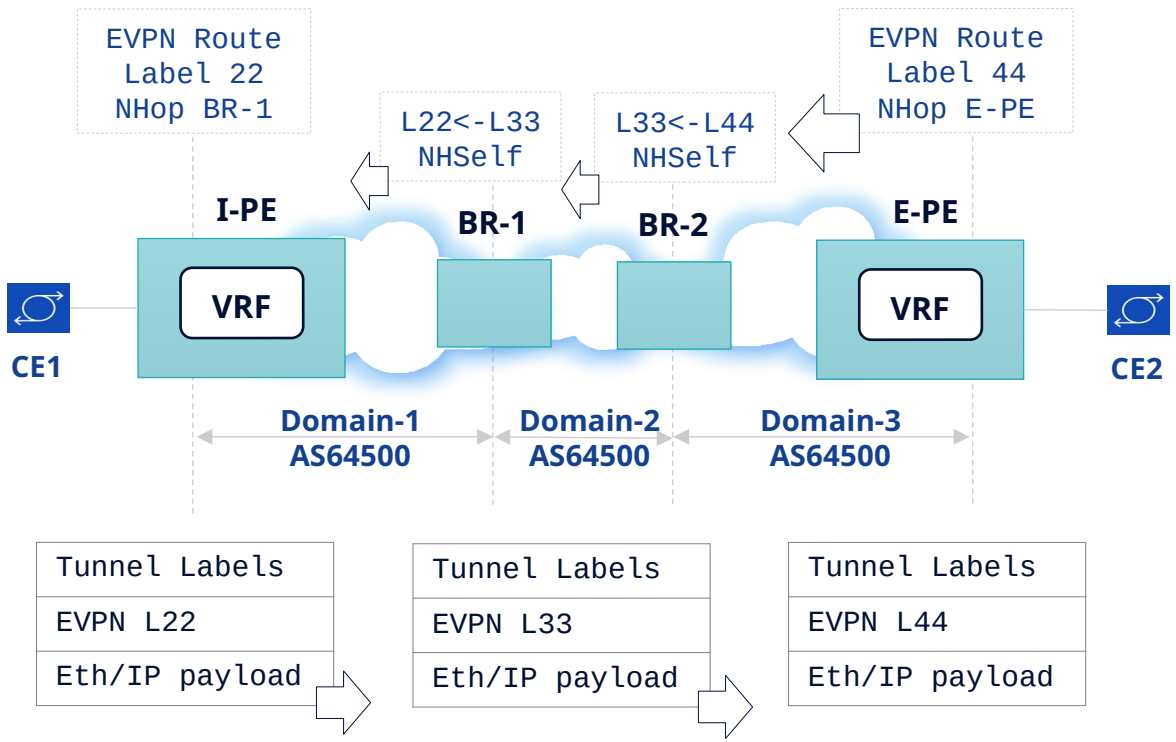
Refresher

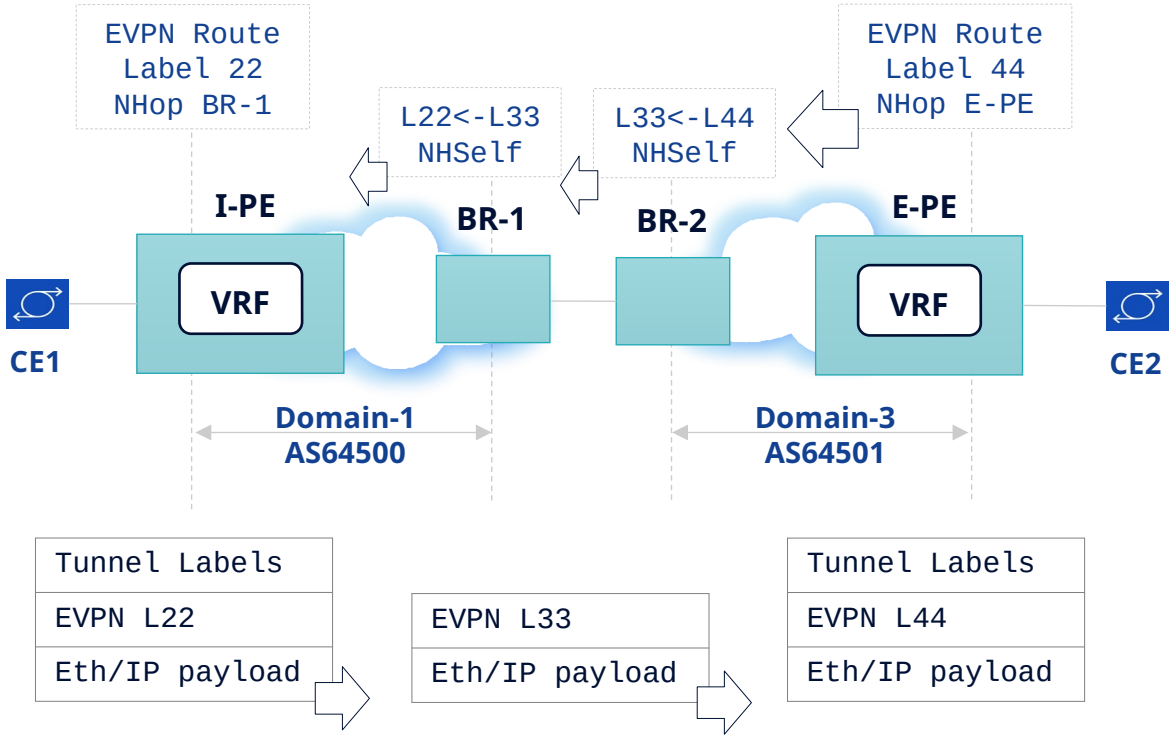
EVPN Inter-Domain Option-B Solution

- Informational (for the moment), it does not create new procedures
- Summarizes the impact of the Inter-Domain Option-B connectivity in the EVPN procedures
- Includes:
  - EVPN Layer-2 ELAN, ELINE, E-Tree
  - EVPN Layer-3
  - PBB-EVPN
- Analyzes potential solutions based on existing specs and local implementations (that do not change the control plane)

What is EVPN Inter-Domain Option-B?

Models used in the document





VRF is an EVPN MAC-VRF or IP-VRF or VPWS
Labels are 20-bit (MPLS label) or 24-bit (VNI)
Originally specified in RFC8365 section 10.2 for EVPN
For NVO tunnels, there are no tunnel labels but an IP header

Changes since version 03

EVPN Inter-Domain Option-B Solution

- Version 03 presented in IETF 119

- Document Evolution Since IETF 119 (v03 → v06)
  - Added Luc André as co-author in version 06
  - Addressed Sasha’s mailing list comment - clarified that when IP Prefix routes carry a label of zero, the re-advertised route MUST retain the label of zero
  - Improved overall readability
  - Fixed typos and updated references

What is next?

WG Review and Feedback about EVPN A-D per-ES inter-domain identifier

- One of the Key challenges in the draft: EVPN multi-homing
  - Correlating EVPN A-D per ES routes with other EVPN routes
  - A-D routes lack a source PE identifier that persists across domains
  - Other ESI-carrying routes requiring correlation

- Field deployments show interoperability issues due to lack of consensus on correlation methods

- Goal from the authors - Converge on a solution, where the following options are being discussed

1. **Keep the Originating PE** in I-D.heitz-bess-evpn-option-b, resurrect the draft and reference it as normative ref
2. **Merge** I-D.heitz-bess-evpn-option-b into this draft (which has broader scope)
3. **Remove** Originating PE and use **alternatives**:
   1. Route Origin extended community (RFC4360/RFC5701) (used in I-D.bess-vpls-multihoming)
   2. Originator ID (RFC4456 – non-transitive)

What is next?

WG Review and Feedback about Informational vs Standards Track

- If the agreed option is 2 (merge) or 3 (alternatives), this draft needs to change to **Standards Track**

- Even if not, based on the feedback received, we are considering progressing this work as a Standards Track document due to the other aspects specified and the normative language in some cases

Conclusion

1. **Feedback** from the WG desired
2. Authors think there is enough interest and **Request WG adoption**

Thank you