

draft-sajassi-bess-evpn-etree-00.txt

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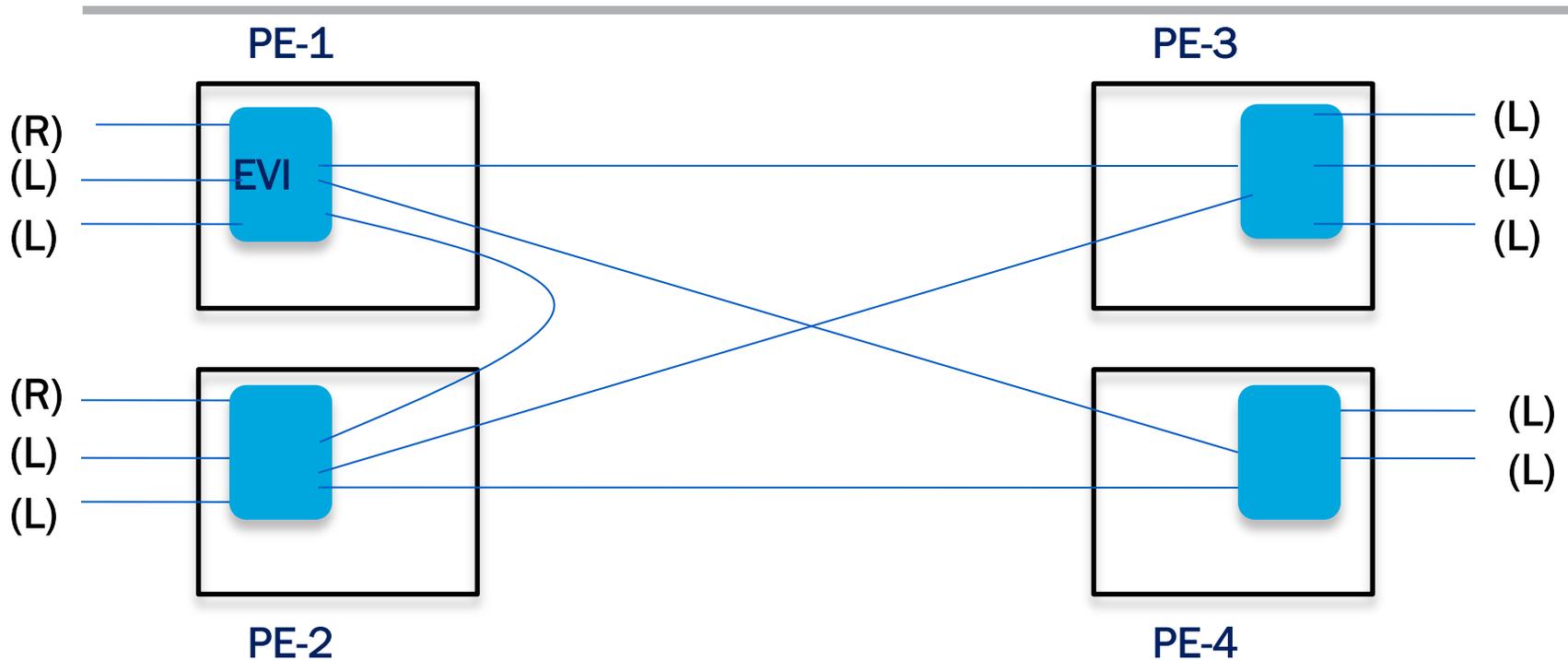
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Vancouver

History

- draft-sajassi-l2vpn-evpn-etree-00 was presented at IETF 84 (July/2012) in Vancouver
- draft-sajassi-l2vpn-evpn-etree-01 was presented at IETF 85 (Nov/2012) in Atlanta. It incorporated the comments from the WG
- draft-sajassi-l2vpn-evpn-etree-02 was presented at IETF 88 (Nov/2013) in Vancouver. It incorporated comments resulted from lots of discussions on the mailing list
- For IETF 91 (Nov/2014), republished draft-sajassi-l2vpn-evpn-etree-02 as draft-sajassi-bess-evpn-etree-00

Scenario of Interest: A site with both Root and Leaf Acs – from IETF 85



- The packets originated from a site, will need to carry site's root or leaf indication (e.g., policy needs to be applied per site basis)
- Egress PE must use the root/leaf indication in the packet to perform appropriate filtering

➔ This scenario in E-VPN is addressed by using per-AC (per-site) policy

For EVPN

- Color the BUM traffic with root/leaf indication using Ext. Comm
- For known unicast traffic, advertise a root/leaf indication along with each MAC
- For known unicast traffic, use this root/leaf indication to perform the filtering on the ingress PE (instead of egress PE)
- For BUM traffic, use this root/leaf indication to perform the filtering on the egress PE (ingress filtering cannot be done for BUM traffic)

For EVPN – Cont.

- For Inter PE forwarding of known unicast
 - On the ingress PE, after performing a lookup on the CMAC DA, if it indicates that the CMAC DA belong to a leaf and the AC or ES is also associated with a leaf, then don't forward the packet
- For Intra PE forwarding
 - Put all the leaf ports for a given E-TREE (given VPN) in its split-horizon group and perform SH filtering internal to the box

For PBB-EVPN

- For both BUM and known unicast traffic, advertise a root/leaf indication along with each BMAC – e.g., color each BMAC with root/leaf indication
- For known unicast traffic, use this root/leaf indication on BMAC DA to perform the filtering on the ingress PE
- For BUM traffic, use this root/leaf indication on BMAC SA to perform the filtering on the egress PE (as done in baseline PBB-EVPN)
 - Filtering on egress PE is done using BMAC SA solely (no need to use any flag in DP)

For PBB-EVPN – Cont.

- For Inter PE forwarding of known unicast
 - On the ingress PE, after performing a lookup on the CMAC DA, and getting corresponding BMAC DA, if it indicates that the BMAC DA belong to a leaf and the AC or ES is also associated with a leaf, then don't forward the packet
 - Filtering on ingress PE is done using root/leaf flag in DP (just like EVPN)
- For Intra PE forwarding
 - Put all the leaf ports for a given E-TREE (given VPN) in its split-horizon group and perform SH filtering internal to the box

Next Step

- Would like to ask for WG call