draft-ram-l2vpn-ldp-vpls-etree-2pw-02

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Rafi Ram (rafir@orckit.com)
Daniel Cohn (danielc@orckit.com)
Raymond Key (raymond.key@team.telstra.com)
Puneet Agarwal (pagarwal@broadcom.com)

Background

- This draft addresses the E-Tree requirement for leaf-to-leaf communication restriction
- To comply with this requirement, the draft proposes using a pair of PWs (root and leaf) to interconnect core VPLS PEs
  - Traffic originated in root AC is forwarded over root PW
  - Traffic originated in leaf AC is forwarded over leaf PW

Updates (1)

- Instead of defining new VSI types to identify root and leaf PWs (-00), a new PW interface parameter called VSI E-Tree Type is defined
- To identify root and leaf PWs in the same logical VSI interface (identified by FEC in -00), a new PW interface parameter called VSI E-tree Identifier is defined

Updates (2)

- New parameters are encoded as interface parameters sub-TLVs (section 5.5. of RFC 4447), as follows:

```
 0                   1                   2                   3
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|  Type (TBD)   |    Length (1) |        VSI E-Tree Type        |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

- VSI E-tree Type can take the following values:
  - 0: E-Tree Root VSI
  - 1: E-Tree Leaf VSI

```
 0                   1                   2                   3
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|  Type (TBD)   |    Length (1) |     VSI E-Tree Identifier     |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|  VSI E-Tree Identifier(cont.) |           Reserved            |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

- VSI E-tree Identifier is a 32-bit number that is used to identify a pair of root and leaf PW as part of the same logical VSI interface, in the context of a pair of VPLS PEs.

Next Steps

- Incorporate input into new revision
- Attempt to harmonize with other proposals

Thank You

Questions ? Comments ?