draft-ietf-l2vpn-evpn-05.txt

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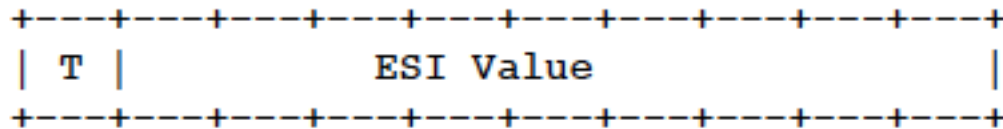
IETF 89, March 2014

London

Changes from Rev04

- Main Changes
  - ESI Format
  - MAC Route
  - Ethernet A-D per ES Route
  - Added Security Section

Ethernet Segment Identifier

```
+--+--+--+--+--+--+--+--+--+--+
| T |           ESI Value         |
+--+--+--+--+--+--+--+--+--+--+
```

- Expanded ESI format to allow for the following types:

  - Type 0 (T=0x00) - This type indicates an arbitrary nine-octet ESI value, which is managed and configured by the operator.

  - Type 1 (T=0x01) - When IEEE 802.1AX LACP is used between the Pes and CEs, this ESI type indicates an auto-generated ESI value determined from LACP

Ethernet Segment Identifier – Cont.

- Type 2 (T=0x02) - This type is used in the case of indirectly connected hosts via a bridged LAN between the CEs and the PEs.

- Type 3 (T=0x03) - This type indicates a MAC-based ESI Value that can be auto-generated or configured by the operator.

- Type 4 (T=0x04) - This type indicates an IP-based ESI Value that can be auto-generated or configured by the operator.

- Type 5 (T=0x05) - This type indicates an AS-based ESI Value that can be auto-generated or configured by the operator.

MAC Route

Added <u>optional</u> MPLS Label2 at the bottom of MAC route

```
+---------------------------------------------+
|           RD     (8 octets)                 |
+---------------------------------------------+
|Ethernet Segment Identifier (10 octets)|
+---------------------------------------------+
|   Ethernet Tag ID (4 octets)                |
+---------------------------------------------+
|   MAC Address Length (1 octet)              |
+---------------------------------------------+
|   MAC Address (6 octets)                    |
+---------------------------------------------+
|   IP Address Length (1 octet)               |
+---------------------------------------------+
|   IP Address (0 or 4 or 16 octets)          |
+---------------------------------------------+
|   MPLS Label1 (3 octets)                    |
+---------------------------------------------+
|   MPLS Label2 (0 or 3 octets)               |
+---------------------------------------------+
```

Ethernet A-D per ES

- Ethernet A-D per ES is used for a number of functions:

  - Mass Withdraw needed for fast convergence

  - Distribution of Split-Horizon label

- To better differentiate this route from the Eth A-D per EVI version, we introduced the MAX-ET (0xFFFFFFFF) for this route

- For the scenarios where the ES includes large number of Ethernet tags and thus large number of RTs such that not all RTs fit in a single route advertisement, then we enable the procedures to be able to send a set of Eth A-D per ES route for a given ES

Next Step

- There will be a version 06 with few more editorial changes

- The authors would like to request for WG LC on version 06