draft-ietf-bess-rfc7432bis-07.txt

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Changes Relative to Rev06

1. Clarified BGP Route Key Processing
   • BGP Route: RD + Prefix
   • Whenever draft mentions BGP route key processing for the prefix, it means prefix part of the BGP route

2. Changed Flow-label (F-bit) language (in section 7.11) from “Should” to “MUST” in order to make it consistent with that of section 18.
Changes Relative to Rev06 – II

1. Added a new section 7.12.2 to explicitly describe mismatch behavior for EVPN L2 Attribute negotiation (MTU, C, F flags)

   • EVPN Layer 2 attributes received in remote routes are checked for consistency and interoperability against local values, as also described in Section 3.1 of [RFC8214]. Mismatches SHOULD be notified to the operator.

   • A received L2 MTU of zero means that no MTU checking against the local MTU is needed. A received non-zero MTU from a remote PE MUST be checked against the local MTU, and if there is a mismatch, the local PE MUST NOT add the remote PE as the EVPN destination for any of the corresponding service instances.

   • When the L2-Attr Extended Community is received from a remote PE, the control word C flag MUST be checked against local control word enablement. If there is a mismatch, the local PE MUST NOT add the remote PE as the EVPN destination for any of the corresponding service instances.

   • When the L2-Attr Extended Community is received from a remote PE, flow label F flag MUST be checked against local flow label enablement. If there is a mismatch, the local PE MUST NOT add the remote PE as the EVPN destination for any of the corresponding service instances. The Flow label capability signaling is further described in Section 18.1.
Changes Relative to Rev06 – III

- Added clarification for signaling Primary and Backup PE in the L2 Attribute EC
  - Dual-homed PEs for that ES **MAY** advertise the P and B bits to reflect the advertising PE's role for that EVI
  - Multi-homed PEs of 3 or more peers for that ES **SHOULD** each advertise the P and B bits for that ES to prevent higher convergence time.
  - In order to signal the L2-Attr Extended Community, an Ethernet A-D per EVI route for that EVI **MUST** be advertised.
Changes Relative to Rev06 – III

- Clarified the text for VLAN-aware bundle service service – i.e., what the MPLS label SHOULD/MAY represent

  • In the case where a single VLAN is represented by a single VID and thus no VID translation is required for the operational duration of that VLAN, an MPLS-encapsulated packet MUST carry that VID and the Ethernet Tag ID in all EVPN routes advertised for this BD MUST be set to that VID.

  • The advertising PE SHOULD advertise the MPLS Label in the Ethernet A-D per EVI and Inclusive Multicast routes and MPLS Label1 in the MAC/IP Advertisement routes representing both the Ethernet Tag ID and the EVI

  • MAY advertise the labels representing ONLY the EVI

  • This decision is only a local matter by the advertising PE which is also the disposition PE) and doesn't affect any other PEs.
Changes Relative to Rev06 – IV

- Clarified the text in section 18 for deep packet inspection for its ECMP and PW MPLS Control word usage:
  - It MUST be used with the value 0 (e.g., a 4-octet field with a value of zero) when sending unicast EVPN-encapsulated packets over an MP2P LSP.
  - It SHOULD NOT be used when sending EVPN-encapsulated packets over a P2MP or P2P RSVP-TE LSP.
  - It SHOULD be used with the value 0 when sending EVPN-encapsulated packets over a mLDP P2MP LSP. There can be scenarios where multiple links or tunnels can exist between two nodes and thus it is important to ensure that all packets for a given flows take the same link (or tunnel) between the two nodes.
Next Step

- This draft has been soaking for a while and it is ready for WGLC.
- There are couple of nits that need to be taken care of (i.e., clarification for Default GW MAC EC) but those nits can be taken in parallel with the WGLC reviews.
- We want to allocate enough time for WGLC review.