draft-ietf-l2vpn-trill-evpn-00.txt

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Status

- Separated the TRILL sections from PBB-EVPN draft into its own draft based on WG recommendation which includes:
  - TRILL nickname assignment
  - TRILL nickname advertisement route
  - Frame format
  - Unicast forwarding
  - Handling multicast
Requirements Section

- We didn’t do a good job with the requirement section
- Moved TRILL specific requirements to this draft such as
  - C-MAC Address Transparency on the Hand-off Point
  - Control Plane Isolation among TRILL Networks
- However should have references to other requirements such as
  - Support Multi-tenancy for TRILL network provider – to allow multiple TRILL network providers share the same common MPLS/IP WAN by providing virtual private network for each TRILL network provider
  - Support optimum unicast & mcast forwarding for L2VPN service over both MPLS and IP networks
  - Support active/active load balancing when TRILL network is multi-homed to EVPN
  - Etc.
TRILL Nick name assignment

- A TRILL network operator operates multiple TRILL DCs
- Multiple TRILL network operators can share the same MPLS/IP network
- Within a single TRILL network operator with multiple DCs, TRILL Nick names need to be unique
- TRILL nicknames can overlap among different TRILL network operators
- Section 5.1 describes how TRILL nickname assignment can be done such that they are unique within a TRILL network operator
- Will introduce a short draft in to TRILL WG regarding this proposal
Interconnecting TRILL Islands

- No need to terminate TRILL encapsulation at WAN Edge PEs
- WAN Edge PEs act as Edge Rbridge wrt control plane and transit Rbridge wrt data-plane
- WAN Edge PEs acts as E-VPN PE toward WAN
Multicast Handling

- Any TRILL island can have multiple trees
- E-VPN PE nodes need to stitch these trees with one of the below mcast delivery mechanisms in E-VPN:
  - Ingress replication
  - LSM with Inclusive trees
  - LSM with Aggregate Inclusive trees
  - LSM with Selective trees
  - LSM with Aggregate Selective trees
Mcast Handling – Cont.

- Stitching needs to be done such that:
  - Avoiding Packet Duplication
  - Avoiding Forwarding Loops
  - Pacifying TRILL RPF Checks

- Several approaches list in section 5.5
  - Multicast Stitching with Per-Source Load Balancing
  - Multicast Stitching with Per-VLAN Load Balancing
  - Multicast Stitching with Per-Flow Load Balancing
  - Multicast Stitching with Per-Tree Load Balancing
Mcast Handling – Cont.

- Like to get feedback from WG on these different mcast handling mechanism
- Do we need all of them?
- Should we pick one as the default mechanism?
- Which one?