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
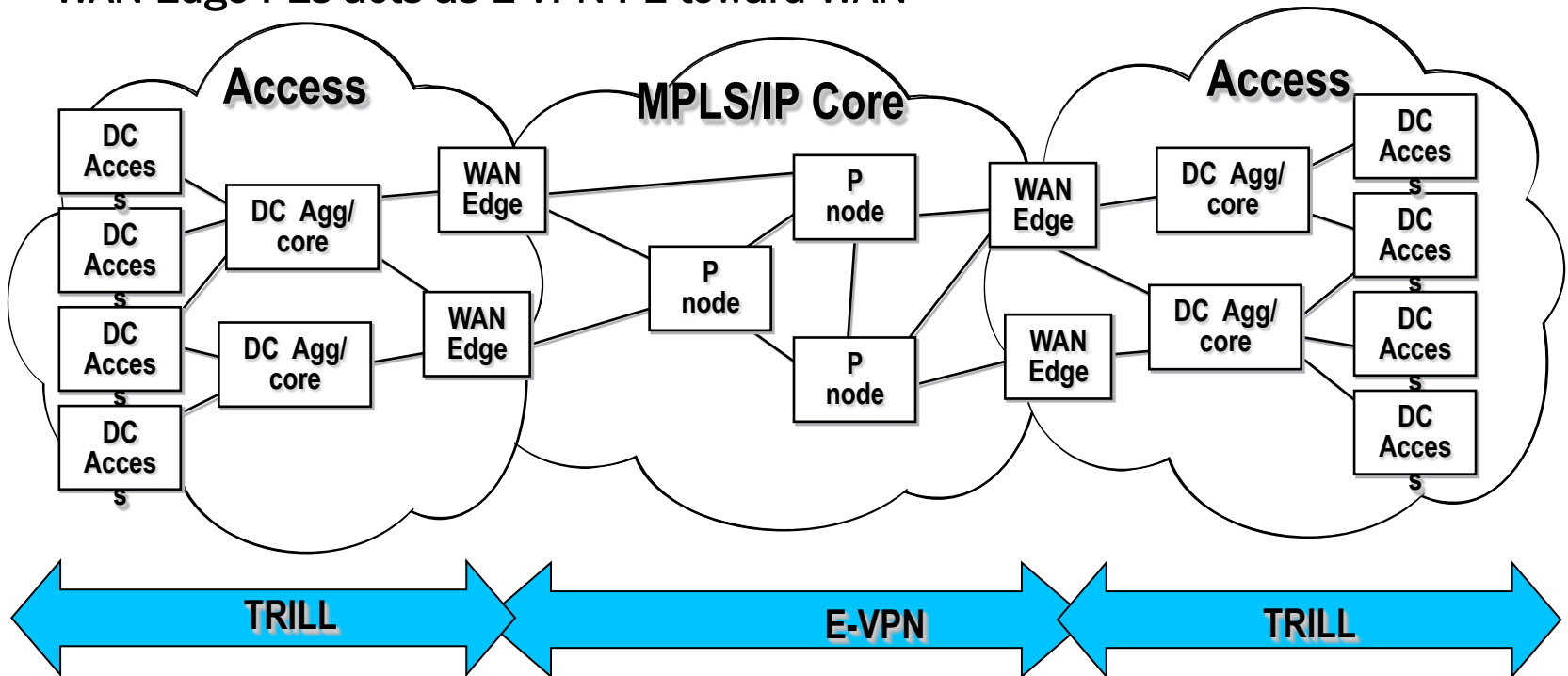
Requirements Section

- 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 stich 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 ?