Single Border RBridge Nickname for TRILL Multilevel (updates)

draft-zhang-trill-multilevel-single-nickname-01.txt

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Changes from 00 to 01

- Improve the specifications on multicast forwarding
- Add one section to specify how a border RBridge behaves if it is connected to multiple areas
- Add two authors
- Make some minor editorial changes

Single Nickname for Multiple Levels

Multicast forwarding

- Given multiple border RBridges are connected to the same area.

- To avoid duplication
  - Only the DBRB (Designated Border RBridge) can do the L1/L2 transition [old]

- To avoid loops
  - Multi-destination packets with L2 ingress nicknames MUST NOT be transitioned back into L2. [old]
  - Multi-destination packets originated from an L1 area MUST NOT be transitioned back into this area. [new]

One Border RBridge (BRB) Connects Multiple L1 Areas: Unicast

- If one border RBridge is connected to multiple areas, this border RBridge uses the same nickname for all these areas.

- How to do unicast forwarding into these areas
  - Remember these areas may reuse nicknames. The right destination area can be figured out through looking up the destination MAC address in the MAC-table of the BRB.

One BRB Connects Multiple Areas: Multicast

- Suppose RB1 is the DBRB. How to do multicast forwarding into these connected areas?
  - If the packet is from an area outside of the connected areas
    - RB1 replicates the packet and floods it into all connected areas.
  - If the packet is from one of the connected areas
    - RB1 receives the packet from one L1 tree, replicates it, and floods it onto other L1 trees.
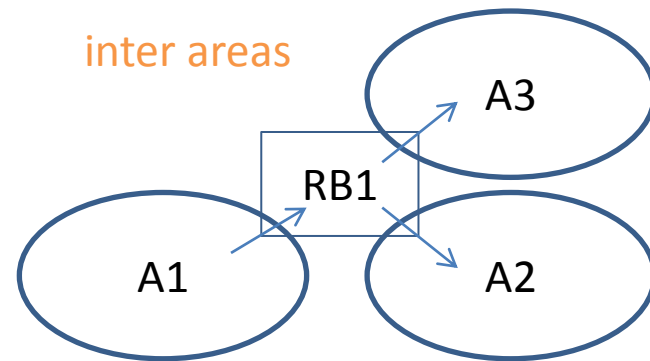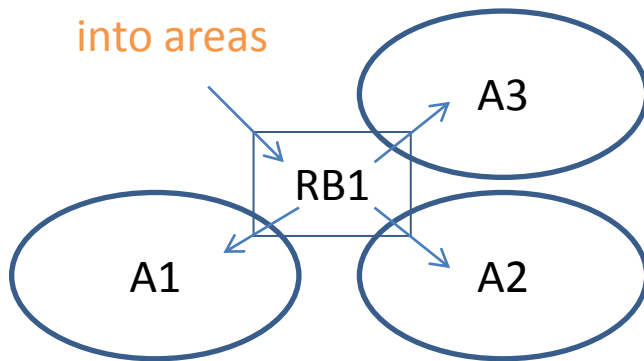
Next steps

- Ask for WG adoption (in progress)
- Progress it to be published

Thanks!