Remote MAC Address Flush

draft-hao-trill-address-flush-01.txt

Yizhou Li liyizhou@huawei.com

Weiguo Hao haoweiguo@huawei.com

Huawei Technologies

TRILL Address Learning

- As listed in [RFC6325] Section 4.8.1, RBridges can **learn** MAC address to RBridge nickname mappings in 5 ways:
  - Data plane learning on ingress (1) and egress (2)
  - ESADI [RFC7357] (3) (data label constrained link-state flooding)
  - Layer 2 registration protocols (4) (such as Wi-Fi Association)
  - Manual configuration (5)

TRILL Address Forgetting

- Data plane learning on ingress (1) and egress (2)
  - Based on time outs. Can lead to black holes. <<<<<<<
- ESADI [RFC7357] (3) (data label constrained link-state flooding)
  - Flood updated information.
- Layer 2 registration protocols (4) (such as Wi-Fi Association)
  - Unregister.
- Manual configuration (5)
  - Change the configuration.

Alternative Discussed

- There was discussion at the last TRILL WG meeting (at the Yokohama IETF meeting) and follow-up discussion on the TRILL mailing list about:
  - Using an RBridge Channel message to flush addresses learned from the data plane.
  - Using ESADI for this purpose.
- I believe the conclusion was to use an RBridge Channel message.

Proposal in the draft

- Specify an RBridge Channel protocol message to flush { MAC address, Data Label, RBridge nickname } tuples that have been learned from the data plan.
- Send by the RBridge where that MAC address is attached because it has better local knowledge.
- Variations:
  - Flush a single entry
  - Flush entries for a Data Label
  - Flush entries for a set of Data Labels: All, Range, Bit Map, or List

Next Steps

- Please look at the draft.
- It has been updated from -00 based on discussions.

- Next step should be a call for WG adoption.

END

Yizhou Li liyizhou@huawei.com

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Huawei Technologies