PBB-EVPN ISID-based CMAC-Flush

draft-ietf-bess-pbb-evpn-isid-cmacflush-01

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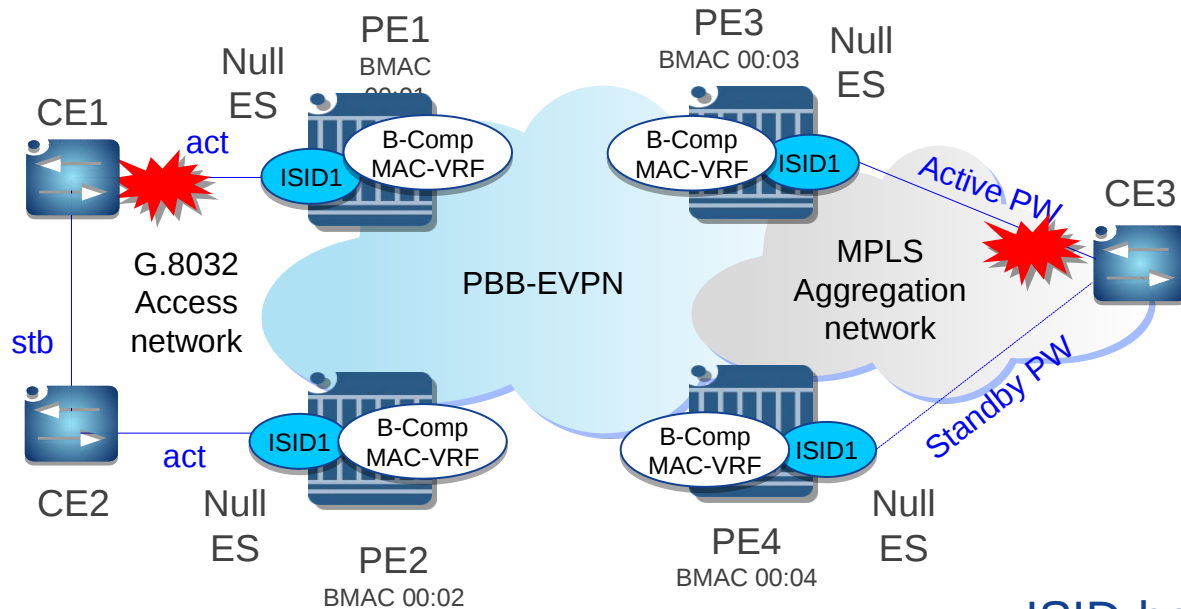Taku Matsuda (Softbank)

IETF109, Nov 2020

Online

Agenda

Short refresh

History

Conclusions and Next Steps

ISID-based CMAC flush for PBB-EVPN
Completes the CMAC flush solution for RFC7623 networks

PBB-EVPN requires CMAC-Flush to avoid black-holes

- CMACs are learned in the data plane and subject to age-time.
- Logical or physical access failures require forcing a CMAC-flush at remote PEs to avoid black-holes
- RFC7623 defines a CMAC-flush mechanism for single-active multi-homed non-zero Ethernet-Segments, but not for other use-cases

ISID-based CMAC flush

- Works for virtual Ethernet Segments and other redundant mechanisms, e.g. G.8032, A/S PW
- Uses BMAC/ISID updates with incremental SEQ numbers
- Backwards compatible with RFC7432

History

Initial version in 2016, development 2016-2019

Multiple revisions

Implemented and deployed in large PBB-EVPN networks

PBB-EVPN virtual ES cmac-flush procedures discussed in WG (October 2019)

There was an alternate CMAC flush procedure described in I-D.ietf-bess-evpn-virtual-eth-segment

Authors discussed and agreed on:

- Standardize the cmac-flush procedures in this draft
- remove the cmac-flush procedures in the virtual ES draft

Adopted in October 2019

As agreed by the WG

What's new in rev 01

Terminology section added

Typo fixing

General review, minor clarifications

Conclusions and Next Steps

The document is ready for WG Last Call and progress

Thank you