802.1ah: CBP Address Translation
Version 1

Stephen Haddock
July 17, 2007
802.1 Plenary, San Francisco
802.1ah-d3.6 comment resolution

• CBP address translation related comments:
  – Maarten Vissers: 466, 468, 484, 460
  – Oliver Thorp: 633, 634
  – Muneyoshi Suzuki: 489, 490
CBP address translation rules

• **UNITDATA.indication** (ingress to PBBN)
  - If B-DA is the Backbone Service Instance Group Address (constructed from 802.1ah OUI and the I-SID), the CBP may translate the B-DA to the address configured in the Default Backbone Destination parameter.
    - Default Backbone Destination may be a group address or, if the backbone service instance is point-to-point on this PBBN, the individual address of the egress CBP.

• **UNITDATA.request** (egress from PBBN)
  - If B-DA is any group address or the individual address of this CBP, the CBP translates the B-DA to the Backbone Service Instance Group Address.
Address translation at CBP

B-DA = BSI-GA → B-DA = egress CBP individual address → B-DA = BSI-GA → B-DA = other group address → B-DA = BSI-GA

Frame starts with B-DA = the Backbone Service Instance Group Address

On this PBBN the B-DA gets translated to the unicast address of the egress CBP

B-DA translated back to BSI-GA when frame exits the PBBN

On this PBBN the B-DA gets translated to a different Group Address
Problem with CFM individual address

- LBM Frame starts with B-DA = individual address of targeted CBP MIP
- B-DA not translated on ingress to PBBN
- B-DA translated to BSI-GA before it gets to the CFM shim in the target CBP
Proposal for CFM individual address

1) Make egress translation dependent on Ethertype (don’t translate B-DA of backbone service instance level CFM).

2) CBP has two individual addresses: one for CFM shims and one for B-DA on user data frames.

3) Don’t allow translating B-DA of user data frames to/from CBP individual address.

4) Put CFM shims above CBP functions (6.11) in interface stack.
Problem with CFM group address

Per I-SID

Frame starts with B-DA = a Group Address reserved for CFM

B-DA not translated on ingress to PBBN

B-DA translated to BSI-GA when frame exits the PBBN
Proposal for CFM group address

Frame starts with B-DA = a Group Address reserved for CFM

B-DA = CCM-GA

Per I-SID

B-DA = CCM-GA

B-DA not translated on ingress to PBBN

B-DA = BSI-GA

B-DA translated to BSI-GA when frame exits the PBBN