Load Shared Peer PBBN Interfaces

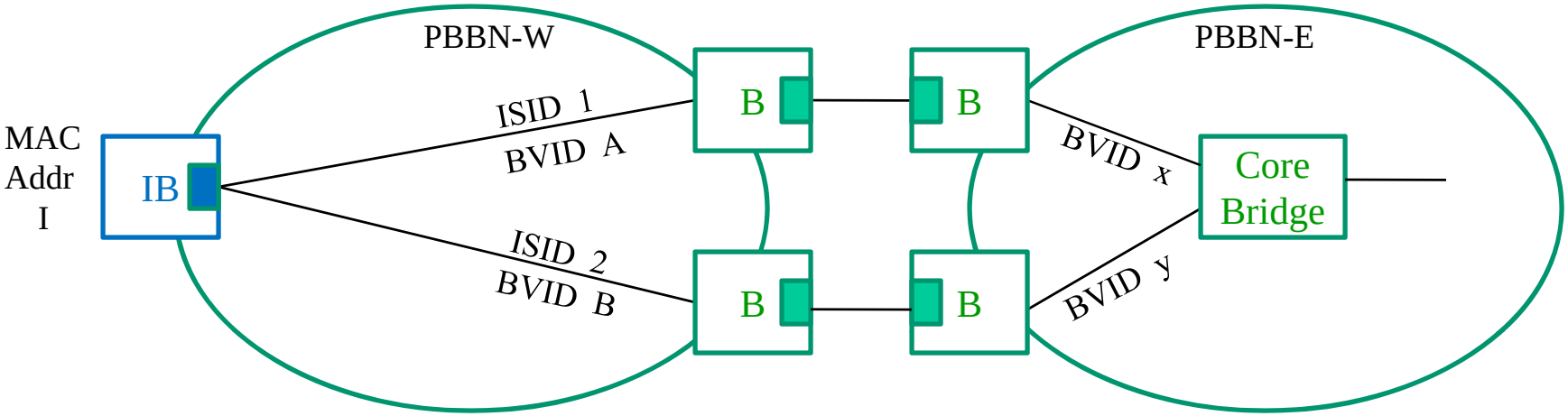
Version 1

Stephen Haddock

March 17, 2008

802.1 Plenary, Orlando

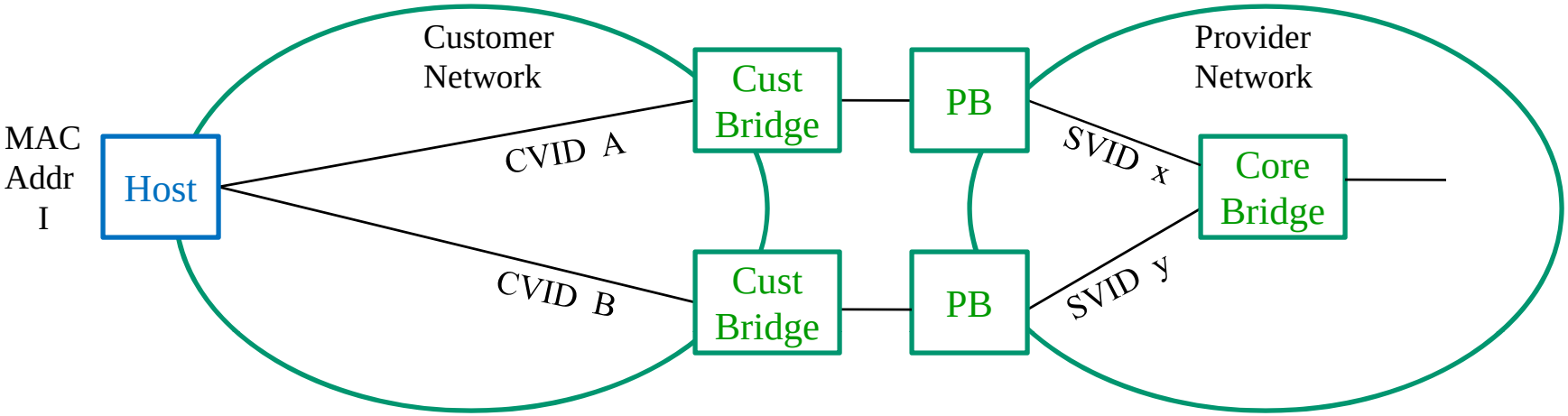
Load Shared Peer PBBN



1. Frames originating at PIP with MAC address and ISID 1 will arrive at the Core Bridge in PBBN-E with B-SA=I and BVID=x.
2. Frames originating at PIP with MAC address I and ISID 2 will arrive at the Core Bridge in PBBN-E with B-SA=I and BVID=y.
3. If x=y (meaning ISID 1 and ISID 2 go on the same B-VLAN in PBBN-E) then the Core Bridge will see frames with the same B-SA and the same BVID arriving on two different ports. This will cause the Learning Process to thrash, and will likely result in loss of frames destined for I.

De Heer comment #24 on 802.1ah-d4.1 raises this issue.

Analogous Issue in 802.1ad



1. Frames originating at Host with MAC address and CVID A will arrive at the Core Bridge in the PBN with SA=I and SVID=x.
2. Frames originating at Host with MAC address I and CVID B will arrive at the Core Bridge in the PBN with B-SA=I and SVID=y.
3. If x=y (meaning CVID A and CVID B go on the same S-VLAN in the PBN) then the Core Bridge will see frames with the same B-SA and the same SVID arriving on two different ports. This will cause the Learning Process to thrash, and will likely result in loss of frames destined for I.

What to do

- In 802.1ad we decided this was not an issue to be resolved by any change to the standard.
  - The problem can be avoided by assuring either that frames from a single Host cannot be injected into the Provider Network at more than one point, or that they are assigned to different S-VLANs at those points.
  - There is nothing actually in the standard that addresses this.
- Likewise the comment (de Heer comment #24 on 802.1ah-d4.1) does not propose any technical change to the standard to address this issue.
  - The problem can be avoided by assuring either that frames from a single PIP cannot be injected into a Peer PBBN at more than one point, or that they are assigned to different B-VLANs at those points.
  - Do we need a note to this effect in 26.6.2 (as suggested by the commenter's proposed resolution)?