>THIS IS **THE WAY**

Peer E-NNI 802.1ah

Paul Bottorff

>THIS IS NORTEL

A few aspects of the Peer E-NNI

> A Peer E-NNI is formed by connecting the CBPs of two B-Comp together.

> The frames delivered over the demarcation point have B-MAC addresses

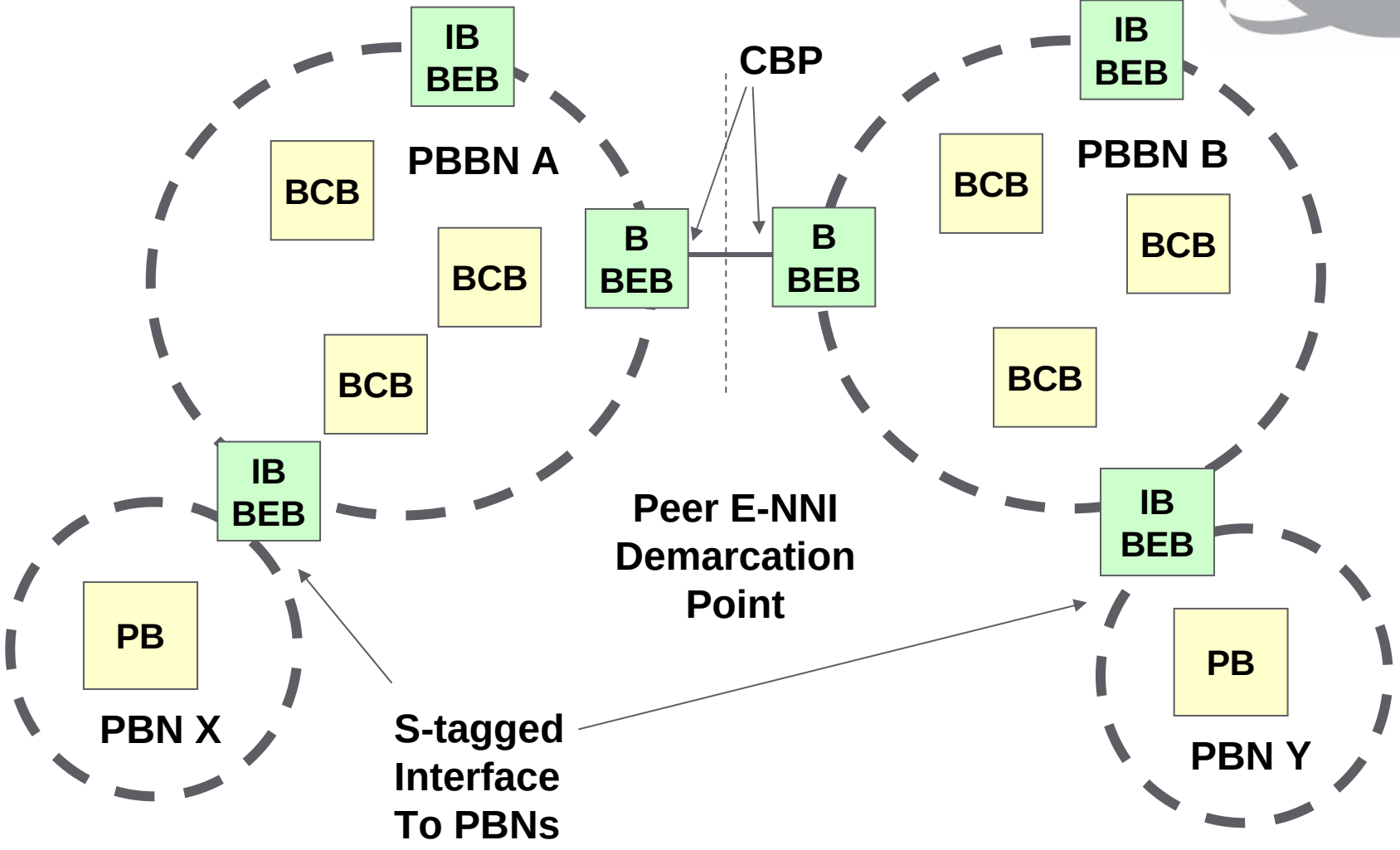
> The frames delivered over the demarcation point are I-tagged frames.

> No B-tagged frames are delivered over the demarcation point.

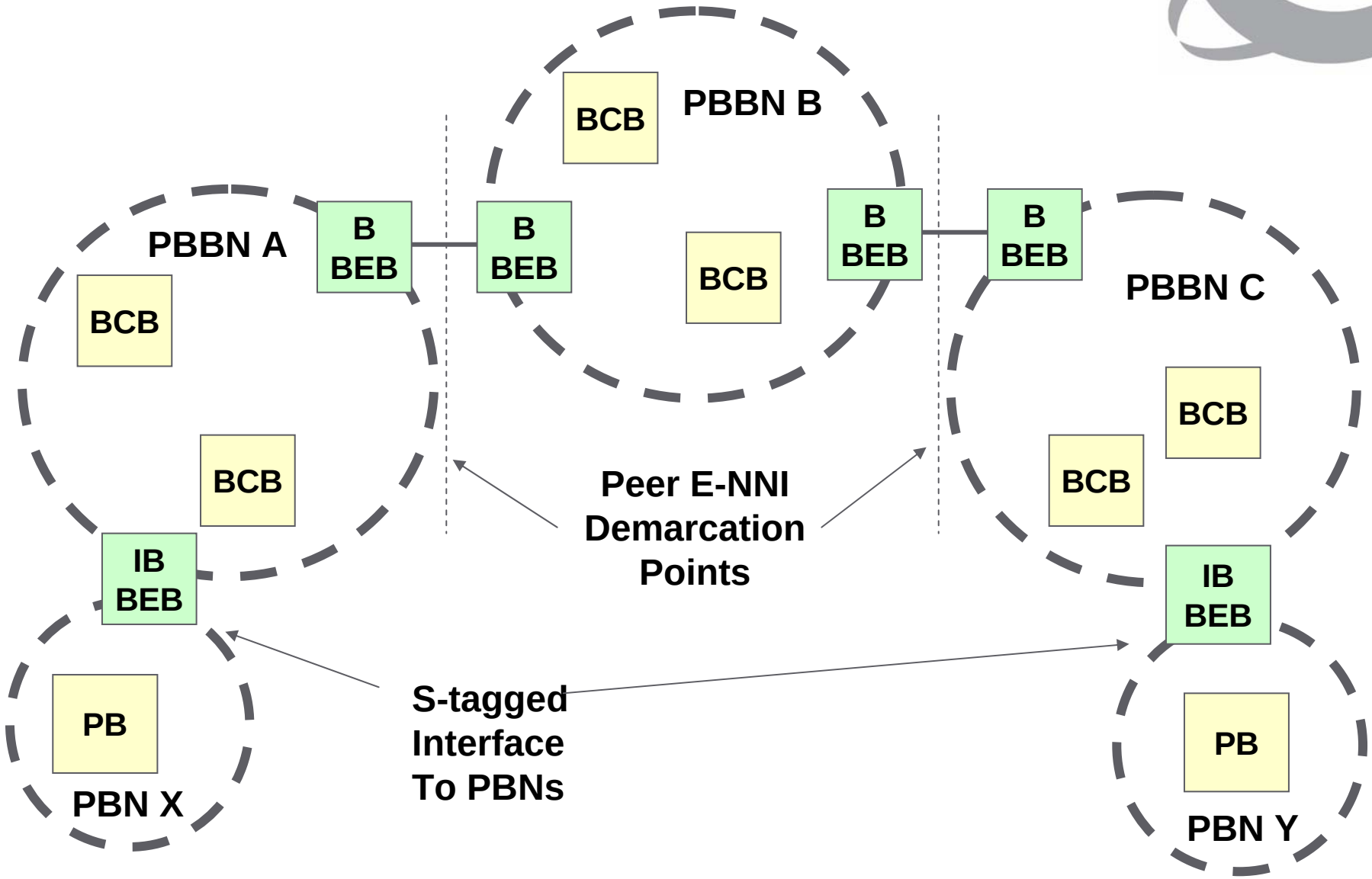
> D3.3 provides for B-MAC address translation and I-SID translation on each side of the demarcation point.

> With the addition of a per I-SID multicast we also consider the translation of the default multicast group at the E-NNI.

Peer E-NNI Connect -Terminating PBBNs

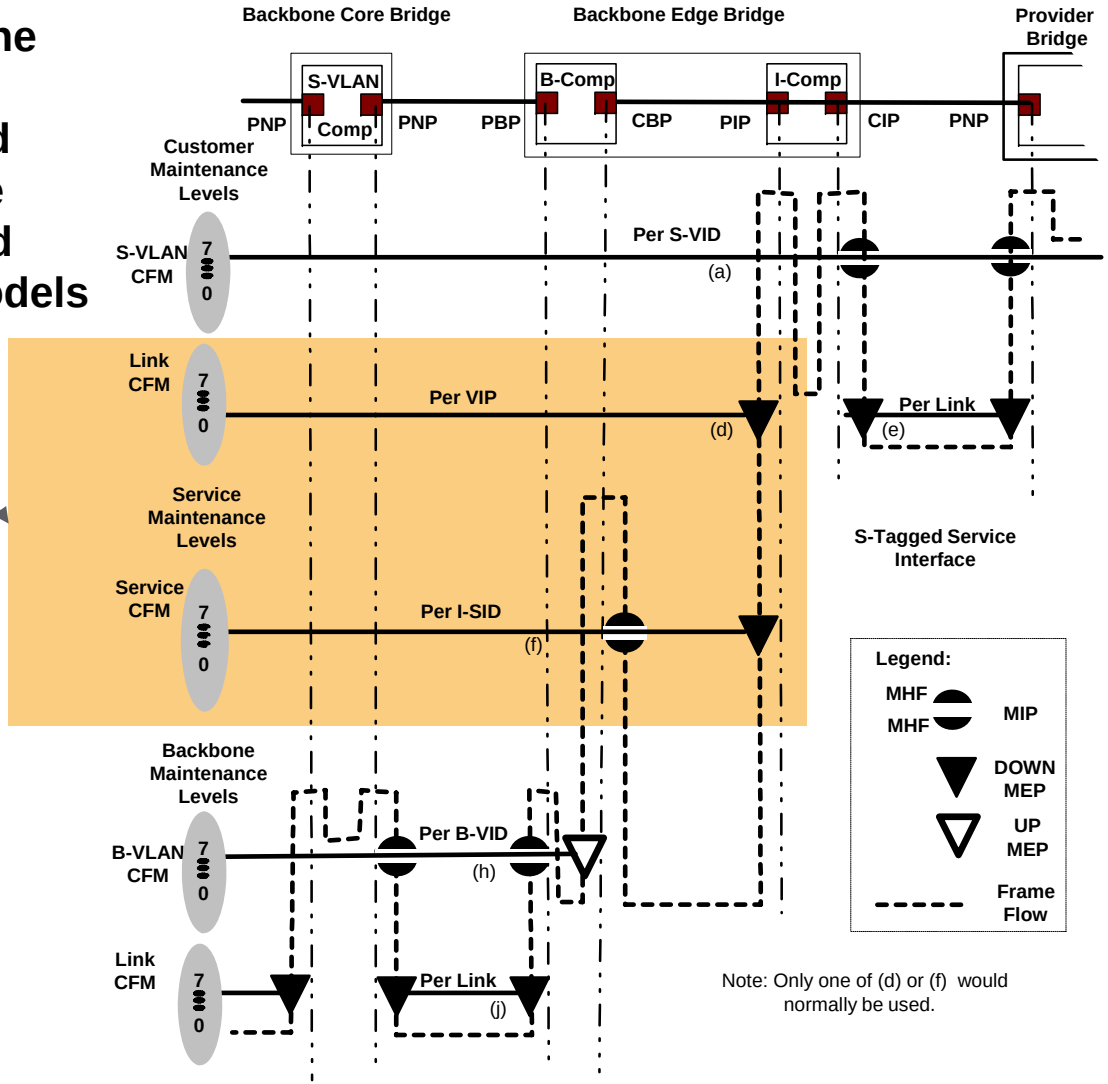


Peer E-NNI Connect -Transit PBBN

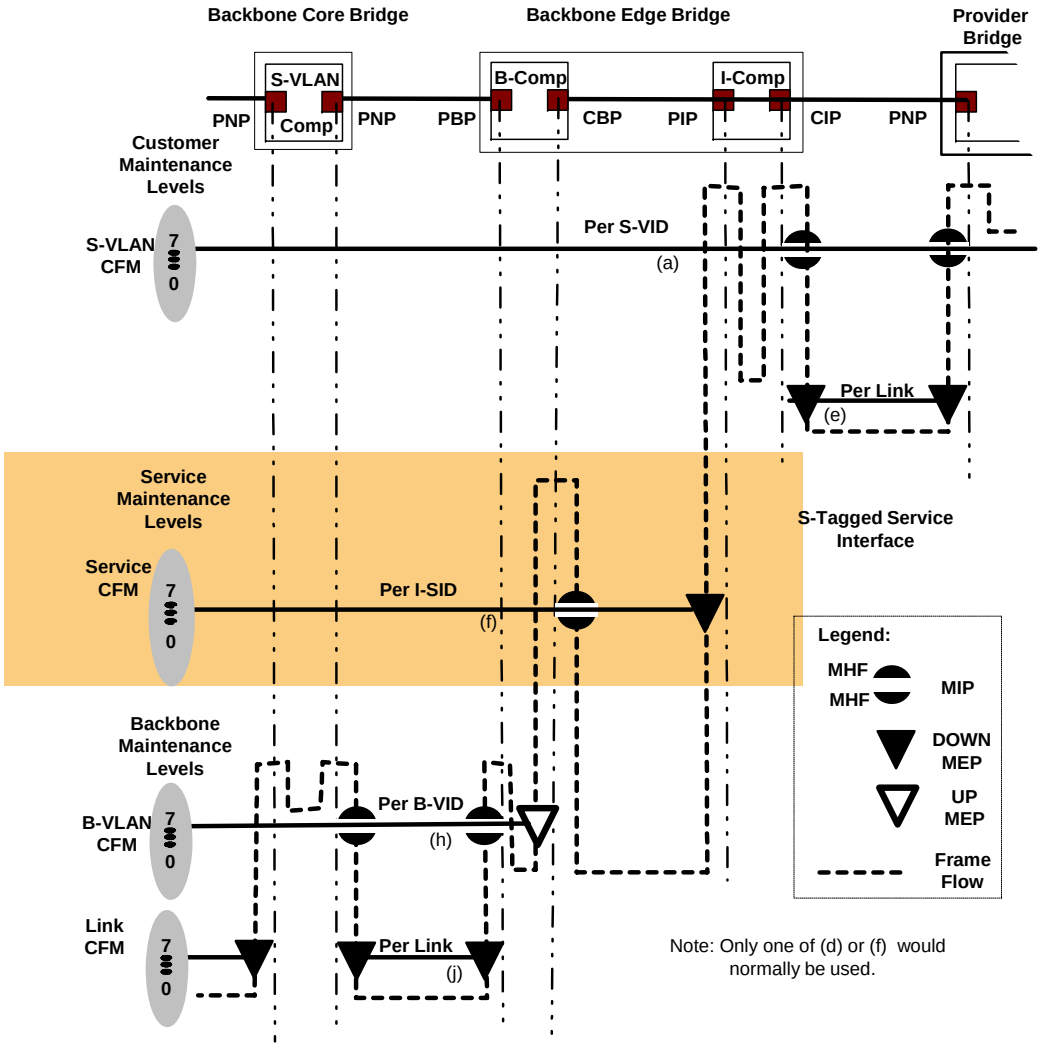


IB-BEB CFM Flows

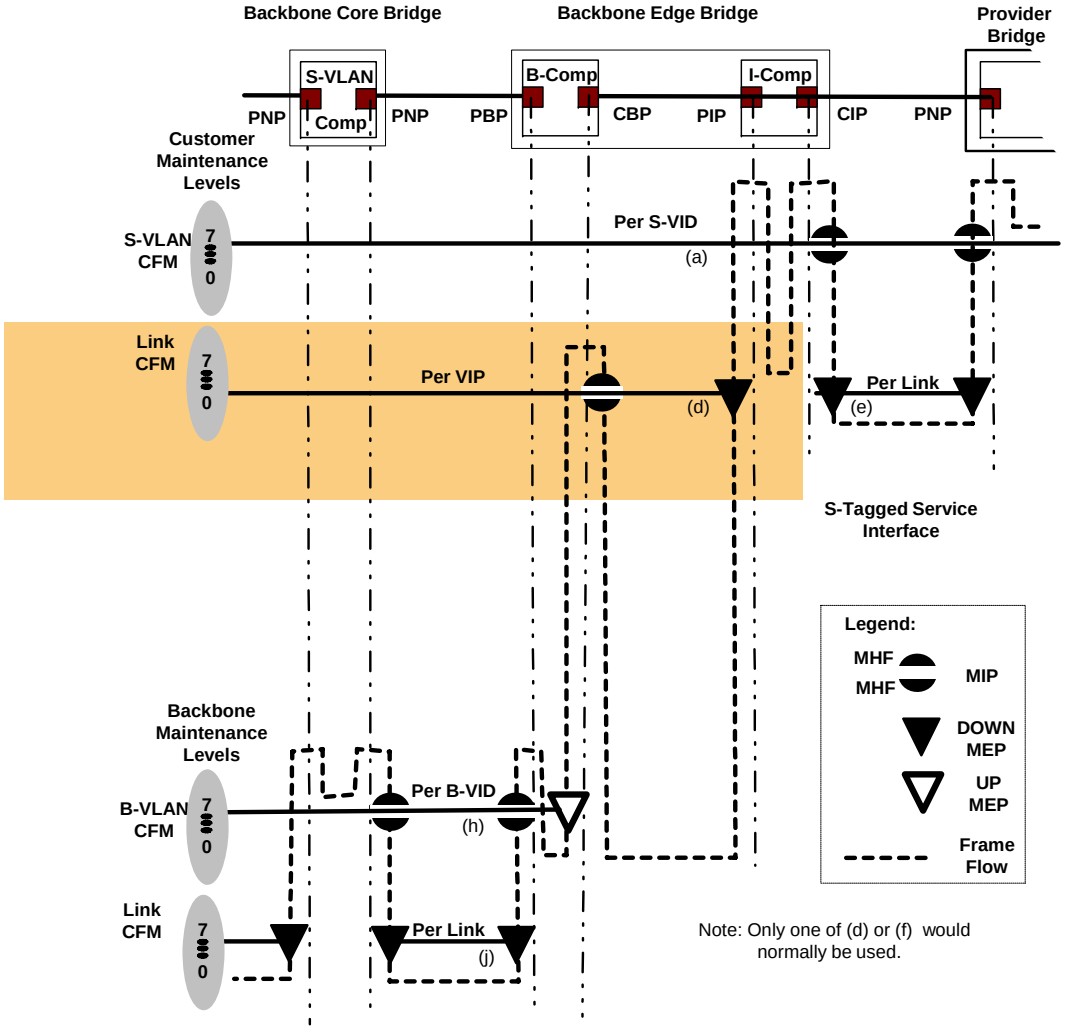
These are the CFM flows being talked about in the S-space and B-space models



IB-BEB CFM B-Space Model

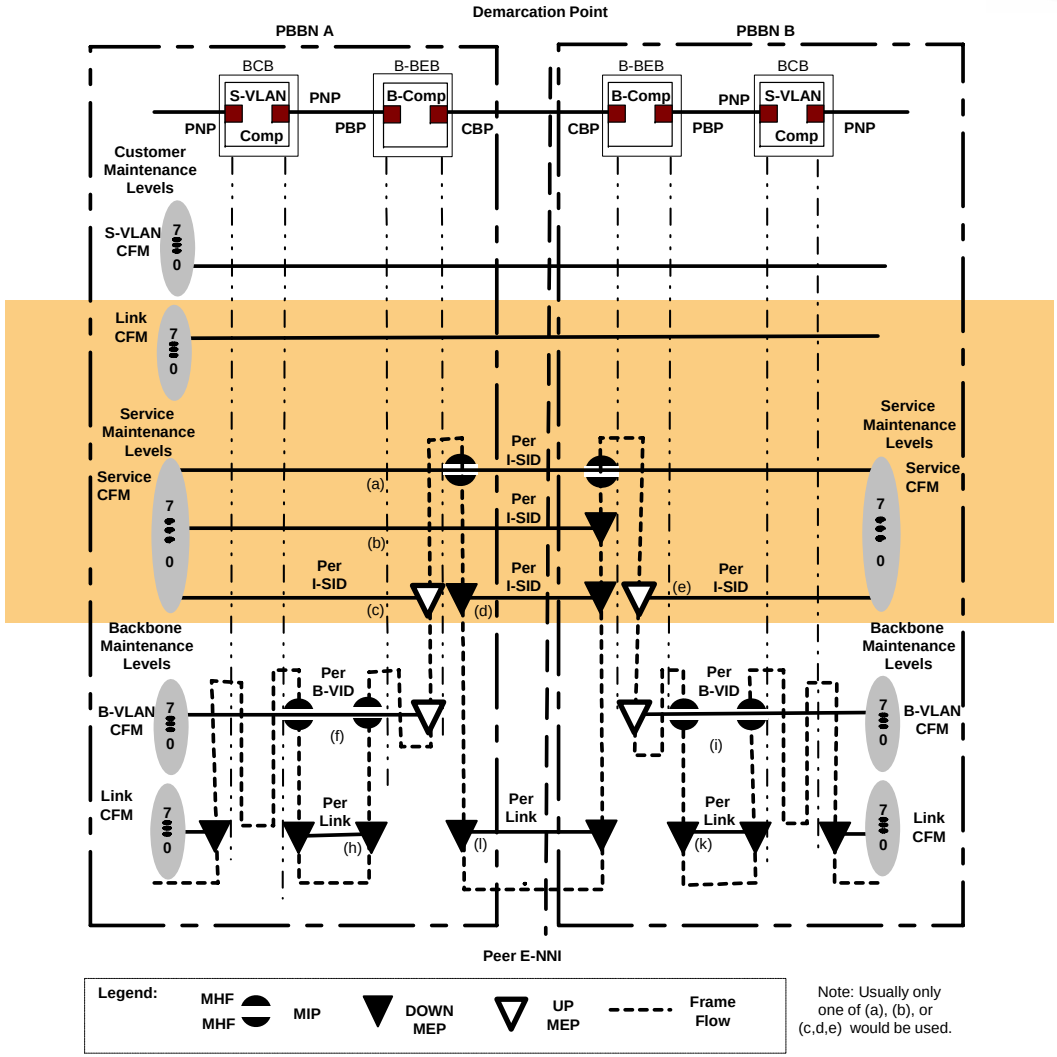


IB-BEB CFM S-Space Model

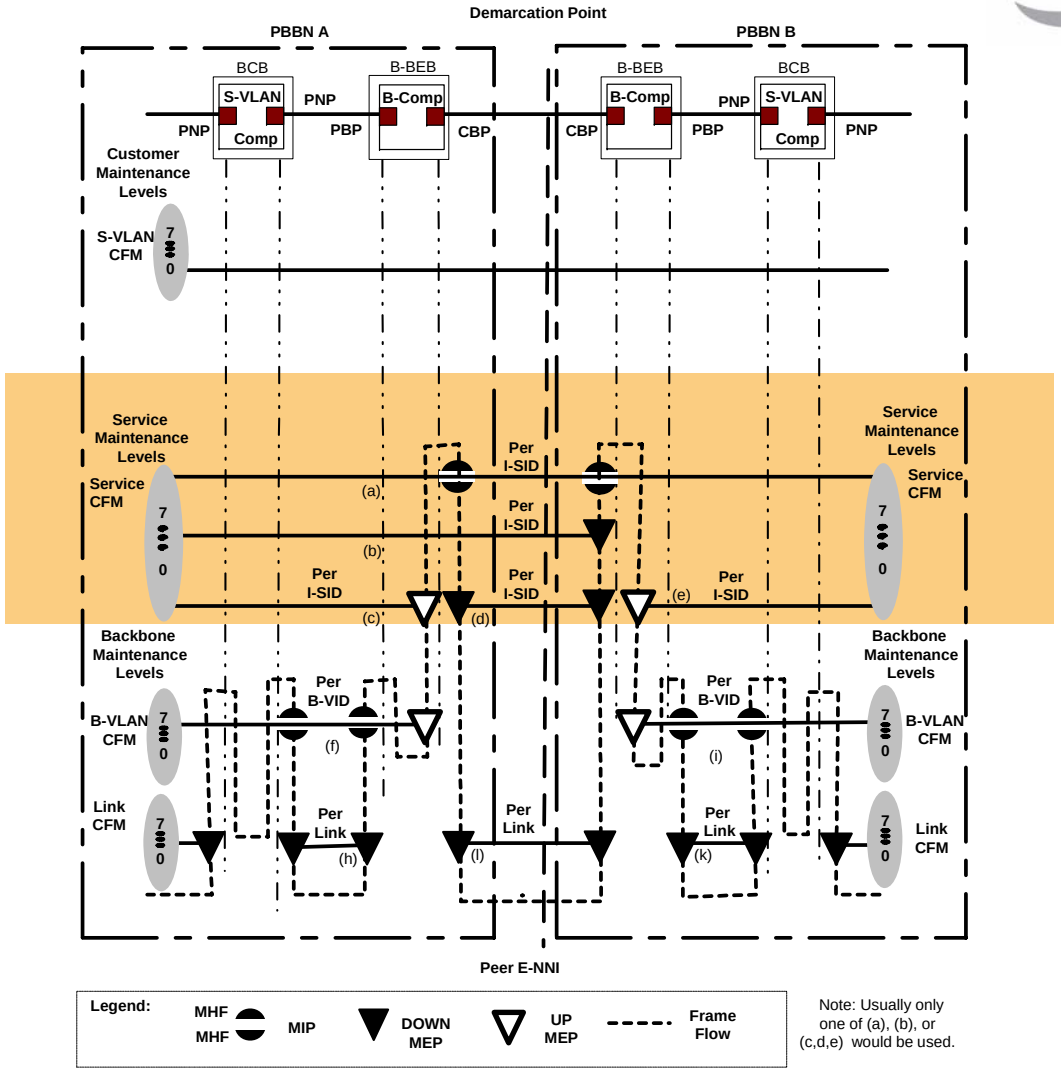


Peer E-NNI CFM flows

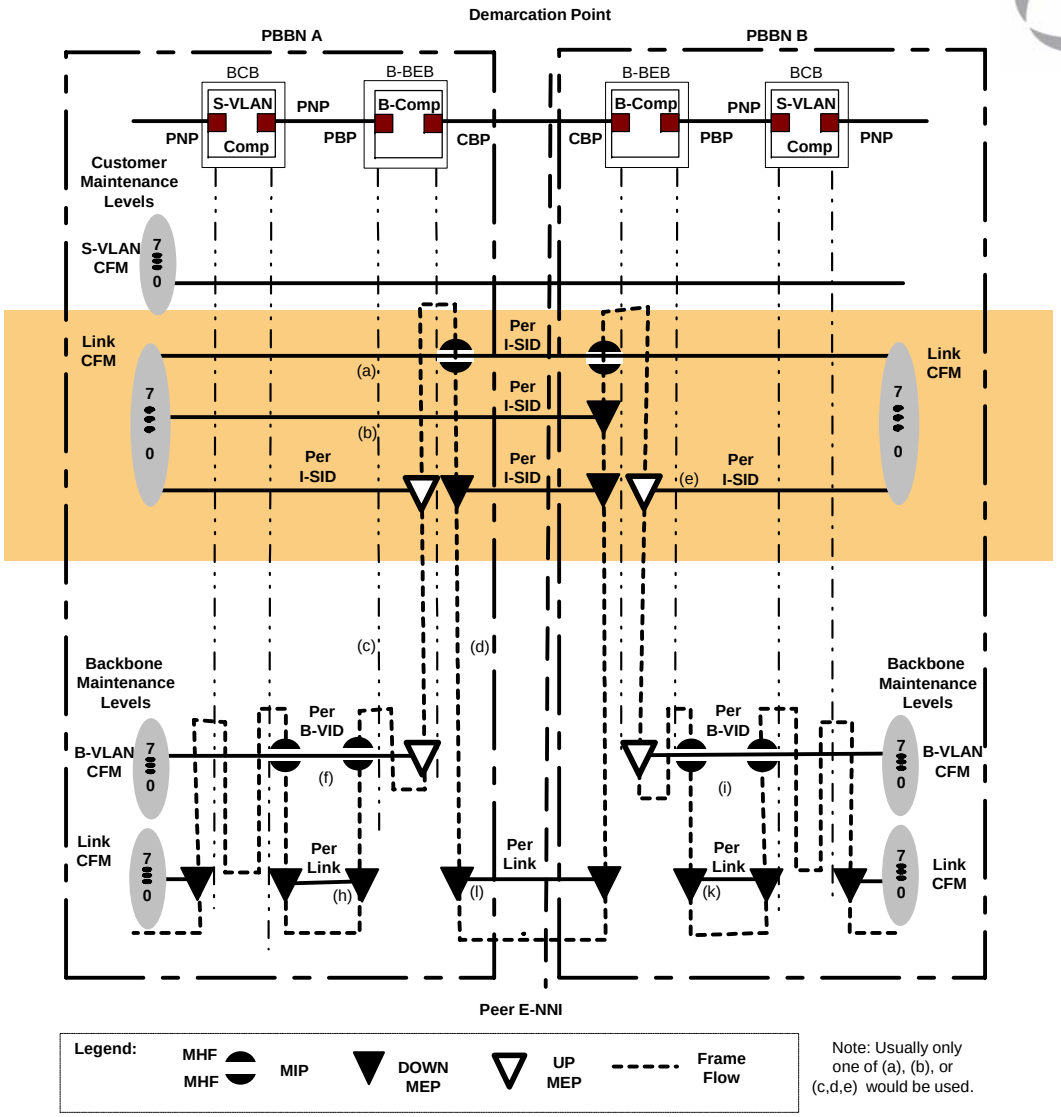
These are the CFM flows being talked about in the S-space and B-space models



Peer E-NNI CFM B-Space Model



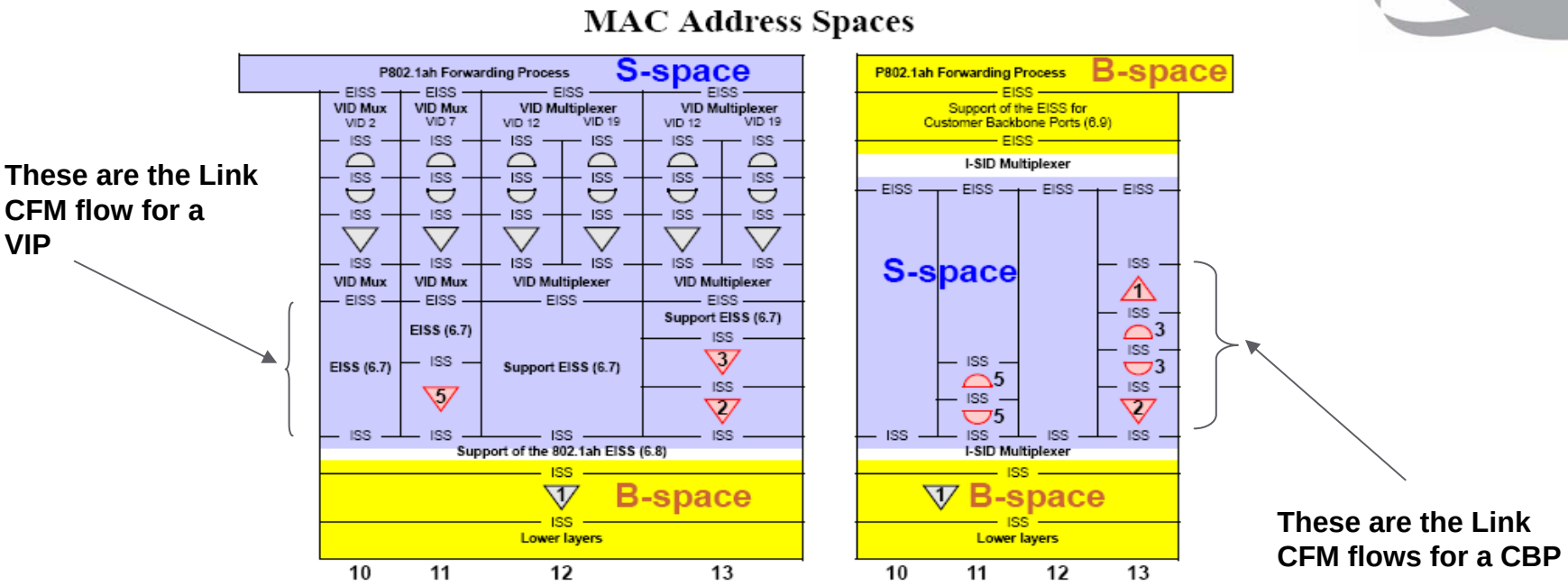
Peer E-NNI CFM S-Space Model



IB-BEB VIP Link CFM vs Service CFM

- Both cover a single service instance
- Both have an independent 8 management levels
- Both may have a MEP located in the VIP or in the CBP
- Both may have a MIP located in the CBP
- Neither has any MIPs or MEPs at PBPs or PNPs
- These two flows look like different ways to think of the same CFM flow. If these two flows are not identically they are so close to the same that we should only support one of them.

The S-Space model is a misnamed

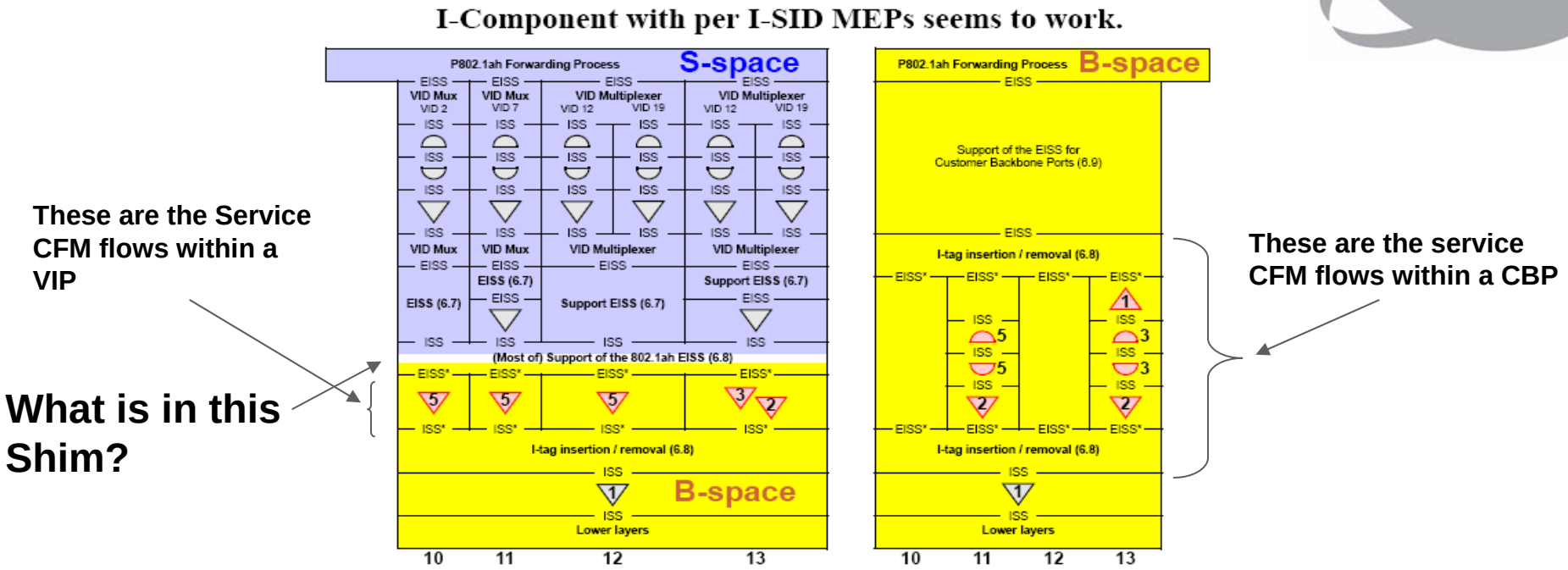


> Why is this called an S-Space model?
  - The MEPs identified never extend beyond the VIP
  - The MEP/MIP MAC addresses must have the scope of the MA not the customer network. The are MAC in the backbone (B-MACs) with MA scope.

> Instead of S-Space this should be called Virtual Media CFM

> The model should place all the MEPs/MIPs in B-space not S-space

The B-Space model is misnamed.



> Subclause 6.10 (was 6.8) performs S-TAG insert/strip and I-TAG insert/strip. If we remove the S-TAG insert/strip from 6.10 what is left is I-TAG insert/strip.

> The shim called (Most of) has nothing in it.

> If there is no shim then the MEPs/MIPs above and below it are the same MEPs/MIPs.

> Instead of B-Space this should be called Service CFM

There most be some difference

> Yes, there are differences

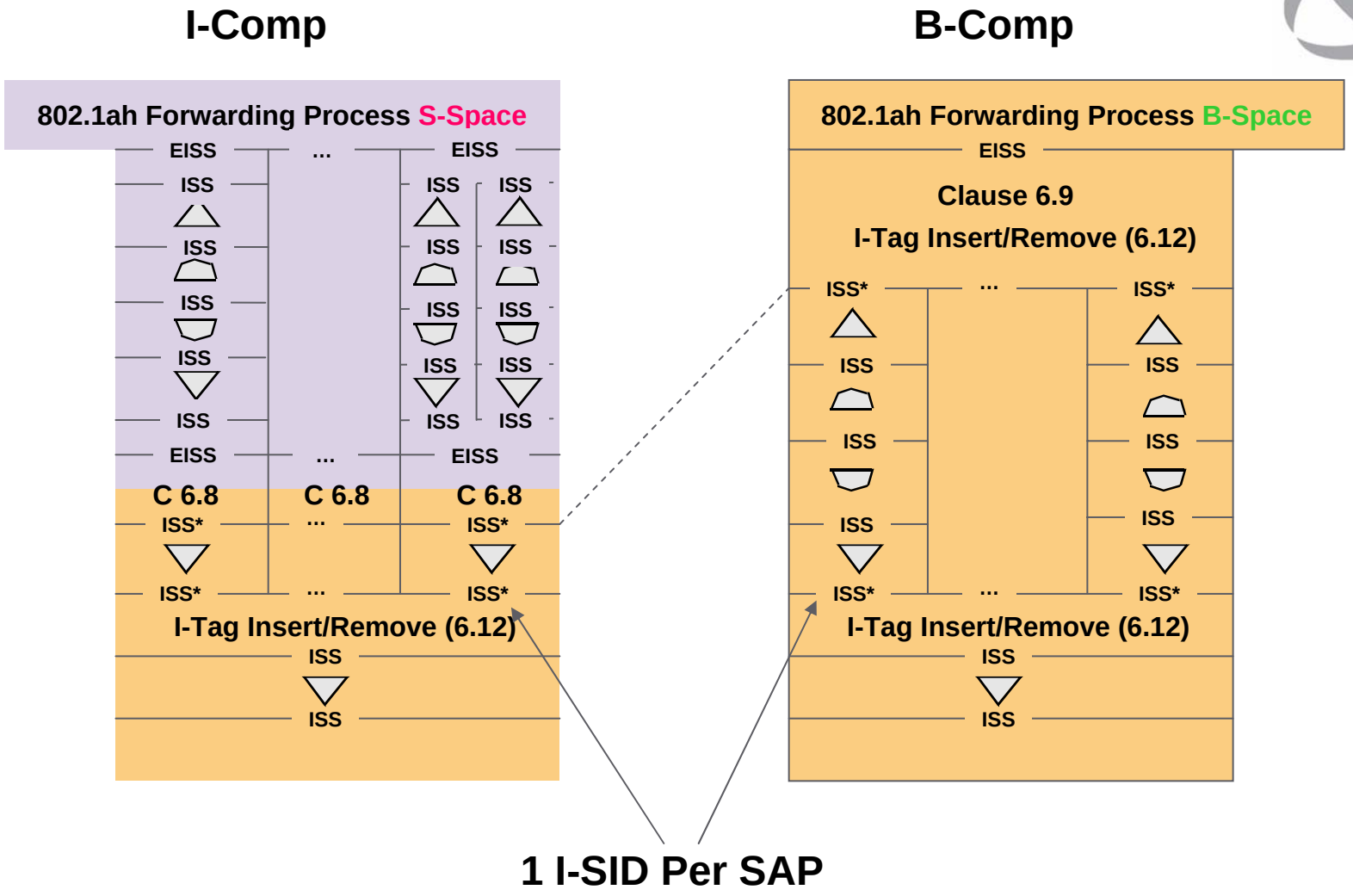
> The S-Space model (link CFM) uses a long I-TAG and encodes both a CFM Address as C-MACs and a B-MAC for delivering the CFM frame

> The B-Space model (service CFM) uses a short I-TAG and encodes CFM Addresses in the B-MAC field

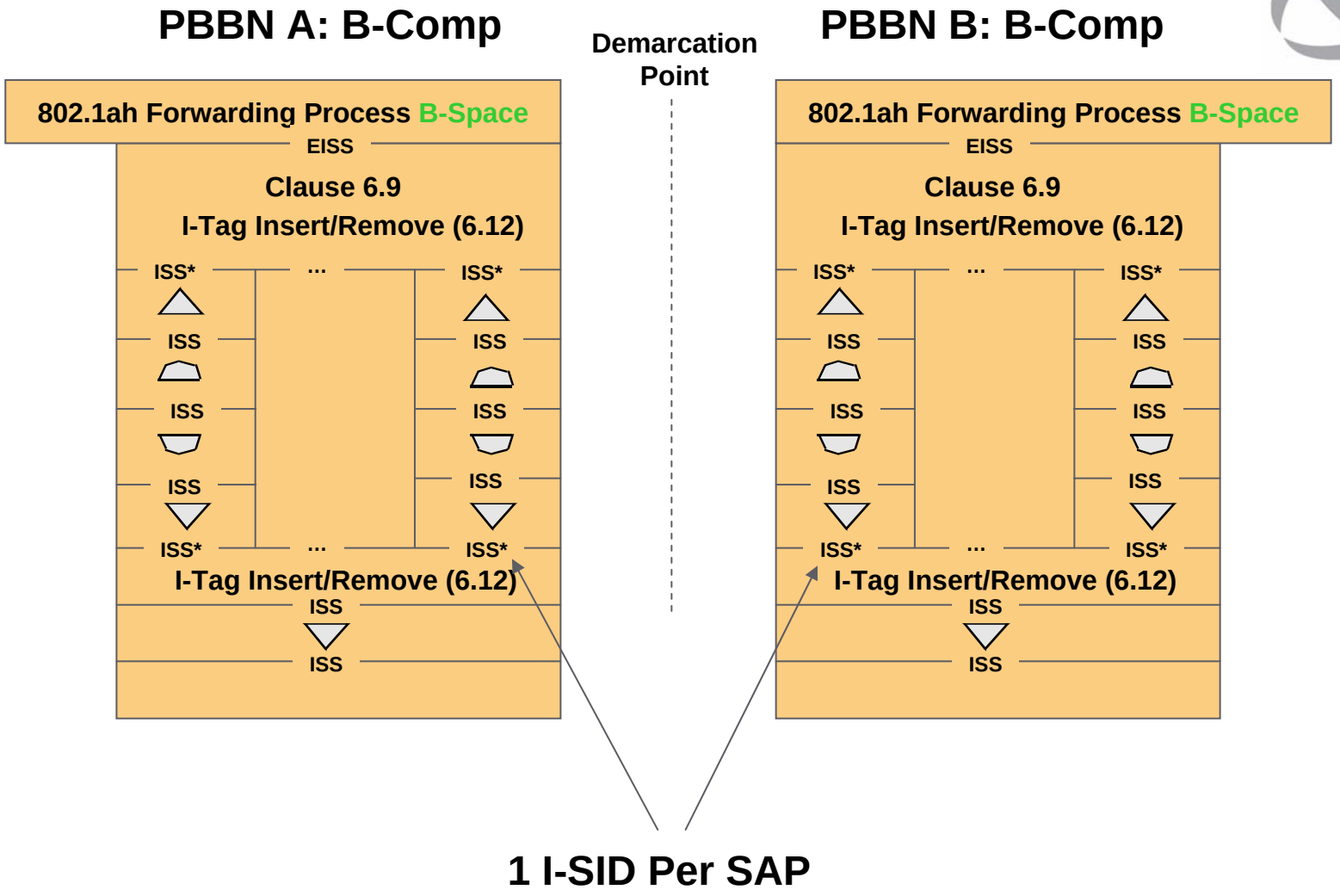
> So the biggest difference is the S-Space model encodes the CFM address in the I-TAG and the B-Space model encodes the CFM address in the B-DA

Backup Slides

IB-BEB Internal stackup



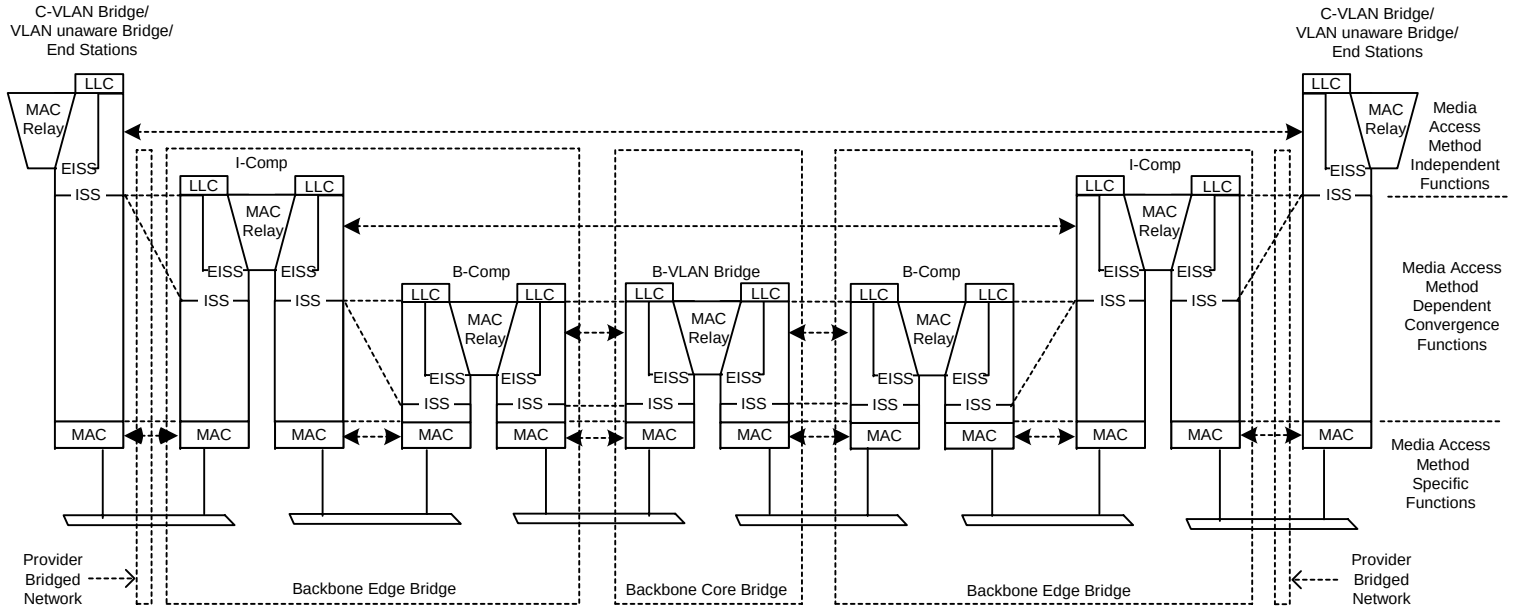
Peer E-NNI Stackup



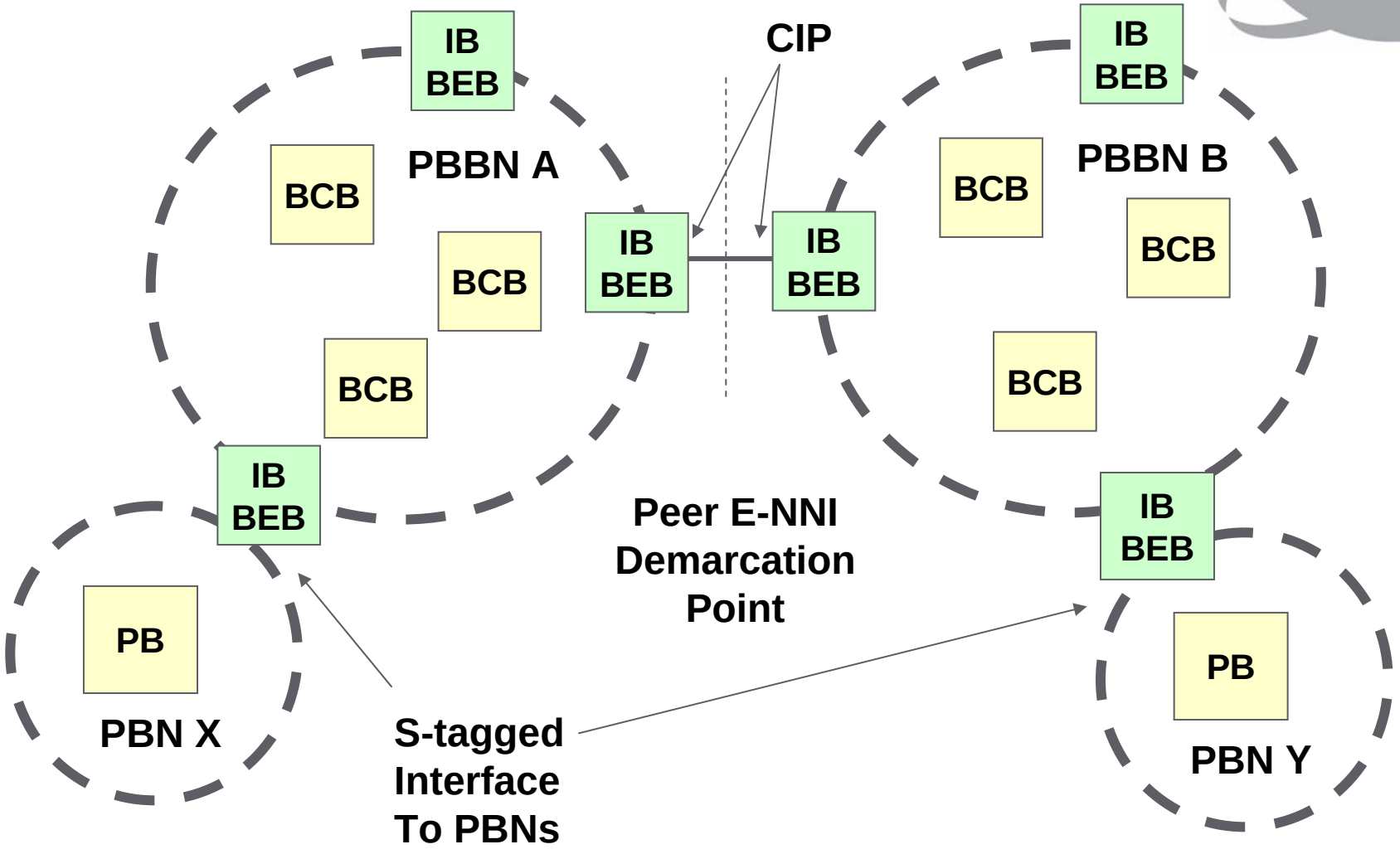
Service Level Peer E-NNI

- This E-NNI connects at the S-VLAN layer rather than the .1ah Service layer
- In the S-VLAN Peer E-NNI the PBBNs are completely decoupled
- No PBT tunnel may extend through an S-VLAN Peer E-NNI
- Each device on the sides an S-VLAN Peer E-NNI must learn C-MACs and perform a new mapping to B-MACs.

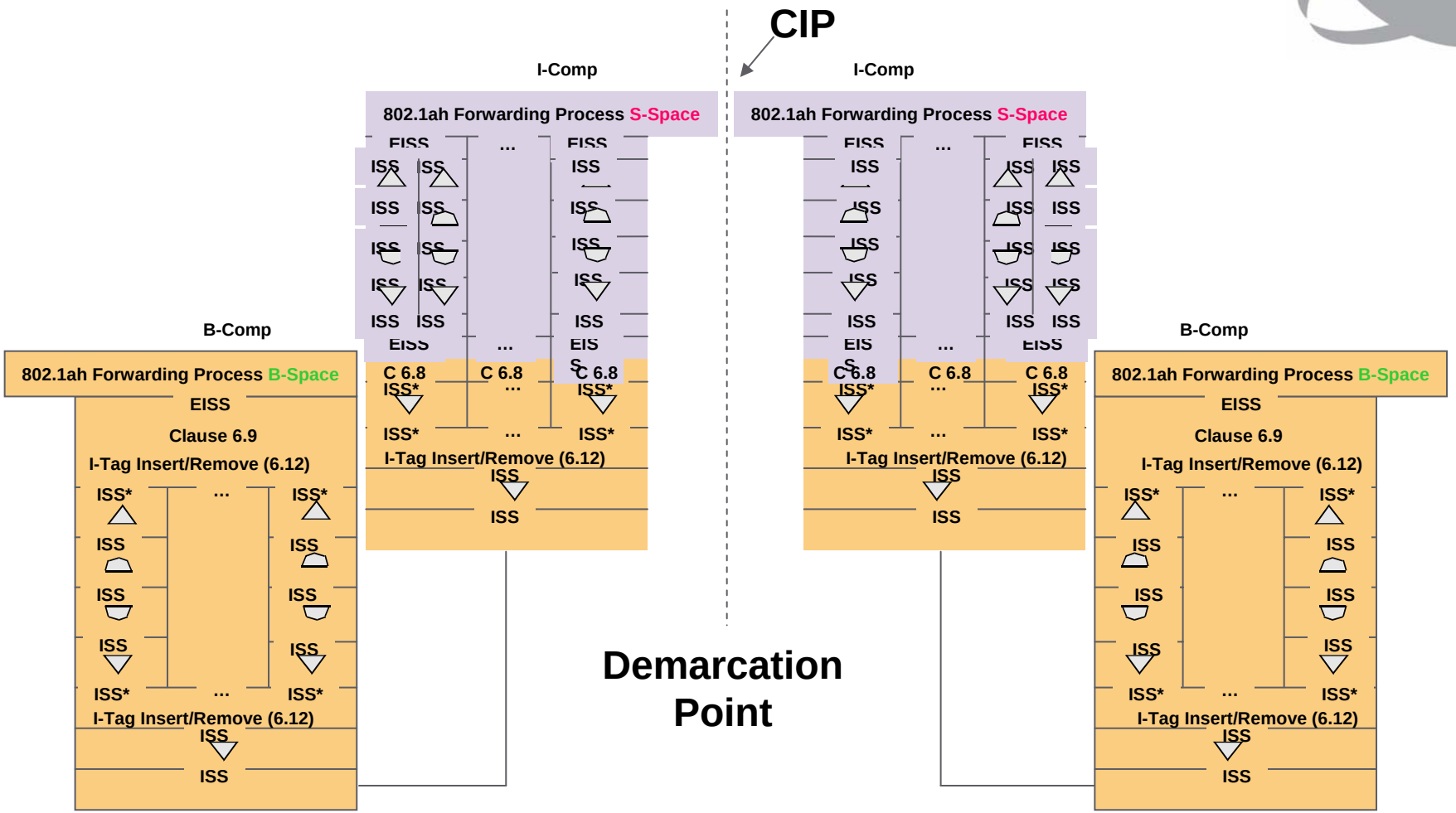
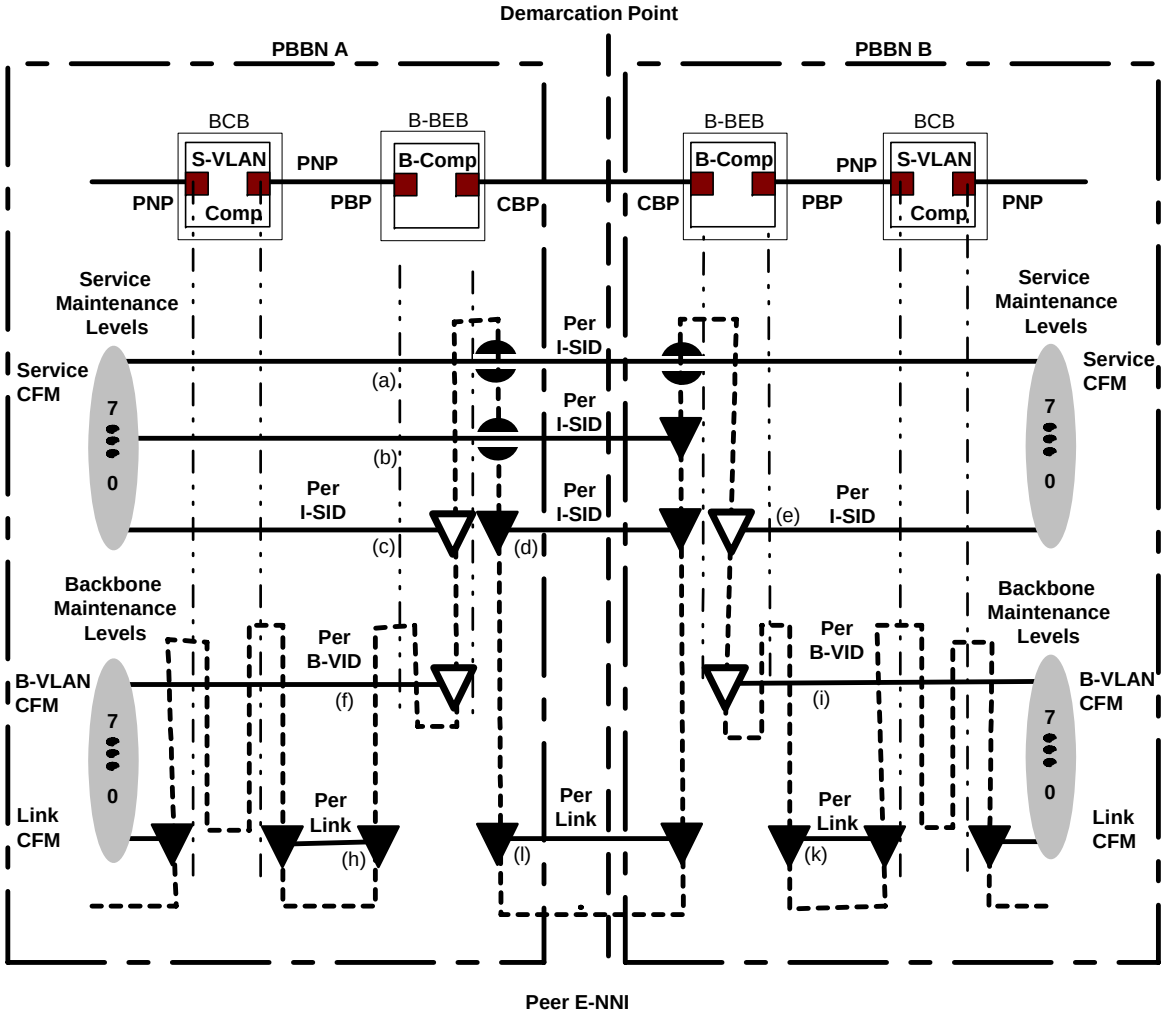
The Peer Diagram



A Service Level E-NNI



S-VLAN Peers E-NNI Stackup



Peer E-NNI CFM Flows