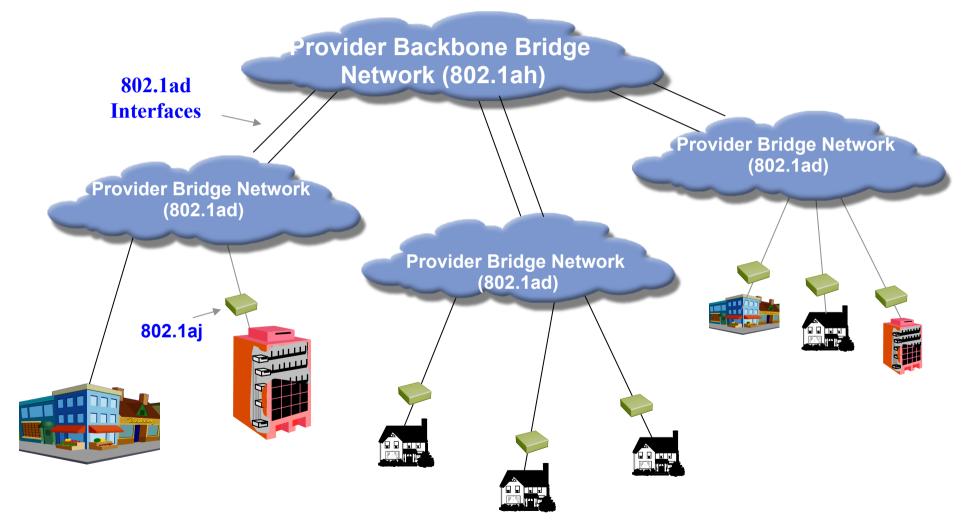
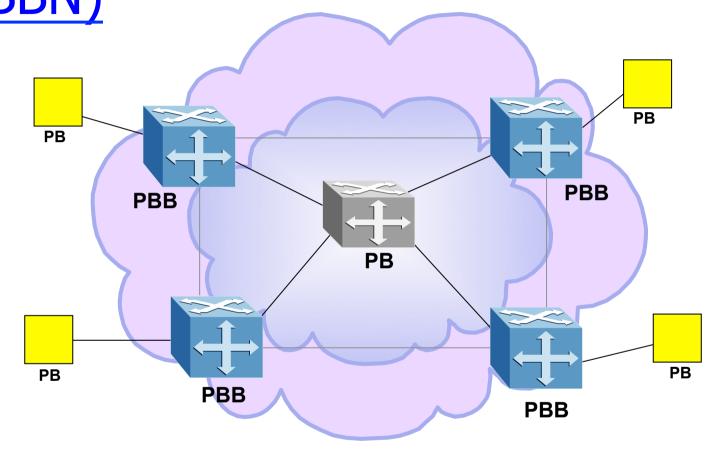
## IEEE 802.1ah (Provider Backbone Bridge) Context



CFM - Connectivity Fault Management (802.1ag) runs end-to-end

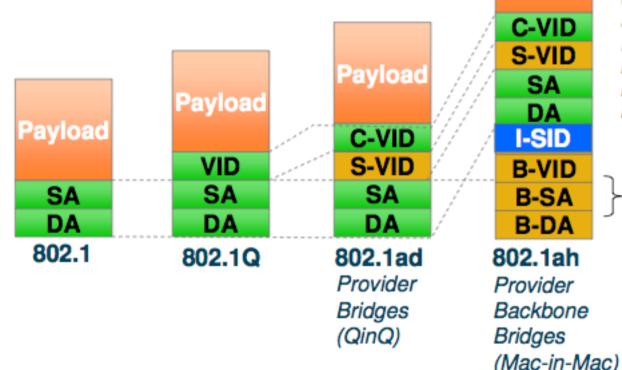
## Provider Backbone Bridge Network (PBBN)



- **PB**: Provider Bridge (as defined by 802.1ad)
- **PBB**: Provider Backbone Bridge Edge (as defined by 802.1ah)

## **Encapsulation**

- Increased reach & speeds, interest by SPs led to the creation of 802.1ad (QinQ / Double Tagging)
- Scalability and customer separation requirements created the requirement for IEEE 802.1ah
- PBB-TE proposes traffic engineering with IEEE 802.1ah



SA = Source MAC address DA = Destination MAC address VID = VLAN ID C-VID = Customer VID S-VID = Service VID I-SID = Service ID B-VID = Backbone VID B-DA = Backbone DA B-SA = Backbone SA

Payload

This is the PBB-TE header (VID/DA is used for forwarding)

## **Agreed Terminology**

- IEEE 802.1ad Terminology
  - C-TAG Customer VLAN TAG
  - C-VLAN Customer VLAN
  - C-VID Customer VLAN ID
  - S-TAG Service VLAN TAG
  - S-VLAN Service VLAN
  - S-VID Service VLAN ID
- Additional Provider Backbone Bridge Terminology
  - I-TAG Extended Service TAG
  - I-SID Extended Service ID
  - C-MAC Customer MAC Address
  - B-MAC Backbone MAC Address
  - B-VLAN Backbone VLAN (tunnel)
  - B-TAG Backbone TAG Field
  - B-VID Backbone VLAN ID (tunnel)