

# Reserved addresses for P802.1AEcg

---

EDEs – Two port 802.1Q, 802.1AE, 802.1X devices providing 'hop-specific' frame integrity and data confidentiality. 'Red side' port rx/tx unprotected, 'black side' protected by MACsec. Protected `hop' can be TPMR to TPMR, Provider Bridge to Provider Bridge, Customer to Provider, Customer Bridge to Customer Bridge.

[.../docs2013/ae-seaman-edc-ppt-0913-v01.pdf](#)

[.../docs2013/ae-seaman-edc-0713-v02.pdf](#)

[.../docs2013/ae-seaman-macsec-hops-0626-v03.pdf](#)

[.../docs2015/ae-seaman-edc-interop-0815-v02.pdf](#)

Latest draft P802.1AEcg D0.6

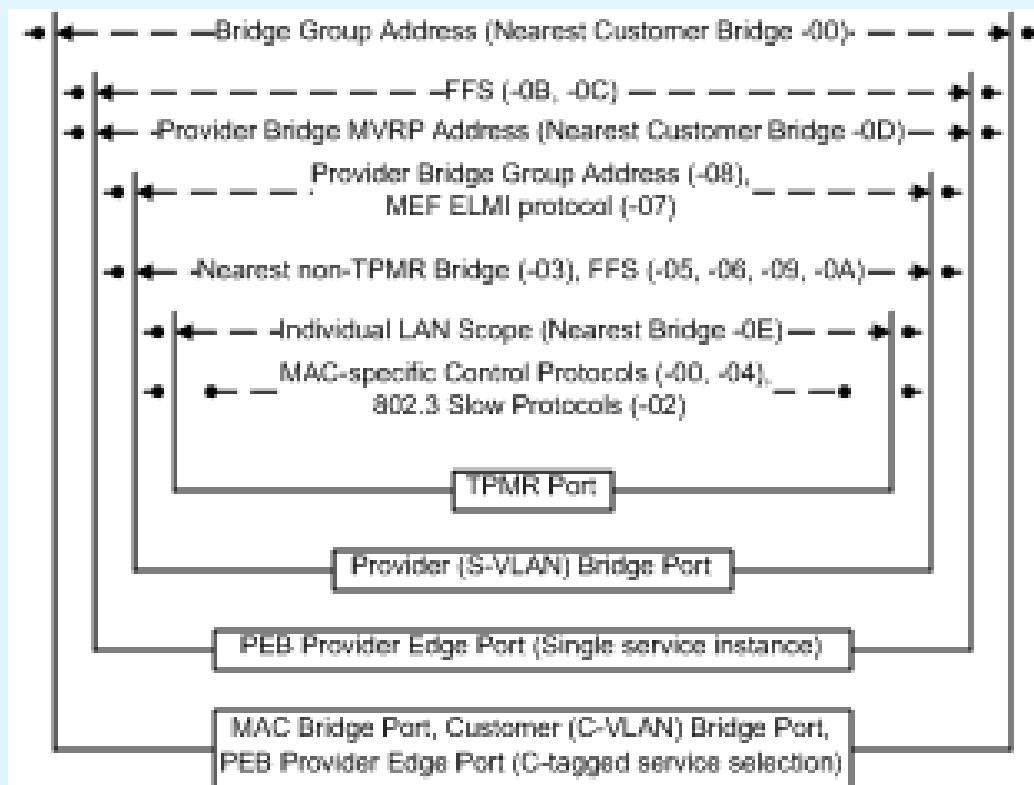
# EDE specification objectives

- Maximal use of existing standards
- Minimal interference in unrelated issues
  - Could assemble an EDE out of existing bridges (except for addresses use by .1X)
- Integrated operation
  - Peering with existing spec MACsec bridges
- And transparent operation
  - Add to existing bridged network

# Why allocate Reserved Addresses

- EAPOL frames (carrying EAP+MKA) currently use Reserved Addresses
- Prevents accidental/undesirable creation of multi-hop MACsec tunnels, blinding peers along path
- EDE 'drop in' requirement, don't want to rely on rest of network to prevent undesirable behavior
- Why now – have to produce .1AEcg draft with address properties – limited choice of candidates so 'allocate later' not effective

# Reserved address use today



802.1Q Reserved addresses are the block of 16 beginning 01-80-C2-00-00-00

FFS - for future standardization: -05,-06,-09,-0A,-0B,-0C,-0F

Addresses (inc. -08) are not assigned for the exclusive use of particular protocols, EtherTypes are still required as other protocols can use each address, with possible constraints (e.g. for -02).

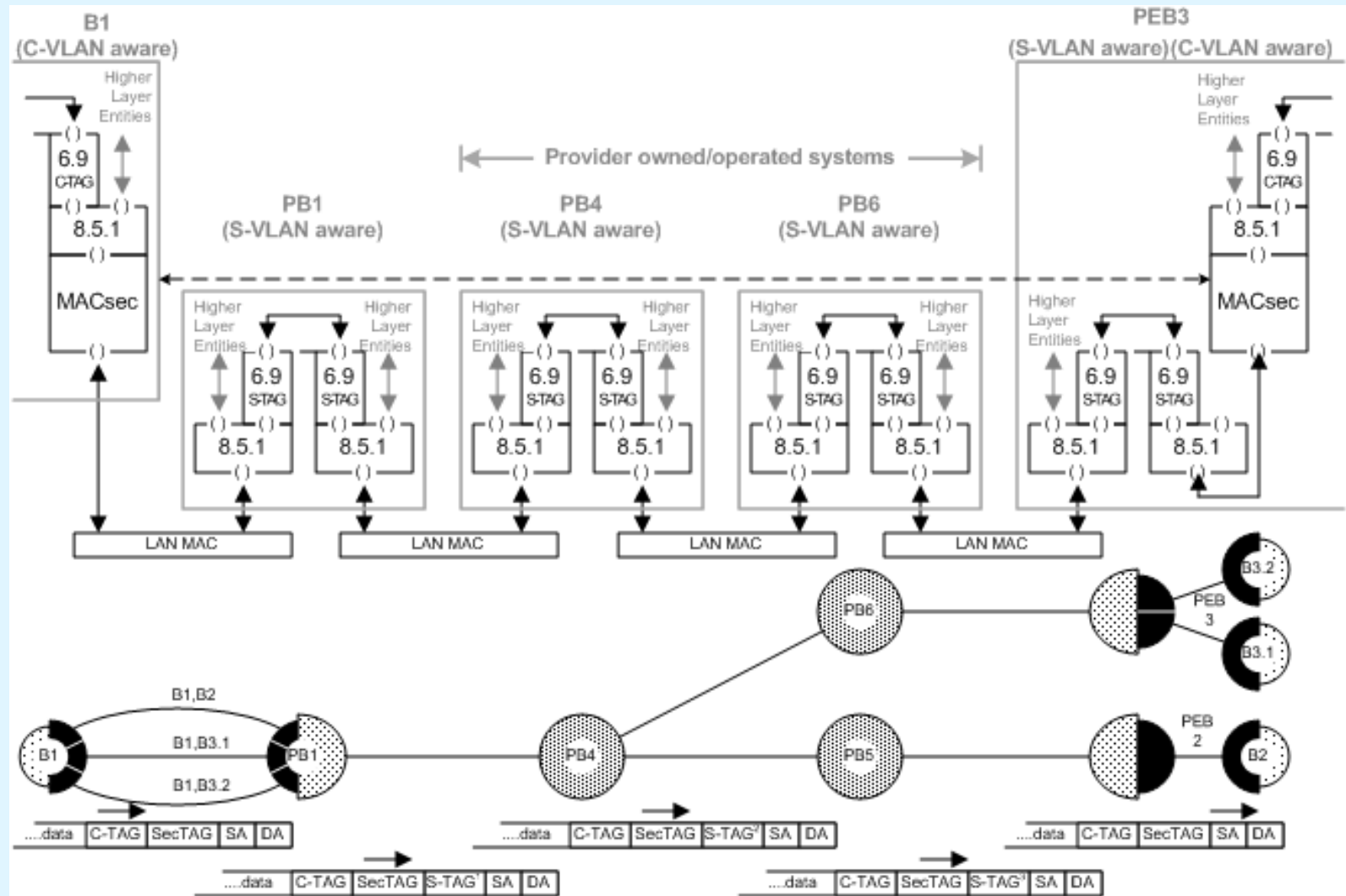
# Address requirements

- EDE-T's can use the existing allocate .1X PAE Address -03 (nearest non-TPMR) or Individual LAN Scope -0A
- EDE-CC's can't use any existing Reserved Address as PDUs have to go through PEB's (and no chance of changing those)
- EDE-CS (PEB with MACsec on internal port) needs address filtered by C-VLAN comp. not by S-VLAN
- EDE-SS same requirement, could use same address. -0C?

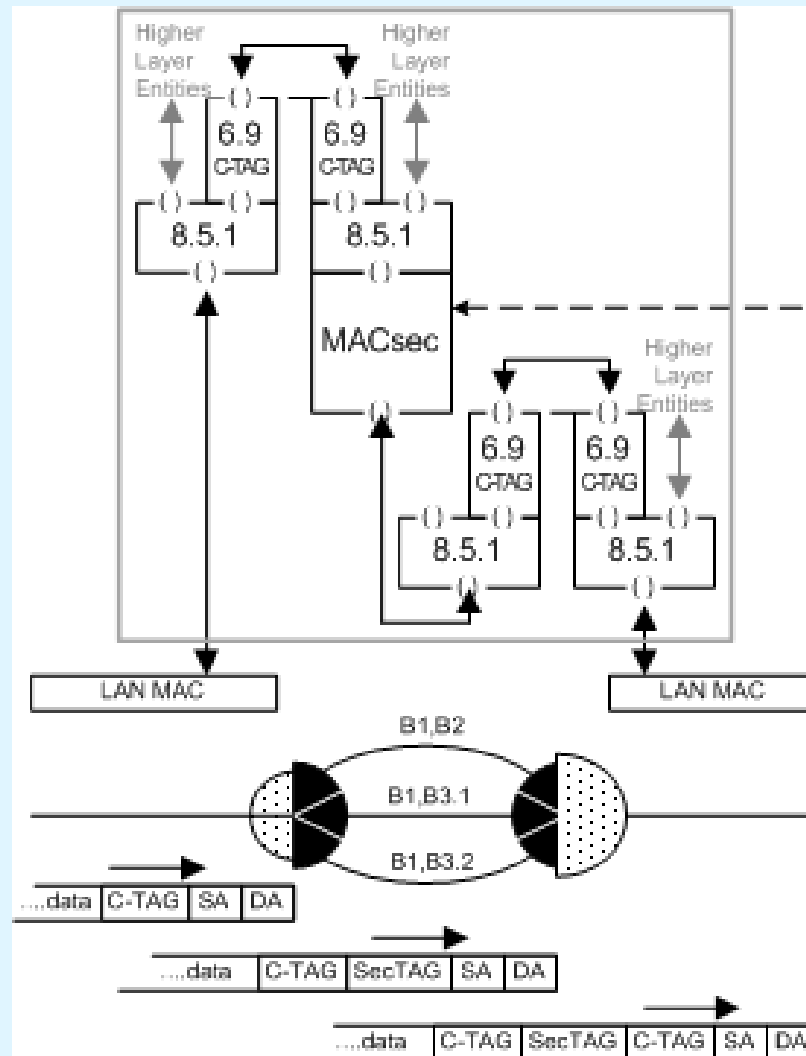
# Backup slides

- Following slides from a prior presentation may be useful in discussion

# Integrated Operation (example)



# Transparent operation (example)





# A.O.B

- ?