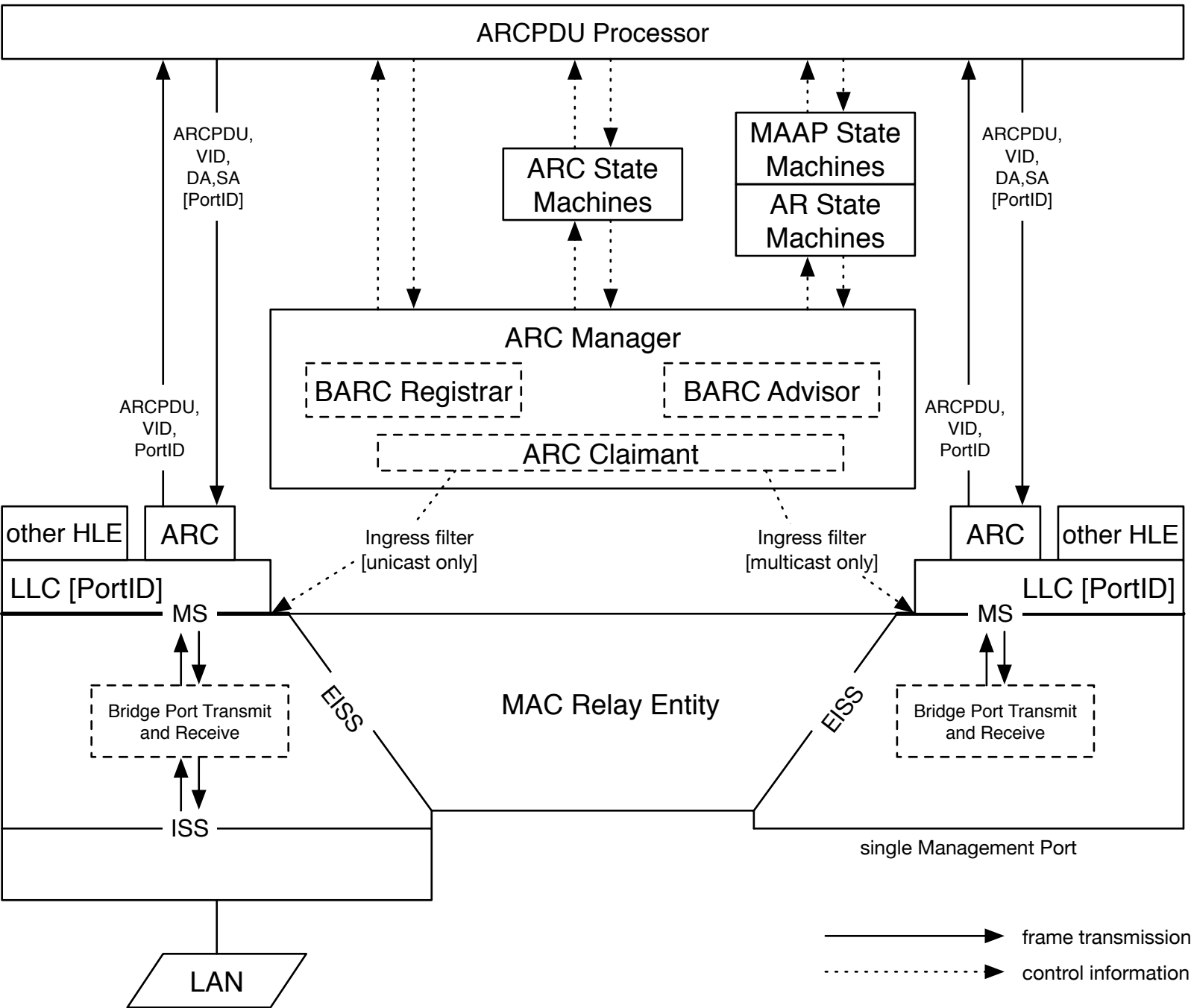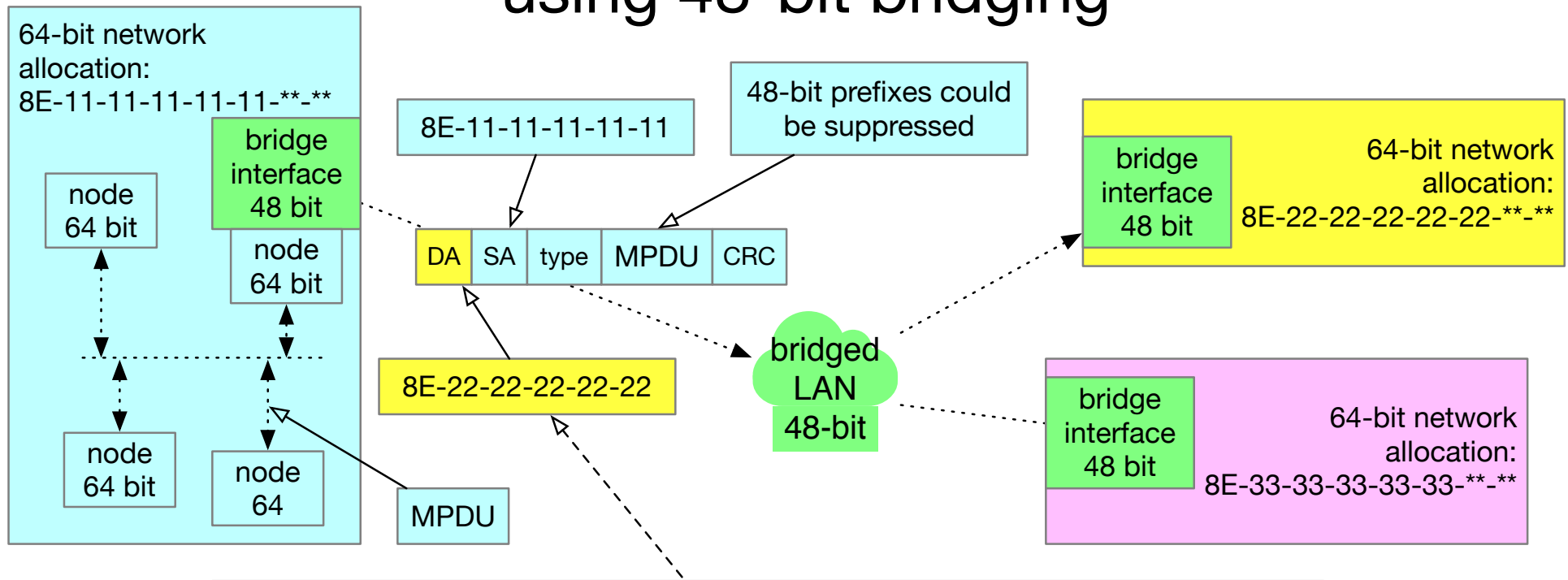# Figures to consider in P802.1CQ/D0.7 Comment Resolution

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2021-09-22

CID 26: ARC Architecture

CID20: Model of 64-bit Allocation Use to support 64-bit bridged LAN using 48-bit bridging

64-bit network allocation:
8E-11-11-11-11-11-**-**

node 64 bit

bridge interface 48 bit

node 64 bit

node 64 bit

node 64

MPDU

8E-11-11-11-11-11

48-bit prefixes could be suppressed

| DA | SA | type | MPDU | CRC |

8E-22-22-22-22-22

bridged LAN 48-bit

bridge interface 48 bit

64-bit network allocation:
8E-22-22-22-22-22-**-**

bridge interface 48 bit

64-bit network allocation:
8E-33-33-33-33-33-**-**

- MPDU includes sufficient information for bridge interface to determine 48-bit DA
- allocated 64-bit addresses are unique across the union of 64-bit networks
- union of the all the 64-bit networks works like a bridged LAN
- if MPDU carries a 64-bit destination address per allocation, then DA is first 48 bits
- otherwise, bridge interface may need a 48/64 mapping table

Prior work:
- *In a Personal Area Network, there are nodes connected to two IEEE 802 technologies like 802.15.4 with 64-bit MACs and 802.3 with 48-bit MACs, PAN coordinator and intermediate bridges and routers*
- *This document presents use cases for using 802.1 bridges to adopt 64-bit MACs with 48-bit MACs*
- *Address Bridging: 64-bit to 48-bit address adaptation work is needed in 802.1*
- *Local addresses can be used by the bridge during address bridging (both for 64-bit to 48-bit and vice versa)*
all quotes from https://www.ieee802.org/1/files/public/docs2016/new-64bitto48bitMACAdapting-sarikaya-0116-v00-xtn.pdf

3

CID79: Semantic Addressing – Example