IEEE P1722.1 Controllers

Ashley Butterworth
Apple Inc.
Overview

- What is a controller (#2)
- Multiple controllers
- How to handle entities reporting changes in AS grandmaster or MSRP priorities
- Greedy controllers?
- Can an entity refuse a controller
What is a controller

- D18 (5.3.1) defines as
  - An Entity that has the role of AVDECC Controller initiates commands to entities that have the roles of AVDECC Talker, AVDECC Listener, or another AVDECC Controller.

- Does a controller have to do ACMP and AECP or can it be called a controller by just doing one of them?
Multiple Controllers

- Correct behavior for a controller
  - Always acquire the entity before commanding
    - Requires that all entities SHALL implement acquire?
  - Always get the current RX state before attempting to connect 2 entities together
  - What about controllers which only implement ACMP?
    - Or do we require a minimum of being able to use the AEM ACQUIRE_ENTITY command to acquire for use
Multiple Controllers - Simultaneous

- Simultaneous control by multiple controllers
  - How do we restrict access - acquiring individual controls?

- Which controller gets to make connections?

- IF this is a situation you anticipate your devices being used in then implement state change notifications (7.5.2) so they can get bulk update notifications
AS grandmaster and MSRP change

- When AS grandmaster changes, entities re-announce with new grandmaster
  - This is already part of ADP

- How does the controller handle this
  - Entities it has connected may report changes at slightly different times - there will for a little while be an inconsistent state in the network
  - At what point do we consider that the entity has really left the domain

- Same applies to MSRP (except without ADP)
Greedy Controllers

- Controllers which attempt to control everything it sees
- Co-existence with other controllers
  - Following multi-controller principals should work for existing controllers on network
  - How do we get it to relinquish control
Can an entity refuse a controller

- With the presence of multiple controllers on the network (not following multi-controller rules) can the entity point blank refuse a controller?

- Proposed new status code (one of)
  - POINT_BLANK_REFUSAL
  - I_DONT_LIKE_YOU
  - YOUR_NOT_MY_TYPE