



# IEEE 1722.1 New Work

---

Ashley Butterworth  
Apple Inc.

Jeff Koftinoff  
Meyer Sound

# Acquire Entity Command

---

- Needs descriptive text and/or a state machine for how to handle receiving an `ACQUIRE_ENTITY` command while waiting for the `CONTROLLER_AVAILABLE` response or timeout

# Unsolicited Responses

---

- Need a (timeout) mechanism to remove a registered Controller when it is lost or killed without deregistering.

# Max Transit Time

---

- Although the max transit time setting can be calculated and set via the SET\_STREAM\_INFO command (msrp\_accumulated\_latency field) there has been expressed a desire for explicit commands so...
- Add SET\_MAX\_TRANSIT\_TIME and GET\_MAX\_TRANSIT\_TIME commands which will act on a STREAM\_INPUT or STREAM\_OUTPUT object

# Controller Request

---

- Add cr (controller request) bit to all commands which allows the entity to request the controller perform an action to set the appropriate thing
  - e.g. user changes a front panel knob for the sample rate, entity sends SET\_SAMPLING\_RATE with u and rq set, controller can then call STOP\_STREAMING on all of the connected entities, SET\_SAMPLE\_RATE on all of the entities that are connected to the streams for the entity that requested, and then START\_STREAMING on all of the entities.

# ACMP Status Codes

---

- Need to add  
ACMP\_LISTENER\_INVALID\_CONNECTION,  
18, "The AVDECC Listener is being asked to  
connect to something that it cannot listen to,  
e.g. it is being asked to listen to it's own  
AVDECC Talker stream."
- Some listeners are incapable of listening to  
the same stream multiple time, may need a  
new status code for this

# ACMP Controller Commands

---

- Add new command or allow Controller to send command to disconnect the TX when a listener is not present.

# OPERATION\_STATUS

---

- Clarify how the `sequence_id` for these messages is generated/used

# Authentication

---

- Clarify that if authentication is being used (that is before doing any AECMP based action the AUTHENTICATE command must be sent) then this also applies to ACMP. If we feel this should be an option then may need to add a flag and error code.

# Memory Object Download Protocol

---

- We have a Memory Object Upload Protocol, we should be consistent and define the opposite direction as well

# GET\_AVB\_INFO

---

- Add flag which indicates link status (up/down)
- Add flags which indicate link mode? (100/1G/10G/etc?)

# New control types

---

- Add barometric pressure control
- Link Status
- Link Media Speed (both status and setting)

# AVB\_INTERFACE Descriptor

---

- Add controls as children
  - Need this as a home for the link status, link media settings, etc.

# Redundancy

---

- Need a way to specify that two streams are used as redundant backups for the other on a different link
  - We can already specify that streams are on different ethernet ports
  - Need to specify that they are the same stream

# Flash Programming

---

- Need a standard binary AEM format that is suitable for programming directly into flash and being used to configure the device at boot

# Miscellaneous

---

- Need a way of showing that an Entity can connect to it's own streams
  - That is that the stream inputs can listen to it's own stream outputs
- Need a command for setting the AES-GCM Initialization Vector?
- Dynamic Entity Models
  - Do we want to support these officially

# Your New Work Here

---

- If you have more new work for the new version of IEEE 1722.1 please email the reflector
  - [AVBTP-DECC@LISTSERV.IEEE.ORG](mailto:AVBTP-DECC@LISTSERV.IEEE.ORG)