IEEE 1722.1 New Work

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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 know 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 its own AVDECC Talker stream."

- Some listeners are incapable of listening to the same stream multiple times, 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.
Clarify how the sequence_id for these messages is generated/used
Authentication

- Clarify that if authentication is being used (that is before doing any AECP 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
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 its own streams
  - That is that the stream inputs can listen to its own stream outputs

- Need a command for setting the AES-GCM Initialization Vector?

- Dynamic Entity Models
  - Do we want to support these officially
If you have more new work for the new version of IEEE 1722.1 please email the reflector

- AVBTP-DECC@LISTSERV.IEEE.ORG