AVB Standards Status

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Core IEEE 802 standards

- 802.1AS – Precise time synchronization
  - 3rd draft ballot just closed, dependent on IEEE 1588 just approved as IEEE Std 1588-2008 and 802.11v (somewhere in 2nd draft working group balloting … 802.1AS is only dependent on a small, non-controversial part)
  - Expected to move to working group ballot by summer/fall '08 and sponsor ballot by early '09

- 802.1Qat – Registration and reservation
  - 3rd draft TG ballot just closed, fairly major improvement to make sure there is good support for "coordinated shared media networks" like WiFi and MoCA, will likely need one more task group ballot
  - Expected to move to working group ballot by fall '08 and sponsor ballot by mid '09

- 802.1Qav – Time sensitive queuing and forwarding
  - 3rd draft just completed, being coordinated with the work on congestion management since they both require the explicit management of queues, will likely need two more task group ballots
  - Expected to move to working group ballot by early '09 and sponsor ballot one year later

Other 802 standards (not core)

- 802.1BA – Audio Video Bridging Systems
  - PAR approved to provide a checklist pointing to the various 802 standards indicating options and configurations that are needed for an interoperable AVB system
  - Profiles for consumer electronics, professional A/V, industrial, perhaps automobile
  - Currently being maintained as the "AVB assumptions" list, but getting important enough to be a formal standard
  - Will be finished the same time as the last of the core standards
- 802.3 updates requested
  - 802.3 currently does not have a formal specification of when a frame is actually transmitted or received, so 802.1AS has to use an indirect method for Ethernet … the 802.1 WG is requesting the 802.3 WG for the appropriate formalism to communicate this information
  - Required to support future 802.3 PHYs

Higher layer standards

- IEEE P1722 "Audio Video Bridging Transport Protocol"
  - Direct port of IEC 61883 (isochronous transport protocols used by IEEE 1394 devices for compressed and uncompressed audio and video – used wherever 1394 is used in both consumer and professional devices)
  - Drafts on streaming format largely complete, additional work on management and discovery may be deferred to a follow-on document
  - Sponsor ballot expected early '09
- IEEE P1733 "RTP profiles for AVB"
  - Development of RTP/UDP/IP profile for AVB streams
  - To specify RTP media format(s) be as close as possible to the stream format for P1722 to simplify silicon designs that support both formats
  - Just getting under way by collecting use cases
  - Draft will be forwarded to IETF AVT group, may not end up as a formal IEEE document
- RSVP update
  - Initial discussions started, when 802.1Qat specs stabilize (summer '08), will start on an internet draft

We want from .3

- Communication of timing information (actual tx/rx of start of frame)

- Any speed changes from EEE communicated to upper layers (AVB)

- Setting control policy for EEE

- Please minimize data dropouts