Editor's Report
60802 Draft 1.0

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Comment Resolution Status

- There are 202 (out of 647) unresolved comments
  - 192 Technical or Technical Required
  - 10 General
  - This includes 26 Comments received from IEC
- Work has begun on D1.1
  - Common MAC and PHY requirements and options added.
  - Working on Bridge requirements
  - Need some guidance regarding the agreed upon principles:
    1. The P60802 standard shall explicitly identify which parts (clauses, sub clauses, figures, lists, tables, etc.) of the cited standards apply to this profile.
    2. The features of any cited standard that are mandatory, optional, excluded, or not applicable shall be explicitly identified.
    3. Additional constraints for features of any cited standard shall be identified.

Proposed order of resolution - Time

- Timescales
  - 288, 190, 191, 192, 293, 294, 193, 295, 296, 297, 86, 298, 299, 523, 130, 301, 302, 524, 89, 499, 88, 315, 537, 165
    - Comment 86: Although 1588 uses a bit called "timescale" to refer to "ARB", ARB is not an actual timescale. ARB is effectively a placeholder, for a profile such as this one to specify its own timescale. ARB is commonly understood as allowing a GM to use zero as its power-on time (therefore not related to wall-clock time), but that is merely an assumption.
    - Specify the working clock timescale by answering the following questions:
      1. What is a timestamp of zero required to represent (i.e. what is the epoch)? If zero may be the power-on time of the GM (instead of 1970), state so explicitly.
      2. What is the behavior of the GM's working clock while it is operational? Is the timestamp continuous? Is it monotonic? Strong monotonic?
      3. Under what conditions can the epoch be changed (by what 1588 calls an "administrative procedure")? For example, some profiles that use ARB support a writable defaultDS.currentTime, so that an end user can change the timescale using management (i.e. MIB or YANG). If this profile does not support management/administrative changes, state so explicitly. Note that avoiding management write has significant benefits, in that the GM's working clock can be assumed to be continuous, which is important for a control loop.
      4. What is the unit of measure of time used by the GM? For example, is the GM required to use the SI second?

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Proposed order of resolution - Time

- Redundancy
  - 289, 495, 291, 87,
  - Comment 87 - This commenter agrees that hot standby and cold standby will require normative specification. Those terms mean little on their own.
    1. Set aside hot-standby for the early drafts, possibly to revisit later on. Specify the cold-standby feature by answering the following questions:
    2. What are the normative specifications for the conditions that cause a backup GM to take over from the primary GM? For example, is it AScapable true to false for the primary domain at the backup GM?
    3. What are the normative specifications for the conditions that cause a primary GM to take over from the backup GM?
    4. What are the effects of topology on #1 and #2? For example, if a bridge between the primary GM and backup GM fails, is synchronization subdivided into disjoint times?
    5. What are the continuity requirements during the changes of #1 and #2? For example, since 802.1AS precision is adversely impacted by the number of hops, if the backup GM is farther from a slave than the primary GM, some amount of discontinuity can occur during the change. How much is acceptable to the control loop?
    6. What happens if both GMs fail?
    7. Does this profile assume that externalPortConfiguration is always TRUE in all time-aware systems? If not, the cold-standby technique does not seem to work, because another GM will takeover within each domain, and that might not be the intended backup GM.

Proposed order of resolution - Time

- Time Specifications
  - 504, 312, 313, 314, 95, 253, 50, 92, 93, 94, 525, 315, 318, 319, 250, 316, 317, 505, 320, 51, 3, 7, 8, 609,
  - Comment 92 - Table 13 needs normative clarification. It is phrased as applying to the entire network, but that is not practical as a normative requirement for a single product. For example, let's say that my product is a single bridge. As time flows through my ports, I validate that my bridge deviates the working clock by exactly +1 microsecond. Am I conformant? Sure… why not? I will assume that all other bridges are perfect, and therefore the network-wide requirement is met.
  - Table 14 calls for a maximum deviation across 100 Hops which cannot be verified for a single bridge.

- Misc
  - 189, 292, 522, 188, 48, 304, 500, 306, 319, 501, 131, 307, 502, 309, 310, 321, 322, 6, 194, 195,

Proposed order of resolution - Quantities

- Network access
  - 529, 600, 55, 99, 72, 246, 411, 412, 413, 159, 414, 611, 415, 416, 35, 417, 418, 421, 420, 419, 461, 247, 73, 462, 463, 601, 507, 19,
  - The numbers given for the network cycle seem to be use case specific. Should we really give these numbers here? If we should give numbers here, are the numbers in D1.0 the ones we want?

- Bridge Delays
  - 402, 245, 403, 98, 408, 407, 405, 134, 404, 528, 4, 251, 252, 34,
  - Comment 98 - This table is unclear.
  - Answer the following questions (see 802.1Qcc-2018 12.31.1 for examples):
    1. Where is the "first bit" measured in the frame (normatively)?
    2. Where is the reference plane for measurement? If it is MDI, state MDI.
    3. Is this a limit dscovered from testing, or worst-case by design?
    4. What transmission selection is assumed? What queuing is assumed?
    5. What size frame is assumed? If it is larger than 64 octets, you'll need to consider length dependent and independent limits.

- Quantities
  - **530**, 248, 166, 468, **595**, 36, 56, 469, 100, 614, 615, 20
  - The data provided here may be used as contribution (use case, requirement) used to calculate quantities, but it should not be part of the standard document. Furthermore the clause addresses 'Controllers' and 'Devices', which are application specific roles and should not be mixed into 60802 which focuses on the communication layer, and not on the application layer.
  - Remove clause 6.8
- Bridge FDB and resource requirements
  - 466, 465, 464, 226, 136,

Thank you