IEEE P802.3dm Path Forward

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Background

P802.3dm has been meeting as a TF for about 18 months

- Agreement has been reached on some issues
- Agreement is needed on major issues

TF Obligations

IEEE 802.3 Ethernet Working Group Operations Manual

Section 3 Defines the TF Obligations and Methods

- 3.1 The function of the Task Force is to produce a draft standard, recommended practice or guideline.
- 3.4 The operation of the TF has to be balanced between democratic procedures that reflect the desires of the TF members and the TF Chair's responsibility to produce a draft standard, recommended practice, or guideline in a <u>reasonable amount of time</u> for review and approval by the WG. Robert's Rules of Order shall be used in combination with these operating rules to achieve this balance.
- 3.4.1 The Chair of a TF may decide procedural issues or may put them to a vote of the TF.

Creation of TF draft

3.4.2 The decision by the TF to request the WG to submit a draft standard or a revised standard to the WG ballot group must be ratified by the TF as a technical vote (>75%).

- There is no defined process for getting to this point in the WG Operations Manual.
- Traditionally, content has been added to a draft on a piece-by-piece basis based on individual baseline votes; however, this is not required by the rules.

Task Force Chairs Authority

3.4.4 c) Establish TF rules beyond the WG rules. These rules must be written and all TF members must be aware of them.

This presentation establishes the Chair defined procedure to create a draft.

Why start TF review on non-baselined text?

It is generally prudent to have the task force review the text in detail prior to forwarding it to the Working Group for ballot, if only because it can reduce the number of comments on editorial issues from Task Force members.

 Although not mandated or even specified by the operations manual, text review has been a common "path to success".

Regardless of the path forward, reviewing concrete text for both proposals benefits us:

- It matures any text that may ultimately by used.
- If we split the PAR or provide a 'dual mode' solution, we better understand how the proposals fit together (or not).
- If we choose one over the other, we have a more complete view of what we are choosing.

P802.3dm Chair defined draft structure

Create IEEE P802.3dm draft for TF review

- Clause 200 TF approved baseline text
 - Updated when new baselines are approved by the TF
- Clause 201 ACT supporters supplied text
 - Updated to include new baselines
 - Updated when ACT technical lead agrees content should be added
 - Updated based on comments when ACT Editor and technical lead agree
- Clause 202 TDD supporters supplied text
 - Updated to include new baselines
 - Updated when TDD technical lead agrees content should be added
 - Updated based on comments when TDD Editor and technical lead agree
- Other Clauses are currently common
 - If changes are needed to accommodate Clause 201 or 202, the Editors will determine how this should be done

P802.3dm Editors and Technical Leads

Chief Editor – Natalie Wienckowski

Clauses 1, 30, 45, 46, 98B, 200, 201

Clause Editor – Val Maguire

Clause 202

Technical leads will selected for each duplexing method

- ACT Technical Lead TBD
- TDD Technical Lead TBD

D0.7 – Published November 1

D0.7 includes

- Published D0.6 content from August 4
- Add Clause 201 which is the same as 8023-200 ACT D0p7a.pdf from September Interim
- Add Clause 202 which is <u>Baseline Text for TDD PHY V1.1 07 14 25</u> formatted to 802.3 FM style

TF draft review

Reviews may be started by the TF Chair after a P802.3dm TF Interim or Plenary, including OOC Interims

- All content in the draft is open for comment (unless otherwise specified in the review announcement)
- The initial review will be 30 days
- Subsequent reviews will be at least 10 days
- Comments will be discarded if deemed "not helpful" by the Editors and/or Technical leads
- During TF review, no comments are "required" as there is no vote on the review

How to submit comments

- Preferred: <u>Comment entry spreadsheet</u>
- Acceptable: <u>FileMaker comment entry tool</u>

D0.a Published December 1 - 4

D0.a includes

- Updated content in Common Clauses for any approved baselines in November
- Update Clause 201 based on ACT submissions
- Update Clause 202 based on TDD submissions

Review schedule

- 1 4 December: start comment review period
- 4 January: end comment review period
- 14 January: comment proposed responses published
- January Interim: comment resolution

TF Progress

Continue to try to come to consensus on Duplexing Method

- Select a single duplexing method
- Agree to include both duplexing methods in a single draft
- Agree to split the PAR and put each duplexing method in a separate draft
- Each of these would require > 75% approval

TF Draft

Work to develop complete drafts for both duplexing methods to prepare for WG ballot

Conclusion

The goal is to prepare the necessary text for WG ballot in parallel with the decision on duplexing method.

Questions?

Thanks!

Background

Background – Agreement reached

- Text adopted for XGMII interface to be used (common to TDD, ACT)
 - 64B/65B PCS encoding to be used for the XGMII, supporting an asymmetric XGMII
- PAM-4 modulation to be used for 10 Gb/s data rate in the high-speed direction (text adopted)
- PAM-2 modulation to be used for 2.5 Gb/s & 5 Gb/s data rate in the high-speed direction
- MDI Return Loss
- Minimal baseline text for Link segment sections (no IL, RL, or delay specifications)
- Baseline text for environmental specifications (common for most automotive PHYs)
- Text for Clause 30 Management
- Text for Clause 45 Management

Background – Agreement needed

Reach (length) specifications:

- Insertion Loss for STP, Coax link segments
- Link segment delay for STP, Coax link segments Return Loss for STP, Coax link segments

Duplexing method:

- ACT only
- TDD only
- ACT and TDD in a single draft
- Split PAR with ACT and TDD is separate drafts

Duplexing method related:

- Framing structure & FEC protection tied to duplexing method & synthesizable clock rates
- Link activation, training, and synchronization procedures tied to duplexing