

Editor's Report: P802.3dg draft 0.1

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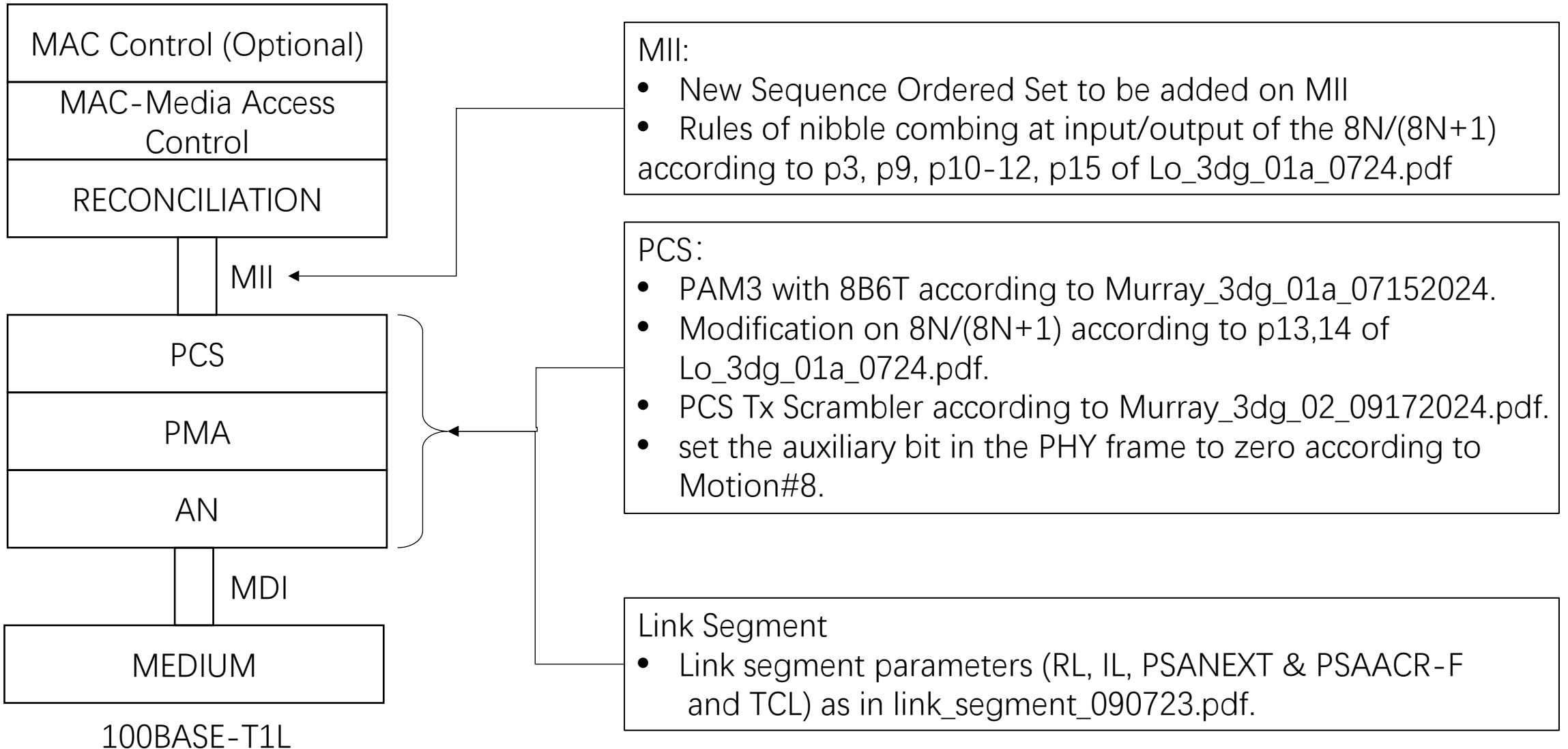
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IEEE P802.3dg Task Force November 2024

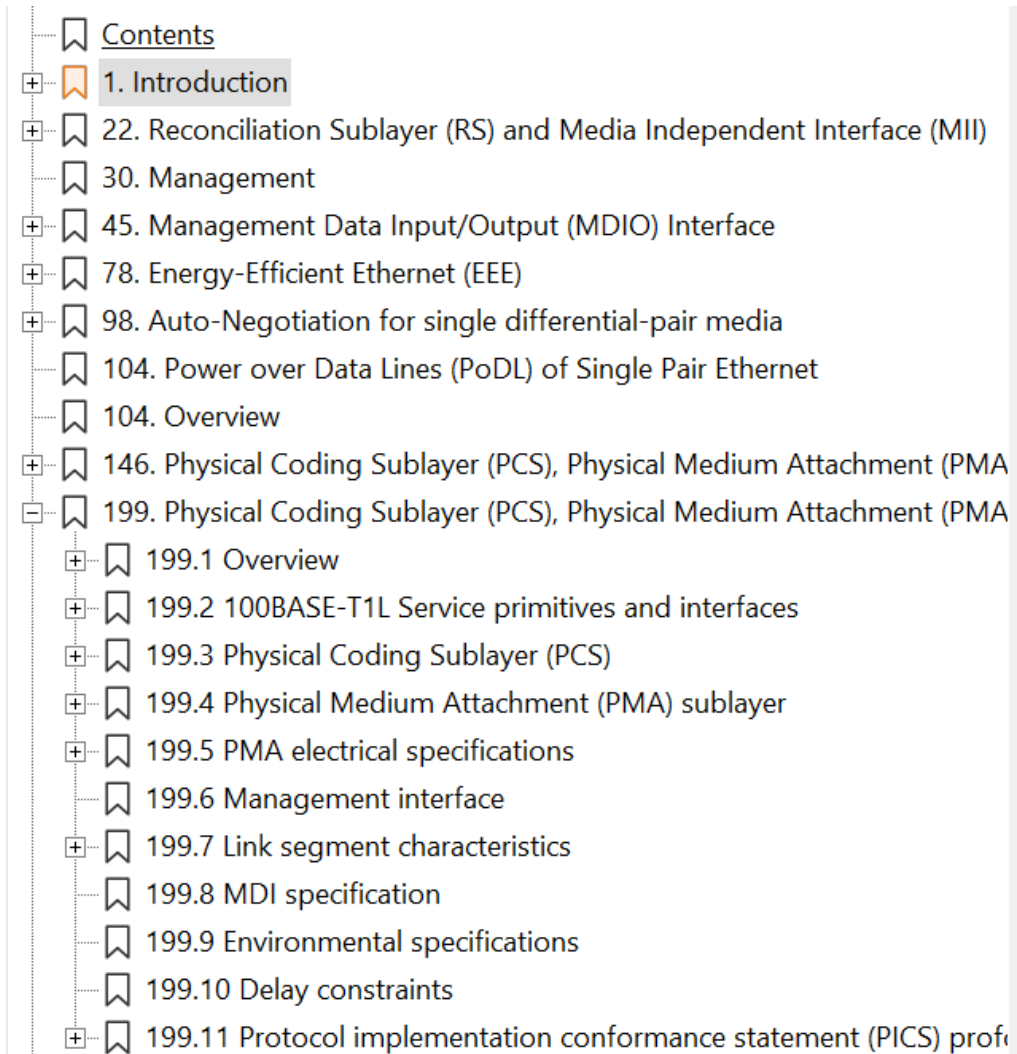
Introduction

- Review of the adopted baselines
- What we have in D0.1 and what is missing?
- Potential baseline discussion in this meeting
- Next step

Adopted baselines till now(before Nov.)



Structure of D0.1



A vertical table of contents for a document titled 'D0.1'. The items are listed with expand/collapse icons (+/-) and bookmark icons. The '1. Introduction' item is highlighted with a grey background. The items are:

- Contents
- 1. Introduction
- 22. Reconciliation Sublayer (RS) and Media Independent Interface (MII)
- 30. Management
- 45. Management Data Input/Output (MDIO) Interface
- 78. Energy-Efficient Ethernet (EEE)
- 98. Auto-Negotiation for single differential-pair media
- 104. Power over Data Lines (PoDL) of Single Pair Ethernet
- 104. Overview
- 146. Physical Coding Sublayer (PCS), Physical Medium Attachment (PMA)
- 199. Physical Coding Sublayer (PCS), Physical Medium Attachment (PMA)
 - 199.1 Overview
 - 199.2 100BASE-T1L Service primitives and interfaces
 - 199.3 Physical Coding Sublayer (PCS)
 - 199.4 Physical Medium Attachment (PMA) sublayer
 - 199.5 PMA electrical specifications
 - 199.6 Management interface
 - 199.7 Link segment characteristics
 - 199.8 MDI specification
 - 199.9 Environmental specifications
 - 199.10 Delay constraints
 - 199.11 Protocol implementation conformance statement (PICS) profi

- The plan is to implement the clauses for new features and functional modifications first and update the other clauses accordingly once the main parts are settled.
- So, the current work is to fill in clause 199 and also implement the MII modification for 100BASE-T1L. PoDL and EEE is under discussion to be updated.

What we have in D0.1 (except Clause 199)

CL #	Clause title	Baseline status	Notes
1	Introduction	Not yet	To be updated accordingly once the main features/function are implemented in clause 199.
22	Reconciliation Sublayer (RS) and Media Independent Interface (MII)	Under discussion	Baseline proposals is under discussion in <ul style="list-style-type: none">Lo_3dg_01a_1124.docx (MII modification and encoding)Riesco_3dg_01_11132024.pdf (error handling)
30	Management	Not yet	To be implemented accordingly
45	Management Data Input/Output(MDIO) Interface	Not yet	To be implemented accordingly
78	Energy-Efficient Ethernet (EEE)	Under discussion	EEE capability and LPI signaling is under discussion in <ul style="list-style-type: none">Murray_3dg_03_11132024.pdfTingting_3dg_02_12_11_2024.pdf.
98	Auto-Negotiation for single differential-pair media	Under discussion	Baseline proposal is under discussion in Fitzgerald_3dg_01_11132024.pdf
104	Power over Data Lines (PoDL) of Single Ethernet	Under discussion	No baseline available but we have an adhoc to discuss it!

Baseline discussions in this meeting

What we have in D0.1 (Clause 199)? (I)

Subclause title	Baseline status	Notes
199.3.1 PCS service interface	Under discussion	Baseline proposal under discussion in Lo_3dg_01a_1124.docx.
199.3.2.1 PCS Reset function 199.3.2.2 PCS Data transmission Enable	Implemented	It is based on clause 146 and may be updated but see no noncontroversial points.
199.3.2.3 PCS transmit function 199.3.2.3.1 Use of blocks 199.3.2.3.2 8N/8N+1 transmission code 199.3.2.3.5 block structure 199.3.2.3.6 Control codes 199.3.2.3.7 Idle 199.3.2.3.8 LPI_IDLE 199.3.2.3.9 Error 199.3.2.3.10 Transmit process 199.3.2.3.11 RS-FEC encoder	Still lack of baseline texts in most of subclauses (we have motions on some features but no baseline texts is provided)	Baseline proposals under discussion includes: <ul style="list-style-type: none">• Lo_3dg_01a_1124.docx• Riesco_3dg_01_11132024.pdf• Murray_3dg_01_11132024.pdf• Tingting_3dg_01_13_11_2024.pdf

Baseline discussions in this meeting

What we have in D0.1 (Clause 199)? (II)

Subclause title	Baseline status	Notes
199.3.2.3.12 PCS scrambler	Implemented	Adopted baselines in Murray_3dg_02_09172024.pdf
199.3.2.3.13 Generation of bits $S_x[n[3:0]]$, $S_{yn}[3:0]$, and $S_{gn}[3:0]$	Implemented	Adopted baselines in Murray_3dg_02_09172024.pdf
199.3.2.3.14 Generation of bits $S_d[n[8:0]]$	Implemented	Adopted baselines in Murray_3dg_02_09172024.pdf
199.3.2.3.15 Generation of code-groups	Partly implemented	8B6T encoding is added as adopted in Murray_3dg_01a_07152024, but delimiters and disparity are to be baselined.
199.3.2.3.17 EEE capability	Under discussion	Under discussion.
199.3.2.4 PCS Receiver function	Not yet	Once the PCS transmit function is settled, the Receive function can be implemented accordingly
199.3.3 PMA training side-stream scrambler polynomials	Under discussion	Baseline proposals under discussion includes: <ul style="list-style-type: none"> Tingting_3dg_01_13_11_2024.pdf Murray_3dg_04_11132024.pdf Riesco_3dg_02_10292024.pdf
199.3.4 LPI signaling	Not yet	Under discussion in EEE proposals.

What we have in D0.1 (Clause 199)? (III)

Subclause title	Baseline status	Notes
199.4 PMA sublayer	Not yet	Lack of proposals and baselines.
199.5 PMA electrical specifications	Not yet	Lack of proposals and baselines.
199.6 Management interface	Not yet	To be implemented accordingly
199.7 Link Segment characteristics 199.7.1.1 insertion loss 199.7.1.2 Return loss 199.7.1.3 Maximum link delay 199.7.1.4 Differential to common mode conversion	Partly implemented	Adopted baselines in link_segment_090723.pdf and only left figures to be added.
199.7.2 Coupling parameters between 100BASE-T1L link segments	Not yet	Lack of proposals and baselines.
199.8 MDI specification	Not yet	Lack of proposals and baselines.
199.9 Environmental specifications	Not yet	Lack of proposals and baselines.
199.10 Delay constraints	Not yet	Lack of proposals and baselines.
199.11 PICS	Not yet	To be implemented accordingly

Expectations for this meeting

- There are follow-up baseline discussions on sequence Order sets, control codes encoding/decoding, EEE, and also PMA Training...
- Some of them are converged somehow and we encourage the authors and the group to discuss and adopt some of them to move forward.

Summary

- Draft (D0.1) is provide in private area but we will not start the formal draft review yet. Not until the draft is more technical complete and major decisions are made.
- We highly encourage colleagues to check the missing parts in the draft and bring your contributions and thoughts to the group.
- As always, we encourage contributors to provide technical concepts and presentations along with pointers to similar sections in 802.3 that the parameters might change to facilitate the editing job.
- Next Step:
 - Incorporate adopted baselines in this meeting to generate D0.2 before the next meeting.

Thank you!