EPoC PCS Status Update (Clause 101)

Marek Hajduczenia

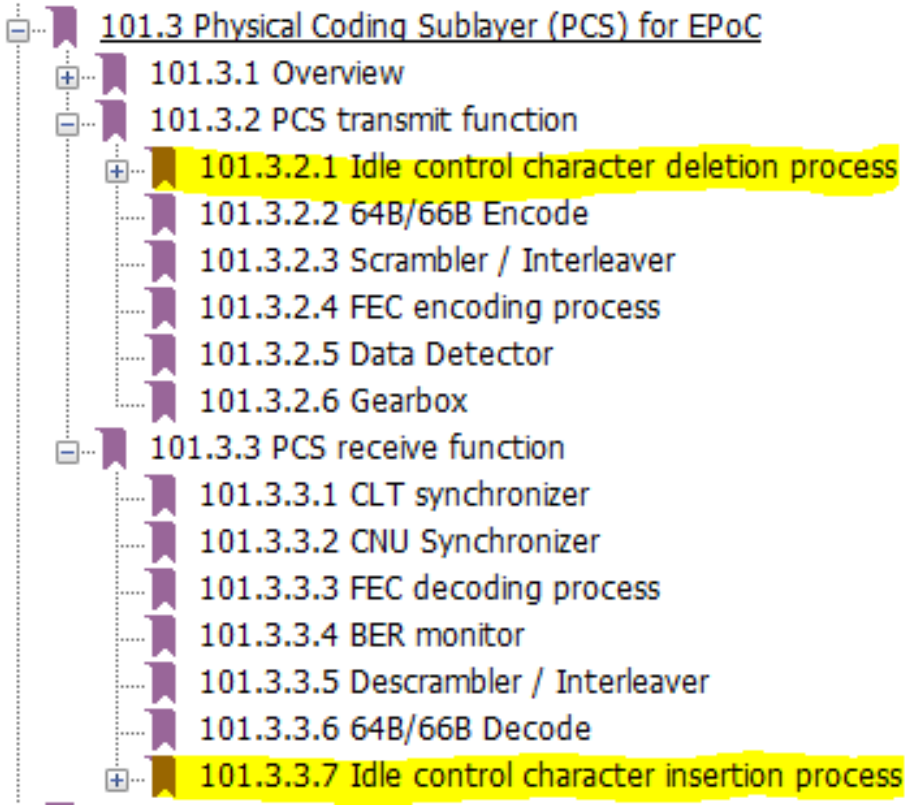
Clause 101 Editor

Clause 101 Outline

- 101. Reconciliation Sublayer, Physical Coding Sublayer, and Physical Media Attachment for EP
  - 101.1 Overview
    - 101.1.1 Conventions
    - 101.1.2 Constraints for delay through RS, PCS, and PMA
  - 101.2 Reconciliation Sublayer (RS) for EPoC
    - 101.2.1 Overview of EPoC RS operation
    - 101.2.2 Summary of major concepts
    - 101.2.3 10 Gigabit Media Independent Interface (XGMII)
    - 101.2.4 Functional specifications for multiple MAC instances
  - 101.3 Physical Coding Sublayer (PCS) for EPoC
    - 101.3.1 Overview
    - 101.3.2 PCS transmit function
    - 101.3.3 PCS receive function
  - 101.4 EPoC_PMD_Name PMA
  - 101.5 Power-saving capabilities
  - 101.6 TimeSync capability
  - 101.7 Protocol implementation conformance statement (PICS) proforma for Clause 101,
    - 101.7.1 Introduction
    - 101.7.2 Identification
    - 101.7.3 Major capabilities/options
    - 101.7.4 PICS proforma tables for clause title

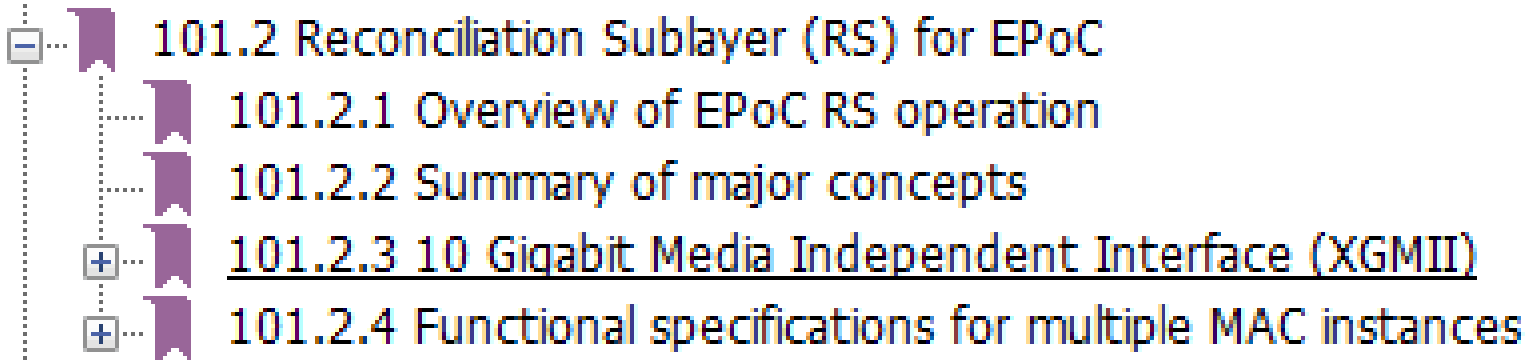
Incoming contributions (a)

- hajduczenia_3bn_01_0513.pdf covering technical decisions #43 and #45 (Idle Insertion and Idle Deletion processes)



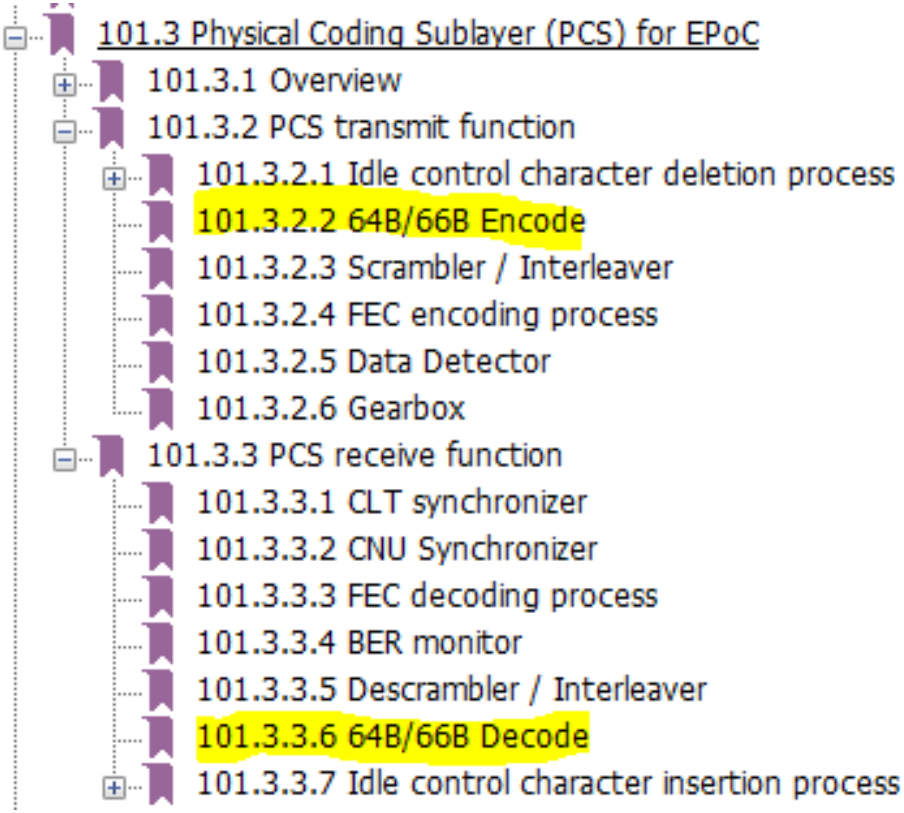
Incoming contributions (b)

- hajduczenia_3bn_03_0513.pdf covering the definition of EPoC RS
  - Contribution into 101.2 is fairly complete and requires editorial polishing only
  - All subclauses within 101.2 are provided for and are ready for commenting



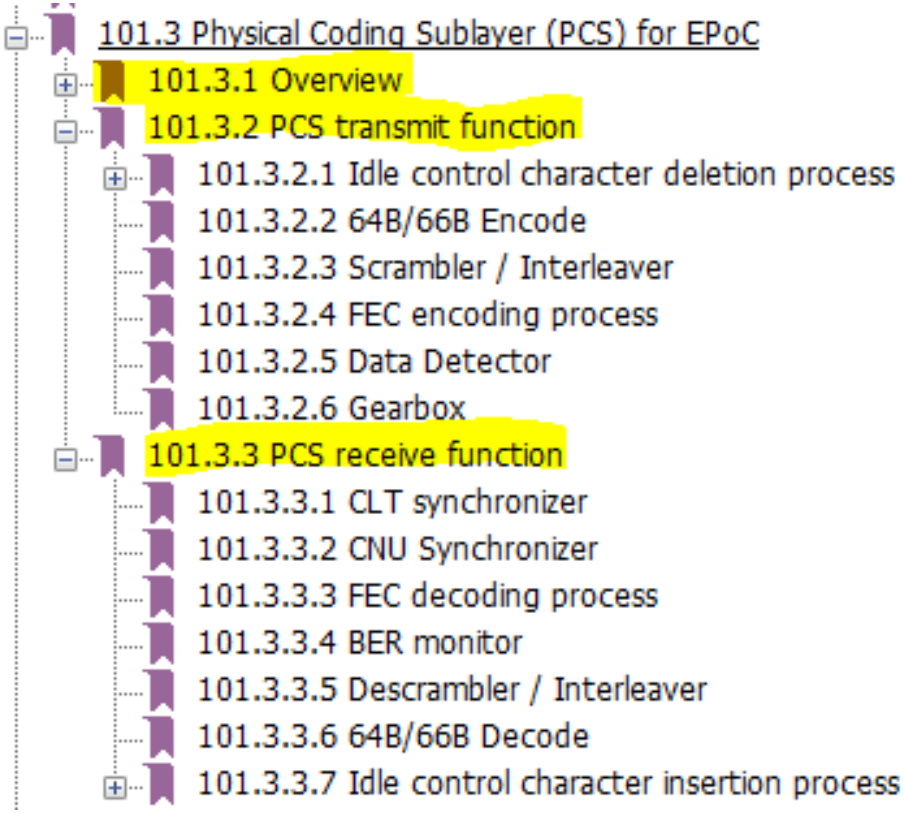
Incoming contributions (c)

- hajduczenia_3bn_04_0513.pdf covering the 64B/66B encode and decode processes (technical decision #20)



Incoming contributions (d)

- hajduczenia_3bn_06_0513.pdf covering the introduction text into 101.3 (PCS) and description of transmit and receive functions



Missing contributions

- Missing bit-ticket items
  - FEC (location, type, operation, etc.)
  - Data detector in CNU and CLT
  - Gearbox in Tx direction
  - Scrambler / Interleaver
  - Synchronizer in CNU and CLT
  - BER / FER monitor
  - TimeSync capability
  - Power Saving capability
- Missing discussion on aligning TDD and FDD PCS definitions into a single clause material (?)

Summary

- A number of areas within EPoC PCS still requires direct contributions and technical decisions:
  - See previous slide and email discussion for more details on this topic
- Some contributions into PCS were submitted at this meeting and will be discussed
  - Hopefully, these start a snowball of contributions for the next meeting, allowing more editing to be done
- Configuration parameters (registers, etc.) are missing at this time (will be developed once PCS structure is more settled)
- PICS for PCS will be developed once PCS structure becomes more consolidated