Structure and Clauses to Edit for Backplane Ethernet 802.3ap

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Intel

Relationship to Std 802.3

- P802.3ap should be written as an amendment to new IEEE Std 802.3-200x (not 2002)
  - P802.3REVam just received merge of 2002, ae, af, aj, ak
  - P802.3ah should be merged into REVam by July
  - P802.3REVam is targeting completion by Dec. IEEE-SA SB
  - We (primarily 802.3 Chair) may have to submit modified PAR to update base document
- Decide Backplane Ethernet specification approach:
  - Changes to existing clauses, same as existing clauses except…, new clause(s)
  - Changes to existing clauses, new clause(s)
  - P802l.3ah was forced to the former during WG ballot

Coordination Challenges

- Some clauses and specific paragraphs could be changed by multiple projects, for example
  - Clause 1, and 44 wouldn't be a big challenge
  - Clauses 22, 28, 30 40 and 45 would require coordination
  - Not a significant issue until sponsor ballot
- 10 Gigabit Ethernet
  - P802.3an, 10GBASE-T
  - P802.3aq, 10GBASE-LRM
- Auto-negotiation
  - P802.3an, 10GBASE-T
- IEEE Std 802.3
  - Tracking changes introduced by P802.3REVam

Recommendations

- Write P802.3ap where possible to stand alone
  - Get 802.3 endorsement of this plan
  - P802.3ap evaluates changing approved clauses versus specifying what is different for Backplane on a case by case basis

- Track P802.3REVam
  - Mark changed text from P802.3REVam draft for P802.3ap/D1.0
  - Grant editor license to update when appropriate
  - Update as necessary prior to WG ballot and sponsor ballot

- Add an introduction clause for Backplane Ethernet, including channel model (Clause 67?)

- Add one new clause for each port type (Clause 68-??)

Clauses that need Edits?

- Possible general change clauses:
  - Front matter – cover, introduction, contents
  - Clause 1 – definitions, acronyms, references
  - Clauses 22, 45 – Gigabit and 10 gigabit registers
  - Clause 30, Annexes 30A, 30B – MIB additions
  - Clause 34, 44 – 1 GbE, 10 GbE introductions, included in P802.3ap introduction?
  - Clause 46 – 10 GbE RS, link fault signaling?
- Gigabit serial
  - Clause 36 – 1000BASE-X, included in P802.3ap introduction?
- 10 Gigabit serial:
  - Clause 49 – 10GBASE-R, included in P802.3ap introduction?
  - Clause 51 – 10GbE serial PMA, included in P802.3ap introduction?

Editorial Team

- Editorial assistance will be required
  - Less complex than a speed increase
  - More complex than adding a Port Type
  - Dependent on final objectives and features
- Management
  - MIB changes
  - Register changes
- Autonegotiation
- Legacy considerations
  - Change clause or describe changes in P802.3ap
  - Searching base documents