Common problem for 100BASE-T1, 1000BASE-T1 and 1000BASE-RH

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MII and GMII specifications

- IEEE Std 802.3 includes statements that mandate 100 Mb/s and 1000 Mb/s PHYs use Clause 22 registers

- IEEE Std 802.3 includes statements that both MII and GMII include use of the Clause 22 management interface

- Clause 45 registers are accessed via a different interface, the Clause 45 MDIO Interface

- Both MII and GMII when written anticipated use only as an exposed interface (including electrical requirements)

- Unless addressed, the three projects using MII or GMII will introduce ambiguities into IEEE Std 802.3

- These ambiguities would make compliance claims problematic

Preferred Solution

- Develop consensus changes to be introduced into the IEEE Std 802.3 revision (802.3bx)
  - Must be done in initial Sponsor Ballot
  - To avoid delay of the revision, must be done <u>soon</u>
  - Adam Healey, 802.3 Vice Chair and Maintenance Chair, is aware of and is supportive of this approach

Less Desirable Solution

- Address in amendments
  - First project to Sponsor ballot will carry the largest burden
  - This will be P802.3bw 100BASE-T1
  - Our amendments could end up being more confusing having to point to and track any changes in another amendment draft

Tasks (1)

- Modify all statements requiring use of Clause 22 registers
  - MII using Basic Register Set
  - GMII using Extended Register Set
- Modify all statements requiring use of the Clause 22 management interface
  - Clause 22 for 100BASE-T1
  - Clause 35 for gigabit PHYs

Tasks (2)

- Make sure both MII and GMII are applicable for logical interfaces (e.g., electrical specifications do not apply for claims of conformance)

- Assure PICS have proper optionality for our needs

- Don't break existing implementations

- Remove port type lists so that hopefully none of our projects will need to open Clauses 22, 34 and 35