MMDs, delay specs and loopback to support physical partitioning options

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Multiple PMA locations

- Four PMAs in three separate packages to be managed
- Four PMAs, FEC and PMD (in three packages) sharing one MMD number!
- Nine separate vendors contributing to delay, skew and dynamic skew

Diagram:

- MAC/PCS
- ASIC
- FEC chip
- Module
- Module
- PMA
- MDIO bus
- To controller
- MMD 3
- MMD 1
- To medium

Diagram notes:
- “hidden” PMA sublayers
- Could be module with 10:4 PMA inside
Addressing options

• Either
  – Keep device 1 as the PMD
  – A new MMD number for the PMA nearest the PMD

• Or
  – Have device 1 as the PMA nearest the PMD
  – A new MMD number for the PMD

• Or
  – Keep device 1 for PMD and all PMAs
  – Use a subordinate address for PMAs not co-packaged with PMD or other PMAs

• Either
  – Several more MMD numbers for other PMAs, or registers within the PMA to declare what kind it is, and facing which way (e.g. 20:10 or 10:20)

• Or
  – Indirect method; use a subordinate address so all PMAs share one primary address

• See comment 368 where two options are shown; one in *SuggestedRemedy*, other in *Proposed Response*
Delay, skew and Dynamic Skew

• Specify skew and Dynamic Skew separately for PMA and PMD sublayers, each direction separately

• If continue to specify delay, do it properly
  – Sublayer by sublayer
  – Each direction separately
  – See gustlin_0x_1108 and several comments

• Dynamic Skew is known as Relative Wander in OIF CEI and SFI-5.1