EEE Considerations for RTPGE

Reduced Twisted-Pair Gigabit Ethernet Study Group

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Topics

- Brief Recap
- Open Items/Questions
- Next Steps

Recap of May Interim

- Low standby power mentioned in consensus building CFI preso
  - http://www.ieee802.org/3/RTPGE/public/mar12/CFI_01_0312.pdf#Page=22
- Is there interest in pursuing a EEE solution as part of the RTPGE work to reduce power consumption during IDLE?
  - If so, would interest be to
    - Carry protocol to allow higher layers to take advantage of IDLE
    - Suspend operation at the physical layer
    - Both of the above
    - Utilize a different scheme
- If a suspension at the PHY layer is needed, what acquisition times (wake-up times are satisfactory)
  - E.g. similar to 1000BASE-T, longer, shorter etc.
- Leverage of EEE if similar LPI scheme used *and PHY is suspended*
  - Some portion of EEE can be leveraged (e.g. protocol and layer 2)
  - Some will be specific to PHY defined and will be different from 1000BT

Open Items/Questions

- The need for a low power mode was mentioned during the CFI
  - Very low standby power requirements
    - Standby power needs << 100 uA
      - What does this mean?
    - Wake up time < 100-500 ms support of typical automotive wakeup/sleep/diagnosis mechanism
- Do we agree on these requirements?
- Should we re-use LPI for this project?
  - If so, does that include *suspending* the PHY?

Next Steps

- If we have consensus, add an objective.
  - Proposed text:

  Define optional Energy-Efficient Ethernet operation for Reduced Twisted Pair Gigabit Ethernet

Thank You!