EPON over Coax

Evaluation Criteria and Requirements Opening Report

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Conference Calls

- The Ad Hoc conference calls
  - Wednesdays
  - 10-11 AM Eastern Time
- Calls since January Interim
  - January 30
  - February 6
  - February 13
  - February 20
  - February 27
  - March 6
- Minutes sent to email reflector

Limited Contributions on Evaluation Criteria and Requirements

- Given the limited contributions on evaluation criteria and requirements the Ad Hoc chair granted time for other presentations
  1. Data Rate Adaptation Overview (Marek Hajduczenia and Andrea Garavaglia)
  2. Power Savings in EPON (Marek Hajduczenia)
  3. Power Savings in EPoC (Marek Hajduczenia)
  4. EPoC and Multiple PHY Generations (Edwin Mallette)
  5. DRA in EPoC in RX (Marek and Andrea)
- Only #4 is requirements related

China Evaluation Criteria and Requirements Ad Hoc Calls

- Chaired by Guangsheng Wu (Huawei)
- First call held March 6
  - 27 people attended the call
  - Reviewed IEEE 802.3bn timeline and technical decisions
  - Discussed on how to collect channel data for Node 0/+1 for Chinese MDUs
- Meetings held in Chinese with minutes and presentation material in English
- Conference Call at 10:00-12:00 AM on Wednesday once every 2 weeks Beijing time (GMT +8:00)

Ad Hoc Chair Recommendation

- The Ad Hoc chair recommends the following going forward

1. Continue regular Ad Hoc calls for China
2. Hold Ad Hoc calls for US/Europe on an as-needed bases (when someone has a presentation to make on Evaluation Criteria or Requirements)
3. Task Force to take up outstanding requirement and evaluation criteria recommended by Ad Hoc
   - Provided on next slide

Ad Hoc Recommendations

Requirement

- The standard shall support a downstream data rate of 1.6 Gb/s at the MAC/PLS service interface, in a 192-MHz OFDM channel, in baseline channel conditions

Evaluation Criteria

- EPoC Delay using EPoC Delay Model [1]
- [1] Andrea Garavaglia, Ed Boyd, Rick Li, Bill Powell, Hesham ElBakoury, and David Barr, "EPoC Performance Model Delay and Efficiency," September 2012

Annex – Straw Polls

Power Saving Straw Poll

- For power-saving mechanism in EPoC, I prefer to take the following approach:
- Approach 1 (slide 13) 1
- Approach 2 (slide 14) 0
- Need more time to study both proposals 9
- I am too confused about what you're really asking
- – need more time to digest the slides 0

DRA Straw Poll #1

- IDLE Deletion in EPoC RS in Rx direction to use 10G-EPON IDLE Deletion mechanism per IEEE Std. 802.3, Clause 76. This applies to both CLT and CNU sides.
- Yes: 9
- No: 0
- Undecided: 0

DRA Straw Poll #2

- IDLE Insertion in EPoC PCS in the Rx direction reuses 10G-EPON design as defined in IEEE Std. 802.3, Clause 76. The value for FIFO_II_SIZE is TBD at this time, pending selection of FEC code and coax data rate. This applies to both CLT and CNU.
- Yes: 9
- No: 0
- Undecided: 0

DRA Straw Poll #3

- IDLE Insertion in EPoC RS in the Tx direction re-uses 10G-EPON design as defined in IEEE Std. 802.3, Clause 77 with new FEC parameters for EPoC. The functionality is extended to include de-rating by means of a new function FEC_Derate_Overhead(•) that replaces the FEC_Overhead(•) function?
- The exact modifications to the overhead formula and related parameters are TBD
- Yes: 7
- No: 0
- Undecided: 1

DRA Straw Poll #4

- IDLE Deletion in the EPoC PCS in TX direction re-uses 10G-EPON design as defined in IEEE Std. 802.3, Clause 76 with new FEC parameters for EPoC. The function is extended to the EPoC case via additional variables for de-rating compensation, as shown in previous slides 29 and 30.
- Yes: 6
- No: 0
- Undecided: 2