EPON Protocol Requirements II

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802.3ah Ethernet in the First Mile, Nov 12-15, 2001

EPON Req II: 11/12/2001

Summary of Requirements

- ## Requirements discussed on Oct Meeting
  (http://www.ieee802.org/3/efm/public/sep01/index.html/sala_1_0901.pdf):

  - General and Network Requirements

  - Protocol Requirements

  - 802.1 Compliance and Forwarding Requirements

  - Performance measures

- ## This meeting:

  - 802.1 compliance is discussed in separate presentations

  - Requirements II focuses on 802.3 compliance only

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Outline

- ## 802.3 Compliance

  - Clause 43: Link Aggregation
  - Clause 31B: Pause

802.3 Compliance

Link aggregation

- Link aggregation is not specified for multipoint systems
- Link aggregation is not an immediate need

Recommendation: Link aggregation for multipoint systems should not be an objective of 802.3ah at this stage

802.3 Compliance (cont.)

- **PAUSE currently specified for full-duplex but not for shared medium**

  – OLT-PAUSE refers to the PAUSE frame sent by the ONU to stop OLT transmission to this ONU

  – ONU-PAUSE refers to the PAUSE sent by the OLT to stop the ONU transmission

  – Current specification PAUSE is sent to a multicast address

    - In upstream,

      – No problem in supporting OLT-PAUSE

    - In downstream,

      – An ONU-PAUSE stops all upstream (ONUs) transmission

  Summary: Augmentation of the PAUSE mechanism should not be an objective of 802.3ah at this stage

Summary of Requirements II

- **Link aggregation for multipoint systems should not be an objective of 802.3ah at this stage**

- **Augmentation of the PAUSE mechanism should not be an objective of 802.3ah at this stage**

- **Extending the protocol to better support transmission in more than one downstream or upstream wavelengths is not an objective of 802.3ah**

Additional Requirements

- **Are there more requirements to be discussed?**

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