"Distinguished minimum latency traffic in a converged traffic environment" DMLT

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Siemens

IEEE 802.3 Ethernet Working Group

IEEE 802.3 Closing Plenary, SG report
March, 21, 2013
Orlando, FL

DMLT SG meeting in Orlando

- Met Tuesday, Wednesday from 9:00 to 6:00pm; met Thursday from 10:30 to 12.00.

- SG chair: Ludwig Winkel, Siemens

- Secretary: Anatoly Moldovansky, Rockwell

- Attendance: 14 from 12 companies.

- Heard 5 presentations, Proposed PAR/5C and Objectives, and the boilerplate items presented by Ludwig Winkel.

Logistics

- CFI information posted at page

  <http://www.ieee802.org/3/cfi/request_1112_1.html> with a link to the presentation - the presentation itself can be found at the link

  <http://www.ieee802.org/3/cfi/1112_1/CFI_01_1112.pdf>

- SG reflector

  stds-802-3-DMLT@listserv.ieee.org

- Study Group web page URL:

  http://www.ieee802.org/3/DMLT/

Status of SG

- SG drafted PAR, 5C and objectives
  - 13 objectives were unanimously approved
  - Some objectives are to be discussed and probably some will be added.
  - DRAFT PAR and 5C (2013-03-20) are adopted as working draft of DMLT SG.
- Presentation/Ref to PAR and 5C
  - IEEE P802.3br PAR - selected designation
- Presentation/Ref to objectives

PAR title

- SG DMLT proposes a PAR title:

IEEE Standard for Ethernet

Amendment Specification and Management Parameters for

Interspersing Express Traffic.

- Scope:
  - The scope of this project is to specify additions to and appropriate modifications of IEEE Std 802.3 to add a support for interspersed express traffic.

Objectives (1) – Approved in SG

1. Preserve the IEEE 802.3 Ethernet frame format at the MAC client service interface.
2. Preserve minimum and maximum frame size of the current IEEE 802.3 standard.
3. Use the Clause 4/4a MAC without alteration.
4. Support full duplex point-to-point operation only.
5. Support a speed of 100 Mb/s and above at the MAC/PLS service interface.
6. Preserve relevant MAC/PLS service interface.
7. Preserve an undetected bit error ratio (BER) of less than or equal to 10^{-10} at the MAC/PLS service interface
8. Provide normal FCS protection-error-detection coverage.

Objectives (2) – Approved in SG

9. Provide affirmative assurance that both end of the link have this capability before operating in this mode. E.g. Capability discovery and configuration.
    – Use of LLDP expected.
10. Provide a mechanism for reduced access latency where the reduced access latency is significantly less than one maximum packet transmit time.
11. Maximum latency for DMLT frame transmission (ahead of the non-DMLT frame) will be as close to the minimum packet size + IPG (1st and last) as practically possible.
    – No padding allowed in the M-Frames ('segmented' non-DMLT frames); that is, the lowest range of M-Frame sizes may be between 64~127 bytes.
12. Quantify the maximum access latency of the DMLT transmit path.
13. Provide two MAC service interfaces at each end of the DMLT link, as the means to distinguish between the DMLT and the best effort traffic.
    – Optional MAC Control sub-layer shall be confined to the best-effort MAC Service Interface.

Motion

- Move that IEEE 802.3 WG requests to the EC that they extend the ***Distinguished minimum latency traffic in a converged traffic environment*** Study Group

- M: Ludwig Winkel

- S: Denis Beaudoin

- (>50%)
  Y: _91__ N: _0__ A: _4__

  2013-03-21

Next Steps

- Hold a two day study group interim meeting May 2013.

- Hold a joint IEEE 802.1 meeting 2013-05-15.

- Finalize the draft PAR, 5 Criteria and objectives for a 30 day circulation before Geneva plenary.

- Plan a tutorial during the next Geneva plenary.

THANK YOU for your attention