

DATE: 11th Nov, 2005
 NAME: Marc Kimpe
 COMPANY/AFFILIATION: ADTRAN Inc.
 E-MAIL: marc.kimpe@adtran.com

REQUESTED REVISION:
 STANDARD: IEEE Std 802.3-2005
 CLAUSE NUMBER: 61
 CLAUSE TITLE: PCS, TC sublayer and common specifications, type
 10PASS-TS and type 2BASE-TL.

PROPOSED REVISION TEXT:

1) 61.2.2.8.2 PME Aggregation - management entity signals

Add text:

Optionally, OAM frames can be sent on a particular PME of an aggregate. As for the fragmentation engine, the algorithm to do so is left to the implementer. If OAM frames are sent on a particular PME, they cannot violate any of the fragment size or normal operation of the fragmentation engine. The ability to send OAM frames on a particular PME is indicated in 61.2.3 and 45.2.3.17. Appropriate OAM frames are defined in 57.4.3.7.

2) 61.2.3 PCS sublayer: Management entity signals

Add variable and corresponding text:

Send_OAM_on_particular_PMEs

This register is implemented in the CO or CPE sub-type. It indicates the ability to send OAM cells on a particular PME of an aggregate. A value of "1/0" means that the OAM layer "has/has not" the ability to send OAMPDUs on a given loop. Each side signals this ability during discovery to its peer by setting the send_OAM_on_particular_PME G.hs bit to "1/0" depending on whether it "supports/does not support" this feature.

3) 45.2.3.17 10P/2B capability register (3.60)

Modify Table 45-42a by adding the following 2 rows:

3.60.14 Send_OAM_on_particular_PMEs 1= Available
 0= not supported

3.60.13 Remote Send_OAM_on_particular_PMEs 1= Available
 0= not supported

4) Request a change to bit 3 of Table 9.38.2/G.994.1

- Identification field - Bonding - PME Aggregation NPar(3) coding - Octet 1 from "Reserved for allocation by the ITU-T" to "Send_OAM_on_particular_PME". The request has to be sent to the ITU-T SG15/Q4

RATIONALE FOR REVISION:

Although this maintenance request could be considered on its own, the functionality part of per loop OAMPDUs is proposed in a companion maintenance request to clause 57.

Once applied to an aggregate, OAMPDUs do not have the same visibility to PMEs as when those PMEs are not part of an aggregate. Since 2BASE-TL or 10PASS-TS loops might be part of the access network and not easily accessible, the ability to do diagnostic on a per loop basis while not disrupting the other loops is valuable. The ability to do continuity testing on a per loop basis is also valuable.

Although nothing prevents OAM cells from being sent on a particular loop in the current version of the standard, there is no way to signal that ability to a peer-OAM client. By implementing changes 1 to 4 of the present request, the ability to signal a peer OAM client will be defined.

IMPACT ON EXISTING NETWORKS:

There is no impact on existing networks. Legacy equipment will ignore the proposed bits and signals.

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| Please attach supporting material, if any
| Submit to:- Bob Grow, Chair IEEE 802.3
|           E-Mail: Bob.Grow@intel.com
|
|           +----- For official 802.3 use -----+
|           | REV REQ NUMBER: 1176
|           | DATE RECEIVED: 11th Nov, 2005
|           | EDITORIAL/TECHNICAL
|           | ACCEPTED/DENIED
|           | BALLOT REQ'D YES/NO
|           | COMMENTS: 11-Nov-05 Ver: D1.0 Status: R
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| For information about this Revision Request see -
| http://www.ieee802.org/3/maint/requests/revision\_history.html#REQ1176
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