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|                  8802-3/802.3 REVISION REQUEST 1177          |      2
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DATE:                   8th Mar, 2006                                       5
NAME:                   Michael Beck                                        6
COMPANY/AFFILIATION: Alcatel Bell n.v.                                      7
E-MAIL:                 beck@ieee.org                                       8
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REQUESTED REVISION:                                                       10
    STANDARD:           IEEE Std 802.3-2005                               11
    CLAUSE NUMBER:      30.5.1.1.15 and 30.5.1.1.16                       12
    CLAUSE TITLE:       aFECCorrectedBlocks and aFECUncorrectableBlocks   13
                                                                          14
PROPOSED REVISION TEXT:                                                   15
                                                                          16
30.5.1.1.15 aFECCorrectedBlocks                                          17
(...)                                                                     18
APPROPRIATE SYNTAX:                                                       19
Generalized nonresettable counter. This counter has a maximum increment  20
rate of 10 000 counts per second for 10Mb/s implementations and 1 200 000 21
counts per second for 1000 Mb/s implementations.                         22
                                                                          23
30.5.1.1.16 aFECUncorrectableBlocks                                      24
(...)                                                                     25
APPROPRIATE SYNTAX:                                                       26
Generalized nonresettable counter. This counter has a maximum increment  27
rate of 10 000 counts per second for 10Mb/s implementations and 1 200 000 28
counts per second for 1000 Mb/s implementations.                         29
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RATIONALE FOR REVISION:                                                  31
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The maximum increment rates indicated for these two counters are         33
incorrect.                                                               34
                                                                          35
For 10 Mb/s 10PASS-TS implementations [rate measured at the alpha(beta)- 36
interface], the smallest unit of data to which FEC can be applied, is a  37
block of 128 bytes of data entering the PMA over the alpha(beta)-        38
interface (see 62.2.4.2). Such a block will be coded into 144 bytes at   39
the I-interface. Hence, the maximum number of FEC blocks per second      40
equals:                                                                  41
10,000,000 / (8 * 128) = 9,766                                           42
                                                                          43
For 1000 Mb/s implementations (rate measured at the GMII), the smallest  44
unit of data to which FEC can be applied, is a single minimum-size data  45
frame (see 65.2.3.2.2). S_FEC (5 bytes), preamble (7 bytes), and SLD (1  46
byte) are prepended. T_FEC (6 bytes), parity (16 bytes), and T_FEC (6    47
bytes) are appended. Hence, the maximum number of FEC blocks per second  48
equals:                                                                  49
1,000,000,000 / [8 * (5 + 7 + 1 + 64 + 6 + 16 + 7)] = 1,179,246          50
                                                                          51
IMPACT ON EXISTING NETWORKS:                                             52
                                                                          53
None.                                                                    54
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| Please attach supporting material, if any                           |        3
| Submit to:- Bob Grow, Chair IEEE 802.3                               |        4
|            E-Mail: Bob.Grow@intel.com                                |        5
|                                                                     |        6
|           +------- For official 802.3 use -----------+              |        7
|           | REV REQ NUMBER: 1177                      |              |        8
|           | DATE RECEIVED: 8th Mar, 2006              |              |        9
|           | EDITORIAL/TECHNICAL                       |              |       10
|           | ACCEPTED/DENIED                           |              |       11
|           | BALLOT REQ'D YES/NO                       |              |       12
|           | COMMENTS: 14-May-07 Ver: D1.2 Status: V   |              |       13
+------------+-------------------------------------------+-------------+       14
| For information about this Revision Request see -                    |       15
|http://www.ieee802.org/3/maint/requests/revision_history.html#REQ1177 |       16
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