

P802.3ah Draft 1.732 Comments

CI 00 SC P L # 348
 Shohet, Zion Infineon
 Comment Type E Comment Status D
 typo: 025 should be 0.25
 SuggestedRemedy
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 The commenter is asked to indicate the line, clause and page of the comment

CI 00 SC P 2 L # 518
 Han, Kyeong-Soo ETRI
 Comment Type E Comment Status D
 The word, D1.414, keep remaining on the top of pages, pp.2-8.
 SuggestedRemedy
 change D1.414 to D1.732
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 The correct draft reference will be used on the next revision

CI 00 SC P 3 L 24 # 102
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 Ben's title is awkward.
 SuggestedRemedy
 I'd change to "Logic Editor, EFM Task Force". This would make it similar to other non-STF specific positions (e.g. Hugh's, Scott's, etc)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 00 SC P 5 L 5 # 103
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 The comment for Clause 1 contains two errors. In addition, some comments are italicized and some aren't.
 SuggestedRemedy
 Change "Opens" to "Open". Add space between "(OSI) and "reference".
 Also, make all of the comments either italicized or not.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 01 SC 0 P L 3 # 255
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 802.3ah not 2002
 SuggestedRemedy
 Proposed Response Response Status W
 PROPOSED REJECT.
 If the commentor is referring to the title text:
 "IEEE Draft P802.3ah /D1732 (Amendment to IEEE Std 802.3-2002)"
 It is correct. The document is an ammendment to the published 2002 standard

CI 01 SC 0 P L 44 # 256
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 Clause 60 title is not up to date
 SuggestedRemedy
 Physical Medium Dependent (PMD) sublayer and medium, type 1000BASE-PX10 and 1000BASE-PX20 (long wavelength passive optical networks)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 01 SC 1.3 P 10 L 19 # 257
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 spelling
 SuggestedRemedy
 Amendment
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 01 SC 1.3 P 10 L 19 # 258
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 .bers
 SuggestedRemedy
 fibers
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 01 SC 1.3 P 10 L 24 # 279
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 Two more references for the list.
 SuggestedRemedy
 IEC Publication 61280-2-2, FIBRE OPTIC COMMUNICATION SUB-SYSTEM BASIC TEST PROCEDURES – Part 2-2: Test procedures for digital systems – Optical eye pattern, waveform, and extinction ratio (pending) (Equivalent to ANSI/TIA/EIA-526-4A-1997) and
 IEC 61753-1-1, Fibre optic interconnecting devices and passive component performance standard - Part 1-1; General and guidance - Interconnecting devices (connections)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 01 SC 1.4 P 10 L 52 # 540
 Cravens, George Mindspeed
 Comment Type E Comment Status D
 Typo - .bers should be fibers
 SuggestedRemedy
 Change .bers to fibers
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 01 SC 1.4 P 11 L 10 # 107
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 The updated definition of Administration was not included in 1.4.
 SuggestedRemedy
 Change definition to read: "A group of network support functions that monitor and sustain link operation."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Will harmonize with the latest definition from OAM

CI 01 SC 1.4 P 11 L 20 # 106
 Daines, Kevin World Wide Packets
 Comment Type T Comment Status D
 The definition for Discovery is specific to Clause 64 (P2MP). Clause 57 (OAM) also contains a process called "Discovery". Need to resolve this contention.
 SuggestedRemedy
 3 part remedy:
 1) Add the prefix "P2MP" to the current term "Discovery" in 1.4.
 2) Add "OAM Discovery" to 1.4 with the following definition "Process that detects the presence and configuration of the OAM sublayer in the remote DTE".
 3) Add prefix "P2MP" to "Discovery window" (line 25)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 01 SC 1.4 P 11 L 28 # 115
Daines, Kevin World Wide Packets

Comment Type E Comment Status D GLOBAL

The definition for downstream contains the abbreviation/acronym "OAN", which is not provided in 1.5. "OAN" only appears in a handful of definitions and does not appear in the text of any clause.

SuggestedRemedy

Either add "OAN" to 1.5 or remove given its limited use. I'd recommend removing.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Will remove the use of the term OAN

CI 01 SC 1.4 P 11 L 28 # 113
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The terms "downstream" and "upstream" have duplicate definitions. See 1.4.77 (2002 edition) for a possible way to resolve.

SuggestedRemedy

Fix.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Look at 259

CI 01 SC 1.4 P 11 L 29 # 260
Dawe, Piers Agilent

Comment Type E Comment Status D

spelling

SuggestedRemedy

Trellis

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 01 SC 1.4 P 11 L 29 # 259
Dawe, Piers Agilent

Comment Type E Comment Status D

Competing definitions of downstream and upstream. These terms apply more broadly than to optical, and -O and -R ports are not in the definitions list.

SuggestedRemedy

Something like "Transmission from a network-side interface towards one or more user-side interfaces." and "Transmission from a user-side interface towards a network-side interface." or something like "towards the core of the network", "towards the periphery of the network".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

The definitions should be collapsed into one

Downstream: Transmission from a network-side interface towards one (for P2P links) or more (for P2MP links) user-side interfaces

and

Upstream: Transmission from a user-side interface towards a network-side interface

CI 01 SC 1.4 P 11 L 40 # 108
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The definition for LLID should probably be spelled out.

SuggestedRemedy

Change "Logical Link ID (LLID)" to "Logical Link Identifier (LLID)"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 01 SC 1.4 P 11 L 5 # 105
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Extra period at the end of lines 5 and 8.

SuggestedRemedy

Remove period.

Proposed Response Response Status W

PROPOSED ACCEPT.

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Cl 01 *SC 1.4* *P 11* *L 52* # **104**
Daines, Kevin World Wide Packets
Comment Type **E** *Comment Status* **D**
 The definition of 100BASE-FX contains two errors.
SuggestedRemedy
 Change "networkover two multimode .bers" to read:
 "network over two multimode fibers".
Proposed Response *Response Status* **W**
 PROPOSED ACCEPT.

Cl 01 *SC 1.4* *P 12* *L 12* # **110**
Daines, Kevin World Wide Packets
Comment Type **E** *Comment Status* **D**
 Propagation is misspelled.
SuggestedRemedy
 Fix.
Proposed Response *Response Status* **W**
 PROPOSED ACCEPT.

Cl 01 *SC 1.4* *P 12* *L 25* # **111**
Daines, Kevin World Wide Packets
Comment Type **E** *Comment Status* **D**
 During an earlier draft review cycle, the OAM STF received a recommendation to avoid the terms "master" and "slave". While I do not find that recommendation written in the IEEE Standards Style Manual, I did agree with the suggestion.
SuggestedRemedy
 Avoid the terms "master" and "slave" by finding better alternatives.
Proposed Response *Response Status* **W**
 PROPOSED ACCEPT IN PRINCIPLE.

 Can we get a recommendation from the OAM & P2MP STF

Cl 01 *SC 1.4* *P 12* *L 25* # **112**
Daines, Kevin World Wide Packets
Comment Type **E** *Comment Status* **D**
 The term timestamp is not unique to Clause 64.
SuggestedRemedy
 Add prefix "P2MP" to "Timestamp" so the reader is clear regarding which timestamp is being referred.
Proposed Response *Response Status* **W**
 PROPOSED ACCEPT.

Cl 01 *SC 1.4* *P 12* *L 54* # **109**
Daines, Kevin World Wide Packets
Comment Type **E** *Comment Status* **D**
 Grammar.
SuggestedRemedy
 Change "is an slave" to "is a slave".
Proposed Response *Response Status* **W**
 PROPOSED ACCEPT.

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CI 01 SC 1.5 P 12 L 48 # 114
 Daines, Kevin World Wide Packets

Comment Type TR Comment Status D GLOBAL

All uses of the abbreviation IFG within 802.3ah are incorrect. Instead, IPG should be used and as such, the abbreviation IFG is not needed and should be removed.

Note: This comment also recommends changes in 58 and 64.

SuggestedRemedy

Remove abbreviation IFG from 1.5.

In 58.8.1, change "Frames are separated by a near minimum inter-frame gap (IFG) of 14 octets" to read: "Packets are separated by a near minimum inter-packet gap (IPG of 14 octets)."

Please refer to 36A.4 for an example of how to define jitter test packets.

In Table 58-11, change "Idle" to read "IPG"

In 64.2.3.1, change "IFG" to read "IPG" (2 places)

In 64.3.9.4, change "IFG" to read "IPG"

In Figure 64-27, change "IFG" to read "IPG"

Proposed Response Response Status W

PROPOSED ACCEPT.

AH should be as consistant as possible with previous terminology

CI 01 SC 1.5 P 13 L 21 # 116
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Trellis is misspelled twice.

SuggestedRemedy

Fix.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 01 SC 1.5 P 15 L 21 # 541
 Cravens, George Mindspeed

Comment Type E Comment Status D

Spelling error - Terrilis Coded should be Trellis Coded (Also line 22)

SuggestedRemedy

Replace Terrilis with Trellis

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 04 SC 4.2.3.2.2 P 16 L 19 # 117
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

One use of the constant ifsStretchMultiplier is misspelled.

SuggestedRemedy

Fix.

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 22 SC 22.2.4.1.12 P 25 L 18 # 354
 Messenger, John ADVA Optical Networ

Comment Type E Comment Status D

The text now states: "The default value of bit 0.1 is zero. When bit 0.12 is one, this bit shall be ignored." As written, this is ambiguous: it is not possible to tell whether it means that 0.1 should be ignored, or 0.12.

SuggestedRemedy

Suggest rewording the second sentence as "When bit 0.12 is one, bit 0.1 shall be ignored." If that isn't what the text was supposed to mean, then it just goes to show how confusing it was!

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI 22 **SC 22.2.4.3.12** **P 27** **L 38** # **542**
 Cravens, George Mindspeed

Comment Type E **Comment Status D**
 The table fragment on page 27 is duplicated on page 28 (MF38, MF39, and MF40), and the ones on page 28 are more complete.

SuggestedRemedy
 Delete the table fragment on page 27, lines 38-46.

Proposed Response **Response Status W**
 PROPOSED REJECT.

This fragment is a remnant of the diff process and no longer exists in the actual document.

CI 22 **SC Table 22-7** **P 24** **L 38** # **118**
 Daines, Kevin World Wide Packets

Comment Type E **Comment Status D**
 The "2" in the "Bit(s)" column should not be struckthrough.

SuggestedRemedy
 Remove strikethrough. Essentially, bits 5:2 are reserved.

Proposed Response **Response Status W**
 PROPOSED ACCEPT.

CI 24 **SC 24.2.2.1.7** **P 31** **L 3** # **261**
 Dawe, Piers Agilent

Comment Type E **Comment Status D** *scope_ed*
 Missing instructions, maybe displaced to line 27?

SuggestedRemedy
 I think this is new material; mark as "insert".

Proposed Response **Response Status W**
 PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

This instruction somehow got dropped between D1.1 and D1.2. Before this subclause, insert the editor's note text:

"Insert new subclause: "

CI 24 **SC 24.2.4.2** **P 32** **L 1** # **262**
 Dawe, Piers Agilent

Comment Type E **Comment Status D** *scope_ed*
 New term should be underlined

SuggestedRemedy
 Underline "*" mr_unidirectional_oam_enable".

Proposed Response **Response Status W**
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 30 **SC 30.1** **P 36** **L 17** # **263**
 Dawe, Piers Agilent

Comment Type E **Comment Status D** *scope*
 We don't mean to speak of "DTE Power via MDI and subscriber access networks"; they are two separate issues.

SuggestedRemedy
 Simple fix: just insert a comma: "DTE Power via MDI, and subscriber access networks."
 Or, permanent fix: abandon the laundry list, e.g.: "It incorporates additions to the objects, attributes, and behaviors to support the other features of this standard."
 Similarly on line 26.

Proposed Response **Response Status W**
 PROPOSED ACCEPT IN PRINCIPLE.

 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

 Abandon the laundry list and change the text to read "It incorporates additions to the objects, attributes, and behaviors to support subsequent additions to this standard."

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CI 30 SC 30.11.1.1.18 P 68 L 11 # 129
Daines, Kevin World Wide Packets
Comment Type E Comment Status D
Grammar.
SuggestedRemedy
Change "when a OAM:MA_DATA.request" to read: "when an OAM:MA_DATA.request".
Search for subsequent grammar mistakes in this 30.11.*
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 30 SC 30.11.1.1.29 P 71 L 13 # 154
Daines, Kevin World Wide Packets
Comment Type E Comment Status D
The behavior of the OAM Event thresholds are incorrect.
SuggestedRemedy
Change "exceeded" to "met or exceeded" on the following lines:

page 71, line 13
page 72, line 5
page 73, line 5
page 74, line 4
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 30 SC 30.11.1.1.32 P 71 L 42 # 130
Daines, Kevin World Wide Packets
Comment Type E Comment Status D
"Respective" is misspelled.
SuggestedRemedy
Fix. David to remind Kevin to run spell check when Kevin edits David's clause.
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 30 SC 30.13.2.3 P 78 L 48 # 131
Daines, Kevin World Wide Packets
Comment Type T Comment Status D
Management is optional and hence specific attributes can not be made mandatory. Same
for 30.13.2.4.
SuggestedRemedy
Strike or re-word sentence "This attribute is mandatory for a OLT and optional for a ONU.;"
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Remove text. Split the Optical Multipoint Emulation Package (Conditional) into two
packages, one for OLTs and one for ONUs and include attributes in these packages as
required.

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CI 30 SC 30.3.1.1.31 P 47 L 02 # 268
 Dawe, Piers Agilent

Comment Type E Comment Status D scope

Now that a new term "simu half duplex" has been introduced, is the statement in 1.1 still correct? "This standard provides for two distinct modes of operation: half duplex and full duplex. A given IEEE 802.3 instantiation operates in either half or full duplex mode at any one time."

On the other hand, I don't see where "simu half duplex" is put to use in D1.732.

SuggestedRemedy

Go forward and use "simu half duplex", and add a new subclause 1.1.1.2 to explain it; or go back, remove it from 30 and 30B.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

A new 'term' "simu half duplex" has not been added here, only a new label "simu half duplex" has been added - although if it is agreed that the label is causing confusion it should be changed. This new label only relates to a capability of a MAC, not a new operating mode. This capability is described in subclause 45.2.3.19.1 although this capability and the text in 45.2.3.19.1 need to be aligned as 45.2.3.19.1 describes this as an MII capability.

Proposed changes:

1. Replace "simu half duplex" with a better label.
2. Align the text in 45.2.3.19.1 with the Clause 30 text.
3. Add text to Clause 30 that references 45.2.3.19.1.

CI 30 SC 30.3.2.1.3 P 49 L 17 # 320
 Horvat, Michael Infineon Technologies

Comment Type E Comment Status D scope

Clause 63 missing for 2 BASE-TL

SuggestedRemedy

Besides Clause 61, add Clause 63 as reference for 2BASE-TL.

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 30 SC 30.3.5.1.3 P 60 L 15 # 127
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Grammar.

SuggestedRemedy

Change "a MPCP" to "an MPCP". Search through 30.3.5.* for other grammar mistakes.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 30 SC 30.3.5.1.6 P 60 L 49 # 128
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Grammar.

SuggestedRemedy

Change "of the last MPCPDUs passed" to read: "of the last MPCPDU passed".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 30 SC 30.3.5.1.8 P 61 L 24 # 267
 Dawe, Piers Agilent

Comment Type E Comment Status D

missing spaces between number and unit

SuggestedRemedy

16 ns. Also on line 46.

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI 30 SC 30.5 P 59 L 20 # 473
 Simon, Scott Cisco Systems, Inc.

Comment Type T Comment Status D
 A new copper profile type was added, the "UPBO Reference Profile" to control the Upstream Power Back-Off reference level.

SuggestedRemedy
 Add a new attribute:

aUPBOReferenceProfile

ATTRIBUTE

APPROPRIATE SYNTAX:
 An ENUMERATED value that has one of the following entries:
 profile 1
 . . .
 profile 9

BEHAVIOR DEFINED AS:
 A read-write value that indicates the 10PASS-TS PHY UPBO reference PSD (see CROSS REF 62A.3.4). A GET operation returns the current UPBO reference PSD. A SET operation changes the UPBO reference PSD to the indicated configuration.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 30 SC 30.5.1.1.12 P 54 L 70 # 125
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D
 "subscribe" should be "subscriber".

SuggestedRemedy
 Fix.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 30 SC 30.5.1.1.2 P 51 L 14 # 119
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D
 The list of enumerations did not get updated with the re-ordering of Clause 58. See lines 14, 15, 18 and 32-35.

SuggestedRemedy
 Fix.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 30 SC 30.5.1.1.2 P 51 L 14 # 264
 Dawe, Piers Agilent

Comment Type E Comment Status D
 Per resolution to D1.414 comment 1276, simplex and duplex are confusing here.

SuggestedRemedy
 Replace each instance of "Simplex fiber" or "Duplex fiber" with "one single-mode fiber", "two single-mode fiber" or "two fiber" (LX10) as appropriate.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 30 SC 30.5.1.1.2 P 51 L 14 # 265
 Dawe, Piers Agilent

Comment Type E Comment Status D
 Clauses 58 and 60 have been swapped.

SuggestedRemedy
 Swap 58 and 60 here (7 instances).

Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 30 SC 30.5.1.1.2 P 51 L 14 # 122
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

100BASE-*X* enumerations are incorrect.

SuggestedRemedy

Change 100BASE-BXT enumeration on line 14 to read:
"100BASE-BX10-D Simplex fiber OLT PMD as specified in Clause 58."

Change 100BASE-BXU enumeration on line 15 to read:
"100BASE-BX10-U Simplex fiber ONU PMD as specified in Clause 58."

Change 100BASE-LX enumeration on line 18 to read:
"100BASE-LX10 Duplex fiber PMD as specified in Clause 58."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change 100BASE-BXT enumeration on line 14 to read:
"100BASE-BX10D Simplex fiber OLT PMD as specified in Clause 58."

Change 100BASE-BXU enumeration on line 15 to read:
"100BASE-BX10U Simplex fiber ONU PMD as specified in Clause 58."

Change 100BASE-LX enumeration on line 18 to read:
"100BASE-LX10 Duplex fiber PMD as specified in Clause 58."

CI 30 SC 30.5.1.1.2 P 51 L 25 # 123
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

1000BASE-*X* enumerations are incorrect.

SuggestedRemedy

Change 1000BASE-BX1T enumeration on line 25 to read:
"1000BASE-BX10-D Simplex fiber OLT PMD as specified in Clause 59."

Change 1000BASE-BX1U enumeration on line 26 to read:
"1000BASE-BX10-U Simplex fiber ONU PMD as specified in Clause 59."

Change 1000BASE-LX1 enumeration on line 27 to read:
"1000BASE-LX10 Duplex fiber PMD as specified in Clause 59."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change 1000BASE-BX1T enumeration on line 25 to read:
"1000BASE-BX10D Simplex fiber OLT PMD as specified in Clause 59."

Change 1000BASE-BX1U enumeration on line 26 to read:
"1000BASE-BX10U Simplex fiber ONU PMD as specified in Clause 59."

Change 1000BASE-LX1 enumeration on line 27 to read:
"1000BASE-LX10 Duplex fiber PMD as specified in Clause 59."

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CI 30 SC 30.5.1.1.2 P 51 L 32 # 124
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

1000BASE-*X* enumerations are incorrect.

SuggestedRemedy

Change 1000BASE-PX1T enumeration on line 32 to read:
 "1000BASE-PX10-D Simplex fiber OMP OLT 10km PMD as specified in Clause 60."

Change 1000BASE-PX1U enumeration on line 33 to read:
 "1000BASE-PX10-U Simplex fiber OMP ONU 10km PMD as specified in Clause 60."

Change 1000BASE-PX2T enumeration on line 34 to read:
 "1000BASE-PX20-D Simplex fiber OMP OLT 20km PMD as specified in Clause 60."

Change 1000BASE-PX2U enumeration on line 35 to read:
 "1000BASE-PX20-U Simplex fiber OMP ONU 20km PMD as specified in Clause 60."

Proposed Response Response Status W

Change 1000BASE-PX1T enumeration on line 32 to read:
 "1000BASE-PX10D Simplex fiber OMP OLT 10km PMD as specified in Clause 60."

Change 1000BASE-PX1U enumeration on line 33 to read:
 "1000BASE-PX10U Simplex fiber OMP ONU 10km PMD as specified in Clause 60."

Change 1000BASE-PX2T enumeration on line 34 to read:
 "1000BASE-PX20D Simplex fiber OMP OLT 20km PMD as specified in Clause 60."

Change 1000BASE-PX2U enumeration on line 35 to read:
 "1000BASE-PX20U Simplex fiber OMP ONU 20km PMD as specified in Clause 60."

CI 30 SC 30.5.1.1.20 P 55 L 43 # 126
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Behavior contains two grammatical errors that can be fixed by moving one "s".

SuggestedRemedy

Change
 "For 1000 Mbps operation it is a counts of the number of invalid code-group"
 to read:
 "For 1000 Mbps operation it is a count of the number of invalid code-groups"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 30 SC 30.5.1.1.21 P 56 L 13 # 321
 Horvat, Michael Infineon Technologies

Comment Type E Comment Status D

Reference to 2BASE-TL (Clause 63) missing

SuggestedRemedy

Add reference

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 30 SC 30.5.1.1.25 P 57 L 03 # 471
 Simon, Scott Cisco Systems, Inc.

Comment Type T Comment Status D

The data rates in the subclause are incorrect. Annex 62A lists upstream payload rates corresponding to 2.5,5,7.5,10,12.5,15,25,35,50,70,100 Mb/s.

By association, 30.5.1.1.26 is also incorrect. Annex 62A lists downstream rates corresponding to 2.5,5,7.5,10,12.5,15,25,35,50 Mb/s.

Also, the cross ref is wrong, should point to 62A.3.6

SuggestedRemedy

Change the definition of the attributes to match the data rates in 62A.3.6

Proposed Response Response Status W

PROPOSED ACCEPT.

Note - It is assumed that this comment should be against subclauses 30.5.1.1.29 aPayloadRateProfileUpstream and 30.5.1.1.30 aPayloadRateProfileDownstream.

CI 30 SC 30.5.1.1.31 P 58 L 50 # 472
 Simon, Scott Cisco Systems, Inc.

Comment Type T Comment Status D

The definition is missing a few new profiles in 62A.

SuggestedRemedy

Add "profile12" through "profile15" to the list

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI 30 **SC 30.5.1.1.32** **P 59** **L 07** # **266**
 Dawe, Piers Agilent
Comment Type E **Comment Status D**
 number1
SuggestedRemedy
 number 1
Proposed Response **Response Status W**
 PROPOSED ACCEPT.

CI 30B **SC 30B.2** **P 107** **L 12** # **269**
 Dawe, Piers Agilent
Comment Type E **Comment Status D**
 Can we have this list in the same order as 30.5.1.1.2 aMAUType, please?
SuggestedRemedy
 Will make it easier to check this and future revisions.
Proposed Response **Response Status W**
 PROPOSED ACCEPT.

CI 31A **SC** **P 112** **L 25** # **446**
 Murakami, Ken Mitsubishi Electric
Comment Type E **Comment Status D**
 In Table 31A-1, "timestamp opcodes" used in Figure 64-9 is not indicated.
SuggestedRemedy
 In Table 31A-1, it should be indicated that every opcode for GATE, REPORT, REGISTER_REQ, REGISTER, and REGISTER_ACK is one of timestamp opcodes.
Proposed Response **Response Status W**
 PROPOSED ACCEPT.

CI 31A **SC Annex** **P 113** **L** # **78**
 Yeo, Doreen Institute of Microelectr
Comment Type T **Comment Status D**
 Would it be better to include similar tables to show the elements and semantics of the request_operand_list for MAC Control request? Some MAC Control request messages with the same opcode have different request_operand_list

For example, in Figure 64-19 on Page 543, there are two request messages with different request_operand_list for opcode = register
 1) Line 11, MA_CONTROL.request(DA,register,ID,registerStatus)
 2) Line 44, MA_CONTROL.request(DA,register,registerStatus)
SuggestedRemedy

Proposed Response **Response Status W**
 PROPOSED ACCEPT IN PRINCIPLE.
 No table was provided for PAUSE operation
 Editor would entertain volunteer to draft table.
 As no text was provided a rejection is in order at this stage as all comments should be complete

CI 31A **SC Annex** **P 114** **L** # **71**
 Yeo, Doreen Institute of Microelectr
Comment Type T **Comment Status D**
 There is no table showing the elements and semantics of the indication_operand_list for REGISTER MAC Control indication (opcode 0x0005)
SuggestedRemedy
 Include table for REGISTER MAC Control indication (opcode 0x0005)
Proposed Response **Response Status W**
 PROPOSED ACCEPT.

CI 31A **SC Table 31A-6** **P 114** **L 28** # **133**
 Daines, Kevin World Wide Packets
Comment Type E **Comment Status D**
 The cells found in column one comprising the rows for status should be merged. See Table 31A-3, for instance.
SuggestedRemedy
 Fix.
Proposed Response **Response Status W**
 PROPOSED ACCEPT.

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CI 45 SC 45 P 122 L 1 # 469
 Simon, Scott Cisco Systems, Inc.
 Comment Type T Comment Status D
 There are no PICS to go along with the changes to Clause 45
 SuggestedRemedy
 Add the PICS subclause and table as in simon_1_0603.pdf to Clause 45
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2 P L # 563
 Jeff, Lee Cisco Systems, Inc.
 Comment Type T Comment Status D
 Many of the register bit descriptions are still TBD
 SuggestedRemedy
 remove the TBDs and replace with detailed descriptions or references to the functions that they describe in the other clauses.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2 P 123 L 30 # 322
 Horvat, Michael Infineon Technologies
 Comment Type E Comment Status D
 How is DEVAD mapped to MMD ACCESS control.DEVAD(4:0) (MSB or LSB first) ?
 SuggestedRemedy
 Add a note that DEVAD will be mapped LSB first (E.g. DEVAD=1 => control.DEVAD(4:0) = 00001).
 Proposed Response Response Status W
 PROPOSED REJECT.

The requested clarification already exists in 802.3ae-2002 45.3.6. Our Clause 45 is an amendment to 802.3ae-2002 and so the final product will incorporate requested clarification.

CI 45 SC 45.2.1 P 114 L 1 # 248
 Beili, Edward Actelis Networks
 Comment Type E Comment Status D
 Table doesn't have a number or title.
 SuggestedRemedy
 Add a number and name to the table.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2.1 P 115 L 18 # 249
 Beili, Edward Actelis Networks
 Comment Type TR Comment Status D
 There's no Rx SNR register for 2BaseTL (similar to SCM Rx SNR register defined).
 SuggestedRemedy
 Add 2B Rx SNR register (or share the SCM Rx SNR register already defined). Both local and remote SNR readings are needed. The Remote SNR value shall be transmitted via EOC as specified in G.991.2 (Status Request and SNR/Status EOC messages).
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Share the SCM Rx register, reference G.991.2

P802.3ah Draft 1.732 Comments

CI 45 SC 45.2.1 P 139 L 1 # 250
 Beili, Edward Actelis Networks

Comment Type TR Comment Status D

2BaseTL newly defined Performance Monitoring registers do not have Remote counterparts available. This is unfortunate since if CPE doesn't have a CPU there's not way to know these statistics (note that corresponding values may differ at CO and RT sides of the same line).

SuggestedRemedy

Add "Remote" capability for the PM registers defined for 2BaseTL (Subclauses 45.2.1.44 - 45.2.1.49), so that the "-O" STA may read this values by using teh R-PMA/PMD MMD. Specify the mechanism underlying the retrieval of such remote statistics (Status/Full Status request, Performance Status SHDSL EOC messages).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

The C45 editor can specify new MMD 7 registers for gathering the remote statistics.

The C45 editor cannot "Specify the mechanism underlying the retrieval of such remote statistics. . ." this material belongs in C63.

If the material is not in C63, it is inappropriate for C45 to contain registers that address functionality not addressed in C63.

If the material is in C63, the comment is acceptable.
 If the material is not in C63, the comment is not acceptable.

CI 45 SC 45.2.1.11 P 116 L 16 # 246
 Beili, Edward Actelis Networks

Comment Type TR Comment Status D

Table 45-2, bits: Link Control, Link Status, Initiate handshake and Handshake results. A state diagram is really needed to understand the action logic, i.e. when Link Control and Init. Handshake bits can be set/cleared and correct order of actions.

SuggestedRemedy

- Add a state diagram with Link status and Handshake stages/results states and Link and Handshake Control actions.
- Add an example of bringing a link up, e.g. Force Link Down, Initiate Handshake, wait till handshake completes successfully, Initiate link.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

The editor agrees that we need a description on how to bring up a link. The editor isn't sure how this works either.

Request the STF advise.

CI 45 SC 45.2.1.11 P 116 L 21 # 247
 Beili, Edward Actelis Networks

Comment Type TR Comment Status D

"Initiate handshake" bit name and values names (handshake inactive, ready; handshake in progress) are confusing, because this bit combines the action and status while the names specify only one side of the story.
 Also the action of clearing this bit is undefined.

SuggestedRemedy

- Rename the bit to "Handshake Control".
- Rename the values to:
 0 = Stop Handshake/Handshake Inactive
 1 = Initiate Handshake/Handshake In Progress
- Specify that clearing the "Handshake Control" bit while it is set to 1 (Handshake in Progress) shall cause G.991.4 cleardown procedure to be executed. I suggest sending an MS message with "Silent period" bit set.

Proposed Response Response Status W

PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 45 SC 45.2.1.11.1 P 116 L 33 # 244
 Beili, Edward Actelis Networks
 Comment Type E Comment Status D
 Bits 14 through 12 are referenced instead of bits 13 through 15.
 SuggestedRemedy
 Use "bits 13 through 15".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.41 P 137 L 40 # 254
 Beili, Edward Actelis Networks
 Comment Type E Comment Status D
 Wrong table reference: Table 45-49 instead of 45-32
 SuggestedRemedy
 Reference Table 45-32 or say "table below"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.41 P 137 L 53 # 245
 Beili, Edward Actelis Networks
 Comment Type T Comment Status D
 Wrong value is reserved in Region (both Annex A and Reserved have the same value), also writes cannot be ignored:
 00 = Annex A
 01 = Annex B
 10 = Annex C
 00 = reserved, writes ignored
 SuggestedRemedy
 00 = Annex A
 01 = Annex B
 10 = Annex C
 11 = reserved
 Add a note that Annex A-B refer to ITU-T G.991.2.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.4.1 P 129 L 7 # 380
 Barnea, Eyal Metalink Broadband A
 Comment Type E Comment Status D
 There is no 10P/2B PMA/PMD type selction register. It is part of the 10P/2B PMA/PMD control register
 SuggestedRemedy
 Delete the raw in the table
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.4.1 P 129 L 7 # 323
 Horvat, Michael Infineon Technologies
 Comment Type E Comment Status D
 The following chapter does not show a type selection register as indicated in Table 45-2 (type selection will be done in 10P/2B PMA/PMD control).
 SuggestedRemedy
 Remove 2nd line of Table 45-2 (10P/2B PMA/PMD type selection).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.4.1.11 P 131 L 13 # 226
 Tom Mathey Independent
 Comment Type T Comment Status D
 In column Bit(s), definition is 15:13. In column Description, definition is 2 to 0. In text on line 38 definition is 14 thru 12.
 SuggestedRemedy
 Make them all the same.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.4.1.11 P 131 L 27 # 324
 Horvat, Michael Infineon Technologies
 Comment Type E Comment Status D
 Footnotes for LH and SC missing
 SuggestedRemedy
 Add footnotes for LH (Latch High) and SC (Self Clearing).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 45 SC 45.4.1.11.1 P 131 L 38 # 372
 Barnea, Eyal Metalink Broadband A

Comment Type E Comment Status D

The PMA/PMD type selection is bits 15 through 13 and not 14 through 12

SuggestedRemedy

Change to "15 through 13"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.4.1.11.1 P 131 L 44 # 325
 Horvat, Michael Infineon Technologies

Comment Type E Comment Status D

Bits "PMA/PMD link status" and "Handshake result" are status bits and should be put into the to be defined status register.

SuggestedRemedy

Define a status register and shift the above mentioned bits into it.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Make a RO status register with the bits mentioned in the comment. The result is a PMA/PMD control register and a PMA/PMD status register. The "capability bits" from comment 544 should go in this register too.

CI 45 SC 45.4.1.13.2 P 132 L 26 # 546
 Cravens, George Mindspeed

Comment Type T Comment Status D

Handshake Result can be read at any time (not just after initiating handshake).

Also, after reset, the bit should be set to "handshake unseccessful" until success is achieved.

Finally, defining success = 0 seems a bit twisted. Redefine 0 = unsuccessful (default), and 1 = handshake successful. (See comment on Table 45-2)

SuggestedRemedy

Replace text on lines 26 & 27 with:

The STA may read the result of the handshake operation in bit 9. Upon reset or an unsuccessful handshake, the PHY shall set this bit to zero. Upon completion of a successful handshake, the PHY shall set this bit to one.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.4.1.14 P 132 L 33 # 326
 Horvat, Michael Infineon Technologies

Comment Type T Comment Status D

The definition of Link Loss is missing

SuggestedRemedy

G.991.2 offers several Performance Primitives for this task. LOSW DEFECT might be appropriate.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

STF please advise on what it means to "lose PMA/PMD link".

Suggestion is to count the number of LOSW defects.

P802.3ah Draft 1.732 Comments

CI 45 SC 45.4.1.14.1 P 132 L # 373
Barnea, Eyal Metalink Broadband A
Comment Type E Comment Status D
There is no FEC in 2Base-TL
SuggestedRemedy
Delete 2B from title , table and text of subclause
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 45 SC 45.4.1.15 P 133 L # 374
Barnea, Eyal Metalink Broadband A
Comment Type E Comment Status D
There is no FEC in 2Base-TL
SuggestedRemedy
Delete 2B from title , table and text of subclause
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 45 SC 45.5.1.16 P 144 L # 383
Barnea, Eyal Metalink Broadband A
Comment Type E Comment Status D
In table 45-13, the excess bandwidth description granularity is too low
SuggestedRemedy
Change the register to be 6 bit wide for each carrier.
B:=value of bits.
excess bandwidth=B/200

Range: 20<=B<=40
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

The comment is actually technical.

register 6 bits wide.
B := value of bits
excess bandwidth = (20+B)/200

B > 40 invalid.

CI 45 SC 45.5.1.19 P 145 L # 384
Barnea, Eyal Metalink Broadband A
Comment Type T Comment Status D
Add a 10P SCM recommended excess bandwidth register
SuggestedRemedy
Add a 10P SCM recommended excess bandwidth register with the same structure as the
excess bandwidth register in 45.5.1.16.
Proposed Response Response Status W
PROPOSED ACCEPT.

New register will be MMD 1 on the -R only R/W,
and MMD 7 on the -O RO

CI 45 SC 45.5.1.29 P 151 L 30 # 385
Beck, Michael Alcatel Bell nv
Comment Type TR Comment Status D
New text needs to be ratified, with minor corrections and additions.
SuggestedRemedy
Adopt text, with changes as shown in beck_1_0603.pdf. Remove Editor's note on page
151.
Proposed Response Response Status W
PROPOSED ACCEPT.

Ask that Michael Beck present beck_1_0603.pdf to the STF.

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CI 45 SC 45.5.1.5 P 136 L 45 # 381
 Barnea, Eyal Metalink Broadband A
 Comment Type T Comment Status D
 The granularity in the table is to large
 SuggestedRemedy
 Change the intercept granularity to be 0.25dB.
 15:7 reserved,
 8:0 parameter I. I:Value of bits (2's complement).
 intercept=-(I/4-100)
 Chnage the slope granularity to be 0.01dB.
 range 0 to 40.96 with 0.01dB steps.
 15:12 reserved,
 11:0 parameter S. S: value of bits
 slope=-S/100*sqrt(f)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.5.1.9 P 140 L # 382
 Barnea, Eyal Metalink Broadband A
 Comment Type E Comment Status D
 In table 45-10, the symbol rate is in baud and not baud/sec
 SuggestedRemedy
 Delete the '/sec ' in the description of all symbol rates
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.1.10 P 162 L 44 # 331
 Horvat, Michael Infineon Technologies
 Comment Type E Comment Status D
 Indices of Loss of Sync Seconds not correct
 SuggestedRemedy
 Adjust indices to (15:0)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.1.11 P 163 L 10 # 332
 Horvat, Michael Infineon Technologies
 Comment Type E Comment Status D
 Indices of Unavailable Seconds not correct
 SuggestedRemedy
 Adjust indices to (15:0)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.1.12.1 P 163 L 52 # 333
 Horvat, Michael Infineon Technologies
 Comment Type T Comment Status D
 The PMA frame does not have a Loss of Sync Bit.
 SuggestedRemedy
 Replace Loss of Sync with SEGD.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.1.2 P 159 L 54 # 327
 Horvat, Michael Infineon Technologies
 Comment Type E Comment Status D
 Reserved bit definition 00 already defined for Annex A.
 SuggestedRemedy
 Set bit definition 11 to reserved
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.1.2 P 159 L 54 # 550
 Cravens, George Mindspeed
 Comment Type E Comment Status D
 Region code 00 is defined as Region A. Code 11 should be reserved.
 SuggestedRemedy
 Change 00 = Reserved to 11 = Reserved.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 45 SC 45.7.1.4 P 160 L 25 # 551
 Cravens, George Mindspeed

Comment Type E Comment Status D
 The 2B PMD Parameters register is Table 45-33 (incorrect reference).

Also, pg. 161, line 1, should be Table 45-34.

SuggestedRemedy

Change reference from Table 45-18 to Table 45-33.

Check and repair other references throughout clause.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.1.4 P 160 L 31 # 328
 Horvat, Michael Infineon Technologies

Comment Type E Comment Status D
 In Table 45-33 definition of bit 15 missing

SuggestedRemedy

Define bit 15 as reserved.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.1.8 P 162 L 5 # 329
 Horvat, Michael Infineon Technologies

Comment Type E Comment Status D
 Indices of Errored Second not correct

SuggestedRemedy

Adjust indices of Errored Second to (15:0)

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.1.9 P 162 L 25 # 330
 Horvat, Michael Infineon Technologies

Comment Type E Comment Status D
 Indices of Severely Errored Second not correct

SuggestedRemedy

Adjust indices to (15:0)

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.3 P 170 L 32 # 378
 Barnea, Eyal Metalink Broadband A

Comment Type E Comment Status D
 The name of the 10P/2B PCS status should be 10P/2B TPS-TC status

SuggestedRemedy

Change the register name

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.3. P 170 L # 377
 Barnea, Eyal Metalink Broadband A

Comment Type E Comment Status D
 The 10P/2B PAF overflow counter is missing in Table 45-1

SuggestedRemedy

Add the 10P/2B PAF overflow counter to Table 45-1

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.7.3.21 P 173 L 52 # 335
 Horvat, Michael Infineon Technologies

Comment Type T Comment Status D
 Does the PMI Aggregate Bit have to be set if just one PCS is connected to one PMI?

SuggestedRemedy

Add a note that no PMI Aggregate Bits have to be set in case no PAF is used.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Add the note.

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CI 45 SC 45.7.3.27 P 176 L 50 # 336
Horvat, Michael Infineon Technologies

Comment Type E Comment Status D
Register is missing in PCS overview Table 45-1.

SuggestedRemedy
Add this register to overview on page 170.

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 45 SC 45.7.3.29 P 177 L 32 # 337
Horvat, Michael Infineon Technologies

Comment Type E Comment Status D
Exact definition of gap is missing. If there are two fragments in a row missing is this one or two gap?

SuggestedRemedy
Add a note that every missed fragment causes a gap.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Add a reference to 61.2.2

CI 45 SC 45.7.3.29 P 177 L 49 # 429
O'Mahony, Barry Intel Corp.

Comment Type TR Comment Status D
Need to insert two more subclauses, similar to subclause 45.7.3.29, corresponding to signals PAF_LostStart and PAF_LostEnd in 61.2.2.7.2.

SuggestedRemedy
Either:

1.) insert the two subclauses per the comment (e.g., identical to 45.7.3.29, but with "PAF lost fragment" replace with "PAF lost start of fragment" and "PAF lost end of fragment", respectively), or,

2.) delete these two signals from 61.2.2.7.2.

If 1.), add references to new subclauses to 61.2.2.7.2.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

add the new registers

CI 45 SC 45.7.3.30 P 177 L # 379
Barnea, Eyal Metalink Broadband A

Comment Type E Comment Status D
This register is TPS-TC status

SuggestedRemedy
Change the subclause title, table title and text to TPS-TC status

Proposed Response Response Status W
PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 45 **SC 45.7.3.30** **P 178** **L 5** # **224**
 Tom Mathey Independent

Comment Type T **Comment Status D**
 MMD register bit 3.x.15 is a copy of existing 3.1.2. The existing bit 3.1.2 is generic to all Clause 45 PCS's. It is not specific to 10Gig.

SuggestedRemedy
 Replace proposed clause 45.7.3.30, bit 3.x.15 with existing 3.1.2. Add text and register bits to capture latching low status for clause 61 PCS. See 45.2.3.2.2 for example text.

Proposed Response **Response Status W**
 PROPOSED ACCEPT.

Remove bit and make the text from its description to an amendment to the description of the existing 3.1.2

CI 45 **SC 45.7.3.30.1** **P 178** **L 11** # **338**
 Horvat, Michael Infineon Technologies

Comment Type E **Comment Status D**
 Name of bit is TPS-TC synchronized and not Sync Lost.

SuggestedRemedy
 Call bit TPS-TC synchronized.

Add register TPS-TC errors to Table 45-1.

Proposed Response **Response Status W**
 PROPOSED ACCEPT.

CI 45 **SC 45.7.99.1.1** **P 168** **L 53** # **375**
 Barnea, Eyal Metalink Broadband A

Comment Type T **Comment Status D**
 It is not clear what "all writes" refers to. During get link partner parameters , the PHY should ignore writes to MMD #7 registers only.

SuggestedRemedy
 Change "all writes" to "all writes to MMD #7 registers".

Proposed Response **Response Status W**
 PROPOSED ACCEPT.

CI 45 **SC 45.7.99.1.2** **P 169** **L 8** # **334**
 Horvat, Michael Infineon Technologies

Comment Type T **Comment Status D**
 Exact definition of a failed operation does not exist.

SuggestedRemedy
 Define e.g. a timeout of xx msec as a criteria for failed operation.

Proposed Response **Response Status W**
 PROPOSED ACCEPT IN PRINCIPLE.

The concept of a fail is purposely left ambiguous. I would expect that PHY implementers will specify how long such a timeout would be.

A fail could also occur if the data was not properly transferred but a timeout had not occurred.

CI 45 **SC 45.7.99.1.3** **P 169** **L 33** # **376**
 Barnea, Eyal Metalink Broadband A

Comment Type T **Comment Status D**
 It is not clear what "all writes" refers to. During send link partner parameters , the PHY should ignore writes to MMD #7 registers only.

SuggestedRemedy
 Change "all writes" to "all writes to MMD #7 registers".`

Proposed Response **Response Status W**
 PROPOSED ACCEPT.

CI 45 **SC Table 45-2** **P 131** **L 13** # **543**
 Cravens, George Mindspeed

Comment Type E **Comment Status D**
 The three-bit "PMA/PMD type selection" field values (1.x.15:13) are shown in the description section under the heading " 2 1 0 ". This should be "15 14 13".

SuggestedRemedy
 Change "2 1 0" in the decription box to "15 14 13".

Proposed Response **Response Status W**
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 45 SC Table 45-2 P 131 L 12 # 544
 Cravens, George Mindspeed

Comment Type T Comment Status D

The PMA/PMD Type Selection field controls hardware capabilities, and should be Read Only (or else a capability bit needs to be provided for chips that do not support both 10Base-TS and 2Pass-TL).

The PMA/PMD type control is dependant on hardware capabilities as well as board configuration (front-end components, etc.), so while software should be able to detect the type, setting it should be outside the scope of the standard.

SuggestedRemedy

Make the PMA/PMD Type Selection Field Read Only.

NOTE: If the above remedy is unacceptable to the group, then add a capability field (i.e. implement Editor's note on line 44).

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Add a capability field to the status register as created in comment 325

CI 45 SC Table 45-2 P 131 L 24 # 547
 Cravens, George Mindspeed

Comment Type T Comment Status D

Defining handshake success = 0 and unsuccess (i.e. failure) = 1 seems a bit backwards. This bit should default to "handshake unsuccessful" after reset, and should also latch that state.

Redefine bit so that success = 1 and default (and latching state) = 0.

SuggestedRemedy

Change the description of bit 1.x.9 (Handshake Result) to:

0 = handshake unsuccessful (Default) RO, LL
 1 = handshake completed successfully

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC Table 45-2 P 131 L 28 # 545
 Cravens, George Mindspeed

Comment Type E Comment Status D

Add footnote to describe RO, LH, and SC.

SuggestedRemedy

Add footnote to describe RO, LH, and SC.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC Table 45-3 P 132 L 43 # 548
 Cravens, George Mindspeed

Comment Type E Comment Status D

Add "CR" to the last column since the counter is cleared upon read.

SuggestedRemedy

Add "CR" to the last column since the counter is cleared upon read. Also add the definition of "CR" to the footnote.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC Table 45-36 P 162 L 5 # 552
 Cravens, George Mindspeed

Comment Type T Comment Status D

Both the errored seconds and severely errored seconds counters are described as 16-bit counters, yet in tables 45-36 and 45-37, they are called ".. errored seconds [31:16]".

The same goes for Tables 45-38 and 45-39.

I classified this as technical in case the counters were intended to be 32 bit.

SuggestedRemedy

(If this was just a typo, then downgrade to editorial.)

If these counters are intended to be 32-bit, then fix the text and registers. Otherwise, fix the descriptions to be ".. errored seconds [15:0]".

Proposed Response Response Status W
 PROPOSED ACCEPT.

just a typo.

P802.3ah Draft 1.732 Comments

CI 45 SC Table 45-4 P 133 L 5 # 549
 Cravens, George Mindspeed

Comment Type T Comment Status D

This counter (both high and low-order bytes) should be cleared when the low-order bytes are read ("CR").

Reading the high-order bytes should latch the low-order bytes to allow the counter to be read correctly, and both the high and low order bytes should be cleared after the low-order bytes are read. (Since it takes two reads to get the 32-bit counter, if the lower bytes are not latched upon a read of the upper bytes, an incorrect count is possible.)

Also, the low-order bytes are not "NR" by themselves, but only as part of a 32-bit value. The counter only stops incrementing when it has reached full-scale (i.e. 0xFFFF, not 0xXXFF).

The same applies to Table 45-5 (and all other >16 bit counters).

SuggestedRemedy

Add verbage to the description of these counters (and other >16 bit counters) to explain that while they are read in 16-bit chunks, they must be treated as a >16-bit entity, and care must be taken when reading and clearing.

(Basically, I suggest we ask the editor to clean up the ramblings above to clarify the operation of these counters. It may be cleanest to generate a detailed description of the operation of >16 bit counters in one place, and then reference that description for all >16 bit counters. ("CR+"?).

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Remove the register's NR and CR property.

Use this text (as in the existing C45 32-bit registers, ex: 45.2.2.14):

Whenever the most significant 16 bit register of the counter (xxx) is read,the 32 bit counter value is latched into the register pair,with the most significant bits appearing in (xxx) and the least significant 16 bits appearing in (xxx) ,the value being latched before the contents of (xxx) (the most significant 16 bits) are driven on the MDIO interface. A subsequent read from register (xxx) will return the least significant 16 bits of the latched value, but will not change the register contents. Writes to these registers have no effect.

CI 56 SC 56.1.3 P 167 L 39 # 251
 Beili, Edward Actelis Networks

Comment Type TR Comment Status D

Table 56-1. There is no name for a 10PASS/2BASE Phy's aggregating a number of pairs.

SuggestedRemedy

Suggest adding a copper pair multiplier to the basic Phy name, i.e.
 8x2BASE-TL-O - 8 pair 2BaseTL Phy at CO with 8x2=16Mbps aggregated rate
 2x10PASS-TS-R - 2 pair 10PassTS Phy at RT with 2x10=20Mbps aggregated rate

Proposed Response Response Status W
 PROPOSED REJECT.

As with link aggregation as defined by 802.3ad there is no need to define a new aggregation naming. Moreover, the naming does not differentiate the phy type

CI 56 SC 56.1.3 P 189 L 34 # 270
 Dawe, Piers Agilent

Comment Type E Comment Status D

At some time we need to sort out the terminology used in Table 56-1 and in many other places. In the location columns, we need to agree the same words for both optical and electrical. As I believe OLT and ONU are items, not locations (or interfaces) and cannot apply to the electrical systems, perhaps the use of "CO" and "subscriber" will work here.

SuggestedRemedy

Either now or when the whole draft is re-opened for commenting, in Table 56-1, change "OLT" to "CO" and "ONU" to "subscriber".

Proposed Response Response Status W
 PROPOSED REJECT.

Will go with the commentors recommendation to defer on this issue till WG ballot. At which point, we invite the commentor to present an alternative naming convention that has broad consensus.

P802.3ah Draft 1.732 Comments

CI 56 SC Figure 56-1 P 186 L 16 # 120
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Figure has font size inconsistencies. Text within wide layer stack and MII definition are different than balance of Figure and other similar figures within EFM.

SuggestedRemedy

Fix fonts. Also, fix PMD types for P2P and P2MP optics.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Will fix the fonts once, when there are no more changes to the figure

CI 57 SC 57 P 193 L 11 # 181
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

With the addition of 1.4 in D1.732, the terms administration, maintenance and operations can be removed from lines 13-17.

With the addition of 1.5 in D1.732, the abbreviations OAM and OAMPDU can be removed from lines 20 and 21.

SuggestedRemedy

See comment.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 57 SC 57.2.3 P 197 L 29 # 188
 Veerayah, Kumaran Institute for Infocomm

Comment Type E Comment Status D

Having reference to section where OAM client is expected to manage OAM remote loopback will be helpful for clarity.

SuggestedRemedy

Add "see 57.2.8" after "loopback mode"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Propose adding "(see 57.2.8)" after "loopback mode".

CI 57 SC 57.2.3 P 197 L 30 # 158
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Order of sentences could be changed to improve readability.

SuggestedRemedy

Move sentence beginning on line 30 "The OAM client does not" to follow the second sentence of the paragraph.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 57 SC 57.2.3 P 197 L 38 # 189
 Veerayah, Kumaran Institute for Infocomm

Comment Type E Comment Status D

Since OAM client compares the sequence number to determine if the OAMPDU is a duplicate, the words, "sequence number" may be better suited.

SuggestedRemedy

Change sentence to:

"OAM client ignores OAMPDUs with same sequence number, which are deemed as having duplicate event information (see 57.4.3.2)."

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 57 SC 57.2.3.a P 203 L 04 # 462
 Arnold, Brian Cisco Systems

Comment Type E Comment Status D

Just a nit for clearer text at the end of this sentence: "The OAM sublayer shall respond to critical link events by setting or clearing the appropriate bits within the Flags field on ensuing OAMPDUs, if any."

SuggestedRemedy

How about: "...by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs."

Not much better, but somehow wanted to make it clearer this means for PDUs that will be transmitted to the remote DTE, and couldn't be twisted and interpreted to mean that somehow received PDUs get manipulated and tied up with local critical events. A nit for sure. A reject won't ruin my day.

Proposed Response Response Status W

PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 57 **SC 57.2.4** **P 197** **L 47** # **159**
 Daines, Kevin World Wide Packets

Comment Type E **Comment Status D**

The term "service" is missing.

SuggestedRemedy
 Add "service" before "primitives" on lines 47 and 48.

Proposed Response **Response Status W**
 PROPOSED ACCEPT.
 - - -

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 - - -

CI 57 **SC 57.2.5.2.3** **P 198** **L 52** # **177**
 Daines, Kevin World Wide Packets

Comment Type T **Comment Status D**

The term "shall" needs to be removed from this sentence as a conformance requirement is not implied here.

SuggestedRemedy
 Change "shall" to read: "is to".
 Remove PICS entry OFS1.

Note: PICS entry *CSI covers all of the OAM client service interfaces.

Proposed Response **Response Status W**
 PROPOSED ACCEPT.
 - - -

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 - - -

CI 57 **SC 57.2.5.3.3** **P 199** **L 30** # **160**
 Daines, Kevin World Wide Packets

Comment Type E **Comment Status D**

Change wording for consistency.

SuggestedRemedy
 Change "The OAMPDU.indication" to "This primitive" on page 199, line 30.
 Change "The OAM_CTL.request" to "This primitive" on page 200, line 36.
 Change "The OAM_CTL.indication" to "This primitive" on page 201, line 17.

Proposed Response **Response Status W**
 PROPOSED ACCEPT.
 - - -

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 - - -

CI 57 **SC 57.2.6.1** **P 202** **L 11** # **190**
 Veerayah, Kumaran Institute for Infocomm

Comment Type T **Comment Status D**

The last sentence gives a wrong impression that Passive device is able to send loopback commands and variable requests.

SuggestedRemedy
 Remove this sentence.

Proposed Response **Response Status W**
 PROPOSED REJECT.

57.2.6.2 clearly defines that Passive devices shall not send Variable Request or Loopback Control OAMPDUs. The commentor's referenced sentence is included to aid the reader.

P802.3ah Draft 1.732 Comments

CI 57 SC 57.2.6.2 P 202 L 18 # 191
Veerayah, Kumaran Institute for Infocomm

Comment Type T Comment Status D

The last sentence gives a wrong impression that passive DTE is capable of sending variable requests or loopback control OAMPDUs.

SuggestedRemedy

Remove the sentence

Proposed Response Response Status W

PROPOSED REJECT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

See comment #190.

57.2.6.2 is attempting to constrain the behavior of Passive DTEs. However, Clause 57 can only define the OAM sublayer and not the OAM client.

We may need to define some addition functionality of the OAM sublayer. For instance, rather than say, "Passive DTEs shall not x" we could instead add logic that OAM:MADRs don't occur when the mode is passive and the code is Loopback Control.

CI 57 SC 57.2.7.1 P 202 L 30 # 161
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Incomplete description of subclause.

SuggestedRemedy

Add "and encoding" after "definition".

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 57 SC 57.2.7.3 P 203 L 08 # 192
Veerayah, Kumaran Institute for Infocomm

Comment Type E Comment Status D

"Optionally" in the last sentences sounds misleading

SuggestedRemedy

Remove it. "may" in the sentence is clear enough.

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

P802.3ah Draft 1.732 Comments

CI 57 SC 57.2.8 P 203 L 31 # 460
Arnold, Brian Cisco Systems

Comment Type T Comment Status D

Requesting a clarification or removal of ambiguity in local sinking of loopbacked frames. Text says, "In addition, an implementation may analyze loopback frames to determine additional information...". Is it the intention here that the OAM sublayer may pass the received non-OAMPDUs up to the MAC client or the OAM client for such analysis of the frame content (which is in conflict with Figure 57-3 and 57.2.8.2.e), or that the OAM sublayer itself may perform such analysis? If the former, Figure 57-3 and 57.2.8.2.e should be modified. If the latter, text should be clear that such analysis should be performed in OAM sublayer.

This may already be understood within the STF but could be clearer in the text.

SuggestedRemedy

Two choices:

Choice a) If the intention is to allow non-OAMPDU loopback frames to be passed to OAM client or MAC client for content analysis, then these items should be changed.

Suggestions:

- 57.2.8 line 31: "In addition, an implementation may pass loopback frames to OAM client or MAC client for analysis to determine additional information about the..."

- Figure 57-3: Where the datapath sinks at OAM sublayer, somehow indicate optional passing of received data upwards from OAM sublayer. (How? dotted-dotted line?)

- 57.2.8.2.e: "...OAMPDUs are passed to the OAM client and all other frames are discarded, unless they are being passed upwards for content analysis."

Choice b) If the intention is that the OAM sublayer may be allowed to perform content analysis itself, suggest slight alterations as follows:

- 57.2.8 line 31: "In addition, an implementation may analyze loopback frames within the OAM sublayer to determine additional information..."

As always, the Esteemed Editor is free to offer his superior wordage.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it

does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

A joint OAM/P2MP STF meeting (New Orleans?) resulted in the addition of the referenced text. In essence, the P2MP STF wanted to have "room" for implementations to analyze frames before dropping them.

The humble Editor, therefore, proposes the adoption of this refined, well-formed and otherwise recherche verbiage. (Note: the French-derived adjective since the interim is in Eastern Canada. :)

- 57.2.8 line 31: "In addition, an implementation may analyze loopback frames within the OAM sublayer to determine additional information..."

CI 57 SC 57.2.8.1 P 204 L 17 # 194
Veerayah, Kumaran Institute for Infocomm

Comment Type E Comment Status D

Nothing wrong, but sentence is rather long

SuggestedRemedy

Suggest rephrasing it:

"An OAM client is in a loopback mode if it has sent a Loopback Control OAMPDU and is waiting for the peer DTE to respond with an Information OAMPDU. If it receives a loopback command instead of an Information OAMPDU, the following procedure is RECOMMENDED:"

or the editor can phrase it better.

Proposed Response Response Status W
PROPOSED REJECT.

The first sentence of the suggested remedy is not correct. The mere sending of a Loopback Control OAMPDU doesn't put a DTE into loopback mode. An indication via the state information found in Information OAMPDUs is required.

The Editor agrees the text is a bit long, but it is explicit.

P802.3ah Draft 1.732 Comments

CI 57 **SC 57.2.8.1** **P 204** **L 17** # **193**
 Veerayah, Kumaran Institute for Infocomm
Comment Type **E** **Comment Status** **D**
 Typo: should be "a Loopback" instead of "an Loopback"
SuggestedRemedy
 as in comment
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

CI 57 **SC 57.2.8.2** **P 204** **L 37** # **461**
 Arnold, Brian Cisco Systems
Comment Type **E** **Comment Status** **D**
 Anticipating future questions about remote loopback, it might be a good idea to explicitly state what happens to the source and destination addresses when frames are looped back at the remote DTE. Specifically, item (b) could be enhanced as below to answer questions like, "don't I need to swap the source and destination before I loop it back?".
SuggestedRemedy
 Change item (b): Within the remote OAM sublayer entity, every non-OAMPDU, including other Slow Protocol frames, is looped back without altering any field of the frame.
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 57 **SC 57.2.8.5** **P 205** **L 25** # **463**
 Arnold, Brian Cisco Systems
Comment Type **E** **Comment Status** **D**
 Problem with swapped "transmit" and "received" in last sentence of paragraph:
 "When a bidirectional link has asymmetric data rates, frame loss may occur because the transmit bandwidth is less than the received bandwidth".
SuggestedRemedy
 Could just swap "transmit" and "received" to make more sense, but better might be:
 "...data rates, frame loss may occur if the receive bandwidth is less than the transmit bandwidth."
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT IN PRINCIPLE.

 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

 Okay, as written it's a little awkward. It was written with the CPE device in mind. Propose we accept the 2nd suggested remedy.

CI 57 **SC 57.2.9** **P 205** **L 03** # **170**
 Daines, Kevin World Wide Packets
Comment Type **T** **Comment Status** **D**
 There is no standalone subclause that discusses OAM Unidirectional operation. It is mentioned in 57.1.2 and in Table 57-7 and a few other places, but there is no single, definitive reference.
SuggestedRemedy
 Add 57.2.9 OAM unidirectional operation as a standalone subclause.
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

P802.3ah Draft 1.732 Comments

CI 57 SC 57.3.1.2 P 206 L 49 # 162
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Remove unused state diagram variables.

SuggestedRemedy

- Remove "ind_flags_field" from page 202, line 49.
- Remove "OAM_CTL.indication" from page 209, line 41.
- Remove "OAM_CTL.request" from page 209, line 42.

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 57 SC 57.3.1.2 P 208 L 24 # 171
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The variable name local_tx is misleading as it governs both transmission and reception of OAMPDUs.

SuggestedRemedy

- Change "local_tx" to "local_pdu".
- Change "NONE" to "RX_INFO"
- Leave "INFO" as is.
- Leave "ANY" as is.

In rest of clause, change references to "local_tx" as appropriate.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 57 SC 57.3.1.2 P 208 L 46 # 163
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Wrong parameter.

SuggestedRemedy

- Change "local_link_fault" to "local_link_status" on page 208, line 46.
- Same change on page 211, line 52.

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 57 SC 57.3.2.1 P 210 L 22 # 228
 Yokomoto, Tetsuya FUJITSU ACCESS LIM

Comment Type E Comment Status D

It may confuse Discovery of OAM with Discovery of MPCP.

SuggestedRemedy

In the clause 57, it describes OAM Discovery.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

The suggested remedy is unclear. 57.3.2.1 can be changed to "OAM Discovery". Is this what the commentor intended?

P802.3ah Draft 1.732 Comments

CI 57 SC 57.3.2.2 P 211 L 38 # 172
 Daines, Kevin World Wide Packets

Comment Type TR Comment Status D

The Transmit rules are confusing as they stand in D1.732. They describe functionality that exists in both the Control and Multiplexer functions. This confusion can be cleared up if the following changes are made:

- Change "transmission of OAMPDUs" on line 40 to "generation of OAM.MADR service primitives
- Move (a) to 57.3.3.6 as it actually describes Multiplexer functionality
- Re-word balance of 57.3.2.2 to use "OAM.MADR" terminology.
- Remove (e) as it actually describes Multiplexer functionality

The Transmit rules are found in 57.3.2.2 to imply behavior of the Control function. The Control function given its position within the OAM sublayer can only interact with the OAM client and the Multiplexer function. The Multiplexer function sitting downstream of the Control enforces pdu rate, etc.

SuggestedRemedy

Change 57.3.2.2 to read:

"The following rules govern the generation of the OAM:MADR service primitive:

- a) While local_pdu is set to RX_INFO, OAM:MADR service primitives shall not be generated.
- b) While local_pdu is set to INFO, only Information OAMPDUs shall be sent to the Multiplexer function via the OAM:MADR service primitive.
- c) While local_pdu is set to ANY:
 - 1) An OAM_CTL.request service primitive with one or more of the critical link event parameters set shall generate an OAM:MADR service primitive, requesting the transmission of an Information OAMPDU with the appropriate bit(s) of the Flags field set.
 - 2) An OAMPDU.request service primitive shall generate an OAM:MADR service primitive, requesting the transmission of the particular OAMPDU."

The PICS entries OFS3-5 need to be updated as well.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 57 SC 57.3.2.3 P 213 L 29 # 173
 Daines, Kevin World Wide Packets

Comment Type TR Comment Status D

The Receive rules in D1.732, while better than the Transmit rules, need to be cleaned up. In essence, these changes are recommended:

- Move text regarding OAM client behavior to 57.2.3
- Combine RX_INFO and INFO
- Remove (b) as this describes Parser functionality
- Remove (c) as this is redundant to the response rules found in 57.4.3 and irrelevant to this subclause

SuggestedRemedy

Change 57.3.2.3 to read:

"The following rules govern the reception of OAMPDUs: OAM:MADI service primitives indicate an OAMPDU and in turn generate an OAMPDU.indication service primitive to the OAM client entity subject to the following conditions:

- a) When local_pdu is set to RX_INFO or INFO, Information OAMPDUs shall be passed to the OAM client and non-Information OAMPDUs are discarded.
- b) When local_pdu is set to ANY, all Information OAMPDUs, including those with unknown Code fields shall be passed to the OAM client. [footnote #1] It is anticipated that the OAM client will ignore unknown or unsupported OAMPDUs."

[footnote #1] should be retained

PICS entries OFS6-7 need to be updated.

Add a paragraph to 57.2.3 to read:

"Upon receiving an Information OAMPDU with a Revision field equal to that of the previous Information OAMPDU, an OAM client may choose to ignore processing the fields of the Information OAMPDU as no new information will be learned."

Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 57 SC 57.3.3.2 P 214 L 48 # 164
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Heading level could be changed to improve readability.

SuggestedRemedy

In DIFF version,

- Change 57.3.4.2 to 57.3.4.1.1
- Change 57.3.4.3 to 57.3.4.1.2
- Change 57.3.4.4 to 57.3.4.1.3
- Change 57.3.4.5 to 57.3.4.1.4
- Change 57.3.4.6 to 57.3.4.2

In PLAIN version,

- Change 57.3.3.2 to 57.3.3.1.1
- Change 57.3.3.3 to 57.3.3.1.2
- Change 57.3.3.4 to 57.3.3.1.3
- Change 57.3.3.5 to 57.3.3.1.4
- Change 57.3.3.6 to 57.3.3.2

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 57 SC 57.3.4 P 214 L 21 # 448
Murakami, Ken Mitsubishi Electric

Comment Type E Comment Status D

Description "local_tx=NONE | pdu_cnt!=10" is not suitable.

SuggestedRemedy

It should be "local_tx=NONE + pdu_cnt!=10".

Proposed Response Response Status W
PROPOSED ACCEPT.

Good catch.

CI 57 SC 57.3.4 P 214 L 21 # 447
Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

According to the current state transition condition from CHECK_LINK in Figure 57-5, frames can be sent even if local_link_status is FAIL.

SuggestedRemedy

The state transition condition from CHECK_LINK to TX_FRAME should be "local_unidirectional=FALSE * local_link_status=OK". And the state transition condition from CHECK_LINK to WAIT_FOR_TX should be "local_unidirectional=TRUE + local_link_status=FAIL".

Proposed Response Response Status W
PROPOSED REJECT.

The second paragraph of 57.3.4.4 attempts to describe this non-intuitive logic. As a supplement, the Editor will add further explanation here:

When the state CHECK_LINK is entered, the frame is to be sent is either from the MAC client or it is a loopback frame. If the receive path is non-functional (local_link_status=FAIL) -and- the underlying PHY is both capable and configured to transmit frames while the receive path is non-functional (local_unidirectional=TRUE), the OAM sublayer DOES NOT WANT TO FORWARD frames from the MAC client. The ONLY FRAMES it wants to send, in this condition, are OAMPDUs. That is why the state transition from CHECK_LINK to WAIT_FOR_TX is what it is.

If, however, the receive path is functional (link_status=OK) -or- the underlying is not capable or not configured to operate in unidirectional mode (local_unidirectional=FALSE) it is SAFE to forward frames (either from the MAC client or loopback frames) to the subordinate sublayer. If the link is functioning, the frames will be sent all the way down the stack and across the link. If the link is non-functional, the PHY will drop the frames, WHICH MATCHES THE BEHAVIOR OF 802.3 TODAY.

Note: ALL CAPS used since other forms of highlighting text, such as color, italics and underlining, are not available using these database tools.

P802.3ah Draft 1.732 Comments

CI 57 SC 57.3.4.2 P 215 L 03 # 363
 Martin, David Nortel Networks
 Comment Type E Comment Status D
 Wording change.
 SuggestedRemedy
 Change "one of more OAMPDUs have been sent" to "one or more OAMPDUs have been sent"
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Same as comment #195.

CI 57 SC 57.3.4.2 P 215 L 03 # 195
 Veerayah, Kumaran Institute for Infocomm
 Comment Type E Comment Status D
 Typo: should be one "or" more OAMPDUs
 SuggestedRemedy
 As commented
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 57 SC 57.3.4.3 P 215 L 09 # 227
 Yokomoto, Tetsuya FUJITSU ACCESS LIMI
 Comment Type T Comment Status D
 The non-critical definition is not clear. In Figure 57-5, It is described "NORMAL".
 SuggestedRemedy
 The non-critical definition should clearly be described in "non-critical". It should clarify the difference between "non-critical" and "NORMAL".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Proposed changing "If the request is non-critical," to read:
 If the Flags field of the OAMPDU to be sent does not contain any critical link events, "

CI 57 SC 57.3.4.3 P 215 L 13 # 165
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 Definition of local_tx needs to be augmented.
 SuggestedRemedy
 Continue definition of local_tx by changing "is in reset." to "is in reset or is waiting for the remote DTE to send Information OAMPDUs."
 Make same change on page 215, line 47.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 57 SC 57.3.4.6 P 216 L 07 # 364
 Martin, David Nortel Networks
 Comment Type E Comment Status D
 Wording change.
 SuggestedRemedy
 Change "If the PDU timer has elapsed" to "If the PDU timer has expired"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 57 SC 57.3.5.1 P 216 L 45 # 196
 Veerayah, Kumaran Institute for Infocomm
 Comment Type E Comment Status D
 Parser:MADI is now, OAM:MADI
 SuggestedRemedy
 Change to OAM:MADI
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Good catch.

CI 57 SC 57.4.2 P 218 L 23 # 361

Messenger, John ADVA Optical Networ

Comment Type T Comment Status D

Is it intended that OAMPDUs shall be transmitted exactly as shown in the figures? I could not find an explicit statement to that effect. Alternatively, is the structure of the OAMPDUs containing TLVs basically a language, such that for example an Information OAMPDU could have the order of the Local and Remote OAMPDUs interchanged? Or pushing it one stage further, can a conformant implementation include additional TLVs in a standard OAMPDU for his own purposes?

SuggestedRemedy

Change line 23 to include a statement clarifying how closely the specification defines the OAMPDU content, taking into account the fact that some OAMPDUs do change in structure during operation of the protocol (Info sometimes doesn't contain Remote Info TLV).

Proposed Response Response Status W

PROPOSED REJECT.

- - -

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

- - -

In the opinion of the Editor, the suggested remedy is unnecessary as the draft is sufficiently clear. For additional information and discussion, the Editor attempts to address each of the three questions included in the comment:

Question #1: Is it intended that OAMPDUs shall be transmitted exactly as shown in the figures?

Answer #1: Yes. 57.4.1 describes the "transmission and representation" of octets within figures and tables. 57.4.2 contains a shall covering the fields of the OAMPDUs, from DA through FCS. In addition, each of the OAMPDUs includes a shall covering the Data field.

Question #2: Alternatively, is the structure of the OAMPDUs containing TLVs basically a language, such that for example an Information OAMPDU could have the order of the Local and Remote OAMPDUs interchanged?

Answer #2: The Editor hasn't viewed it as a "language." In the case of the Information OAMPDU, the following states taken from 57.4.3.1 seem pretty explicit:

"The Information OAMPDU frame structure shall be implemented as shown depicted in Figure 57-8."

"The Information OAMPDU Data field, at a minimum, shall consist of the Local Information

TLV"

"If . . .remote_state_valid is TRUE, the Data field shall also contain the Remote Information TLV"

Question #3: Or pushing it one stage further, can a conformant implementation include additional TLVs in a standard OAMPDU for his own purposes?

Answer #3: As the draft and the PICS are currently worded, the Editor knows of nothing to prevent or preclude conformant implementations from including additional TLVs in a standard OAMPDU.

P802.3ah Draft 1.732 Comments

CI 57 SC 57.4.3 P 219 L 54 # 355
 Messenger, John ADVA Optical Networ

Comment Type TR Comment Status D

Lines 43, 47, 54.
 (Lines 43 and 47 have changed since D1.4 even though they are not diff-marked.)
 New in D1.7: OAMPDUs with reserved codes are passed to OAM Client. We need a "shall" statement to prohibit transmission of reserved OAMPDU codes. The lack of this in the current wording threatens the extensibility of the protocol, because if a conformant implementation is not prohibited from transmitting reserved codes, then someone will use them and they will effectively not be available for future use in extending 802.3ah.

SuggestedRemedy

Add a statement (e.g. after line 54) similar to: "OAMPDUs with reserved Code field values shall not be transmitted."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comment #191 for a brief commentary on the difficulty of defining the behavior (or precluded behavior as the case may be) of the OAM client.

Rather than adopting the suggested remedy, an alternative would be to have the OAM Control block perform the check. In essence, the OAM Control block wouldn't generate OAM:MADR if the Code field was reserved.

Would this resolve the concern? The OAM client could request to send OAMPDU Code 0x23 all day long, but the OAM Control function simply wouldn't pass it along to the Multiplexer function.

Possible wording below would impact comment #172's suggested remedy:

Change:

" 2) An OAMPDU.request service primitive shall generate an OAM:MADR service primitive, requesting the transmission of the particular OAMPDU."

to read:

" 2) An OAMPDU.request service primitive shall generate an OAM:MADR service primitive, requesting the transmission of the particular OAMPDU, when the request adheres to the following restrictions:

- i) A DTE configured in Active mode (local_oam_mode=ACTIVE) requests the transmission of an OAMPDU defined in Table 57-10.
- ii) A DTE configured in Passive mode (local_oam_mode=PASSIVE) requests the transmission of an OAMPDU defined in Table 57-10 and further restricted in Table 57-1."

CI 57 SC 57.4.3.1 P 220 L 04 # 356
 Messenger, John ADVA Optical Networ

Comment Type E Comment Status D

Current text: "The Information OAMPDU frame structure shall be *implemented* as depicted in Figure 57-8". Concern: the wording before the addition of "implemented" was correct - this is widely used standards language. The standard defines the specification, not the implementation.

Other occurrences: 57.4.3.2 p220 L34, 57.4.3.3 p221 L19, 57.4.3.4 p222 L4, 57.4.3.5 p222 L35, 57.4.3.6 p223 L43.

SuggestedRemedy

Remove the word "implemented".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 57 SC 57.4.3.1 P 220 L 12 # 79
 Takashi, Ezawa OF Networks

Comment Type E Comment Status D

There are Typo in the Figure 57-8.
 It is defined in subclause 57.5.2.1, the Version field is one-octet and the Revision field is two-octets.

SuggestedRemedy

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 57 SC 57.4.3.1 P 220 L 12 # 449
 Murakami, Ken Mitsubishi Electric

Comment Type E Comment Status D

The length of Version and Revision fields of Information PDU shown in Figure 57-8 is different from the descriptions of 57.5.2.1 and 57.5.2.2.

SuggestedRemedy

They should be consistent to each other.

Proposed Response Response Status W

PROPOSED ACCEPT.

Identical to comment #79.

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CI 57 SC 57.4.3.1 P 220 L 17 # 360
 Messinger, John ADVA Optical Networ

Comment Type T Comment Status D

Note: this line is incorrectly not diff-marked in the draft.
 In figure 57-8, the "Octets" column is not correct in all cases. The "Data" length is 32 later in Discovery, but earlier it is 16, as the Remote Information TLV is not always present (per line 24). The Pad length would change as well.

SuggestedRemedy

Either change the specific values to (e.g.) 16/32 for Data and 26/10 for Pad, or, as a more general and better solution, make it clear in the diagrams that the Octet column is an example rather than a requirement.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Proposed adopting the second suggested remedy and add text similar to Figure 57-9, such as "Sample Data field" or something similar.

CI 57 SC 57.4.3.1 P 220 L 25 # 167
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Cross-reference should be moved to improve readability.

SuggestedRemedy

Move "(see 57.5.2.1)" following TLV on previous line.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 57 SC 57.4.3.2 P 221 L 03 # 464
 Arnold, Brian Cisco Systems

Comment Type T Comment Status D

Probably mostly an editorial comment, but listed as technical in case the logic has to change...

Use of duplicate sequence numbers could be clearer. Specifically, the restriction on their use should be enumerated. If the usage intent is as per stated here ("...the OAM client compares the Sequence Number with the last received Sequence Number. If equal, the current event is a duplicate..."), then that implies that duplicate Event Notification OAMPDUs must be adjacent (in the Event Notification OAMPDU domain) and cannot be interleaved with other Event Notification OAMPDUs in order to be perceived as a duplicate.

Basically, I think this means that Event Notification OAMPDUs received in this order (identified by Sequence Number): A - A - B - B - C - C will be recorded as one instance each of A, B, and C. Event Notification OAMPDUs received in this order (A - B - A - B - C - C) will be recorded as five unique OAMPDUs (due to the non-equal comparisons). This won't be good.

Some choices to fix this:

a) Explicitly state that duplicate Event Notification OAMPDUs must follow the PDU they are duplicates of without any other Event Notification OAMPDU in between. Another way, state that duplicate Event Notification OAMPDUs cannot be transmitted if another, different Event Notification OAMPDU has already been transmitted following the original. This affects the transmitter.

b) Maintain a longer comparison list than just the last Sequence Number (so you can compare the last 5? 10? 20?).

c) Include in the comparison that the Sequence Number must also be greater than the last received Sequence Number to be unique (rollover notwithstanding), so as to handle the A-B-A-B-C-C case. This affects the receiver.

SuggestedRemedy

I think a combination of (a) and (c) may be best. Suggested wording starting at the end of line 2:

To make the transmitter follow the rules:

"A particular Event Notification OAMPDU may be sent multiple times with the same sequence number, but any duplicate transmitted must follow its original without a different, intervening Event Notification OAMPDU. A duplicate Event Notification OAMPDU cannot be transmitted if a new Event Notification OAMPDU has already followed the original OAMPDU.

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To protect the receiver from out-of-order duplicates:
At the end of line 5:

"...the OAM client compares the Sequence Number with the last received Sequence Number. If equal, the current event is a duplicate and is ignored by the OAM client. If the current event's Sequence Number is less than the last received Sequence Number (accounting for 16-bit Sequence Number rollover), the current event is not considered a new, unique event and is ignored by the OAM client."

The Editor is free to clarify as needed.

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

The proposed text does make this more clear.

CI 57 **SC 57.4.3.4** **P 222** **L 25** # **180**
Daines, Kevin World Wide Packets

Comment Type **T** *Comment Status* **D**

Sentence defines behavior of OAM client. Perhaps this should be changed to a recommendation?

SuggestedRemedy

See comment. Affects PICS entries PDU15-17.

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 57 **SC 57.4.3.5** **P 223** **L 21** # **357**
Messenger, John ADVA Optical Network

Comment Type **E** *Comment Status* **D**

Current text: "Table 57-5 contains the list of defined Loopback Commands". "Contains the list of" could be better worded.

SuggestedRemedy

Suggest "Table 57-5 lists the defined Loopback Commands".

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

CI 57 **SC 57.5.1** **P 224** **L 36** # **359**
Messenger, John ADVA Optical Network

Comment Type **E** *Comment Status* **D**

Current text: "TLV processing should follow these recommendations".
It isn't really TLV processing that should do this, but OAMPDU parsing, as some of the recommendations are about what to do when finding unexpected TLVs in an OAMPDU.

SuggestedRemedy

Suggest moving 57.5.1 into 57.4.

Please also note that lines 50 and onwards on page 224 don't belong in a section called "Parsing" - they are lead-in to the remaining parts of 57.5.

Proposed Response *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

As to the first part of the comment, the editor considers it a good idea to co-locate the TLV parsing recommendations with the TLV definitions. The Variable Container/Descriptor parsing rules are similarly co-located with the Variable Container/Descriptor format definition.

As the second part of the comment,

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

However, these two lines add little value and the editor proposes they be removed.

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CI 57 SC 57.5.1 P 224 L 43 # 358
 Messenger, John ADVA Optical Networ

Comment Type TR Comment Status D

I understand that we don't want or need to require a strictly specified parsing algorithm. However there are some requirements on the parsing algorithm that make the difference between a protocol capable of backward-compatible extension and one that isn't. Of those listed in 57.5.1, item "c" should be required.

SuggestedRemedy

Include, in an appropriate place, a requirement similar to: "TLVs with unknown or unexpected Types shall be ignored".

Proposed Response Response Status W
 PROPOSED REJECT.

The behavior of the OAM client can not be defined. Clause 57 can only define the OAM sublayer and not the OAM client. As a result, these are parsing recommendations.

CI 57 SC 57.5.3 P 228 L 06 # 362
 Messenger, John ADVA Optical Networ

Comment Type E Comment Status D

Title of Figure 57-10. Current title is "Event TLVs" but this is not correct.

SuggestedRemedy

Suggest change to "Event TLV Types".

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 57 SC 57.5.3.2 P 229 L 50 # 155
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The cross-references to aOAMLocalErrFrameConfig are incorrect.

SuggestedRemedy

Change cross-ref 30.11.1.1.30 to 30.11.1.1.31 on page 229, line 50 and page 230, line 4.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 57 SC 57.5.3.3 P 230 L 44 # 156
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The cross-references to aOAMLocalErrFramePeriodConfig are incorrect.

SuggestedRemedy

Change cross-ref 30.11.1.1.31 to 30.11.1.1.33 on page 230, line 44 and page 231, line 1.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 57 SC 57.5.3.4 P 231 L 42 # 157
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The cross-references to aOAMLocalErrFrameSecsSummaryConfig are incorrect.

SuggestedRemedy

Change cross-ref 30.11.1.1.32 to 30.11.1.1.35 on page 231, line 42 and page 231, line 50.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 57 SC 57.7.2.3 P 236 L 18 # 174
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The reference for *LB is wrong.

SuggestedRemedy

Change cross-ref "57.1.2" to "57.2.8, Table 57-7".

Proposed Response Response Status W
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

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CI 57 **SC 57.7.2.3** **P 236** **L 20** # **175**
Daines, Kevin World Wide Packets

Comment Type **E** **Comment Status** **D**
The cross-reference for *UNI is wrong.

SuggestedRemedy
Change "57.1.2" to "57.2.9, Table 57-7".

Proposed Response **Response Status** **W**
PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 57 **SC 57.7.3.1** **P 236** **L 46** # **178**
Daines, Kevin World Wide Packets

Comment Type **E** **Comment Status** **D**
OFS3 should be moved adjacent to OFS11. The Multiplexer function is responsible for both of these PICS entries. A separate comment moved the text from 57.3.2.2 to 57.3.3.6.

SuggestedRemedy
See comment.

Proposed Response **Response Status** **W**
PROPOSED ACCEPT.

CI 57 **SC 57.7.3.2** **P 237** **L 31** # **179**
Daines, Kevin World Wide Packets

Comment Type **E** **Comment Status** **D**
The term "service" is missing.

SuggestedRemedy
Add "service" to CEV2 and LEV1 before "primitive".

Proposed Response **Response Status** **W**
PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 57 **SC 57.8.4** **P 242** **L 14** # **465**
Arnold, Brian Cisco Systems

Comment Type **E** **Comment Status** **D**
PICS doesn't match description of ET1. PICS has "Error_Total", which doesn't exist in 57.5.3.1.

SuggestedRemedy
Remove "Error_Total" from ET1.

Proposed Response **Response Status** **W**
PROPOSED ACCEPT.

Same as comment #80.

CI 57 **SC 57.8.4** **P 242** **L 15** # **80**
Takashi, Ezawa OF Networks

Comment Type **E** **Comment Status** **D**
Table of Event TLVs (clause 57.8.4)

There is a terminology named "Error Total" in the Item of ET1. But it isn't defined in the subclause 57.5.3.1. Is this a Typo?

SuggestedRemedy

Proposed Response **Response Status** **W**
PROPOSED ACCEPT.

Same as comment #465.

Yep, this is a typo.

CI 57 **SC 57.8.4** **P 242** **L 33** # **466**
Arnold, Brian Cisco Systems

Comment Type **E** **Comment Status** **D**
Typo in PICS, ET3. "Time_Stamp" should be "Event_Time_Stamp", per 57.5.3.3.

SuggestedRemedy
Change "Time_Stamp" to "Event_Time_Stamp".

Proposed Response **Response Status** **W**
PROPOSED ACCEPT IN PRINCIPLE.

Note: There are no longer any underscores in the field names for TLVs. Hence, "Time Stamp" will be replaced with "Event Time Stamp".

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CI 57 SC 57.8.4 P 242 L 46 # 467
Arnold, Brian Cisco Systems
Comment Type E Comment Status D
PICS ET4 needs correction, per 57.5.3.4.
SuggestedRemedy
"Time_Stamp" should be "Event_Time_Stamp"

"Errored_Frame_Seconds_Window" should be
"Errored_Frame_Seconds_Summary_Window"

"Errored_Frame_Seconds_Threshold" should be
"Errored_Frame_Seconds_Summary_Threshold"

"Errored_Frame_Seconds" should be "Errored_Frame_Seconds_Summary"
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Accepted, except underscores will be removed. See comment #466.

CI 57 SC 57.8.4 P 243 L 06 # 468
Arnold, Brian Cisco Systems
Comment Type E Comment Status D
PICS ET5 needs correction, per 57.5.3.5.
SuggestedRemedy
"Organization_Specific_Length" should be "Event_Length".
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Accepted, except underscores will be removed. See comment #466.

CI 57 SC figure 57-8 P 220 L 12 # 523
jee sook, eun ETRI
Comment Type E Comment Status D
Version field is one-octet.
SuggestedRemedy
Correct octet number "2" to "1".
Proposed Response Response Status W
PROPOSED ACCEPT.

Identical to comment #79.

CI 57 SC figure 57-8 P 220 L 13 # 524
jee sook, eun ETRI
Comment Type E Comment Status D
Revision field is two-octets.
SuggestedRemedy
Correct octet number "1" to "2".
Proposed Response Response Status W
PROPOSED ACCEPT.

Identical to comment #79.

CI 57 SC table 57-1 P 201 L 43 # 521
jee sook, eun ETRI
Comment Type E Comment Status D
Footnote "a" must be deleted.
It was commented by Draft 1.414 comment #271.
"An Active device should be permitted to send EN OAMPDUs to a Passive device."
SuggestedRemedy
Delete the reference to footnote "a" in Table 57-1 entry column 2, row 4.
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Table 57-1 in the DIFF version is confusing. Please see the PLAIN version. You will notice three things:
1) the footnote is not on row 4
2) the footnote is correctly applied to rows 6 & 8
3) the footnote is "a" both in the table and below the table

Note: No changes are needed as a result of this comment.

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CI 57 SC Table 57-1 P 201 L 49 # 522
jee sook, eun ETRI
Comment Type E Comment Status D
Footprint "a" was deleted.
Footprint "b" was inserted.
SuggestedRemedy
Change Footprint "a" to "b" in Table 57-1 entry column 2, row 9.
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
See comment #521.

CI 57 SC Table 57-3 P 219 L 14 # 166
Daines, Kevin World Wide Packets
Comment Type E Comment Status D
Wrong variable referenced.
SuggestedRemedy
Change "local_stable" to "remote_stable" on line 14 and line 16.
Proposed Response Response Status W
PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 57 SC Table 57-7 P 227 L 01 # 176
Daines, Kevin World Wide Packets
Comment Type T Comment Status D
Currently, the only optional features advertised via the OAM Configuration field are Loopback Support and Unidirectional Support. Recommend we add:
- Link Events
- Variable Retrieval
- Organizational Specific OAMPDU
- Organization Specific Events
As of D1.732, the optionality of Events, Variable Retrieval, Organization Specific OAMPDU and Organization Specific TLV was spelled out in the PICS 57.7.2.3. See major options *EVNT, *VAR, *OSP, *OSE.
SuggestedRemedy
Change reserved field from 7:3 to just bit 7.
Add new row for bit 3 / Link Events / 1=DTE is capable of interpreting Link Events; 0=DTE is not capable of interpreting Link Events
Add new row for bit 4 / Variable Retrieval / 1=DTE is capable of sending Variable Response OAMPDUs; 0=DTE is not capable of sending Variable Response OAMPDUs
Add new row for bit 5 / Organization Specific OAMPDU / 1=DTE is capable of interpreting Organization Specific OAMPDU; 0=DTE is not capable of interpreting Organization Specific OAMPDU
Add new row for bit 6 / Organization Specific Events / 1=DTE is capable of interpreting Organization Specific Events; 0=DTE is not capable of interpreting Organization Specific Events
If one or more of these features are added to Table 57-7, the appropriate PICS entry(ies) would need to be updated.
With only one spare bit, perhaps this field should be expanded to two octets?
Proposed Response Response Status W
PROPOSED ACCEPT.

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CI 57 SC Table 57-7 P 227 L 17 # 168
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
OAM Mode description is incomplete.

SuggestedRemedy

Change "1=Active mode." to "1=DTE configured in Active mode." on line 17.
Change "0=Passive mode." to "0=DTE configured in Passive mode." on line 18.

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 57 SC Table 57-9 P 227 L 40 # 169
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
Table name is incorrect.

SuggestedRemedy

Remove "_".

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 58 SC P 245 L 1 # 68
Bhatt, Vipul Individual

Comment Type E Comment Status D diff errors
The DIFF version and the PLAIN version are mismatched in several locations where the PLAIN version is correct, and the DIFF version is incorrect.

SuggestedRemedy

Make the corrections.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

CI 58 SC 58 P 245 L 12 # 271
Dawe, Piers Agilent

Comment Type E Comment Status D
Obsolete material following clause re-numbering.

SuggestedRemedy

Either, shorten to "When all test procedures are stable, if a test procedure is then identical to Clause 52, we may delete it here and refer to 52."
Or, delete it altogether, as I think everything we copied has been bug-fixed so is no longer identical; leave stripping out the duplication to maintenance.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Delete text.

CI 58 SC 58.1 P 246 L 9 # 272
Dawe, Piers Agilent

Comment Type E Comment Status D
Lost a comma.

SuggestedRemedy

"the medium, single-mode fiber." or "the medium (single-mode fiber)."

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.Change to:

"this clause specifies the 100BASE-LX10 PMD and the 100BASE-BX10 PMDs for operation over single mode fiber"

make same change to 59

CI 58 SC 58.11.2.3 P 279 L 16 # 282
Dawe, Piers Agilent

Comment Type E Comment Status D
This text even as revised is still problematical:

"Device supports downstream wavelength (1550 nm) over single single-mode fiber operation" because it supports the other wavelength equally much: one transmit, one receive.

SuggestedRemedy

Maybe "Device operates with one single single-mode fiber and transmits at downstream wavelength (1550 nm)"? Likewise for BU.

Proposed Response Response Status W
PROPOSED ACCEPT.

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CI 58 **SC 58.3.1** **P 250** **L 29** # **132**
 Daines, Kevin World Wide Packets
Comment Type **E** **Comment Status** **D**
 Extra word.
SuggestedRemedy
 Remove "Clause".
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

CI 58 **SC 58.3.1** **P 250** **L 29** # **273**
 Dawe, Piers Agilent
Comment Type **E** **Comment Status** **D**
 Unnecessary "Clause"
SuggestedRemedy
 Delete "Clause" at the end of line 29.
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

CI 58 **SC 58.5.2** **P 255** **L 11** # **423**
 Dawe, Piers Agilent
Comment Type **T** **Comment Status** **D** *scope*
 Because this standard defines sensitivity for a pattern with an assumed 1 dB baseline wander penalty at 10⁻¹² BER and 6.6 dB extinction ratio, while TTC defines sensitivity for a regular PRBS (no baseline wander penalty) at 10⁻¹⁰ BER and 8.2 dB extinction ratio, I think our 100BASE-BX10 sensitivity should be -30 +0.4 dB for extinction ratio +0.4 dB for BER + 1dB = -28.2 dB, not -29.2 dB. My apologies if we have discussed this before: the aim is still to make the EFM and TTC receiver specs equivalent.
SuggestedRemedy
 If this is agreed, change 100BASE-BX10 sensitivity to -28.2 dBm, OMA to -27.1 dBm or 1.94 uW, and raise stressed sensitivity (3 numbers) by 1 dB also.
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

 This issue will be discussed at the meeting

CI 58 **SC 58.6** **P 256** **L 9** # **424**
 Dawe, Piers Agilent
Comment Type **T** **Comment Status** **D** *scope*
 As Jerry pointed out, the 100BASE-BX10 budgets do not match the transmit and receive powers.
 Min Tx - Sens = available power budget (not loss budget).

If another comment Because this standard defines sensitivity for a pattern with an assumed 1 dB baseline wander penalty at 10⁻¹² BER and 6.6 dB extinction ratio, while TTC defines sensitivity for a regular PRBS (no baseline wander penalty) at 10⁻¹⁰ BER and 8.2 dB extinction ratio, I think our sensitivity should be -30 +0.4 dB for extinction ratio +0.4 dB for BER + 1dB = -28.2 dB, not -29.2 dB. My apologies if we have discussed this before: the aim is still to make the EFM and TTC receiver specs equivalent.
SuggestedRemedy
 If another comment is accepted, change 100BASE-BX budget to 14.2, and allocation for penalties to 8.7 downstream and 8.2 upstream. If it is not accepted, 15.2, 9.7, 9.2.
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

See #423.

CI 58 **SC 58.7** **P 256** **L 22** # **275**
 Dawe, Piers Agilent
Comment Type **E** **Comment Status** **D**
 Text is obsolete now we have changed the table.
SuggestedRemedy
 Delete ", and values in the range of 0.3 to 0.4 UI have been considered".
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

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CI 58 **SC 58.7** **P 256** **L 30** # **274**
 Dawe, Piers Agilent
Comment Type **E** **Comment Status** **D**
 Text refers to "High probability jitter" while table has "Deterministic jitter"
SuggestedRemedy
 Add text to explain the similarity, change column heading to "High probability jitter".
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT IN PRINCIPLE.

 Need to assure consistency across clauses.

CI 58 **SC 58.7** **P 256** **L 41** # **283**
 Dawe, Piers Agilent
Comment Type **E** **Comment Status** **D**
 New table contents may be misleading without more explanation.
SuggestedRemedy
 Extend the note: "NOTE - Informative jitter values are chosen to be compatible with the limits for eye mask and TDP (see 58.8.9). Because of the way the different components may interact, the differences in jitter between test points cannot be used to indicate a performance level of the intervening sections."
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT IN PRINCIPLE.

 Adopt suggested text. Make the note into a footnote to Table 58-10.

CI 58 **SC 58.8.1** **P 257** **L 38** # **20**
 ZHU, ZIJIAN I2R
Comment Type **E** **Comment Status** **X**
 CDR is first mention in this document
SuggestedRemedy
 Suggest adding in Clock and Data Recovery for this term.
 clock and data recovery (CDR).
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

CI 58 **SC 58.8.2** **P 259** **L 4** # **276**
 Dawe, Piers Agilent
Comment Type **E** **Comment Status** **D**
 Reference won't be B8 any more, now that 1.3 is being built.
SuggestedRemedy
 Delete "[B8]".
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

CI 58 **SC 58.8.3** **P 259** **L 4** # **277**
 Dawe, Piers Agilent
Comment Type **E** **Comment Status** **D**
 Another reference to be added to the normative list.
SuggestedRemedy
 Insert ANSI/EIA-455-95 into lists, in 1.3 and in 58 p245, and remove from Annex A. Delete "[B7]" here.
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

CI 58 **SC 58.8.4** **P 259** **L 16** # **278**
 Dawe, Piers Agilent
Comment Type **E** **Comment Status** **D**
 Another reference going normative.
SuggestedRemedy
 Remove ANSI/TIA/EIA-526-4A from Annex A. Delete "[B13]" here and in 58.11.3.5.
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

CI 58 **SC 58.8.5** **P 260** **L 5** # **280**
 Dawe, Piers Agilent
Comment Type **E** **Comment Status** **D**
 D1.414 comment 747 seems to have been applied to the wrong subclause.
SuggestedRemedy
 Remove "52*ref*, 53*ref*," from here and insert in the NOTE at end of 58.8.6.
Proposed Response **Response Status** **W**
 PROPOSED ACCEPT.

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CI 58 SC 58.8.8 P 264 L 26 # 136
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 Grammar.
 SuggestedRemedy
 Change "an transmitter" to "a transmitter".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 58 SC 58.8.9 P 264 L 43 # 281
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 Title is not aligned with other clauses. It's good to have "TDP" show up in the contents list, making it easier for the reader who has forgotten/never knew what TDP is, to find out.
 SuggestedRemedy
 "Transmitter and dispersion penalty (TDP) measurement"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 58 SC 8.11.4 P 273 L 19 # 62
 Bhatt, Vipul Individual
 Comment Type E Comment Status D
 Incorrect references to table numbers.
 SuggestedRemedy
 Correct them. (Replace 59-7 with 59-8, 59-9 with 59-10, and add 60-11.)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 58 SC 8.12 P 274 L 4 # 64
 Bhatt, Vipul Individual
 Comment Type E Comment Status D
 Incorrect reference to subclause 60.8.
 SuggestedRemedy
 Correct it.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Remove reference.

CI 58 SC 8.8 P 263 L 39 # 61
 Bhatt, Vipul Individual
 Comment Type E Comment Status D
 Potentially confusing sentence: The CRU filters out low frequency jitter and wander which is not considered a defect.
 SuggestedRemedy
 Change to: The CRU tracks low frequency jitter and wander.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Needs more wordsmithing.

CI 58A SC P 601 L 53 # 58
 Bhatt, Vipul Individual
 Comment Type E Comment Status D
 Typo error: The input the pattern may be...
 SuggestedRemedy
 Change to: The input pattern may be...
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 58A SC P 602 L 1 # 59
 Bhatt, Vipul Individual
 Comment Type E Comment Status D
 Typo error: ...based of FCS errors.
 SuggestedRemedy
 Change to: ...based on FCS errors.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 58A SC P 602 L 29 # 60
 Bhatt, Vipul Individual
 Comment Type E Comment Status D
 Typo error: ...the test set may recognized...
 SuggestedRemedy
 Change to: ...the test set may recognize...
 Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 58A SC 58A P 601 L 41 # 151
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 Grammar.
 SuggestedRemedy
 Change "test system" to read: "test systems".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 58A SC 58A P 601 L 44 # 152
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D attn
 Clause 4 moved away from "rate adaption" and is using "rate control".
 SuggestedRemedy
 Change "altered by rate adaptation mechanisms"
 to read: "altered by rate control mechanisms"
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Will be discussed at the meeting

CI 58A SC 58A P 602 L 6 # 411
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 rate and ratio
 SuggestedRemedy
 Change rate to ratio, twice, in this sentence, to give: "The bit error ratio may be
 determined by dividing the frame error ratio by ..."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC P 283 L 1 # 69
 Bhatt, Vipul Individual
 Comment Type E Comment Status D diff errors
 The DIFF version and the PLAIN version are mismatched in several locations where the
 PLAIN version is correct, and the DIFF version is incorrect.
 SuggestedRemedy
 Make the corrections.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

CI 59 SC 1 P 284 L 1 # 81
 Swanson, Steve Corning Incorporated
 Comment Type TR Comment Status D
 I found it extremely difficult to comment on the change bar version. As the editor of
 Clause 59, this document doesn't reflect what I submitted nor does it reflect what is in the
 plain version. I would have no comments if the version I submitted was what I received.
 SuggestedRemedy
 I don't know if it is a software problem or a handoff problem but we can't be taking time
 commenting on previously resolved comments.

Proposed Response Response Status W
 PROPOSED REJECT. The commenter should note that this is not a valid TR comment. The
 spirit of the comment is accepted and the issue will be raised in Ottawa

CI 59 SC 1 P 284 L 17 # 83
 Swanson, Steve Corning Incorporated
 Comment Type T Comment Status D
 Software issue.
 SuggestedRemedy
 Replace lines 17-45 on Page 284 with lines 1-32 on Page 285.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 1 P 284 L 7 # 82
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Incorrect PMD designation (which was correct in the version submitted).
 SuggestedRemedy
 Change "...100BASE-LX10 PMD, 100BASE-BX10 PMDs,..." to "...1000BASE-LX10 PMD,
 1000BASE-BX10 PMDs,..."

Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 59 SC 11.1 P 306 L 12 # 94
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D scope
 Formatting
 SuggestedRemedy
 Center PMD type under Fiber optic cabling.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 Change willbe made

CI 59 SC 12.3.2 P 312 L 31 # 95
 Swanson, Steve Corning Incorporated
 Comment Type T Comment Status D
 Duplicate Tables (OK in Plain version)
 SuggestedRemedy
 Delete first Table.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 12.3.5 P 313 L 29 # 96
 Swanson, Steve Corning Incorporated
 Comment Type T Comment Status D
 Duplicate Tables (OK in Plain version)
 SuggestedRemedy
 Delete first Table.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 12.3.7 P 316 L 20 # 97
 Swanson, Steve Corning Incorporated
 Comment Type T Comment Status D
 Duplicate Tables (OK in Plain version)
 SuggestedRemedy
 Delete first Table.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 12.3.8 P 317 L 18 # 98
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Formatting.
 SuggestedRemedy
 Delete "59.12.3.8"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 3.4 P 289 L 53 # 84
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Incorrect format
 SuggestedRemedy
 Utilize hard space to keep 8B/10B on one line.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 4.1 P 290 L 30 # 85
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Incorrect PMD designator
 SuggestedRemedy
 Replace "...1000BASE-PX10..." with "...1000BASE-LX10..."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 59 SC 4.2 P 293 L 27 # 86
Swanson, Steve Corning Incorporated

Comment Type TR Comment Status D

Table 59-8 is incorrect and not what was submitted - it does not include the bit error ratio, stressed eye jitter values nor the sinusoidal jitter limits. In addition, when the plain version of the document is viewed, the entire Table disappears.

SuggestedRemedy

Insert the correct Table (Table 59-7 in the draft submitted by the Clause editor.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 59 SC 59.1 P 284 L 7 # 284
Dawe, Piers Agilent

Comment Type E Comment Status D

Need a comma.

SuggestedRemedy

"the medium, single-mode fiber." or "the medium (single-mode fiber)."

Proposed Response Response Status W

PROPOSED REJECT. The implementation of the D1.414 comment resolution is incorrect. The first sentence should read: "This clause specifies the 1000BASE-LX10 PMD for both single-mode and multimode fiber, and the 1000BASE-BX10 PMD for single-mode fiber." See resloution to 272

CI 59 SC 59.11.3 P 306 L 52 # 398
Dawe, Piers Agilent

Comment Type E Comment Status D

missing space

scope

SuggestedRemedy

1.5 dB. Also in table 59-2, "minimum range" row.

Proposed Response Response Status W

PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 59 SC 59.11.4 P 307 L 39 # 399
Dawe, Piers Agilent

Comment Type E Comment Status D

missing word

SuggestedRemedy

...BX10 PMD is ...

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 59 SC 59.11.5 P 308 L 19 # 400
Dawe, Piers Agilent

Comment Type E Comment Status D

Table format

SuggestedRemedy

Please make left hand column wider to suit its contents

Proposed Response Response Status W

PROPOSED REJECT. It has been decided not to make changes of this sort at this round. The commenter is encouraged to submit this comment at a later stage

CI 59 SC 59.11.5 P 308 L 25 # 409
Dawe, Piers Agilent

Comment Type T Comment Status D

Does IEC 61754-4 [B25] apply to non-SC connectors? Anyway, it has been revised since 1997. There's a 2002-3 edition. Comment applies to 59.12.3.9 LPC2 also.

SuggestedRemedy

Discuss. May leave a fix to next time.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Discuss remedy in Ottawa.

CI 59 SC 59.12.2.2 P 310 L 40 # 402
Dawe, Piers Agilent

Comment Type E Comment Status D

Wrong standard, optimistic year: see identification above.

SuggestedRemedy

802.3ah-200x

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. change line 48 to read "...IEEE 802.3ah 200x.)"

P802.3ah Draft 1.732 Comments

CI 59 SC 59.12.2.2 P 310 L 41 # 401
 Dawe, Piers Agilent
 Comment Type E Comment Status D scope
 Identification needs to track title
 SuggestedRemedy
 Delete "baseband".
 Proposed Response Response Status W
 PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 Change will be made

CI 59 SC 59.12.2.3 P 311 L 17 # 285
 Dawe, Piers Agilent
 Comment Type E Comment Status D attn
 This text even as revised is still problematical:
 "Device supports downstream wavelength (1500 nm) over a single-mode fiber" because it supports the other wavelength equally much: one transmit, one receive. Middle of wavelength band is 1490 not 1500.
 SuggestedRemedy
 Maybe "Device operates with one single single-mode fiber and transmits at downstream wavelength (1490 nm)"? Likewise for BU.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Discuss remedy in Ottawa.

CI 59 SC 59.12.3 P 311 L 5 # 403
 Dawe, Piers Agilent
 Comment Type E Comment Status D scope
 Should there be a * before MD?
 SuggestedRemedy
 Check (all three clauses)
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 This will be checked and changed if appropriate

CI 59 SC 59.12.3.5 P 315 L 19 # 405
 Dawe, Piers Agilent
 Comment Type E Comment Status D scope
 OM10 will need revision following 59.9.12
 SuggestedRemedy
 At minimum, delete "while sampling at the eye center".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 Discuss remedy in Ottawa.

CI 59 SC 59.12.3.5 P 315 L 6 # 404
 Dawe, Piers Agilent
 Comment Type E Comment Status D scope
 OM6 will need revision following 59.9.8
 SuggestedRemedy
 per comment
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Changes will be made as appropriate
 CI 59 SC 59.12.3.6 P 316 L 13 # 406
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 ES4 needs bringing in line with 59.10.5
 SuggestedRemedy
 Add "N/A" check box as alternative to "Yes".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 59 SC 59.12.3.7 P 317 L 5 # 407
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 Blanks to be filled in
 SuggestedRemedy
 Suggest copy another clause
 Proposed Response Response Status W
 PROPOSED ACCEPT. Copy Clause 58.

CI 59 SC 59.12.3.9 P 317 L 24 # 408
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 Should reference own clause
 SuggestedRemedy
 Change "ref*38.11.4" to 59.11.5.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 59.12.3.9 P 317 L 32 # 410
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 "LX" is confusing. Could change it to "LX10", but equally, could...
 SuggestedRemedy
 delete it.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Delete "LX"

CI 59 SC 59.4.2 P 293 L 37 # 286
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 Typo in table 59-8 100BASE-LX10 Rx sensitivity?
 SuggestedRemedy
 Should "-19" be "-19.2" as in previous draft?
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Table 59-8 is the wrong Table - see comment #86

CI 59 SC 59.4.2 P 293 L 38 # 394
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 BER spec (visible in "plain" pdf file) is max not min.
 SuggestedRemedy
 Change min to max. Check all receiver tables in all three clauses.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Is this a mistake in all Clauses?

CI 59 SC 59.6 P 296 L 12 # 287
 Dawe, Piers Agilent
 Comment Type E Comment Status D scope
 Unnecessary line feed or similar in two rows of table 59-11
 SuggestedRemedy
 Remove line feed after "dB", twice.
 Proposed Response Response Status W
 PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 Changes will be made as appropriate

CI 59 SC 59.6 P 296 L 3 # 288
 Dawe, Piers Agilent
 Comment Type E Comment Status D scope
 Table 59-11 is, I think, now the only place where "U" comes before "D".
 SuggestedRemedy
 Consider swapping the two columns - or leave to WG ballot.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 Need to check the document. Changes will be made if appropriate
 Discuss in Ottawa

P802.3ah Draft 1.732 Comments

CI 59 SC 59.8 P 297 L 8 # 289
 Dawe, Piers Agilent

Comment Type T Comment Status D

Filling gaps in the table. Only one of these numbers (TJ at TP2) is a technical comment (and may need to be revised), all the other values are as is or found by simple arithmetic.

SuggestedRemedy

TP1	0.240	192	0.100	80
TP1 to TP2	0.241	193	0.150	120
TP2	0.481	385	0.250	200
TP2 to TP3	0.029	23	0	0
TP3	0.510	408	0.250	200
TP3 to TP4	0.332	266	0.212	170
TP4	0.749	499	0.462	370

Add footnote to TP2 "Total jitter at TP2 may be different for the two directions".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Discuss remedy in Ottawa.

CI 59 SC 59.9 P 297 L 54 # 392
 Dawe, Piers Agilent

Comment Type T Comment Status D

There's a contradiction between Table 59-14 which says that the jitter pattern test frame is recommended for all jitter tests, and other places which refer to 36A:
 59.9.13 p302 line 50
 59.9.14 p303 line 28

SuggestedRemedy

Remove contradiction.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Discuss remedy in Ottawa.

CI 59 SC 59.9.11 P 302 L 35 # 391
 Dawe, Piers Agilent

Comment Type E Comment Status D scope
 upper case

SuggestedRemedy

Meeting

Proposed Response Response Status W

PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Please note: The text presented here is different than that provided by the Clause 59 editor. This error is not present in the original text.

CI 59 SC 59.9.12 P 302 L 41 # 393
 Dawe, Piers Agilent

Comment Type T Comment Status D scope

This statement "The receive sensitivity shall be measured using a worst-case extinction ratio penalty while sampling at the eye center." is not correct: we sorted it out elsewhere and need to propagate the change across clauses. The easiest way is by reference. Note that 58.8.10 says it applies to 59 also. Also we need to tie in the changes for frame based pattern and pick up the BER entry in the receive tables. I have submitted an equivalent comment against 60.9.11.

SuggestedRemedy

Change first sentence to "Receiver sensitivity is defined for the random pattern test frame and an ideal input signal quality with the specified extinction ratio. The measurement procedure is described in 58.8.10. The sensitivity shall be met for the bit error ratio defined in Table 59-8 or 59-10 as appropriate." Keep second sentence as it is.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Will be discussed in Ottawa

P802.3ah Draft 1.732 Comments

CI 59 SC 59.9.13 P 302 L 54 # 395

Dawe, Piers Agilent

Comment Type E Comment Status D scope
PMD's name

SuggestedRemedy

-BX10. Also in 59.9.16 item b).

Proposed Response Response Status W

PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Change will be made

CI 59 SC 59.9.15 P 303 L 36 # 396

Dawe, Piers Agilent

Comment Type E Comment Status D scope
Stressed receiver conformance test is optional in the receiver tables. Last time, in clause 58 we changed it from informative to normative but optional: we should do so here too. I have submitted a similar comment against 60.9.12.

SuggestedRemedy

Delete "(informative)".

Change sentence beginning "The conformance test signal is" to:

"The conformance test signal uses the random pattern test frame and is conditioned by applying deterministic jitter and intersymbol interference."

Change text to use a "shall", e.g. change the sentence beginning "Receiver sensitivity is assured" to:

"If the option for stressed receiver compliance is chosen, the receiver shall meet the specified bit error ratio at the power level and signal quality defined in Table 59-8 or 59-10 as appropriate, according to the measurement procedures of 58.8.11 *ref*."

Add a PICS.

Proposed Response Response Status W

PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Change will be made

CI 59 SC 59.9.16 P 303 L 53 # 397

Dawe, Piers Agilent

Comment Type T Comment Status D scope
Wrong pattern? Or do we allow either?

SuggestedRemedy

Change "short continuous random test pattern defined in 36A.5." to "Random Pattern Test Frame defined in 59.9.1."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Discuss remedy in Ottawa.

CI 59 SC 59.9.2 P 298 L 8 # 290

Dawe, Piers Agilent

Comment Type E Comment Status D
Missing word? Also, a fixed pattern is not random, just pretending to be.

SuggestedRemedy

"The first emulates a random pattern, with broad"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 59 SC 59.9.2 P 299 L 3 # 293

Dawe, Piers Agilent

Comment Type E Comment Status D
Table format

SuggestedRemedy

Please make right hand column wider to suit its title

Proposed Response Response Status W

PROPOSED REJECT. At this round it was decided not to make this type of change. The commenter is encouraged to submit this comment at a later stage

P802.3ah Draft 1.732 Comments

CI 59 SC 59.9.3 P 298 L 42 # 291
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 Wrong font within NOTE 1
 SuggestedRemedy
 per comment
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. This was correct in the submitted version (I believe).

CI 59 SC 59.9.3 P 298 L 54 # 292
 Dawe, Piers Agilent
 Comment Type E Comment Status D scope
 Broken quantity
 SuggestedRemedy
 Need a nonbreaking space between 2 and dB. Also in 59.9.5 p300 line 44, "-20 dB"
 Proposed Response Response Status W
 PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Change will be made

CI 59 SC 59.9.5 P 300 L 45 # 294
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 The new sentence displaces the following "This".
 SuggestedRemedy
 Move the new sentence to the end of the paragraph.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Discuss remedy in Ottawa.

CI 59 SC 59.9.8 P 301 L 10 # 295
 Dawe, Piers Agilent
 Comment Type T Comment Status D RIN
 In comment 780 to D1.414 we resolved to use RIN12OMA. This subclause has to change now.
 SuggestedRemedy
 "59.9.8 Relative intensity noise optical modulation amplitude (RIN12OMA)

RIN12OMA is the ratio of noise to modulated optical signal in the presence of a back reflection. The measurement procedure is described in *ref*58.8.7."

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 59.9.9 P 301 L 18 # 296
 Dawe, Piers Agilent
 Comment Type T Comment Status D scope
 This comment uses references to 58.8.8 to bring the clauses into line instead of cloning that material. First paragraph and figure remain unchanged. Also, spelling: "surpress".
 SuggestedRemedy
 "The required transmitter pulse shape characteristics are specified in the form of a mask of the transmitter eye diagram as shown in Figure 59-4.

The measurement procedure is described in 58.8.8 and references therein. The eye shall comply to the mask of the eye using a fourth-order Bessel Thomson receiver response with $f_r = 0.9375$ GHz, and where the relative response vs. relative frequency is defined in ITU-T G.957, Table B.2 (STM-16 values), along with the allowed tolerances for its physical implementation.

NOTE - The fourth order Bessel Thomson filter is reactive. In order to suppress reflections, a 6 dB attenuator may be required at the filter input and/or output."

Proposed Response Response Status W
 PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Change will be made

P802.3ah Draft 1.732 Comments

CI 59 SC 7 P 296 L 26 # 87
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Comment resolution not correctly implemented
 SuggestedRemedy
 Replace "Numbers in the..." with "The entries in..."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 8 P 296 L 52 # 88
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Comment resolution not correctly implemented
 SuggestedRemedy
 Replace "Numbers in the..." with "The entries in..."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 9 P 297 L 26 # 89
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Comment resolution not correctly implemented
 SuggestedRemedy
 Replace "All optical measurements except TDP and RIN shall..." with "All optical measurements, except TDP and RIN, shall..."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 9 P 297 L 28 # 90
 Swanson, Steve Corning Incorporated
 Comment Type TR Comment Status D
 Missing paragraph
 SuggestedRemedy
 Add paragraph in original submittal: "The following sections describe definitive patterns and test procedures for certain PMDs of this standard. Implementers using alternative verification methods must ensure adequate correlation and allow adequate margin such that specifications are met by reference to the definitive methods."

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 9.2 P 297 L 31 # 91
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Incorrect header
 SuggestedRemedy
 "59.9.2 Test patterns" should read "59.9.1 Test patterns"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 9.2 P 298 L 5 # 92
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Incorrect format
 SuggestedRemedy
 Add hard space to keep reference to Table 59-15 on a single line.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 59 SC 9.3 P 300 L 33 # 93
 Swanson, Steve Corning Incorporated
 Comment Type E Comment Status D
 Editing error
 SuggestedRemedy
 Delete "Optical power measurements"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 59 SC Table 59-15 P 298 L 16 # 137
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D scope
 Two fields are incorrect.

SuggestedRemedy

The field "Idle" should be relabeled "Preamble".
 The field "SOF" should be re-labeled "SFD".

Table 58-8 also contains a line item for Idle, properly called IPG. Should this also be included in Table 59-15.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Change will be made if appropriate

CI 60 SC P 319 L 1 # 70
 Bhatt, Vipul Individual

Comment Type E Comment Status D diff errors
 The DIFF version and the PLAIN version are mismatched in several locations where the PLAIN version is correct, and the DIFF version is incorrect.

SuggestedRemedy

Make the corrections.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

CI 60 SC 5 P 330 L 1 # 63
 Bhatt, Vipul Individual

Comment Type E Comment Status D
 Table 60-7 is a false duplicate, i.e., it is incorrect and unnecessary. The PX10 Rx characteristics are specified in Table 60-8, making 60-7 unnecessary and obsolete. Please note that in the PLAIN version, Table 60-10 appears to be a false duplicate of Table 60-7.

SuggestedRemedy

Delete Table 60-7 and make sure references to Table 60-8 are correct everywhere in the document.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. See also comments #63 and #536

CI 60 SC 60 P 326 L 3 # 417
 Dawe, Piers Agilent

Comment Type E Comment Status D attn
 Several tables in this clause would benefit from wider or resized columns.

SuggestedRemedy

and I think it won't show as a change (not in Frame, anyway)

Proposed Response Response Status W

PROPOSED REJECT. Want to avoid cosmetic changes to tables and figures at this stage. The commenter is encourages to submit this comment at a later stage

CI 60 SC 60.1 P 320 L 12 # 420
 Dawe, Piers Agilent

Comment Type E Comment Status D
 Need to fess up to extra PMA specs in 65.

SuggestedRemedy

"... and PMA of Clause 36 *ref* as modified by 65.3, and ..."

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 60 SC 60.1 P 320 L 22 # 138
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D
 Length is misspelled.

SuggestedRemedy

Fix.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 60 SC 60.1.1 P 320 L 4344 # 233
 Yajima, Yusuke Hitachi Communication

Comment Type E Comment Status D attn
 The notation "...fiber supporting a downstream:upstream ratio of 1:16" is not appropriate. It is not clear what ratio "1:16" shows.

SuggestedRemedy

The notation should be changed into "...fiber with a typical sprit ratio of 1:16" or similar expression.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Appropriate wording will be adopted

P802.3ah Draft 1.732 Comments

CI 60 SC 60.1.5 P 322 L 35 # 229
 Yokomoto, Tetsuya FUJITSU ACCESS LIMI

Comment Type T Comment Status D scope

Q1.
 Is '4ns' reserved for each transmit/receive functions of the PMD an independent specification, or is it just an assumed value in determining delay requirement from the MDI to the GMII?

Q2.
 What is the rationale for '4ns' ?

This value is a little small to employ pigtailed optical transceivers. Therefore, it should be relaxed to 10-20ns, which is small enough compared to the delay within ODN, and large enough for most of the transceivers with pigtail fiber.

SuggestedRemedy

- 1) If this value(4ns) is an independent spec, Relax the delay to 20ns.
- 2) If this value is implementation dependent, omit specific value.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

This issue needs further discussion. There are also possible implications for clause 36

CI 60 SC 60.10.4 P 346 L 25 # 213
 Nakagawa, Junichi Mitsubishi Electric Cor

Comment Type T Comment Status D temperature

The Subclause refers Annex 66A, which is informative. It should be clearly indicated that Subcluase 60.10.4 is informative like as Annex 66A.

SuggestedRemedy

Change the titlle "Environment" to "Environment (informative)", or change "Table 60-16 Component case temperature classes" to "Table 60-16 Component case temperature classes (informative)"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

This issue will be discussed at the meeting.

The wording of this section (and its normative nature) is the result of various motions passed on temperature issues. The text will be changed to indicate that 66A is informative but the table and heading will remain normative

CI 60 SC 60.10.4 P 346 L 29 # 231
 Yokomoto, Tetsuya FUJITSU ACCESS LIMI

Comment Type T Comment Status D temperature

Reference for two optional temperature ranges is not adequate.
 Necessary component case temperature is heavily implementation dependent.
 It may be useful to state options for equipment operating temperature, but not to state component case temperature. Therefore, line from 29 to 31 and Table 60-17 should be deleted from 60.10.4. or subclause 60.10.4 should be stated as 'informative'.

SuggestedRemedy

There are two alternatives.

1)Clearly state that this subclause is informative, and change reference from Table 58-15 to Table 60-17

Or,

2)Delete line from 29 to 31 and Table 60-17.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. The wording of this text and the case temperature definition has been agreed upon by motions of previous meetings. However the incorrect reference in this text will be corrected

CI 60 SC 60.12.2.2 P 350 L 4 # 418
 Dawe, Piers Agilent

Comment Type E Comment Status D clause number

SuggestedRemedy

60. Also at 60.12.1 p349 line 7.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 60 SC 60.12.4 P 352 L 1 # 419
 Dawe, Piers Agilent

Comment Type E Comment Status D obsolete title

SuggestedRemedy

revise to follow clause title

Proposed Response Response Status W

PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 60 SC 60.3.1 P 324 L 33 # 415

Dawe, Piers Agilent

Comment Type E Comment Status D

I thought we had got these test points sorted but to be strictly correct we have to make the diagram even more busy!

SuggestedRemedy

Where patch cord meets OLT PMD, label "/TP3".
Change "TP2/TP3" to "TP2/-".
Introduce patchcords and connectors on right hand side. Label one connector "-/TP2".
Where new patch cord meets ONU PMD, label "TP3/-".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 60 SC 60.4 P 326 L 29 # 186

Ryuji, Ishii Hitachi Communication

Comment Type E Comment Status D

Referred subclause "58.10.3" is incorrect.

SuggestedRemedy

Change "58.10.3" to "60.11.2".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 60 SC 60.4 P 327 L 37 # 243

David Li Ligent Photonics, Inc.

Comment Type T Comment Status D scope

For the 1000Base-PX10 and 1000Base-PX20 transceivers, the receiver sensitivity is defined as -24dBm (-27dBm for 1000Base-PX20-D) in draft D1.732. The -24dBm sensitivity at 1.25Gbps by using a PIN photo diode is achievable in the lab, but it is very difficult to guarantee in the volume production. This will force the transceiver manufacturers to use the APDs on the receiver side in addition to the high power laser diodes on the transmitters.

See also p.327 line 38, p.330 line 12, p.332 line11 and 12, p.336 line 14

SuggestedRemedy

It is better to change the receiver sensitivity spec. to -28dBm by using the APD and relax the transmitting power spec. by 4dB in order to reduce the cost of laser diodes and also the power dissipation of the P2MP transceivers. The suggested modification and cost information is summarized in li_cmt_1_0603.pdf.

Proposed Response Response Status W

PROPOSED REJECT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

This issue has been voted on in several sessions with the same conclusion.

The attached data will be presented to and discussed by the group

CI 60 SC 60.4.2 P 330 L 1 # 242

David Li Ligent Photonics, Inc.

Comment Type E Comment Status D

Table 60-7 was duplicated in Table 60-8 and Table 60-11.

See also pg 331 line 1, pg 334 line 29

SuggestedRemedy

Delete Table 60-8 and Table 60-11.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. See comments #63 and #536

P802.3ah Draft 1.732 Comments

CI 60 SC 60.4.2 P 330 L 1 # 536
 Onishi, Kazumi O F Networks Co., Ltd
 Comment Type E Comment Status D
 Table 60-7, Table 60-8 and Table 60-11 are duplicate.
 SuggestedRemedy
 Delete Table 60-7 and Table 60-11.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. See also #63 and #536

CI 60 SC 60.4.2 P 331 L 1 # 538
 Onishi, Kazumi O F Networks Co., Ltd
 Comment Type T Comment Status D scope
 In Table 60-8, PX10-U Average receive power(max) "-5dBm" is inconsistent with PX10-D maximum average launch power "+2dBm" and minimum channel insertion loss "5dB".
 SuggestedRemedy
 In Table 60-8, PX-10-U Average receive power(max) value is replaced with "-3dBm".
 Proposed Response Response Status W
 PROPOSED ACCEPT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 Change will be made

CI 60 SC 60.4.2 P 331 L 1 # 539
 Onishi, Kazumi O F Networks Co., Ltd
 Comment Type T Comment Status D scope
 In Table 60-8, regarding Signal Detect Threshold(min), the PX10-D value and the PX10-U value may be swapped, because the PX10-U value "-45dBm" is inconsistent with PX10-D maximum average launch power of OFF transmitter "-39dBm" and minimum channel insertion loss "5dB".
 To be harmonized with PX10, the PX20-D value and the PX20-U value may be swapped in Table 60-12.

SuggestedRemedy
 Signal Detect Threshold(min) are:
 1000BASE-PX10-D=-45dBm, 1000BASE-PX10-U=-44dBm in table60-8
 1000BASE-PX20-D=-45dBm, 1000BASE-PX20-U=-44dBm in table60-12
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 This will be discussed at the meeting. One suggestion would be to change both values to -45 dBm

CI 60 SC 60.4.2, 60.5.2 P 331336 L # 234
 Yajima, Yusuke Hitachi Communication
 Comment Type E Comment Status D attn
 There are no definitions of "Rx settling time" mentioned in note c in Table 60-8 and Table 60-12. I guess that "Rx settling time" is same as "Treceiver_settling". Supposing that is right, is it right that note c mentions that only the sum total time of "Treceiver_settling" and "CDR lock time" is normative and the value of each time is just informative although "CDR lock time" is specified as "less than 500bit times" in 65.3 ? Does that mean only "Treceiver_settling" is informative and "CDR lock time" and sum total time of "Treceiver_settling" and "CDR lock time" are normative?
 SuggestedRemedy
 Change "Rx settling time" into "Treceiver_settling" in note c of Table 60-8 and Table 60-12 and clarify the meaning of note c to consistent with 65.3.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. NOTE - this is more than an editorial change regarding the inclusion of the combined timing. This comment will be flagged to the CI 65 group.

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CI 60 SC 60.5 P 329 L 47 # 497
 TSUJI, SHINJI SUMITOMO ELECTRIC
 Comment Type E Comment Status D
 missing
 SuggestedRemedy
 Modify "Table 58-10" into "Table 60-18".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 60 SC 60.5 P 329 L 47 # 187
 Ryuji, Ishii Hitachi Communication
 Comment Type E Comment Status D
 Referred subclause "58.10.3" is incorrect.
 SuggestedRemedy
 Change "58.10.3" to "60.11.2".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 60 SC 60.5.2 P 296 L 6 # 534
 Hyun-Kyun Choi ETRI
 Comment Type E Comment Status D scope
 Those row titles are mismatched with the below contents in Table 60-10.
 SuggestedRemedy
 Exchange the row title 1000BASE-PX10-D with 100BASE-PX10-U.
 Proposed Response Response Status W
 PROPOSED REJECT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 The -D and -U indicates transmit direction, not receive. Hence title is correct

CI 60 SC 60.5.2 P 297 L 27 # 535
 Hyun-Kyun Choi ETRI
 Comment Type E Comment Status D scope
 Those row titles are mismatched with the below contents in Table 60-11.
 SuggestedRemedy
 Exchange the row title 1000BASE-PX20-D with 100BASE-PX20-U.
 Proposed Response Response Status W
 PROPOSED REJECT. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

The -D and -U indicates transmit direction, not receive. Hence title is correct

CI 60 SC 60.5.2 P 332 L 47 # 416
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 Near-duplicate paragraphs
 SuggestedRemedy
 Delete the second one.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 60 SC 60.5.2 P 335 L 1 # 66
 Bhatt, Vipul Individual
 Comment Type E Comment Status D
 Table 60-11 is redundant. Note that in the PLAIN version, Table 60-10 is redundant.
 SuggestedRemedy
 Delete it.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Document will be examined and appropriate action taken

P802.3ah Draft 1.732 Comments

CI 60 SC 60.7 P 337 L 29 # 498
 TSUJI, SHINJI SUMITOMO ELECTRIC
 Comment Type E Comment Status D
 missing
 SuggestedRemedy
 Modify "58.8.1" into "60.9.2".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Will check reference

CI 60 SC 60.7 P 338 L 26 # 202
 Nojima, Kazuhiro Panasonic Mobile
 Comment Type E Comment Status D
 Editorial mistake.
 SuggestedRemedy
 Change "01.6" into "0.16"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 60 SC 60.9 P 338 L 37 # 65
 Bhatt, Vipul Individual
 Comment Type E Comment Status D
 Error in Table 60-16 title.
 SuggestedRemedy
 Change to: Jitter gain curve values for 1000BASE-PX10-U and 1000BASE-PX20-U.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 60 SC 60.9.11 P 341 L 43 # 412
 Dawe, Piers Agilent
 Comment Type T Comment Status D
 This statement "The receive sensitivity shall be measured using a worst-case extinction ratio penalty while sampling at the eye center." is not correct: we sorted it out elsewhere and need to propagate the change across clauses. The easiest way is by reference. Note that 58.8.10 says it applies to 60 also. Also we need to tie in the changes for frame based pattern and pick up the BER entry in the receive tables. I have submitted an equivalent comment against 59.9.12.

SuggestedRemedy
 Change first sentence to "Receiver sensitivity is defined for the random pattern test frame and an ideal input signal quality with the specified extinction ratio. The measurement procedure is described in 58.8.10. The sensitivity shall be met for the bit error ratio defined in Table 60-? or 60-? as appropriate." Keep second sentence as it is.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Changes will be made with the relevant references

CI 60 SC 60.9.11 P 341 L 46 # 413
 Dawe, Piers Agilent
 Comment Type E Comment Status D
 Redundant paragraph
 SuggestedRemedy
 Delete the paragraph: it duplicates the following subclause.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 60 SC 60.9.12 P 341 L 52 # 414
 Dawe, Piers Agilent

Comment Type E Comment Status D

Stressed receiver conformance test is optional in the receiver tables. Last time, in clause 58 we changed it from informative to normative but optional: we should do so here too. I have submitted a similar comment against 59.9.15.

SuggestedRemedy

Delete "(informative)".
 Change sentence beginning "The conformance test signal is" to:
 "The conformance test signal uses the random pattern test frame and is conditioned by applying deterministic jitter and intersymbol interference."

 Change text to use a "shall", e.g. change the sentence beginning "Receiver sensitivity is assured" to:
 "If the option for stressed receiver compliance is chosen, the receiver shall meet the specified bit error ratio at the power level and signal quality defined in Table 60-8 or 60-12 as appropriate, according to the measurement procedures of 58.8.11 *ref*."
 Add a PICS.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 60 SC 60.9.15 P L # 67
 Bhatt, Vipul Individual

Comment Type E Comment Status D

Subclause numbers don't match the PLAIN version. See, for example, 60.9.15 (DIFF) and 60.8.13 (PLAIN).

SuggestedRemedy

Fix the subclause numbers.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 60 SC 60.9.15.1.1 P 342 L 37 # 499
 TSUJI, SHINJI SUMITOMO ELECTRIC

Comment Type E Comment Status D attn

It is not clear how 8 parameters(wavelength, and eye mask opening) are used.

SuggestedRemedy

Write parameters separately,
 for evaluating,
 for conditioning.

Add average launch power to the text and/or change the measurement setup(Figure 60-8) if necessary.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. NOTE this is more than an editorial comment. It is unclear what is meant by evaluating and conditioning in this context. Average launched power will be added to the text.

CI 60 SC 60.9.15.3.2 P 345 L 2 # 537
 Onishi, Kazumi O F Networks Co., Ltd

Comment Type E Comment Status D

In Figure 60-9, some box names may be wrong according to their functions.
 At the lower left, the box that has "Tx_Enable2" input may not be "Tested" Optical PMD Transmitter.
 At the upper right, the box between TP3 and TP4 may not be "Transmitter".

SuggestedRemedy

Two box names should be replaced as follows.
 At the lower left, the box that has "Tx_Enable2" input: The name "Tested Optical PMD Transmitter" is replaced with "Optical PMD Transmitter".
 At the upper right, the box between TP3 and TP4: The name "Tested Optical PMD Transmitter" is replaced with "Tested Optical PMD Receiver".

Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 60 SC 60.9.2 P 339 L 33 # 230
 Yokomoto, Tetsuya FUJITSU ACCESS LIMI

Comment Type E Comment Status D scope
 Multiplication factor 10^{-3} is missing from equation (60-3).
 Add 10^{-3} and units of parameters to the equation for clarity.

SuggestedRemedy

Modify expressions in both line 31 and equation (60-3) as follows.

1)
 $\epsilon = \text{dispersion}[\text{ps/nm/km}] * \text{path length}[\text{km}] * \text{RMS_spectral width}[\text{nm}]$
 $* \text{signaling_speed}[\text{Gbd/s}] * 10^{-3}$ (60-3)

2)Add ", where the path dispersion[ps/nm] is the product of the dispersion[ps/nm/km] and the path length[km]." to the end of line 31.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

This first part of this comment was also discussed at the last meeting.

The second part will be discussed at the meeting

CI 60 SC 60.9.2 P 339 L 35 # 241
 Yanagisawa, Hiroki NEC Corporation

Comment Type T Comment Status D Epsilon
 It seems strange that the same epsilon value is applied to upstream and downstream, while the allocation for penalties are different from each other. Current epsilon values (0.168, 0.115 and 0.10) seem to be applicable to upstream only.

SuggestedRemedy

Define appropriate epsilon value for downstream:
 PX10-D: Normative epsilon may be between 0.115 and 0.100 for 1.5 dB penalty
 PX20-D: Normative epsilon may be between 0.168 and 0.115 for 2.5 dB penalty

Modify spectral limits for 1480-1500 nm in Table 60-6 and Table 60-10 accordingly.

Proposed Response Response Status W

PROPOSED REJECT. The editor believes that there is no discrepancy in the epsilon values and allocated penalties for the downstream link. This information has been transmitted to the commenter and he is encouraged to provide clarification of intent.

CI 60 SC Figure 60-1 P 321 L 9 # 121
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D
 "MPCP" sublayer should really be "MPMC".

SuggestedRemedy

Fix. Two places.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 60 SC Table 60-13 P 337 L 8 # 139
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The spelling of "fiber" is different than in the corresponding tables in 58 and 59.

SuggestedRemedy

Change to "fiber" in two places in table.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 60 SC Table 60-12 P 336 L 22 # 240
 Yanagisawa, Hiroki NEC Corporation

Comment Type T Comment Status D stressed sensitivity
 It is not clear how the stressed receive sensitivity is derived. It seems to be inconsistent with the vertical eye-closure penalty. At this point, difference between stressed sensitivity and un-stressed sensitivity should be equal to the vertical eye-closure penalty, as same as 100BASE-LX10 and 100BASE-BX10.

SuggestedRemedy

Modify the stressed receive sensitivity from -26.2 to -24.8 dBm for PX20-D. Modify the stressed receive sensitivity from -23.1 to -22.5 dBm for PX20-U. Stressed OMA should be modified accordingly.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. It is acknowledged that there is a discrepancy in the values. Modifications will be discussed at the meeting

P802.3ah Draft 1.732 Comments

CI 60 SC Table 60-5 P 328 L 20 # 237
 Yanagisawa, Hiroki NEC Corporation
 Comment Type T Comment Status D TDP
 It is not clear why there is 0.2 dB discrepancy between TDP and allocation for penalties in Table 60-13.
 SuggestedRemedy
 Modify TDP from 1.3 to 1.5 dB for PX10-D
 Modify TDP from 2.8 to 3.0 dB for PX10-U
 Proposed Response Response Status W
 PROPOSED REJECT. The 0.2 dB allowance is intended for penalties arising from the interaction between Tx and Rx and are not exclusively attributable to either

CI 60 SC Table 60-5 P 328 L 7 # 235
 Yanagisawa, Hiroki NEC Corporation
 Comment Type T Comment Status D RIN
 In terms of RINxOMA, x should be 15 instead of 12. Because optical return loss tolerance is 15 dB.
 SuggestedRemedy
 Modify RIN_12_OMA to RIN_15_OMA.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Value will be discussed at meeting

CI 60 SC Table 60-8 P 331 L 22 # 239
 Yanagisawa, Hiroki NEC Corporation
 Comment Type T Comment Status D stressed sensitivity
 It is not clear how the stressed receive sensitivity is derived. It seems to be inconsistent with the vertical eye-closure penalty. At this point, difference between stressed sensitivity and un-stressed sensitivity should be equal to the vertical eye-closure penalty, as same as 100BASE-LX10 and 100BASE-BX10.
 SuggestedRemedy
 Modify the stressed receive sensitivity from -23.0 to -22.8 dBm for PX10-D. Modify the stressed receive sensitivity from -23.2 to -21.8 dBm for PX10-U. Stressed OMA should be modified accordingly.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. It is acknowledged that there is a discrepancy in the values. Modifications will be discussed at the meeting

CI 60 SC Table 60-8 P 331 L 32 # 207
 Nakagawa, Junichi Mitsubishi Electric Cor
 Comment Type T Comment Status D scope
 Jitter corner frequency should be clearly indicated as a test condition for measuring stressed receiver sensitivity.
 SuggestedRemedy
 Change "Jitter corner frequency " to "Jitter corner frequency (b)". Put a footnote -b.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Will be discussed at the meeting. This change is not consistent with other clauses.

CI 60 SC Table 60-9 P 332 L 17 # 236
 Yanagisawa, Hiroki NEC Corporation
 Comment Type T Comment Status D RIN
 In terms of RINxOMA, x should be 15 instead of 12. Because optical return loss tolerance is 15 dB.
 SuggestedRemedy
 Modify RIN_12_OMA to RIN_15_OMA.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Value will be discussed at meeting

CI 60 SC Table 60-9 P 332 L 31 # 238
 Yanagisawa, Hiroki NEC Corporation
 Comment Type T Comment Status D TDP
 It is not clear why there is 0.2 dB discrepancy between TDP and allocation for penalties in Table 60-13.
 SuggestedRemedy
 Modify TDP from 2.3 to 2.5 dB for PX20-D
 Modify TDP from 1.8 to 2.0 dB for PX20-U
 Proposed Response Response Status W
 PROPOSED REJECT. The 0.2 dB allowance is intended for penalties arising from the interaction between Tx and Rx and are not exclusively attributable to either

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CI 60 SC Table60-12 P 336 L 24 # 209
 Nakagawa, Junichi Mitsubishi Electric Cor
 Comment Type T Comment Status D stressed sensitivity
 Stressed receiver sensitivity OMA should be clearly indicated as informative like as Stressed receiver sensitivity.
 SuggestedRemedy
 Change "Stressed receiver sensitivity OMA" to "Stressed receiver sensitivity OMA(a)".
 Put a footnote -a.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Footnote text will be discussed at the meeting

CI 60 SC Table60-12 P 336 L 30 # 210
 Nakagawa, Junichi Mitsubishi Electric Cor
 Comment Type T Comment Status D stressed eye jitter
 Stressed eye jitter should be clearly indicated as a test condition for measuring stressed receiver sensitivity.
 SuggestedRemedy
 Change "Stressed eye jitter" to "Stressed eye jitter (b)". Put a footnote -b.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Change will be discussed at the meeting

CI 60 SC Table60-12 P 336 L 32 # 211
 Nakagawa, Junichi Mitsubishi Electric Cor
 Comment Type T Comment Status D scope
 Jitter corner frequency should be clearly indicated as a test condition for measuring stressed receiver sensitivity.
 SuggestedRemedy
 Change "Jitter corner frequency " to "Jitter corner frequency (b)". Put a footnote -b.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 Will be discussed at the meeting. This change is not consistent with other clauses.

CI 60 SC Table60-12 P 336 L 33 # 212
 Nakagawa, Junichi Mitsubishi Electric Cor
 Comment Type T Comment Status D sin jitter limits
 Sinusoidal jitter limits for stressed receiver conformance test should be clearly indicated as a test condition for measuring stressed receiver sensitivity.
 SuggestedRemedy
 Change "Sinusoidal jitter limits for stressed receiver conformance test " to "Sinusoidal jitter limits for stressed receiver conformance test (b)". Put a footnote -b.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Text will be discussed at the meeting

CI 60 SC Table60-5 P 328 L 7 # 203
 Nakagawa, Junichi Mitsubishi Electric Cor
 Comment Type T Comment Status D RIN
 RINxOMA should be defined at the condition of the optical return loss tolerance of 15dB, not 12dB.
 The optical return loss of 12dB is that of the optical transceiver.
 SuggestedRemedy
 Change RIN_12_OMA to RIN_15_OMA.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Value will be discussed at meeting

CI 60 SC Table60-8 P 331 L 24 # 204
 Nakagawa, Junichi Mitsubishi Electric Cor
 Comment Type T Comment Status D scope
 Stressed receiver sensitivity OMA should be clearly indicated as informative like as Stressed receiver sensitivity.
 SuggestedRemedy
 Change "Stressed receiver sensitivity OMA" to "Stressed receiver sensitivity OMA(a)".
 Put a footnote -a.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 Change will be made

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CI 60 SC Table60-8 P 331 L 30 # 206
 Nakagawa, Junichi Mitsubishi Electric Cor

Comment Type T Comment Status D stressed eye jitter
 Stressed eye jitter should be clearly indicated as a test condition for measuring stressed receiver sensitivity.

SuggestedRemedy
 Change "Stressed eye jitter" to "Stressed eye jitter (b)". Put a footnote -b.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. The text will be discussed at the meeting

CI 60 SC Table60-8 P 331 L 33 # 208
 Nakagawa, Junichi Mitsubishi Electric Cor

Comment Type T Comment Status D sin jitter limits
 Sinusoidal jitter limits for stressed receiver conformance test should be clearly indicated as a test condition for measuring stressed receiver sensitivity.

SuggestedRemedy
 Change "Sinusoidal jitter limits for stressed receiver conformance test " to "Sinusoidal jitter limits for stressed receiver conformance test (b)". Put a footnote -b.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. The text will be discussed at the meeting

CI 60 SC Table60-9 P 332 L 17 # 205
 Nakagawa, Junichi Mitsubishi Electric Cor

Comment Type T Comment Status D RIN
 RINxOMA should be defined at the condition of the optical return loss tolerance of 15dB, not 12dB.
 The optical return loss of 12dB is that of the optical transceiver.

SuggestedRemedy
 Change RIN_12_OMA to RIN_15_OMA.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Value will be discussed at meeting

CI 61 SC 2.3.3.3 P 386 L 49 # 451
 Langston, Daun Metanoia

Comment Type E Comment Status D
 Table 61-10

The example is incorrect:
 C_0 = 0x90, C_1 = 0x81, C_2 = 0x82, ... C_62 = 0xBE, C_63 = 0x3F

SuggestedRemedy
 Consider replacing with the correct example:

C_0 = 0x90, C_1 = 0x11, C_2 = 0x12, C_3 = 0x93 ... C_62 = 0x4E, C_63 = 0xCF

Proposed Response Response Status W
 PROPOSED ACCEPT.

See also #351.

CI 61 SC 2.3.3.1 P 383 L 29 # 457
 Langston, Daun Metanoia

Comment Type T Comment Status D
 If scrambler and descrambler are not both initialized to zero, the first Ethernet frame is errored. Not good to error perfectly good data.

SuggestedRemedy
 Solution: Affects two clauses 61.2.3.3.1 and 61.2.3.3.2. Recommend to add the following: The state of the scrambler (descrambler depending on clause) shall be initialized to zero before the first Ethernet frame is passed.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

See comment #214.

P802.3ah Draft 1.732 Comments

CI 61 SC 2.3.3.3 P 384 L 46 # 452
Langston, Daun Metanoia

Comment Type E Comment Status D

The paragraph is not clear about the core idea that you are either in-frame or out of frame. It is complicated by the other issues such sync byte insertion and Cn count values but does express the core idea clearly.

SuggestedRemedy

More emphasis that valid frames always begin with S. Following S the encoder is in-frame. The only way to get out of frame is to send Cn. After the count elapses the encoder is out-of-frame. Even if nothing follows, the encoder must send Cn = 90base16 which indicates the encoder is immediately out-of-frame.

Proposed Response Response Status W
PROPOSED REJECT.

Current text seems clear enough to this reviewer (Barry).

Please provide explicit proposed text remedy (i.e., exact new text) that would make things clearer to you.

CI 61 SC 2.3.3.3 P 385 L 25 # 450
Langston, Daun Metanoia

Comment Type E Comment Status D

this case, the next codeword begins with Sync Byte equal to F0 16 , C n equal to C 0 (81 16).

SuggestedRemedy

Wrong Value of 81base16 and should be 90base16.

Change to read:

this case, the next codeword begins with Sync Byte equal to 0xF0, C_n equal to C_0 (0x90) or 90base16.

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 61 SC 2.3.3.4 P 386 L 6 # 455
Langston, Daun Metanoia

Comment Type E Comment Status D

the ã -interface

reads: they-interface in the text

SuggestedRemedy

fix by adding a space

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 61 SC 2.3.3.5 P 386 L 28 # 458
Langston, Daun Metanoia

Comment Type E Comment Status D

The init status of the CRC is not clear.

SuggestedRemedy

Add the following:

Typical implementations of the CRC algorithm initialize all memory bits to binary 1 prior to passing the first bit through the generator.

Proposed Response Response Status W
PROPOSED REJECT.

Line 46 is equivalent to initializing a bits in the shift register to 1.

P802.3ah Draft 1.732 Comments

CI 61 SC 2.3.3.5 P 388 L 18 # 454
Langston, Daun Metanoia

Comment Type E Comment Status D

Explain why a 16 bit CRC is good enough to help the reader understand the motivation for the CRC in 10PASS-TS that is different from 2Base-TL.

SuggestedRemedy

Add the explanation:

Add after: At the receiver, a payload received without error will result in the remain-der 0D0F 16 when divided by G(x).

A sixteen bit CRC restores the data integrity to a typical Ethernet Phy on wire.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Add footnote: For 10PASS-TS, a 16 bit CRC is sufficient for detecting payload errors, as the error-detecting capabilities of its Reed-Solomon decoder is also employed (see subclause 61.2.3.3.8). In 2BASE-TL PHY's, a Reed-Solomon decoder is not present, hence a stronger FCS is required.

CI 61 SC 2.3.3.5 P 388 L 48 # 453
Langston, Daun Metanoia

Comment Type E Comment Status D

left-mostbit is misspelled and very confusing.

SuggestedRemedy

Spell out that left most bit is LSB or refer to the clause where LeftMostBit is defined. The editor should use the common font or remind the reader that the LSB, as LeftMostBit is backwards to the most common format. The editor should refer the reader back to clause 22.2.3 figure 22-11.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change "leftmostbit" to "left-most bit". Note this makes the wording identical to that for the Ethernet FCS in 3.2.8.

CI 61 SC 2.3.3.8 P 389 L 49 # 456
Langston, Daun Metanoia

Comment Type E Comment Status D

The clause correctly states that is Synchronized = false takes the decoder out of frame. you go out of frame. It does state the conditions for going back in-frame.

SuggestedRemedy

The criterion is encoder goes in-frame if Synchronized = true and S character is received. This should be added for clarity. A better criterion may be suggested by the sub-task force.

Proposed Response Response Status W

PROPOSED REJECT.

Unclear what the problem is.

Please provide specific text remedy.

CI 61 SC 2.3.3.8 P 389 L 49 # 459
Langston, Daun Metanoia

Comment Type T Comment Status D

What is done with parity error received in the Cn character?

SuggestedRemedy

A Cn Character with improper parity shall be replaced with Co (90base16).

Proposed Response Response Status W

PROPOSED REJECT.

Last row of Table 61-10 already specifies what to do.

See also #223.

CI 61 SC 61 P 356 L 1 # 225
Tom Mathey Independent

Comment Type T Comment Status D

Clause 45 has added 3.x.15:0 in 45.7.3.17 for coding violation counter. Clause 61 needs to define what a coding violation error is such that this counter can be incremented.

SuggestedRemedy

Add definition of coding violation to Clause 61.

Proposed Response Response Status W

PROPOSED ACCEPT.

Codeword violations are invalid received values of C_n.

P802.3ah Draft 1.732 Comments

Cl 61 **SC 61..2.3.3.3** **P 386** **L 48** # **351**
 Shohet, Zion Infineon

Comment Type T **Comment Status D**
 Cn values are incorrect. Example: C1 =81h, should be 11h, C2 should be 12h.

SuggestedRemedy
 correct all the values accordingly

Proposed Response **Response Status W**
 PROPOSED ACCEPT.

See also #451.

Cl 61 **SC 61.1** **P 356** **L 38** # **216**
 Tom Mathey Independent

Comment Type T **Comment Status D**
 Clause 61 is incorrect about desired ability to support Clause 57 uni-directional links.

Text in "57.1.2 Summary of objectives and major concepts" states:
 Subscriber access physical layer devices, defined in Clauses 58, 59, 60, 62 and 63 support unidirectional operation to allow OAM remote fault indication during fault conditions (See Table 57-7)conditions.

Text in "Clause 56.1.4 Management" states:
 OAM, as defined in Clause 57, includes a mechanism for communicating management information using OAM frames, as well as functions for performing low level diagnostics on a per link basis in an Ethernet subscriber access network.

For clause 62, 63 to support unidirectional operation, then the clause 61 needs to support.

SuggestedRemedy
 Add text to support uni-directional links. One of the main reasons for Clause 57 OAM is its intended use by all copper media, an Ethernet subscriber access network.

Proposed Response **Response Status W**
 PROPOSED REJECT.
 PHYs defined in Clause 62 and 63 do not support unidirectional operation. This is an erroneous assumption of Clause 57.
 See also resolution of comment #884/D1.414.

Cl 61 **SC 61.1.4.1.1** **P 359** **L 39** # **218**
 Tom Mathey Independent

Comment Type T **Comment Status D**
 1. Line 39 references 5.2.2.1.20. However, IEEE Std 802.3-2002, Section One, Page 83 states:
 5. Layer Management All parts of Clause 5, except for 5.2.4 and its subclauses, are deprecated by Clause 30.
 2. In 5.2.4.1 Common constants and types, the constant maxDeferTime is provided values for various operating speeds. Therefore, add a line speed for EFM.

SuggestedRemedy
 1. Replace (see aFramesWithExcessDeferral in 5.2.2.1.20 with: 30.3.1.1.20 aFramesWithExcessiveDeferral
 2. In 5.2.4.1, add a very slow line speed. Or some way to determine the actual line speed.

Proposed Response **Response Status W**
 PROPOSED ACCEPT IN PRINCIPLE.
 Replace 5.2.2.1.20 with: 30.3.1.1.20
 There is no need to modify the maxDeferTime definition in 5.2.4.1 if we take the view that excessive deferrals are to be expected and ignored.

Cl 61 **SC 61.1.4.1.1** **P 359** **L 7** # **217**
 Tom Mathey Independent

Comment Type T **Comment Status D**
 Text on this line is specific to proposed PMD's. When additional PMD's are added to the standard as new clauses sometime in the future, then Clause 61 will have to be opened up for the single purpose of changing this line.

SuggestedRemedy
 Rewrite line to be generic about PMD's.

Proposed Response **Response Status W**
 PROPOSED REJECT.
 Suggested remedy not detailed enough.

P802.3ah Draft 1.732 Comments

Cl 61 SC 61.11.4.3 P 440 L 2 # 511
Barrass, Hugh Cisco Systems

Comment Type E Comment Status D

PICS entries should be editorial.

The PAF entries are only mandatory if PAF is supported.

SuggestedRemedy

Add a note:

All items listed in this section are only applicable if the optional PMI Aggregation Function is supported.

Proposed Response Response Status W

PROPOSED ACCEPT.

This is implied by marking PAF-2 and PAF-10 as optional in the "Major capabilities/options" table.

Cl 61 SC 61.11.4.3 P 440 L 3 # 513
Barrass, Hugh Cisco Systems

Comment Type E Comment Status D

PICS entries should be editorial.

All the subclause numbering in this table appears to be incorrect.

SuggestedRemedy

Regenerate subclause numbers.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Editor to create cross-references, rather than plain text subclause numbers.

Cl 61 SC 61.11.4.3 P 440 L 6 # 510
Barrass, Hugh Cisco Systems

Comment Type E Comment Status D

PICS entries should be editorial.

PAF-1, PAF-2, PAF-3, PAF-4 are all taken from 61.1.5.4 which is an informative subclause. There are no shalls in this section.

SuggestedRemedy

Remove PAF-1, PAF-2, PAF-3 & PAF-4.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 61 SC 61.11.4.3 P 441 L 23 # 512
Barrass, Hugh Cisco Systems

Comment Type E Comment Status D

PICS entries should be editorial.

PAF-14 is not optional, it is mandatory but different for CO-type and CPE-type.

The same applies to PAF-16

SuggestedRemedy

Split PAF-14 into two, one marked with status "CO:M" the other "CPE:M"

Likewise for PAF-16.

Proposed Response Response Status W

PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 61 SC 61.2.1 P L # 99402

Scott Simon (Cu STF)

Comment Type T Comment Status D D1.4 #45001

The MMD register bit 3.44.15, "MII cannot TX/RX simultaneously". (default), may have an inherent, uncorrectable defect.

Consider the following case:

1. the transmit path is quiet
2. the receive path is quiet
3. there is no information available on either path that the other path is about to become active
4. within the same clock cycle or a very few number of clock cycles
 - a. the transmit path starts a frame from MAC to PHY
 - b. the receive path starts a frame from PHY to MAC
5. variable 3.44.15 is set to 0, not able to TX/RX simultaneously
6. something in the MAC breaks, and there is no way to recover as collision signal is held inactive.
7. even if collision signal is set active, it is very awkward for the phy receive path to rewind / roll-back its fifo/buffer pointer/address to start of packet.

SuggestedRemedy

Proposed Response Response Status W

PROPOSED REJECT.

There is no defect. If the MAC is deferring because CRS has been asserted it will not start transmitting.

Therefore the scenario described in the comment cannot occur.

CI 61 SC 61.2.1.3.2 P 366 L 49 # 349

Shohet, Zion Infineon

Comment Type T Comment Status D

power on="true" there is no power.
power on="false" when there is power.

seems to be opposit

SuggestedRemedy

modify accordingly if wrong.

Proposed Response Response Status W

PROPOSED REJECT.

'power_on' means the device is powering up. Once full power is reached 'power_on' becomes false. The text is correct.

CI 61 SC 61.2.1.3.2 P 366 L 50 # 219

Tom Mathey Independent

Comment Type T Comment Status D

Text has introduced an entirely new feature, Low power mode, 3.0.11. This feature has not been previously discussed.

SuggestedRemedy

Delete feature "Low power mode", or justify.

Proposed Response Response Status W

PROPOSED ACCEPT.

Delete the text "The condition is also true when the device has low power mode set via control register bit 3.0.11."

CI 61 SC 61.2.2.2 P 370 L 19 # 426

O'Mahony, Barry Intel Corp.

Comment Type E Comment Status D

In figure 61-9, it is unclear that the "FCS" shown for PMI #1 and PMI #2 are, infact, the TC-CRC ('have heard from a few people confused by this).

SuggestedRemedy

Change "FCS" to "FCS (TC-CRC)" in two places in figure. Also, in the preceeding paragraph, change "A Frame Check Sequence is added..." to "A Frame Check Sequence, known as the TC-CRC, is added..."

Proposed Response Response Status W

PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 61 SC 61.2.2.5 P 373 L 47 # 339
Horvat, Michael Infineon Technologies

Comment Type T Comment Status D

For 2BASE-TL the differential latency of 8k bit times not sufficient.
If the ratio between the fastest and the slowest link is 4 to 1 16384 bits can be sent.

SuggestedRemedy

Adjust differential latency for 2BASE-TL systems to at least to 16384 bit times.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Differential latency and speed ratio are related by not entirely dependent. However, differential latency = 8000 along with speed ratio = 4 does not seem to make sense.

Propose:

Change line 46 to

a) The differential latency between any two PMIs in an aggregated group shall be no more than 15,000 bit times (maxDifferentialDelay).

Add after the end of line 50 (item d)

Note that a speed ratio of 4 may only be used if the latency is controlled to meet restriction a).

CI 61 SC 61.2.2.6 P 374 L 4 # 220
Tom Mathey Independent

Comment Type T Comment Status D

PHY's are not allowed to discard, substitute, or otherwise change data. If the aggregation layer is not able to properly put the pieces together, then the layer should send up the pieces in some reasonable manner, mark each piece with RxERR to insure that the MAC discards, and go on. Implementators who are trying to trouble-shoot or diagnose a problem/fault will have even greater difficulty time when data is discarded. Visibility into what happened is important.

Resolution #893 to D1.4 is incorrect. Reassembly will not cause errors to be propagated when the pieces are marked with RxERR.

SuggestedRemedy

A PHY shall never drop, discard, change, modify, garbage, or replace data. If errors, send up what is available and mark with RxERR. Applies to all PCS error conditions.

Proposed Response Response Status W

PROPOSED REJECT.

For the same reasoning as used previously - if a fragment is errored there is nowhere to put it. An attempt to reassemble a frame including a broken fragment may lead to unnecessary error propagation. Attempting to forward the fragment in addition to the stream of frames may cause problems if a maximum rate data stream is flowing.

If the commenter wishes a different action then a detailed remedy must be supplied which illustrates how the above problems are overcome.

P802.3ah Draft 1.732 Comments

CI 61 SC 61.2.2.7.2 P 375 L 36 # 427

O'Mahony, Barry Intel Corp.

Comment Type T Comment Status D

The use of the term "primitive" in the manner used in this subclause should be avoided, as it may be confused with the concept of "service primitive" used elsewhere in the 802.3 standard (e.g., Clause 1).

SuggestedRemedy

Replace first paragraph of subclause with the following:

"The management interface has pervasive connections to all functions. Operation of the management control lines MDC and MDIO is specified in Clauses 22 [see Clause 22] and 45 [see Clause 45], and requirements for managed objects inside the PCS and PMA are specified in Clause 30 [see Clause 30].

"The following PAF sublayer signals are mapped to Clause 45 registers:"

Elsewhere in the subclause, replace all occurrences of the word "primitive" with "signal".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 61 SC 61.2.2.7.2 P 375 L 42 # 428

O'Mahony, Barry Intel Corp.

Comment Type E Comment Status D

References to Clause 45 subclauses in this subclause need to be updated to match those in Clause 45/D 1.732.

SuggestedRemedy

Update them (e.g., TC_PAF_RxErrorReceived is 45.7.3.24).

Add reference to 45.7.3.18 for PAF_Enable.

Note, last two signals (PAF_LostStart and PAF_LostEnd) have no Clause 45 registers; this is addressed in a separate comment

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 61 SC 61.2.2.7.3 P 376 L 22 # 221

Tom Mathey Independent

Comment Type T Comment Status D

Reference is incorrect, and ability to perform text search is impaired. Clause 45 defines two bits in the EFM copper control register (see 45.2.2.1)

The text PAF_enable is in 61.2.2.7.2/3, but clause 45 uses PAF enable. A text serch for PAF_enable leads the reader to believe that there is no matching MMD register/bit.

SuggestedRemedy

Add a table which maps all MMD register bits and names to the corresponding PCS signal names.

Reference to 45.2.2.1 is incorrect.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

The names used in Clause 45 MUST match the names used in this clause - therefore a conversion table is not needed.

Make changes to this clause and Clause 45 to ensure that the two are identical.

CI 61 SC 61.2.2.7.3 P 376 L 25 # 350

Shohet, Zion Infineon

Comment Type E Comment Status D

PAF_enable bit is write/read only...: what does this mean

SuggestedRemedy

decide what is needed and correct accordingly.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

As the commenter correctly points out, the word ordering makes the sentence ambiguous.

Change:

"In all cases, the PAF_available bit is read-only, the PAF_enable bit is write/read only if the PAF_available bit is asserted."

To:

"The PAF_available bit is read-only unless the PAF_available bit is asserted, in which case the PAF_enable bit is write/read."

P802.3ah Draft 1.732 Comments

CI 61 SC 61.2.3.2 P 379 L 54 # 340

Horvat, Michael Infineon Technologies

Comment Type E Comment Status D scope/editorial

Reference to SHDSL missing

SuggestedRemedy

Add reference to g.991.2.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Add informative note:

"NOTE: An identical a(β) interface is defined in ITU-T G.991.2."

CI 61 SC 61.2.3.3.1 P 383 L 25 # 214

Tom Mathey Independent

Comment Type T Comment Status D

All ethernet phy's have the following characteristic:

If the local device can not "hear" from the remote partner and establish a link status = pass / up / enabled, then the local device blocks the transmit path from sending any MAC data, sends code-point remote fault to its link partner, and the receive path provides only idles to the MAC. When the receive link status is fail, then only idles or fault conditions (LF,RF: a form of auto-negotiation) is allowed on the transmit path.

If the link partner is receiving remote fault from the local device, then the link partner blocks its transmit path from sending any MAC data, and provides only idles and sync.

When the link is down (indicated by local fault and remote fault), then only idles and sync bytes can be sent on a transmit path. Thus only idle and sync can be present on the receive path. If a scrambler is added, then the descrambler has to hunt for the correct pattern, and scrambled idles can easily become equal to the code-point for sync. This makes the hunt more difficult, and use of scrambler is detrimental.

SuggestedRemedy

1. As an unavoidable consequence of link fail, the scrambler of 61.2.3.3.1 and descrambler of 61.2.3.3.2 are thus deleted.

The scrambler function was introduced due to the assumption that the remote partner could transmit continuous MAC frames when the local device had link status = fail, and the local device could then not achieve synchronization.

2. P802.3ah Draft 1.414 Comment response # 883 against item 4 is incorrect. The scrambler actually makes detection of sync bytes more difficult.

Proposed Response Response Status W

PROPOSED ACCEPT.

Needs discussion in STF.

P802.3ah Draft 1.732 Comments

CI 61 SC 61.2.3.3.3 P 384 L 23 # 223
 Tom Mathey Independent

Comment Type T Comment Status D

The transmit path defines the Ck length bytes to have even parity. However, the receive path has no requirement to check such parity, or how to recover from a parity error. A Parity error indicates that the length of the incoming frame is lost, and if two packets are back-to-back, then the start of frame for the second packet is unknown. With start of frame lost, then the end of frame is suspect. For a continuing sequence of back-to-back packets, the receive path becomes completely lost. All due to a single bit error.

SuggestedRemedy

Define receive path action for:

1. when parity error, then describe required action
2. when length byte decodes to an illegal value, then describe required action. The encapsulation only uses 64*2=128 of the possible 256 values.

Note that the sync byte location is still valid.

Proposed Response Response Status W

PROPOSED REJECT.

The last row of Table 61-10 already specifies what to do when undefined values of Cn are received.

See also #459.

CI 61 SC 61.2.3.3.5 P 344 L 12 # 99
 Thomas Dineen Dineen Consulting

Comment Type TR Comment Status D

I am receiving an increasing number of questions from customers which indicate a certain amount of confusion about the implementation of CRC functions and issues of bit ordering.

To assist in clearing up this confusion I am requesting that an informative annex be added to this clause which includes one to three compliant example frames with the associated correct CRC (FCS) value.

These frames will serve as divining rod frames which an implementor can quickly use to verify the integrity of his CRC implementation and thus achieve early inter operability.

SuggestedRemedy

To assist in clearing up this confusion I am requesting that an informative annex be added to this clause which includes one to three compliant example frames with the associated correct CRC (FCS) value. The example frames should include the required scrambling function. Examples should be provided for both the 2BASE-TL and 10PASS-TS cases.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Note that the language used to define the TC-CRC is identical to that used to define the Ethernet FCS in subclause 3.2.8. it should remain unchanged to ensure internal consistency in the 802.3 document.

In order to make bit ordering definition clearer, add the following to end of second paragraph in 61.2.3.3.6:

"In particular, refer to Figure H-3/G.993.1."

Any further changes requires a specific text remedy.

P802.3ah Draft 1.732 Comments

Cl 61 SC 61.2.3.3.5 P 387 L 20 # 215
Tom Mathey Independent

Comment Type T Comment Status D

One of the requirements of Ethernet is adherence to the layering model. This requires that a layer n uses the interface provided by its upper layer n+1, and provides an interface to its lower layer n-1. The layering model does require:

that a given layer n have no (or perhaps limited) knowledge of the capabilities of its lower layer n-1, and

that layer n requires no specific knowledge of its upper layer n+1 capabilities.

This allows plug and play interoperability. Such as any 100BASE physical layer (copper or any fiber) can attach to any vendors MAC implementation using the defined MII. A MAC does not need to know what type of physical layer is present. Only adherence to the MII definition is required.

The addition of another CRC in the Clause 61 PCS is much like adding a second CRC to the MAC layer. Such a CRC could be used when the MAC is connected to fiber since fiber has a better signal to noise ratio (lower bit error rate) than copper, and thus can live with a less robust CRC.

Addition of second CRC to Clause 61 breaks the layer model requirements. A PCS implementation now needs to know which one of the many copper PMD's it is attached to, but there is mechanism available to provide such knowledge. Nor can layer management be used (MMD registers) as management is optional. Management might be available in a PCS implementation, but not for the attached PMD.

SuggestedRemedy

Revert back to a single CRC. Provide a presentation, not available from previous meeting which made this technical change, to show that a single 16 bit CRC will work for all PMD's. Without a presentation, future PMD's will not have a reference to the requirements.

Proposed Response Response Status W

PROPOSED REJECT.

There appears ample precedent for tailoring the PCS sublayer to the underlying PMD.

The change was made to decrease overhead for 10PASS-TS PHYs.

A single 16-bit CRC will not work for all PMD's. That is why a 32-bit CRC is specified for 2BASE-TL. See encapsulation presentation in Copper Baseline for further detail.

A 16-bit CRC is sufficient for 10PASS-TS now that R-S decoder failure information is available; see omahony_2_0502.pdf, specifically slide 14.

Cl 61 SC 61.2.3.3.7 P 388 L 37 # 222
Tom Mathey Independent

Comment Type T Comment Status D

At present, the sync detect state machine declares TC_synchronized as true when 4 unequivocal syncs have been received. This is a necessary but not sufficient condition. An additional condition of transmit enable equals false from the MII is needed. The MAC could be transmitting frames on the transmit path, and link status as true/up could occur during such a frame. The PCS world becomes unhappy if the transmit path sends less than 64 bytes total (MAC payload plus encapsulation crc 4 bytes).

SuggestedRemedy

Add transmit enable = false to exit from state Looking. Add text that when TC_synchronized is false, then the transmit path at the MII is blocked.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

"Add text that when TC_synchronized is false, then the transmit path at the MII is blocked."

OK.

"Add transmit enable = false to exit from state Looking."

Unclear why this is needed.

P802.3ah Draft 1.732 Comments

Cl 61 SC 61.3 P 391 L 1 # 252
 Beili, Edward Actelis Networks

Comment Type TR Comment Status D

All handshake transactions defined in G.994.1 (par 10.1) are initiated by the -R side, while all handshake procedures needed for EFM are -C initiated. This may create some problems.

SuggestedRemedy

Define -C initiated transactions needed for EFM handshake and add it to G.994.1.

Proposed Response Response Status W

PROPOSED REJECT.

Suggested remedy is not sufficiently specific. Changes to G.994.1 are outside the scope of our PAR.

Note: G.994.1 sessions may be initiated by either the -R or the -C side initiating Startup and sending tones. While the first message in a G.994.1 transaction is always sent by the -R side, the HSTU-R is required to send a message, and thus start a transaction, at the completion of Startup; see 11.1.1 and 11.2.1 of G.994.1. In addition, G.994.1 regards the -C side as the "master" and always allows it to force a specific mode. In other words, G.994.1 procedures may always be initiated by the -C, and in accordance with the Baseline, the -C may always control the outcome.

Cl 61 SC 61.3.8.7.1 P 352 L 30 # 253
 Beili, Edward Actelis Networks

Comment Type TR Comment Status D

The explanation of the "Silent period" bit states when set to ONE it requests a silence period at the other transmitter of approximately 1 minute. The word "approximately" is too vague.

SuggestedRemedy

Request a silence period at the peer transmitter of at least 60 seconds (at most 90 seconds).

I would even go further as to suggest an addition of a silence period length parameter to the HS message to specify the duration in seconds (say between 10 and 200 sec), similar to the PAUSE Ethernet frame.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change "approximately 1 minute" to "at least 60 seconds (at most 90 seconds)".

Cl 61 SC 61.3.8.7.3 P 411 L 36 # 341
 Horvat, Michael Infineon Technologies

Comment Type T Comment Status D

Definition of 2BASE-TL Band A and B operation not clear

SuggestedRemedy

Flesh out 2BASE-TL Band A and B operation.

Also clarify use of regenerators for 2BASE-TL.

Proposed Response Response Status W

PROPOSED REJECT.

Band A and B are specified in Clause 63. The specification and use of regenerators is outside the scope of this standard.

Cl 61 SC 61.3.8.7.3 P 420 L 30 # 342
 Horvat, Michael Infineon Technologies

Comment Type T Comment Status D

On Table 61-107: no sub data rates defined for 2BASE-TL (i=0)

SuggestedRemedy

Remove entire table.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 61 SC 61.3.8.7.3 P 430 L 12 # 343
 Horvat, Michael Infineon Technologies

Comment Type T Comment Status D

On Table 61-135: for synchronous mode only 2 stuff bits defined, no plesiochronous mode supported.

SuggestedRemedy

Remove the 2 stuff bits #3 and #4.

The same applies to line 43.

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI 61 SC **61.4.1** P **435** L **14** # **352**
 Shohet, Zion Infineon
 Comment Type **E** Comment Status **D**
 The CO-side get a "get" command. How does CPE know and initiate g.hs exchange?
SuggestedRemedy

Proposed Response Response Status **W**
 PROPOSED REJECT.
 Need specific remedy. See also comment #252.

CI 61 SC **Figure 61-18** P **389** L **25** # **556**
 Cravens, George Mindspeed
 Comment Type **T** Comment Status **D**
 The state "FreeWheelSyncTrue" should have an exit to the state "Synced" if an expected sync is detected.
SuggestedRemedy
 Add an exit condition from the state "FreeWheelSyncTrue" to the state "Synced" when "expected sync" is detected.
Proposed Response Response Status **W**
 PROPOSED ACCEPT.

CI 61 SC **Figure 61.8** P **369** L **13** # **555**
 Cravens, George Mindspeed
 Comment Type **E** Comment Status **D** scope
 The label of state "TX_EN_ACTIVE" is misleading. Since the state is checking for TX_EN, rename it to "Check_for_TX" (or something similar that does not imply that the state is asserting TX_EN).
SuggestedRemedy
 Rename state "TX_EN_ACTIVE" to "Check_for_TX".
Proposed Response Response Status **W**
 PROPOSED REJECT.
 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.
 A change like this at this stage is more likely to introduce inconsistencies than to remove ambiguity.

CI 62 SC **62.2** P **477** L **26** # **557**
 Jeff, Lee Cisco Systems, Inc.
 Comment Type **T** Comment Status **D** scope
 This is really confusing. I can't tell what data bytes are the MSB, what's transmitted first to the outside world, etc.
SuggestedRemedy
 There should be a picture here to clarify.
Proposed Response Response Status **W**
 PROPOSED ACCEPT.
 Editor to add figure.

CI 62 SC **62.4.4.2.2** P **459** L **23** # **346**
 Shohet, Zion Infineon
 Comment Type **T** Comment Status **D**
 tone spacing is referenced to 62.4.4.8
 62.4.4.8 referces to t1e1 spec section 13.
 However, clause 13 is out of the scope as said on page 468 line 54
SuggestedRemedy
 delete line 23 24 on page 459.
Proposed Response Response Status **W**
 PROPOSED ACCEPT IN PRINCIPLE.
 This is an artefact of the semi-automatic DIFF-generation process.
 The reference should point to 62.4.4.10 (Reference section 14), which specifies 8.625 kHz tone spacing. Reference section 14 is in scope, as agreed in resolution of comments #827/D1.1, #580/D1.2 and #605/D1.414.
 Headings 62.4.4.6.7 (Reference section 14.1) through 62.4.4.7.2 (Reference section 14.6) logically belong under heading 62.4.4.10. Editor shall restore the logical order.

CI 62 SC **62.4.4.6.5** P **464** L **15** # **387**
 Venugopal, Padmabala UNH-IOL
 Comment Type **E** Comment Status **D**
 Short description for the Npar(2) bit name missing in row 5 of table 62-9
SuggestedRemedy
 The value of first column in row 5 is " G.997.1 Clear EOC OAM"
Proposed Response Response Status **W**
 PROPOSED ACCEPT.

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CI 62 SC 62.4.4.6.5 P 464 L 35 # 389
 Venugopal, Padmabala UNH-IOL
 Comment Type E Comment Status D
 "*" multiplication sign missing in '40 2^n' line 35
 "*" multiplication sign missing in '256 2^n' line 36
 SuggestedRemedy
 Change '40 2^n' to '40 * 2^n' in line 35
 change '256 2^n' to '256 * 2^n' in line 36
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 62 SC 62.4.4.6.5 P 465 L 17 # 388
 Venugopal, Padmabala UNH-IOL
 Comment Type E Comment Status D
 Short description for the Npar(2) bit name missing in row 5 of table 62-11
 SuggestedRemedy
 The value of first column in row 5 is " G.997.1 Clear EOC OAM"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 62 SC 62.4.4.8 P 469 L 1 # 347
 Shohet, Zion Infineon
 Comment Type T Comment Status D
 figure 62-8 is same as figure 62-7
 SuggestedRemedy
 delete figure 62-8
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 This is an artefact of the semi-automatic DIFF-generation process. The error doesn't appear in the PLAIN document. No action required.

CI 62 SC 62.5.1.1 P 472 L 14 # 558
 Jeff, Lee Cisco Systems, Inc.
 Comment Type T Comment Status D scope
 "the other carriers may not be used" seems to imply that you cannot use any other carriers. I think what's meant is that you have the option to not use other carriers.
 SuggestedRemedy
 This should be clarified by saying something like "the other carriers may be optionally disabled."
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 62 SC 62.5.1.2 P 472 L 12 # 559
 Jeff, Lee Cisco Systems, Inc.
 Comment Type T Comment Status D scope
 If I don't use band-pass filters, am I not standards compliant? This seems like an implementation detail, and implementations should not be specified.
 SuggestedRemedy
 Change the diagram and text to specify the design goal, not the implementation.
 Proposed Response Response Status W
 PROPOSED REJECT.
 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 62 SC 62.5.2.2.1 P 474 L 13 # 345
 Shohet, Zion Infineon
 Comment Type T Comment Status D
 on figure 62-10: point (x=17, y=15)= 1111000.
 should be 1110000
 SuggestedRemedy
 chnage point (x=17, y=15) to 1111000.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 change point (x=17, y=15) to 1110000 (as indicated in comment).

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CI 62 SC 62.5.4.1 P 479 L 38 # 560
 Jeff, Lee Cisco Systems, Inc.
 Comment Type T Comment Status D scope
 the word "options" is innapropriate.
 SuggestedRemedy
 change the words "All options" to "mechanisms"
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 62 SC 62.5.4.2 P 481 L 30 # 562
 Jeff, Lee Cisco Systems, Inc.
 Comment Type T Comment Status D
 In table 62-24, why are there two Maximum PSD columns? They're exactly the same.
 SuggestedRemedy
 Clarify or remove one of the columns
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 There are also 2 "frequency, mhz" columns.
 Delete both right columns of the table.

CI 62 SC 62.6.4.3 P 491 L 26 # 390
 Venugopal, Padmabala UNH-IOL
 Comment Type E Comment Status D
 Typo: Sliding misspelt as Slowing
 SuggestedRemedy
 Change text to 1 MHz sliding window
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Same error on page 460 line 40.
 Same error in T1.424/Trial-Use Part 1, page 19.

CI 62A SC 62A.3 P 609 L 23 # 515
 Barrass, Hugh Cisco Systems
 Comment Type T Comment Status D
 As per editor's note, profiles must be changed to match TS 101 270 definitions.
 SuggestedRemedy
 Replace current profiles 7-12 with the following (note that these new profiles will be 13-24 if previous comment is also accepted):
 13 : G.993.1 : Bandplan B : TS 101 270-1 Pcab.M1 : x/D/U/D/U
 14 : G.993.1 : Bandplan B : TS 101 270-1 Pex.P1.M1 : x/D/U/D/U
 15 : G.993.1 : Bandplan B : TS 101 270-1 Pex.P2.M1 : x/D/U/D/U
 16 : G.993.1 : Bandplan B : TS 101 270-1 Pcab.M1 : U/D/U/D/x
 17 : G.993.1 : Bandplan B : TS 101 270-1 Pex.P1.M1 : U/D/U/D/x
 18 : G.993.1 : Bandplan B : TS 101 270-1 Pex.P2.M1 : U/D/U/D/x
 19 : G.993.1 : Bandplan B : TS 101 270-1 Pcab.M2 : x/D/U/D/U
 20 : G.993.1 : Bandplan B : TS 101 270-1 Pex.P1.M2 : x/D/U/D/U
 21 : G.993.1 : Bandplan B : TS 101 270-1 Pex.P2.M2 : x/D/U/D/U
 22 : G.993.1 : Bandplan B : TS 101 270-1 Pcab.M2 : U/D/U/D/x
 23 : G.993.1 : Bandplan B : TS 101 270-1 Pex.P1.M2 : U/D/U/D/x
 24 : G.993.1 : Bandplan B : TS 101 270-1 Pex.P2.M2 : U/D/U/D/x
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See resolution of comment #366.

CI 62A SC 62A.3.1 P 609 L 15 # 514
 Barrass, Hugh Cisco Systems
 Comment Type T Comment Status D
 As per editor's note, profiles must be changed to match T1.424 definitions.
 SuggestedRemedy
 For profiles 1 to 6 add ".M1" after "FTTCab" or "FTTEEx"
 Duplicate profiles 1 to 6 but add ".M2" after "FTTCab" or "FTTEEx"
 New profiles become profiles 7 to 12.
 Table 62B-1 references to profiles 1 & 2 remain unchanged, references to profiles 7 & 8 become 13 & 14.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See resolution of comment #366.

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CI 62A SC 62A.3.1 P 609 L 44 # 366
 Beck, Michael Alcatel Bell nv
 Comment Type TR Comment Status D
 Table 62A-1 is incomplete.
 SuggestedRemedy
 Execute Editor's note, taking into account that ETSI mask Pcab.M1 has two variants A and B.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 62A SC 62A.3.2.1 P 610 L 44 # 368
 Beck, Michael Alcatel Bell nv
 Comment Type T Comment Status D
 In Table 62A-3, bandplan "Annex F" is not fully specified.
 SuggestedRemedy
 Add footnote: Band 1D starts at 640kHz when operating in the frequency region above TCM-ISDN DSL band. Band 1D starts at 1.104MHz when operating with PSD reduction function in the frequency region below 1.104Mhz.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 62A SC 62A.3.2.2 P 610 L 54 # 367
 Beck, Michael Alcatel Bell nv
 Comment Type T Comment Status D scope
 Subclause appears to be empty.
 SuggestedRemedy
 Remove subclause. This makes the separate heading for "62A.3.2.1 ITU-T Approved bandplans" obsolete. Remove heading.
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 62A SC 62A.3.3 P 611 L 3 # 369
 Beck, Michael Alcatel Bell nv
 Comment Type TR Comment Status D
 Subclause appears to be empty.
 SuggestedRemedy
 Add text:
 "The management entity should load the appropriate Clause 45 registers according to the PSD Mask specified by the selected profile. Informative Annex 62C contains examples of the use of Clause 45 registers for the purpose of setting profiles. The VDSL PSD Masks defined in ITU-T Recommendation G.993.1, T1.424/Trial-Use and ETSI TS 101 270-1 shall be supported by all 10PASS-TS PMDs."
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Resolution of comment #371 may apply.

CI 62A SC 62A.3.4 P 610 L 1 # 470
 Simon, Scott Cisco Systems, Inc.
 Comment Type T Comment Status D
 Table 62A-2 has an innapropriate title. Mandatory is implied by the normative clause.
 SuggestedRemedy
 Strike the word "Mandatory"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 62A SC 62A.3.4 P 611 L 8 # 561
 Jeff, Lee Cisco Systems, Inc.
 Comment Type T Comment Status D
 Looking at Table 62A-2, I see no units. Is it dBm/Hz, or dBm, or what?
 SuggestedRemedy
 Add the units.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Add text to Table caption: "(f is in MHz, the PSD level is in dBm/Hz)".

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CI 62A SC 62A.3.6 P 611 L 45 # 474
Simon, Scott Cisco Systems, Inc.

Comment Type T Comment Status D scope

"The profile is specified in the format Drate/Urate as the minimum payload rate required. . ."

this text is inaccurate. When a particular bitrate profile is selected, the PHY may only allow that bit rate, no more no less. Higher levels will expect the link to be running at the selected speed.

SuggestedRemedy

Change sentence to read:

"The profile is specified in the format Drate/Urate as the payload bitrate that the PHY link shall provide. . ."

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 62A SC 62A.3.6 P 611 L 47 # 554
Cravens, George Mindspeed

Comment Type TR Comment Status D

Since the argument used to prohibit enhanced G.SHDSL was that there must be an approved PSD from an international standards body, the same argument must be applied to VDSL.

Remove all references to VDSL rates beyond those supported by approved standards bodies.

SuggestedRemedy

Remove DRate values 50, 70, and 100.

Proposed Response Response Status W

PROPOSED REJECT.

Downstream rates of 50, 70 and 100 Mbps can be met on short loops by appropriately selecting frequency Fx in ITU-T Bandplan C.

Note: Enhanced G.shdsl was not "prohibited". The adopted long-reach baseline (kimpe_copper_1_0103.pdf) specifies G.991.2 (G.shdsl) only and states as one of its principles "...require little or no changes to existing standards". Comment #793/D1.3, which proposes to add enhanced SHDSL PSDs has neither been accepted nor rejected by the Copper Sub Task Force at this point in time.

CI 62A SC 62A.3.6 P 611 L 50 # 370
Beck, Michael Alcatel Bell nv

Comment Type E Comment Status D

Number of Payload Rate Profiles needs to be updated.

SuggestedRemedy

Change last sentence to: "This leads to a total of 9 symmetric and 90 asymmetric Payload Rate Profiles."

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 62A SC 62A.4 P 612 L 46 # 371
Beck, Michael Alcatel Bell nv

Comment Type TR Comment Status D

Subclause appears to be empty.

SuggestedRemedy

Replace subclause with content of beck_2_0603.pdf. Change references in 62A.3.2 (p.610 l.22) and 62A.3.3 (to be added on p.611) to point to this subclause instead of Annex 62C.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 62B SC 62B.3 P 614 L 45 # 509
Barrass, Hugh Cisco Systems

Comment Type TR Comment Status D

In various places in Clause 62 references are made to "out of scope" options defined in the referenced document. It is vital for true interoperability that normative tests are conducted without reliance on out of scope options which may or may not be present in various implementations of compliant PHYs.

Therefore the tests described in this annex, which are intended to guarantee a consistent level of performance for all 10PASS-TS PHYs, are conducted without the use of these options.

SuggestedRemedy

Add sentence to end of paragraph:

If the PHY under test includes any implementation options defined in the reference document (but out of scope for this standard) these options shall be disabled in such a manner as to render the behavior identical to implementations without such options.

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI **62B** SC **62B.3** P **615** L # **386**
Barnea, Eyal Metalink Broadband A

Comment Type **T** Comment Status **D**

Table 62B-1 describes different test scenarios using noise models A and F. Noise model A models a typical cabinet cross-talk, and noise model F models typical CO deployment cross-talk.

SuggestedRemedy

Change the noise models used in the following way:

- Test 2 - profile 8 - noise A
- Test 3 - profile 7 - noise F
- Test 6 - profile 8 - noise A
- Test 7 - profile 7 - noise F

Proposed Response Response Status **W**

PROPOSED ACCEPT.

CI **62B** SC **62B.3** P **615** L 1 # **353**
Shohet, Zion Infineon

Comment Type **T** Comment Status **D**

Table 62B-1 needs test loop length values. The following values are proposed to be used in the table. These numbers are obtained by simulation using 2.5-dB implementation loss.

- The values are:
- test2: 475 meters
 - test4: 325
 - test 5: 500
 - test 6: 475
 - test 7: 850
 - test 8: 325
 - test 9: 500

SuggestedRemedy

substitute the above numbers in the table.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolution of comment #386 may require modified values for certain test parameters.

CI **62B** SC **62B.3** P **615** L 6 # **516**
Barrass, Hugh Cisco Systems

Comment Type **TR** Comment Status **D**

All payload data rate profiles required by 62A must be tested normatively and included in this table.

The upstream and downstream rates may be configured independently therefore at least 11 tests are required (but not all 99 combinations).

The bandplans used must include the majority of those defined in 62A.

The distances should correspond to those achieved in the "VDSL Olympics" and those described in various rate/reach curves displayed during TF review.

SuggestedRemedy

Add rows to table 62B-1 as shown in barrass_cmnts_1_0603.pdf

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Specific reaches to be agreed in Copper Sub Task Force.

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CI 62C SC 62C.1 P 618 L 6 # 517
 Barrass, Hugh Cisco Systems

Comment Type TR Comment Status D

During discussion regarding unresolved comment #99301 in the Task Force interim meeting in May it was stated that the PHY must not be allowed to configure a bandplan which is not universally accepted by telecommunications standards bodies. If this rule is applied equally to Clause 62 and Clause 63 PHYs then 10PASS-TS must not contain any flexibility which might allow it to be configured in a manner which is not compliant with with all spectral compatibility regulations, including those defined by T1E1.4, ETSI and other national and regional standards organizations. This rule appears to preclude the use of "private" bandplans in private installations.

SuggestedRemedy

Delete Annex 62C.

Also remove all register settings and controls which enable the use of illegal bandplans in Clauses 62 and 45.

Note that the commenter will withdraw this comment iff the resolution of comment #99301 is accepted i.e.

Add to 63.3.1:

- f) The 2BASE-TL PMD supports the use of the enhanced SHDSL extended bandwidths.
- Change the upper limit of Eq. (2) of 63.3.2.1 from n=36 to n=60
- Change the upper limit of Eq. (4) of 63.3.2.1 from n=48 to n=89
- Give the editor license to make the necessary editorial changes to include enhanced SHDSL.

Proposed Response Response Status W

PROPOSED REJECT.

* Inappropriate use of the "TR" attribute. Commenter indicates willingness to withdraw comment, depending on resolution of an other comment. This is in contradiction with the technically required nature of the comment.

* Inappropriate target clause. Commenter seems to want to accomplish change in Clause 63, but the comment is directed against Informative Annex 62C.

For a discussion on the technical merits of this comment, see resolution of comments #99301 and #553.

CI 62C SC 62c.2.2 P 619 L 2 # 475
 Simon, Scott Cisco Systems, Inc.

Comment Type T Comment Status D

Annex 62C contains examples of how to configure 10PASS-TS PHYs for non-profile operation. The Annex is not the proper venue for spectral compatability or performance discussions.

Using the bandplan illustrated in Figure 01 is appropriate in the context of demonstrating a custom bandplan.

The discussion that follows about spectral compatability and rate/reach is not appropriate.

SuggestedRemedy

Strike the text that starts on pg 619, line 30 through to the end of the subclause.

Remove Table 01 and Figures 02, 03 and 04.

Proposed Response Response Status W

PROPOSED REJECT.

Accepted comment #1119/D1.414 specifically suggested adding this example to "show meeting spectral compatibility requirements (i.e. set in ANSI)". As this is an informative annex, it is the proper venue for different kinds of information that may help users and implementers to understand system-level issues.

CI 62C SC 62C.2.3 P 621 L # 385
 Barnea, Eyal Metalink Broadband A

Comment Type T Comment Status D

10PASS-T is based on VDSL stanrad. All VDSL standards, and all bandplans in 62A are 4 bands. Therefore this example is not adequate for 10Pass-T

SuggestedRemedy

Delete the subclause

Proposed Response Response Status W

PROPOSED REJECT.

This example was added in resolution of comment #616/D1.414 (accepted). 10PASS-TS is based on the adopted baseline, rezvani_1_0302.pdf and notes_to_editor_1_0302.pdf. Note 7 reads: "There will be work to research and possibly define other band plans."

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Cl 63 SC P L # 99301
 Squire, Matt Hatteras Networks

Comment Type T Comment Status D D1.3 #793

T1E1.4 has recently adopted higher constellations and altered bandplans for SHDSL operation in North America. Clause 63 (and 63A and 63B) should be allowed to take advantage of these adopted constellations and PSDs.

SuggestedRemedy

Proposed Response Response Status W

PROPOSED REJECT.

The adopted long-reach baseline (kimpe_copper_1_0103.pdf) specifies G.991.2 (G.shdsl) only and states as one of its principles "...require little or no changes to existing standards". After adding higher constellations to 2BASE-TL (comment #657/D1.3), several attempts to get consensus about altered bandplans have failed.

COMMENT HISTORY:

Motion during May 2003 Task Force closing plenary:

M: Marc Kimpe S: George Cravens
 (complete TF) Approve: 21 Don't Approve: 19 Abstain: 2
 (802.3 voters) Approve: 17 Don't Approve: 10 Abstain: 8
 "Accept in principle:

Add to 63.3.1:

- f) The 2BASE-TL PMD supports the use of the enhanced SHDSL extended bandwidths. Change the upper limit of Eq. (2) of 63.3.2.1 from n=36 to n=60
- Change the upper limit of Eq. (4) of 63.3.2.1 from n=48 to n=89
- Give the editor license to make the necessary editorial changes to include enhanced SHDSL."

---May 2003---

PROPOSED ACCEPT IN PRINCIPLE.

M: Marc Kimpe S: George Cravens
 Approve: 13 Don't approve: 6 Abstain: 3
 P354 Add bullets to 63.3.1

- f) The 2BASE-TL PMD supports the use of extended bandwidth. Those are subject to regulations in the public network.
- g) The support of enhanced SHDSL is optional

License is granted to the editor to further clarify what "enhanced SHDSL" means.

In 63.3.2.1 Adjust rate as per agreement in T1E1.4. Adjust the upper limit of Eq.2 to n=60 and the upper limit of Eq.4 to n=89, to reflect the agreements in T1E1.4.

PROPOSED ACCEPT IN PRINCIPLE.

Approve: 14 Don't Approve: 7 Abstain: 2
 P354 Add bullet to 63.3.1

f) The 2BASE-TL PMD supports the use of extended bandwidth. Those are subject to regulations in the public network.

In 63.3.2.1 Adjust rate as per agreement in T1E1.4 (Editor's note: precise reference to be added). Adjust Eq.2 and 4, to reflect the agreements in T1E1.4.

---March 2003---

Propose to give the editor the freedom to supply text in support of 32PAM constellations and of the new PSDs adopted in T1E1.4.

PROPOSED ACCEPT IN PRINCIPLE.

Approve: 12 Don't Approve: 14 Abstain: 2
 PROPOSED REJECT.

Approve: 14 Don't Approve: 12 Abstain: 3

Cl 63 SC 63.1.3 P 496 L 22 # 344
 Horvat, Michael Infineon Technologies

Comment Type E Comment Status D scope

Term "reference section" without reference used in following sections.

SuggestedRemedy

Add note that term "reference section" used in the following chapters always relates to ITU-T g.991.2.

Proposed Response Response Status W

PROPOSED REJECT.

The use of the term "reference section" is identical as in Clause 62. "Reference" is not ambiguous, as 63.2.2 and 63.3.2 mention only one referenced document.

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CI 63 SC 63.3.1 P 500 L 40 # 553
 Cravens, George Mindspeed

Comment Type TR Comment Status D

Clause 63 (and 63A and 63B) should be allowed to take advantage of enhanced SHDSL by optionally supporting the constellations and PSDs adopted by T1E1.4

SuggestedRemedy

Add bullets to 63.3.1:

- f) The 2BASE-TL PMD supports the use of extended bandwidth.
- g) The support of enhanced SHDSL is optional.

License is granted to the editor to further clarify what "enhanced SHDSL" means.

In 63.3.2.1 Adjust rate as per agreement in T1E1.4. Adjust the upper limit of Eq.2 to n=60 and the upper limit of Eq.4 to n=89, to reflect the agreements in T1E1.4.

Proposed Response Response Status W

PROPOSED REJECT.

Specifying optional support for a mode of operation with significantly different characteristics is equivalent to adding a new port type, 5BASE-TL. This causes following problems:

- The suggested remedy is not sufficiently detailed to allow the editor to specify 5BASE-TL in a technically complete manner. For instance, port type specific PCS parameters are not given (CRC polynomial, PAF parameters, etc.)

- Every 802.3 port type has to satisfy the 5 criteria. No material is provided with this comment to indicate that this is the case with 5BASE-TL. In particular, distinct identity w.r.t. 10PASS-TS is not addressed.

- There is no adopted objective in the Task Force for which 5BASE-TL is needed.

Note: This proposal was offered to the Copper Sub Task Force in an attempt to resolve comment #793/D1.3 (May 2003), but failed.

CI 64 SC P L # 297
 Glen Kramer Teknovus

Comment Type E Comment Status D

Typos:

- Page 538, Line 3: "randomly" should be "randomly"
- Page 546, Line 37: "invoced" should be "invoked"

SuggestedRemedy

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 2 P 512 L 26 # 519
 Han, Kyeong-Soo ETRI

Comment Type E Comment Status D

Grammar

SuggestedRemedy

change "These block is .." to "These blocks are ..".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 2.3.1 P 517 L 28 # 520
 Han, Kyeong-Soo ETRI

Comment Type E Comment Status D

time_quanta are defined as 16 bit times in Clause 64.3.4.4

SuggestedRemedy

change "16 bits" to "16 bit times". (line 28 and 33)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.1.2 P 510 L 6 # 52
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

"LOGICAL LINK CONTROL" is not necessary since there is an abbreviation below figure 64-2

SuggestedRemedy

Remove it.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.1.4 P 512 L 8 # 19
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

Difference between bit vector and octet vector is not specified.

SuggestedRemedy

Suggest:

- bit vector: data[1:16]
- octet vector: m_sdu[0..1]

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI 64 SC 64.2 P 512 L 22 # 23
 ZHU, ZIJIAN I2R
 Comment Type E Comment Status D
 After decision to remove OMP, the naming of 3 MPCP blocks is not standardized.
 Flow control/Discovery/Report/Gate blocks are all opcode-specific, so calling only 3 MPCP blocks opcode specific blocks may not be appropriate.
 SuggestedRemedy
 Suggest naming Discovery/Report/Gate blocks as MPCP blocks;
 Flow control/Discovery/Report/Gate blocks as opcode-specific blocks
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.2 P 512 L 26 # 197
 Karasawa, Satoru OF Networks
 Comment Type E Comment Status D
 There is a typo.
 SuggestedRemedy
 (f) "These block is" should be "These blocks are"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.2 P 512 L 26 # 1
 Tan , Chik Liang I2R
 Comment Type E Comment Status D
 The word "block" should be changed to "blocks" to indicate plurality.
 SuggestedRemedy
 Change "block" to "blocks"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.2 P 512 L 26 # 72
 Yeo, Doreen Institute of Microelectr
 Comment Type E Comment Status D
 "These block is responsible" should be "These blocks are responsible"
 SuggestedRemedy
 Change "These block is responsible" to "These blocks are responsible"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.2.2 P 513 L 54 # 2
 Tan , Chik Liang I2R
 Comment Type E Comment Status D
 The phrase "state variable" should be changed to "state variables" to indicate plurality.
 Because the MPCP Control Instance uses both transmitEnable[n] and transmitInProgress[n] to communicate with the Multiplexing Control.
 SuggestedRemedy
 Change "state variable" to "state variables"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.2.2.2 P 514 L 34 # 27
 ZHU, ZIJIAN I2R
 Comment Type T Comment Status D
 New Control Mux cannot distinguish between data frame and control frame with same TransmitFrame(...) primitive in Figure 64-11. Therefore there's no need to distinguish DATA/CONTROL values in transmitPending.
 SuggestedRemedy
 Suggest changing possible values of transmitPending to true/false.
 Change accordingly at P518 L53.
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See also 564

CI 64 SC 64.2.3.1 P 517 L 30 # 298
 Glen Kramer Teknovus
 Comment Type T Comment Status D
 Previously, it was agreed that delay variability through PHY/MAC should be no more than 32 ns. That makes Round-trip time variability of $4 \times 32 = 128$ ns (or 8TQ). But the text states the "guard-threshold" value = 4TQ.
 SuggestedRemedy
 Change the value of "guard-threshold" constant to 8.
 Proposed Response Response Status W
 PROPOSED REJECT.
 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft. However, based on the comments merit, impact on the guard threshold is based on 2×32 as receiver delay at ONU and transmitter delay at OLT are corrected by ranging process.

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CI 64 SC 64.2.3.1 P 517 L 32 # 28
 ZHU, ZIJIAN I2R
 Comment Type E Comment Status D
 uplink is not the standard term used throughout
 SuggestedRemedy
 Suggest changing it to upstream.
 Also found in pg 538 line 38
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.2.3.1 P 517 L 33 # 299
 Glen Kramer Teknovus
 Comment Type T Comment Status D
 1. The text description states that "tail_guard" is measured in TQ, yet in state diagram 64-12 it is used as if it was measured in bytes.
 2. If IFG and PCS trailer are mutually exclusive, than IFG should be used only since sizeof(IFG) > sizeof(PCS trailer). This makes tail_guard equal to 8+6+6+4+12 = 36 bytes = (18TQ) instead of 29 bytes as stated in Editor's note
 SuggestedRemedy
 1. Decide on units for "tail_guard"
 2 Specify default value for "tail_guard" = 36 bytes (or 18 TQ).
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 1. correct description of tail guard to bytes.
 2. As IFG is not period of active IDLE transmission, instead it is period where no MAC transmission occurs, it makes sense that IFG associated with last frame in uplink burst can occur simultaneously with guard band occurring between ONUs. This would satisfy receiver requirement of at least IFG between sequential MAC frames.
 Thus I recommend a value of 29 bytes for tail_guard..

CI 64 SC 64.2.3.1 P 547 L 37 # 500
 Maislos, Ariel Passave
 Comment Type T Comment Status D
 IFG is mutually exclusive with PCS trailer which occupies first section. Value should be 29 instead of 41.
 SuggestedRemedy
 see comment
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See 299

CI 64 SC 64.2.3.2 P 518 L 12 # 3
 Tan , Chik Liang I2R
 Comment Type E Comment Status D
 In reference to the functional description of variable 'localTime', the sentence " it is periodically reset by the sublayer on notification "
 It is not clear which sublayer the sentence is talking about.
 SuggestedRemedy
 Suggest adding "MPCP sublayer" to replace "sublayer" in the sentence above to clarify matters.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.2.3.5 P 519 L 38 # 18
 ZHU, ZIJIAN I2R
 Comment Type E Comment Status D
 The definition MA_DATA.indication in this line should not be deleted. As this message is used by the state diagram in line 12 of page 520. The same problem with the message MA_CONTROL.indication in line 43 of page 519.
 SuggestedRemedy
 Suggest not deleting line 37-38 and line 43-45. And delete line 47.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.2.3.5 P 519 L 47 # 73
 Yeo, Doreen Institute of Microelectr
 Comment Type T Comment Status D
 This subclause indicates that no messages are defined for the Control Parser functional block. However, Figure 64-6 on Page 516 has a MA_DATA.Indication message.
 SuggestedRemedy
 Define message MA_DATA.Indication(DA,SA,m_sdu) in this subclause
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Editor would add description.

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CI 64 SC 64.2.3.6 P 519 L # 316
 Glen Kramer Teknovus

Comment Type T Comment Status D

In state diagram 64-12, the transition from PARSE OPCODE to TRANSMIT READY would result in a loop, since the last frame with an unsupported opcode would be checked continuously.

SuggestedRemedy

The transition should go from PARSE OPCODE state to the GATED state.

Proposed Response Response Status W

PROPOSED ACCEPT.
 See 182

CI 64 SC 64.2.3.6 P 520 L 19 # 21
 ZHU, ZIJIAN I2R

Comment Type T Comment Status D

In the PARSE TIMESTAMP state of Figure 64-9, the timestampError should not be calculate at the first packet received by the OLT from each ONU. There will always be a timestamp error.

The PARSE TIMESTAMP state of Figure 64-10 on page 521 will have the same problem.

SuggestedRemedy

1. In PARSE TIMESTAMP state of Figure 64-9:

```
if opcode != REGISTER_REQ
    timestampError <= if(abs(timestamp - localTime)>guard_threshold)
else
    timestampError <= false
```

2. In PARSE TIMESTAMP state of Figure 64-10:

```
if opcode != REGISTER
    timestampError <= if(abs(timestamp - localTime)>guard_threshold)
else
    timestampError <= false
```

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 See 300

CI 64 SC 64.2.3.6 P 520 L 19 # 300
 Glen Kramer Teknovus

Comment Type TR Comment Status D

"timestamp - localTime" is equal to RTT and is ALWAYS larger than guard_threshold of 64 or 128 ns. Thus, timestamp error will be asserted every time and no opcode specific operation will ever be invoked.

SuggestedRemedy

We should not assert timestampError until the ONU has been registered. Specifically, modify the code in RARSE TIMESTAMP state as follows:

```
timestamp = data[17:48]
newRTT = licalTime - timestamp
timestampError = registered * (abs(newRTT-RTT) > guard_threshold)
RTT = newRTT
```

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See 76,74,77,301, 21

Some thoughts on this subject:

- 1) timestampError is calculated by parser
- 2) decision to register/unregister is performed by Discovery Block on receiving this indocation
- 3) Discovery block is aware of registration status, and is also the entity that is capable of deregistering

Add transition based on timeout*registered in fig 64-19 to DEREGISTER state

Add transition based on timeout*registered in fig 64-20 to REMOTE DEREGISTE state

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CI 64 SC 64.2.3.6 P 520 L 19 # 432
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

The OLT does not need to check the timestamp.

SuggestedRemedy

In Figure 64-9, "timestampError <- if(abs(timestamp - localTime) > guard_threshold)" should be removed. Additionally, TIMESTAMP ERROR state should be removed. If the OLT needs to check the timestamp, RTT should be checked instead of timestamp. For this purpose, the following processes should be enforced in PARSE TIMESTAMP state.
 timestamp <- data[17:48]
 prevRTT = RTT
 RTT <- localTime - timestamp
 timestampError <- if(abs(RTT - prevRTT) > guard_threshold)
 Note that in case of REGISTER_REQ, only the following processes should be enforced.
 timestamp <- data[17:48]
 RTT <- localTime - timestamp

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 Check for error using saved RTT as mentioned instead of timestamp as measurement is incorrect.

CI 64 SC 64.2.3.6 P 520 L 21 # 433
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

This comment is significant if the timestampError is maintained in Figure 64-9. In TIMESTAMP ERROR state, "registered" is updated to false. However, the definition of this variable has been removed.

SuggestedRemedy

The definition of this variable should be described in 64.2.3.2. In this description, it is better to describe that this variable is same as "registered" used in Discovery process. Additionally, the output signal "registered" should be added to Figure 64-6.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 See 300

CI 64 SC 64.2.3.6 P 520 L 22 # 434
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

This comment is significant if the timestampError is maintained in Figure 64-9. In TIMESTAMP ERROR state, MA_CONTROL.indication() message is issued. However, according to Figure 64-2 and 64-6, the OLT Control Parser cannot issue MA_CONTROL.indication() message.

SuggestedRemedy

The definitions of MA_CONTROL.Indication(timestampError) and MA_CONTROL.Indication(deregistered) should be described in 64.2.3.5. Additionally, "MA_CONTROL.indication()" issued by the Control Parser should be added to Figure 64-2 and 64-6.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 See 300

CI 64 SC 64.2.3.6 P 520 L 24 # 435
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

This comment is significant if the timestampError is maintained in Figure 64-9. In the case when timestampError is true, state transits to WAIT FOR RECEIVE via TIMESTAMP ERROR. However, during these state transitions, timestampError is not updated to false.

SuggestedRemedy

At the end of TIMESTAMP ERROR, timestampError should be false.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 See 300

CI 64 SC 64.2.3.6 P 520 L 24 # 17
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

In Figure 64-9, the condition from PARSE TIMESTAMP to INITIATE MAC CONTROL FUNCTION should not be UCT. This states change could happen only when timestampError is false.

SuggestedRemedy

Change UCT to timestampError = false

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 See 300

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Cl 64 SC 64.2.3.6 P 521 L 19 # 301
 Glen Kramer Teknovus

Comment Type TR Comment Status D

When the DISCOVERY_GATE is received by uninitialized ONU, the condition timestampError = if(abs(timestamp-localTime) > guard_threshold) would almost always be true. On this condition, the execution point will jump to TIMESTAMP ERROR state and will never invoke the opcode-specific function. As a result, the ONU will never register.

SuggestedRemedy

We should not assert timestampError until the ONU has been registered. Specifically, change timestamp check to the following:

timestampError = registered * ((abs(timestamp - localTime) > guard_threshold)

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 see 300

Cl 64 SC 64.2.3.6 P 521 L 21 # 75
 Yeo, Doreen Institute of Microelectr

Comment Type T Comment Status D

In the state "TIMESTAMP ERROR" of Figure 64-10, the first action is to set the variable "registered" to false.

- 1) This variable is deleted in Section 64.2.3.2
- 2) This variable is not indicated in Figure 64-6 on Page 516
- 3) This variable is the result of the Discovery process and should not be set in the Control Parser block.

SuggestedRemedy

Remove action "registered = false"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 64 SC 64.2.3.6 P 521 L 22 # 76
 Yeo, Doreen Institute of Microelectr

Comment Type T Comment Status D

In the state "TIMESTAMP ERROR" of Figure 64-10, the 2nd action is to send message MA_CONTROL.Indication(timestampError)

- 1) No opcode is associated with "timestampError" in Table 31A-1 on Page 112
- 2) MA_CONTROL.Indication(timestampError) primitive is not defined in Annex 31A on page 113-114.
- 3) This message is not indicated in Figure 64-6 on Page 516

SuggestedRemedy

- 1) Assign new opcode for timestampError in Table 31A-1 on Page 112
- 2) Define MA_CONTROL.Indication(timestampError) primitive in Annex 31A
- 3) Indicate MA_CONTROL.Indication(timestampError) in Figure 64-6 on Page 516
- 4) Include definition for message MA_CONTROL.Indication(timestampError) in Section 64.2.3.5 on Page 519

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

As timestampError is not a message, and no opcode is associated with this editor propoee one of two following options:

- 1) For each opcode add timestamperror field in indication (similar to receive-status notification)
- 2) no indication be generated, instead a mangement counter is incremented

Cl 64 SC 64.2.3.6 P 521 L 23 # 74
 Yeo, Doreen Institute of Microelectr

Comment Type T Comment Status D

In Figure 64-10, transition from state "PARSE TIMESTAMP" to "INITIATE MAC CONTROL FUNCTION" is "UCT" regardless of whether there is a timestamp error. Should the MAC control function be initiated if there is a timestamp error? If not, the condition for transition should occurs when "timestampError = false".

SuggestedRemedy

If the MAC control function is initiated when there is no timestamp error, change the condition for transition from "UCT" to "timestampError = false"

Proposed Response Response Status W

PROPOSED REJECT.

Editor believes opcode should be executed as it may contain deregister notification for example.

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CI 64 SC 64.2.3.6 P 521 L 23 # 77
 Yeo, Doreen Institute of Microelectr

Comment Type T Comment Status D

In the state "TIMESTAMP ERROR" of Figure 64-10, the 3rd action is to send message MA_CONTROL.Indication(deregistered).

- 1) No opcode is associated with "deregistered"
- 2) The MA_CONTROL.Indication(deregistered) primitive is not defined in Annex 31A on page 113-114.
- 3) This message is not indicated in Figure 64-6 on Page 516

Deregistering process is performed by the Discovery process. The Control Parser can inform the MAC client of the timestampError via MA_CONTROL.Indication(timestampError) primitive. If the MAC Client decides to deregister the ONU, it can inform the discovery process and the variable "registered" will be set to false.

SuggestedRemedy

Remove action MA_CONTROL.Indication(deregistered)

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.2.3.6 P 521 L 24 # 436
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

In Figure 64-10, in the case when timestampError is true, state transits to WAIT FOR RECEIVE via TIMESTAMP ERROR. However, during these state transitions, timestampError is not updated to false.

SuggestedRemedy

At the end of TIMESTAMP ERROR, timestampError should be false.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See 300

CI 64 SC 64.2.3.6 P 521 L 24 # 437
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

In the other comment, I propose to add the definition of MA_CONTROL.Indication(deregistered) to 64.2.3.5. By the way, the ONU also issue this message in TIMESTAMP ERROR state. In this case, the ONU should not send any MPCP messages to the OLT.

SuggestedRemedy

In the definition of MA_CONTROL.Indication(deregistered), it is better to add the following description. "If this message is issued in the ONU, the ONU resets all of MPCP related process without sending MPCP messages to the OLT."

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See 77
 maybe definition should be removed

CI 64 SC 64.2.3.6 P 522 L 18 # 564
 Chan Kim ETRI

Comment Type T Comment Status D

Select() should constantly be performed until transmitEnable becomes true. and transmitPending variable can have DATA or CONTROL according to the variable definition. (though multiplexing control doesn't care it's data or control)

SuggestedRemedy

1. move Select() function and transmitPending assignment to 'WAIT FOR TRANSMIT' state so that it can be perform until transmitEnable becomes true.
2. and Change transmitPending <= DATA to transmitPending <= DATA or CONTROL

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 1. see 198
 2. see comment #27 for proposal to change DATA or Control to true/false

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CI 64 SC 64.2.3.6 P 523 L # 182
Yoshimura, Minoru NEC
Comment Type T Comment Status D
Figure64-12
When "Length/Type=MAC Control" and "opcode != {supported opcode}", we will continue to loop perpetually between "TRANSMIT READY" state and "PARSE OP CODE" state.
SuggestedRemedy
When we are in "PARSE OP CODE" state and "opcode != {supported opcode}", we should return to "GATED" state.
Proposed Response Response Status W
PROPOSED ACCEPT.
See 316

CI 64 SC 64.2.3.6 P 537 L 43 # 25
ZHU, ZIJIAN I2R
Comment Type T Comment Status D
The default registered value for OLT is also false. Refer to line 8 in Figure 64-19 on page 543, the registered is used to indicate whether each corresponding ONU is registered.
SuggestedRemedy
DEFAULT VALUE: false
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 64 SC 64.3 P 523 L 49 # 22
ZHU, ZIJIAN I2R
Comment Type E Comment Status D
As there will be no OMP block in the draft, the caption in this line should be changed accordingly.
SuggestedRemedy
Suggest changing the caption "Optical Multi-Point" in line 49 to "MPCP functional blocks" or other readable names. And change "Optical Multi-Point functional block" in line 51 and all those in page 524 accordingly.
Proposed Response Response Status W
PROPOSED REJECT.
Optical multi-point is a method that uses optical multi-point control protocol as a control protocol, and not vice versa.

CI 64 SC 64.3.10 P 545 L 19 # 15
Gan, Xiaodan IME
Comment Type E Comment Status D
In figure 64-21, there is not variable "registered" as an input to the Report Processing. However, in the Report Processing state diagram at ONU (figure 64-23, page 547) the variable "registered" is used. Is it required for the Report Processing ?
SuggestedRemedy
If it is required, add the variable "registered" as an input to the Report Processing (figure 64-21, page 545).
Proposed Response Response Status W
PROPOSED ACCEPT.
Technical not Editorial

CI 64 SC 64.3.10.5 P 519 L 24 # 6
Tan , Chik Liang I2R
Comment Type E Comment Status D
There appears to be a spelling error.
Change the word " invoced " to "invoked".
SuggestedRemedy
This also occurs in several other places :
Pg 540 Line 5 Subclause 64.3.9.5
Pg 546 Line 36 Subclause 64.3.10.5
Pg 552 Line 23 Subclause 64.3.11.5
Proposed Response Response Status W
PROPOSED ACCEPT.

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CI 64 SC 64.3.10.5 P 546 L 15 # 305
 Glen Kramer Teknovus

Comment Type T Comment Status D

"'0' or false indicates that the corresponding queue is empty while '1' or true indicates that the queue has some data."

This is not exactly correct. '0' indicates that the corresponding 'status' field is not present, and '1' indicates that the 'status' field is present.

SuggestedRemedy

Change the above sentence to

"'0' or false indicates that the corresponding status field is not present (the length of status field is 0), while '1' or true indicates that the corresponding status field is present (the length of status field is 2 octets)."

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 64 SC 64.3.10.6 P 547 L 30 # 7
 Tan , Chik Liang I2R

Comment Type E Comment Status D

Figure 64-23.

The variable registered is not listed in the Variables list in the service interface. Should it be added in?

SuggestedRemedy

Since the functional definition of 'registered' appears in the service interface of Discovery Processing and the Control Parser/Multiplexer, suggest adding it to Report Processing and Gate Processing which are both also using the variable.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.3.11.2 P 549 L 23 # 9
 Tan , Chik Liang I2R

Comment Type E Comment Status D

Spelling error in the line.
 "varibale" should be "variable"

SuggestedRemedy

Change "varibale" to "variable"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.3.11.2 P 550 L 35 # 45
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

IDLETime is called syncTime in Figure 64-27.

SuggestedRemedy

Rename to syncTime, which is more appropriate

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.3.11.3 P 550 L 45 # 46
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

empty(list)
 This function is use to check wheter list is an empty list. ...

SuggestedRemedy

Suggest changing it to
 This function is use to check whether the list is empty. When there are no elements queued in the list, the function returns true. Otherwise,...

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI 64 SC 64.3.11.3 P 550 L 48 # 48
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

"insert_sorted_list(list, element)
 This function is use to queue the element structure element inside the list list. The queueing order is sorted." is a bit ambiguous.

SuggestedRemedy

Suggest changing it to
 This function is use to queue the element according to its priority within the list of sorted elements.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.11.3 P 551 L 1 # 47
 ZHU, ZIJIAN I2R

Comment Type T Comment Status D

Functions IsUnicast(MACAddress) and IsBroadcast(.) used in Figure 64-27 are not defined here.

Why not check LLID instead which is only 2octets.

SuggestedRemedy

IsUnicast(LLID)
 This function is used to check whether the 2 octet LLID represents is unicast. The function returns the value true when LLID is unicast according to the definitions in Clause 65, and false otherwise.

IsBroadcast(MACAddress)
 This function is used to check whether the 2 octet LLID represents is broadcast. The function returns the value true when LLID is broadcast according to the definitions in Clause 65, and false otherwise.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Definitions for the functions IsUnicast and Ibroadcast shall be added by the editor
 However, reliance on the LLID is not correct as both cases use broadcast LLID and occur prior to registration.

CI 64 SC 64.3.11.3 P 551 L 2 # 50
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

double "list "

SuggestedRemedy

Remove one of them.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.11.5 P 552 L 23 # 567
 Chan Kim ETRI

Comment Type E Comment Status D

typo. invoced => invoked.

SuggestedRemedy

correct it.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.11.6 P 554 L 15 # 51
 ZHU, ZIJIAN I2R

Comment Type T Comment Status D

Figure 64-25
 When the first Gate is sent, OLT should set initialGate=true so that Discovery process in Figure64-19 can start ONU_timer.

SuggestedRemedy

Suggest in state SEND_GATE, set initialGate=true after sending_GATE.

Proposed Response Response Status W
 PROPOSED ACCEPT.
 See 53

CI 64 SC 64.3.11.6 P 554 L 32 # 440
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

In Figure 64-26, the process "IDLE time <- Sync Time in Discovery_GATE" is not indicated.

SuggestedRemedy

At the beginning of INCOMING GRANT state, the ONU should check the discovery flag. If this flag is sed to 1, the above process should be enforced.

Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 64 SC 64.3.11.6 P 554 L 34 # 24
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

1024 is not very informative. Suggest changing it to a constant name.

SuggestedRemedy

Suggest changing it to min_prep_time or min_processing_time and adding the constant to 64.3.11.1 Constant section

min_processing_time

This constant is the time required for the ONU processing time.

TYPE: 32 bit unsigned

VALUE: 00-00-04-00 (16.384 us)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.3.11.6 P 554 L 35 # 431
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

This comment is a part of #143 on Draft1.414. In the final response to #143, #719 should be referred as the combined complete solution. However, IPG is not considered at the length check of grant.

SuggestedRemedy

I again propose as follows. In Figure 64-26, "(length[i] > laser_on_time + IDLE_time + laser_off_time)" should be "(length[i] > laser_on_time + IDLE_time + laser_off_time + IPG)".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

As IPG can overlap with laser_off_time, equations should replace IPG with tail_guard

CI 64 SC 64.3.11.6 P 555 L # 307
 Glen Kramer Teknovus

Comment Type T Comment Status D

Missing text descriptions for functions "IsBroadcast()" and "IsUnicast()";

SuggestedRemedy

1. Add text descriptions
2. Perhaps only "IsBroadcast()" function is needed. "IsUnicast()" is equivalent to "IsBroadcast()".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Editor would add definitions

See 47

CI 64 SC 64.3.11.6 P 555 L # 311
 Glen Kramer Teknovus

Comment Type T Comment Status D

Transitions from CHECK_GATE_TYPE state do not cover the complete input space. For example, what happens when a broadcast Discovery Gate is received, but this ONU is already registered?

SuggestedRemedy

Add a transition marked "else" from "CHECK_GATE_TYPE" to "WAIT FOR GATE"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Move to WAIT FOR GRANT state

CI 64 SC 64.3.11.6 P 555 L # 306
 Glen Kramer Teknovus

Comment Type T Comment Status D

The same function is "remove_list" in text and "remove_head" and "RemoveList" in state diagram.

SuggestedRemedy

Use consistent naming for this and other functions:

RemoveHead(...)

PeekHead(...)

InsertInOrder(...)

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See 506

P802.3ah Draft 1.732 Comments

CI 64 SC 64.3.11.6 P 555 L # 312

Glen Kramer Teknovus

Comment Type E Comment Status D

Typos:

1. line 22: missing bracket after laserONTime
2. line 28: should be insideDiscoveryWindow
3. line 35: should be insideDiscoveryWindow
4. line 44: should be localTime

SuggestedRemedy

Fix per comment.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.3.11.6 P 555 L 15 # 441

Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

The time order between the timing when the ONU receives the Normal GATE for the REGISTER_ACK and that when "registered" becomes true as the result of the MA_CONTROL.request(REGISTER_ACK) in the ONU cannot be guaranteed. Therefore, according to the state transit condition from CHECK GATE TYPE to TURN LASER ON in Figure 64-27, it is possible that the ONU cannot receive the Normal GATE for REGISTER_ACK.

SuggestedRemedy

To guarantee that the ONU can receive the Normal GATE for REGISTER_ACK, I propose to add a new variable "firstGate". Actual modifications are as follows.

- (1) "firstGate" should be added as an output signal to Figure 64-16.
- (2) Add the definition of "firstGate" in 64.3.7.2 as follow.

firstGat

This variable is used for indication o firstGating. It is set to true following th receipt of REGISTER(Ack) at the ON TYPE: boolea

DEFAULT VALUE: fals

- (3) Add the following processes in Figure 64-20.

firstGate<-false in WAI

firstGate<-true in REGISTER PENDIN

- (4) "firstGate" should be added as an input signal to Figure 64-24.

- (5) Add the definition of "firstGate" in 64.3.9.2 as shown in (2).

- (6) Change the state transition condition from CHECK GATE TYPE to TURN LASER ON in Figure 64-27 as follows.

(currentGrant.discovery = false) * registered + (currentGrant.discovery = true) * (IsUnicast(DA)) * (DA = ONU's MAC address) * !registered

(currentGrant.discovery = false) * (firstGate or registered) + (currentGrant.discovery = true) * IsUnicast(DA)) * (DA = ONU's MAC address) * !registered

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Perhaps a simple reordering between the two operations is the REGISTERED state in figure 64-20 is sufficient to solve problem.

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CI 64 SC 64.3.11.6 P 555 L 15 # 308
 Glen Kramer Teknovus
 Comment Type T Comment Status D
 In state RANDOM WAIT, the variable "length" should be "currentGrant.length"
 SuggestedRemedy
 Change "length" to "currentGrant.length"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.11.6 P 555 L 16 # 310
 Glen Kramer Teknovus
 Comment Type T Comment Status D
 check (IsUnicast(DA) * (DA=ONU's MAC address) is a duplication
 SuggestedRemedy
 Remove (DA=ONU's MAC address)
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Not exactly duplicate. Component that should be removed is check for unicast, as this is inferred from matching the ONU MAC address.

CI 64 SC 64.3.11.6 P 555 L 16 # 309
 Glen Kramer Teknovus
 Comment Type T Comment Status D
 1. syncTime is measured in TQ as well as maxDelay and length. No invocation of "sizeof(...)" is needed.
 2. preamble and IFG is measured in bytes, so we need a conversion "timeOf(...)"
 SuggestedRemedy
 1. Introduce a function "timeOf()" that takes bytes and returns a value in TQ.
 2. Change maxDelay calculation to the following:
 "maxDelay = currentGrant.length - laserONTime - syncTime - timeOf(MPCPDU) - timeOf(tail_guard) - laserOFFTime"
 Proposed Response Response Status W
 PROPOSED REJECT.
 Conversion was performed to byte metric to allow for more accurate measurement.

CI 64 SC 64.3.11.6 P 555 L 34 # 442
 Murakami, Ken Mitsubishi Electric
 Comment Type E Comment Status D
 Typo
 SuggestedRemedy
 In Figure 64-27, "nsideDiscoveryWindow" should be replaced with "insideDiscoveryWindow".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.11.6 P 555 L 35 # 53
 ZHU, ZIJIAN I2R
 Comment Type T Comment Status D
 Figure 64-27
 initialGate mechanism is used at OLT only for proper start of ONU_timer. It is of no use at ONU.
 SuggestedRemedy
 Delete in state STOP TX "else initialGate=true".
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Move initialGate=true to state SEND GATE in figure 64-25
 see 51

CI 64 SC 64.3.11.6 P 555 L 35 # 10
 Tan , Chik Liang I2R
 Comment Type E Comment Status D
 Figure 64-27
 Spelling errors in the state 'STOP TX'
 Change "nsideDiscoveryWindow" to "insideDiscoveryWindow".
 SuggestedRemedy
 See above.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 64 SC 64.3.11.6 P 555 L 35 # 443

Murakami, Ken Mitsubishi Electric

Comment Type E Comment Status D

In Figure 64-27, "else initialGate <- true" has no meaning.

SuggestedRemedy

Remove this process.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.3.11.6 P 555 L 36 # 313

Glen Kramer Teknovus

Comment Type T Comment Status D

"else" without "if"

SuggestedRemedy

Perhaps the fix should be the following:

```
initialGate = false
if(insideDiscoveryWindow)
    initialGate = true // set for the next gate
```

```
insideDiscoveryWindow = false
```

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

With the exception of initialGate that shall be removed
See 53

CI 64 SC 64.3.11.6 P 555 L 39 # 16

Gan, Xiaodan IME

Comment Type T Comment Status D

In figure 64-27, the Gate Processing should check the status of the variable "registered" when it checks if the grantList is empty. If the ONU is deregistered the Gate Processing needs to flush the grantList and not to enter the state of START TX.

SuggestedRemedy

Add variable "registered" checking and corresponding action in the Gate Processing state diagram of ONU (figure 64-27).

Proposed Response Response Status W

PROPOSED REJECT.

Comment does not provide sufficient detail for review.

Commenter is encouraged to resubmit with a complete remedy that includes suggested text and/or state diagram modifications.

As a side not, transition to START TX is still required whrn not registered in order to allow registration to occur.

CI 64 SC 64.3.11.6 P 555 L 42 # 314

Glen Kramer Teknovus

Comment Type T Comment Status D

1. Transitions from state CHECK NEXT GRANT are not mutually exclusive.
2. condition "stopTime = localTime" is always true when the state CHECK NEXT GRANT is active. Specifying it as transition label makes no sense.

SuggestedRemedy

Replace "stopTime = localTime" by "else"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See 444

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CI 64 SC 64.3.11.6 P 555 L 44 # 444
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

In Figure 64-27, according to the current branch conditions from CHECK NEXT GRANT, even if the discovery grant overlaps with the previous grant, state transits to LASER OFF. This is not correct. Additionally, in the case when the laser off period of the current grant overlaps with the laser on time of the next grant, the next grant should be treated as B2B grant for the effective usage of PON bandwidth.

SuggestedRemedy

Change the branch conditions from CHECK NEXT GRANT as follows.
 (nextStopTime <= stopTime) + ((nextGrant.start <= stopTime + laserOffTime) * (nextGrant.discovery = true)) --> HIDDEN GRANT
 (nextStopTime > stopTime) * (nextGrant.discovery = false) * (nextGrant.start <= stopTime + laserOffTime) --> B2B GRANT
 (nextStopTime > stopTime) * (nextGrant.start > stopTime + laserOffTime) --> LASER OF
 According to the above branch conditions, the discovery grant that overlaps with the previous grant is discarded.

Proposed Response Response Status W
 PROPOSED ACCEPT.
 See 314

CI 64 SC 64.3.11.6 P 555 L 48 # 506
 Miyoshi, Hidekazu SEI

Comment Type T Comment Status D

The RemoveList function is used in HIDDEN GRTANT and B2B GRANT in figure 64-27. But the name, RemoveList(), is inconsistent with the expression, remove_list(), used in 64.3.11.3

SuggestedRemedy

Change RemoveList() to remove_list() in figure 64-27, or change remove_list() to RemoveList() in 64.3.11.3

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Choose low cap names with _
 See 306

CI 64 SC 64.3.11.6 P 555 L 48 # 505
 Miyoshi, Hidekazu SEI

Comment Type T Comment Status D

In figure 64-27, there is a state called HIDDEN GRANT where the current grant is removed. However, in this case the next grant also needs to be removed.

SuggestedRemedy

Add "RemoveList(grantList, nextGrant)" in HIDDEN GRANT.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 Ass curentGrant is removed from head in state WAIT FOR START TIME; in states HIDDEN GRANT and B2B GRANT actions that need to be performed are removal of nextGrant and not currentGrant.

CI 64 SC 64.3.2.1 P 547 L 46 # 501
 Maislos, Ariel Passave

Comment Type E Comment Status D

Ues VALUE instead of DEFAULT VALUE for constants

SuggestedRemedy

see comment, also fix throughout clasue

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.6 P 533 L # 319
 Glen Kramer Teknovus

Comment Type T Comment Status D

"At the OLT the [MPCP] counter shall track the transmit clock, while at the ONU the counter shall track the receive clock"

The above approach is not standard-compliant since no interface exists that allows the Rx clock to propagate through MAC to MAC Control.

Frequency-locking the Tx clock to the Rx clock in the ONU is not necessary.

SuggestedRemedy

1. MPCP should synthesize the clock from the incoming timestamps.
2. Let the Tx clock be free running

Proposed Response Response Status W

PROPOSED REJECT.
 Compliance is created by writing a standard, as we do here.
 When not synchronizing the timestamps, as shown in the past the guard band needs to be increased significantly.

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Cl 64 SC 64.3.6 P 533 L 47 # 5

Tan , Chik Liang

I2R

Comment Type E Comment Status D

In reference to the functional description of the variable 'localTime', the sentence " It is periodically reset by the functional block on notification of the existence.... " .

It is unclear which functional block this sentence is referring to.

SuggestedRemedy

Suggest placing "MPCP functional block " into the sentence instead to clarify matters.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 64 SC 64.3.9 P 535 L 27 # 502

Miyoshi, Hidekazu

SEI

Comment Type E Comment Status D

In figure 64-14, the order of DA and SA fields in the second GATE is different from others.

SuggestedRemedy

Swap the fields as follows.

```
GATE{,,, SA=OLT MAC address, DA=MAC control,,,}
-> GATE{,,, DA=MAC control, SA=OLT MAC address,,,}
```

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 64 SC 64.3.9 P 536 L 12 # 11

Gan, Xiaodan

IME

Comment Type E Comment Status D

In figure 64-15, variable "initialGate" is an input to the Discovery Processing of OLT. But it is not appeared in the Discovery Processing of ONU (figure 64-16). However, in the Gate Processing State Diagram at OLT (figure 64-25, page 554) the variable "initialGate" is not set a value anywhere. Only the Gate Processing state diagram at ONU (figure 64-27, page 555) uses this variable. It is not matching and clear.

SuggestedRemedy

Please clarify and make the variable "initialGate" corresponding between Discovery Processing and Gate Processing for OLT or ONU.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 64 SC 64.3.9 P 536 L 16 # 44

ZHU, ZIJIAN

I2R

Comment Type E Comment Status D

OPCODE should be in lower case since it is a variable.

SuggestedRemedy

Also found in other figures.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 64 SC 64.3.9.1 P 536 L 44 # 29

ZHU, ZIJIAN

I2R

Comment Type E Comment Status D

Constant broadcast_ID is not used in any discovery state diagram.

SuggestedRemedy

Suggest removing constant definition of broadcast_ID and add in Clause 65.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 64 SC 64.3.9.1 P 536 L 50 # 32

ZHU, ZIJIAN

I2R

Comment Type E Comment Status D

After merging discovery processing ONU window setup diagram into gate processing ONU activation diagram, constants laser_on_time and laser_off_time are not used in any discovery state diagram.

SuggestedRemedy

Suggest removing constant definition of laser_on_time and laser_off_time

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 64 SC 64.3.9.1 P 537 L 16 # 35

ZHU, ZIJIAN

I2R

Comment Type E Comment Status D

After merging discovery processing ONU window setup diagram into gate processing ONU activation diagram, variable IDLE_Time is not used in any discovery state diagram.

SuggestedRemedy

Suggest removing variable definition of IDLE_Time.

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI 64 SC 64.3.9.1 P 537 L 48 # 36
 ZHU, ZIJIAN I2R
 Comment Type E Comment Status D
 After merging discovery processing ONU window setup diagram into gate processing ONU activation diagram, function is_unicast is not used in any discovery state diagram.
 SuggestedRemedy
 Suggest moving function definition of IsUnicast to Gate processing P550.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.2 P 537 L # 317
 Glen Kramer Teknovus
 Comment Type T Comment Status D
 Not clear what is the reason to make the default value for 'register' variable false in ONU, but true in OLT.
 SuggestedRemedy
 Set the default value for 'register' variable to false in both ONU and OLT.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.2 P 537 L 19 # 503
 Miyoshi, Hidekazu SEI
 Comment Type T Comment Status D
 The IDLE_Time variable is set by not only Discovery GATE but also REGISTER. In addition the brief explanation of Discovery GATE in this sentence is not necessary.
 SuggestedRemedy
 Modify the sentence as indicated below.
 "This value is set following receipt of Discovery GATE and REGISTER, and is indicated in Sync time fields in the messages."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.2 P 537 L 43 # 183
 Yoshimura, Minoru NEC
 Comment Type T Comment Status D
 Default value of variable "registered" for OLT should be "false".
 And "registered=true" should be added in "REGISTERED" state in Figure64-19.
 SuggestedRemedy
 Same as comment.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.3 P 538 L 1 # 302
 Glen Kramer Teknovus
 Comment Type T Comment Status D
 1. Random function is not used in discovery processing any more.
 2. Timer "random_delay_timer" in discovery processing any more.
 SuggestedRemedy
 1. Move the description of "random()" to sub-clause 64.3.11.3 (functions related to Gate processing)
 2. Move the description of "random_delay_timer" to sub-clause 64.3.11.4 (timers related to Gate processing)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.4 P 538 L 28 # 507
 Miyoshi, Hidekazu SEI
 Comment Type T Comment Status D
 At the end of a burst for upstream traffic, IFG is not necessary. Only the closing sequence (/T/R/R/) is required. However random_delay_timer includes the IFG size. In the same reason, IFG should not be included for the calculation of maxDelay in the RANDOM WAIT state in figure 64-27.
 SuggestedRemedy
 Change the sentence.
 "...less the IPG size." -> "...less the closing sequence."
 Get rid of "-IFG" from the RANDOM WAIT state in Figure 64-27.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 64 SC 64.3.9.4 P 538 L 28 # 8
 Tan , Chik Liang I2R
 Comment Type E Comment Status D
 Wrong word. "...IPG size." should be IFG size.
 SuggestedRemedy
 Suggest changing IPG to IFG
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.4 P 538 L 29 # 303
 Glen Kramer Teknovus
 Comment Type T Comment Status D
 "The timer value is set dynamically based on the parameters passed from the client."

 This statement is not accurate as there are no parameters passed from the client to set the random delay timer.
 SuggestedRemedy
 Change the above sentence to

 "The timer value is set dynamically based on the parameters received in a DISCOVERY GATE message".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.4 P 538 L 40 # 508
 Miyoshi, Hidekazu SEI
 Comment Type T Comment Status D
 When REGISTER_REQ is sent by an ONU, IFG does not have to be included in the end of the transmission.
 SuggestedRemedy
 Get rid of "IFG" from the sentence.
 Change the total value to 75 bytes (600nsec).
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 64 SC 64.3.9.5 P 539 L 16 # 56
 ZHU, ZIJIAN I2R
 Comment Type E Comment Status D
 MA_CONTROL.indication(DA, gate.discovery, start_time, grant_length, length) is shown in figure 64-16 line 23 but not mentioned in this paragraph.
 SuggestedRemedy
 Suggest adding

 MA_CONTROL.indication(DA, gate.discovery, start_time, grant_length, length)

 The service indication used at the ONU indicates to the client the existence of a discovery window. .. Copy from line 19 to 36.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change to just "gate" indication

CI 64 SC 64.3.9.5 P 539 L 17 # 26
 ZHU, ZIJIAN I2R
 Comment Type E Comment Status D
 The message name MA_CONTROL.request(DA, register, ...) in this line should be changed according to the service primitive name in line 6 of page 536, which is MA_CONTROL.request(gate,discovery).
 SuggestedRemedy
 Suggest changing the message name of this line to:
 MA_CONTROL.request(DA, gate_discovery, start_time, grant_length, length). And also change in line 11 of Figure 64-17, page 541.
 Proposed Response Response Status W
 PROPOSED REJECT.

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CI 64 SC 64.3.9.5 P 539 L 38 # 33
 ZHU, ZIJIAN I2R
 Comment Type E Comment Status D
 MA_CONTROL.request(register_ack, registerStatus) definition is found in the figure 64-20 but not in the definition.
 SuggestedRemedy
 Suggest adding
 MA_CONTROL.request(register_ack, registerStatus)
 The service primitive is used by the client at ONU to indicate whether the OLT has accept or deny the register request.
 The parameter status holds the value accept or deny
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.5 P 539 L 39 # 12
 Gan, Xiaodan IME
 Comment Type E Comment Status D
 According to the Discovery Processing Service Interface (OLT)(figure 64-15, page 536) the service primitive MA_CONTROL.request(register_ack) is not used by the client at the OLT. However, it is used by the Discovery Processing of ONU (figure 64-16, page 536).
 SuggestedRemedy
 Change the sentence at line 39 to
 "The service primitive used by the client at the ONU to acknowledge register."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.5 P 539 L 42 # 38
 ZHU, ZIJIAN I2R
 Comment Type E Comment Status D
 MA_CONTROL.indication(register, SA, ID, status, RTT) definition is found in figure 64-20 but not in the definition.
 SuggestedRemedy
 Suggest adding
 MA_CONTROL.indication(register, SA, ID, status, RTT)
 The service indication is issued by the discovery process at the ONU to notify the client that the registration process is completed.
 The parameter status holds the value accepted.
 Remove the reference to ONU.

Alternatively, can modify the existing primitive to
 MA_CONTROL.indication(register_ack(OLT)|register(ONU), SA, ID, status, RTT)
 The parameter status .. -> OLT status ...
 ONU status: accepted
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.5 P 539 L 42 # 42
 ZHU, ZIJIAN I2R
 Comment Type E Comment Status D
 MA_CONTROL.indication(register, status) definition is found in figure 64-20 but not in the definition.
 SuggestedRemedy
 Suggest adding
 MA_CONTROL.indication(register, status)
 The service indication is issued by the discovery process at the ONU to notify the client and layer management that the ONU registration is unsuccessful.
 The parameter status holds the value denied or deregistered.
 Alternatively, can merge with the ONU primitive MA_CONTROL.indication(register, SA, ID, status, RTT)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 64 SC 64.3.9.5 P 539 L 43 # 13
 Gan, Xiaodan IME

Comment Type E Comment Status D

According to the Discovery Processing Service Interface at page 536, the service indication MA_CONTROL.indication(register_ack) is only used by the Discovery Processing at the OLT.

SuggestedRemedy

To delete "or at the ONU" in the sentence at line 43 of page 539.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.3.9.5 P 539 L 6 # 40
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

MA_CONTROL.indication(register_req, status) definition is found in figure 64-20 but not in the definition and figure 64-16.

SuggestedRemedy

Suggest adding

MA_CONTROL.indication(register_req, status)

The service indication is issued by the discovery process at the ONU to notify the client and layer management that the ONU needs to retry at the next registration process. The parameter status holds the value retry.

Alternatively, can modify the existing primitive to
 MA_CONTROL.indication(register_req, SA(OLT), ID(OLT), status, RTT(OLT))
 The parameter status .. -> OLT status ...
 ONU status: retry

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.3.9.5 P 543 L 11 # 31
 ZHU, ZIJIAN I2R

Comment Type TR Comment Status D

The message MA_CONTROL.request(DA,register,ID,registerStatus) in this line is not defined anywhere.

SuggestedRemedy

Suggest add the definition of this message in page 539 as the following:
 MA_CONTROL.request(DA,register,ID,registerStatus)

The service primitive used by the client at the OLT to initiate acceptance of an ONU. The parameter ID holds the LLID assigned by the client. The parameter reisterStatus holds the values accept, or deny.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.3.9.6 P 537 L # 318
 Glen Kramer Teknovus

Comment Type T Comment Status D

Upon local deregistration in an ONU, a REGISTER_ACK(flag=success) will be transmitted, which is an undesirable side-effect.

SuggestedRemedy

Split REGISTERED state into REGISTER ACK and REGISTERED state.

In REGISTER ACK state send REGISTER_ACK(flag=success) and UCT to REGISTERED. Transition from LOCAL DEREGISTER should go to REGISTERED state.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See 41

CI 64 SC 64.3.9.6 P 543 L 10 # 184
 Yoshimura, Minoru NEC

Comment Type T Comment Status D

"MA_CONTROL.request(DA,register,start_time,grant_length,length)" is defined in 64.3.9.5.

But "MA_CONTROL.request(DA,register,ID,registerStatus)" used in Figure 64-19 differs from this definition in 64.3.9.5.

SuggestedRemedy

Modify the definition of "MA_CONTROL.request" in 64.3.9.5

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI 64 SC 64.3.9.6 P 543 L 11 # 14
 Gan, Xiaodan IME

Comment Type T Comment Status D

In figure 64-19, the service primitive MA_CONTROL.request(DA, register, ID, registerStatus) is used. But it can not be found in the messages defined in sub-clause 64.3.9.5. Also there is already a service primitive MA_CONTROL.request(DA, register, start_time, grant_length, length) is used in the Discovery Processing state diagram of OLT (figure 64-17, page 541). These two service primitives use same "register" as opcode but have different request_operand_list.

SuggestedRemedy

Add the message description of MA_CONTROL.request(DA, register, ID, registerStatus) in the sub-clause 64.3.9.5.
 Change MA_CONTROL.request(DA, register, start_time, grant_length, length) to MA_CONTROL.request(DA, discovery_gate, start_time, grant_length, length).

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.6 P 543 L 13 # 49
 ZHU, ZIJIAN I2R

Comment Type T Comment Status D

Figure 64-19
 initialGate should be set false when start registration or reregister but not found.

SuggestedRemedy

Suggest in state REGISTER, set initialGate=false at entry.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.6 P 543 L 20 # 430
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

This comment is a part of #136 on Draft1.414. In the final response to #136, #700 should be referred. In #700, the start timing of ONU_timer has been clarified. However, the timing to send the Normal GATE following the REGISTER has not been clarified.

SuggestedRemedy

I again propose to add the following assumption to Figure 64-19. "The MAC Control Client issues the grant following the REGISTER message, taking the ONU processing delay of REGISTER message into consideration."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

The mentioned consideration was accounted for in section 64.3.4.4 "The ONU shall process all messages in less than this period." meaning 1024 TQ.
 As a consequence it is possible that no special mention is required in consideration of 64.3.9.6

CI 64 SC 64.3.9.6 P 543 L 23 # 438
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

"initialGate" used in Figure 64-19 is the input signal from the Gate process and indicates that the first normal GATE following the REGISTER has been sent. However, no process to update "initialGate" is shown in the Gate process.

SuggestedRemedy

The following processes should be added to Figure 64-25.
 "initialGate" should be set to false at BEGIN.
 If the discovery flag is 0 and "initialGate" is false, "initialGate" should be updated to true in SEND GATE state.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.6 P 543 L 42 # 304
 Glen Kramer Teknovus

Comment Type T Comment Status D

"statue" should be called "registerStatus"

SuggestedRemedy

change "statue" to "registerStatus"

Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 64 SC 64.3.9.6 P 543 L 45 # 37
 ZHU, ZIJIAN I2R
 Comment Type T Comment Status D
 Figure 64-19
 Transition criterion (OPCODE = REGISTER_REQ * flags = deregister) is misleading.
 SuggestedRemedy
 Change to (OPCODE = REGISTER_REQ) * (flags = deregister)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.6 P 543 L 45 # 565
 Chan Kim ETRI
 Comment Type T Comment Status D
 Definition of mpcp_timer_done is missing.
 the transition condition from the REGISTERED state to DEREGISTER state doesn't clearly indicate that something was received.
 SuggestedRemedy
 change '... + (OPCODE=REGSITER_REQ*flag=deregister)'
 to '... + invocation(OPCODE=REGSITER_REQ*flag=deregister)'. (or invoked(...))
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Editor would add reference to mpcp_timer_done
 I am not sure we need to add invocation(..) to the opcode

CI 64 SC 64.3.9.6 P 544 L 185
 Yoshimura, Minoru NEC
 Comment Type T Comment Status D
 If we follow Figure64-20, unnecessary "REGISTER_ACK" will be send out in "REGISTERED"state after "REGISTER_REQ,register=false" in "LOCAL DEREGISTER"state. REGISTER_ACK should not be send out in this case.
 SuggestedRemedy
 We should move from "LOCAL DEREGISTER" to "REMOTE DEREGISTER" after waiting for "OPCODE=REGISTER*flag=deregister"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 64 SC 64.3.9.6 P 544 L 10 # 54
 ZHU, ZIJIAN I2R
 Comment Type T Comment Status D
 MA_CONTROL.indication(DA, gate.discovery, start_time, grant_length, length) is missing from the diagram
 SuggestedRemedy
 Suggest adding it to the REGISTERING process.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Indication is performed in diagram 64-27 state START TX
 indication should add filed for signaling value of discovery flag.
 Value should also be updated in section 31A.

CI 64 SC 64.3.9.6 P 544 L 18 # 504
 Miyoshi, Hidekazu SEI
 Comment Type T Comment Status D
 In figure 64-20, there is MA_CONTROL.request() going from the REGISTER_REQ state to the WAIT state. I don't think this is necessary. The reason for this is that without this transition, we still have two chances of deregistration after sending REGISTER_REQ. Removing this sequence can simplify the state diagram without any harm to functionality.
 SuggestedRemedy
 Get rid of this MA_CONTROL.request().
 Proposed Response Response Status W
 PROPOSED REJECT.
 This primitive is used by the client to indicate to the ONU that it should stop attempting to register.

CI 64 SC 64.3.9.6 P 544 L 20 # 566
 Chan Kim ETRI
 Comment Type T Comment Status D
 The transition condition from the REGISTER_REQ state doesn't clearly indicate the invocation occruing from the message reception.
 SuggestedRemedy
 change 'OPCODE=REGSITER*flag=Ack' to 'invocation(OPCODE=REGSITER*flag=Ack)'.
 The same can be applied for similar cases.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Open question do we need to add Invocation(..)?

P802.3ah Draft 1.732 Comments

Cl 64 SC 64.3.9.6 P 544 L 23 # 34
 ZHU, ZIJIAN I2R

Comment Type TR Comment Status D

The message MA_CONTROL.indication(register, SA, ID, status, RTT) in this line has not been defined in page 539.

SuggestedRemedy

Suggest adding the definition for this message in page 539 as the following:
 MA_CONTROL.indication(register, SA, ID, status, RTT)

This service indication is issued by the Discovery Process at the ONU to notify the client and Layer Management that the result of the registration process.

The parameter SA is the MAC address of the OLT. The parameter ID holds the LLID assigned by the OLT. The parameter status holds the value of accepted/denied/deregistered/reregistered. And the parameter RTT holds the value of round trip time.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 64 SC 64.3.9.6 P 544 L 23 # 439
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

In Figure 64-20, the process "IDLE time <- Sync Time in REGISTER" is not indicated.

SuggestedRemedy

The above process should be added to REGISTER PENDING state.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 64 SC 64.3.9.6 P 544 L 24 # 39
 ZHU, ZIJIAN I2R

Comment Type T Comment Status D

Figure 64-20
 Transition from state REGISTER_REQ to state DENIED,
 criterion OPCODE = REGISTER * flag = Nack is misleading.

SuggestedRemedy

Change to OPCODE = REGISTER * (flag = Nack)

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change to (OPCODE = REGISTER) * (flag = Nack)

Cl 64 SC 64.3.9.6 P 544 L 30 # 41
 ZHU, ZIJIAN I2R

Comment Type T Comment Status D

Figure 64-20
 LOCAL DEREGISTER process:
 ONU after sending REGISTER_REQ in state LOCAL DEREGISTER, in this diagram it would go to REGISTERED state and send REGISTER_ACK. This should not be desired.

SuggestedRemedy

Suggest: Stick to REGISTER_REQ, REGISTER, REGISTER_ACK handshake message exchange sequence.
 Split state REGISTERED into 2 states. See attached diagram Fig64-20.fm

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 64 SC 64.3.9.6 P 544 L 35 # 43
 ZHU, ZIJIAN I2R

Comment Type T Comment Status D

Figure 64-20
 Transition from state REGISTERED to state REGISTER PENDING,
 criterion OPCODE = REGISTER * flag = reregister is misleading.

SuggestedRemedy

Change to OPCODE = REGISTER * (flag = reregister)

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Use (OPCODE = REGISTER) * (flag = reregister)

Cl 64 SC 64.3.9.6 P 544 L 42 # 4
 Tan , Chik Liang I2R

Comment Type E Comment Status D

Fig 64-20
 Suggest adding brackets to the trigger " OPCODE = REGISTER * flag = deregister ".

SuggestedRemedy

Change to (OPCODE = REGISTER) * (flag = deregister)

Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 64 SC 64.3.9.6 P 544 L 44 # 57
ZHU, ZIJIAN I2R

Comment Type T Comment Status D

In state LOCAL DEREGISTER, it would be more appropriate to name primitive MA_CONTROL.indication(register_req, status=deregister) rather than MA_CONTROL.indication(register, ...)

SuggestedRemedy

Change to MA_CONTROL.indication(register_req, status=deregister)

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.4 P 556 L 5 # 425
Thomas Dineen Dineen Consulting

Comment Type TR Comment Status D

After seeing Bob Gaglianello's presentation from the 05/03 meeting and listening to the discussion I have come to agree with Bob regarding his proposed changes the MPCP frame formats.

Therefore I believe we should update the MPCP frame formats as required by Gaglianello_1_0503.

SuggestedRemedy

Update the MPCP frame formats as required by Gaglianello_1_0503.

Proposed Response Response Status W

PROPOSED REJECT.

Byte alignment is not required for traditional Ethernet protocols, which are byte based and unaligned. MPCP messages are exchanged at rates in excess of 30k per second with very strict timing restraints and are not intended for software implementations - much like PAUSE operation.

There is no benefit to this proposal given the operating environment for the protocol. Additionally space is at a premium in report messages to allow for reporting of multiple queues and future extension of QoS methods.

Original comment referred to was also withdrawn and proposal was not resubmitted.

CI 64 SC 64.4.2 P 408 L 16 # 99400
Gaglianello, Bob Lucent Technologies

Comment Type T Comment Status D D1.4 #858

Efficient processing of Gate MPCPDUs is essential for EPON system implementations. The single octet "Flags field" causes all succeeding fields to be misaligned for 16-bit wide logic. Increasing the width of the "Flags field" by a single octet would solve this and not impact 8-bit wide implementations. This would only reduce the amount of Pad/Reserved space by a single octet, from 13-39 to 12-38 octets.

SuggestedRemedy

I propose increasing the size of the "Flags field" in the GATE MPCPDU to 16 bits. Change the "1" on line 16 to a "2", and change the Pad/Reserved "Octets"(line 37) from "13-39" to "12-38". Also, line 1 on page 406 would be changed from "8 bit field" to "16 bit field".

Proposed Response Response Status Z

WITHDRAWN.

P802.3ah Draft 1.732 Comments

CI 64 SC 64.4.3 P 560 L 42 # 568
 Chan Kim ETRI

Comment Type TR Comment Status D

It should be possible to assign the whole upstream bandwidth to a single ONU with report method. Current report unit is in 2-octet. But in former case, the maximum number of bytes that can arrive for example in 2 ms interval is 2 mx x 1Gbps x 1 byte/8bits = 250000 bytes, which equals to a report value of 125000. This value is almost twice the maximum value of 65535 that can be represented by 16 bit queue report. So with current report capability, we can report only half the maximum traffic(single queue, single LLID, 2 ms report interval assumed). Further, considering the latency between report and actual gate assignment and application in the ONU, the report capability is far smaller(about one fourth) that is required in practical situation.

SuggestedRemedy

Change the queue report field unit to 4 octets. That is, in the report field definition, change it to "The value represents 4 octet multiples."

Proposed Response Response Status W

PROPOSED REJECT.

An error in the above scenario miscalculates the size of the maximal grant which is also a 16 bit value specified in TQ.

The reporting capability is consistent with the granting capability.

This means that the 2^16 TQ report matches the 2^16 TQ maximal grant, so the scenario described does not occur. i.e. it is possible to assign the entire bandwidth to a single ONU with the report method.

In addition, the entire protocol was crafted using TQ unit and is consistent between reporting and granting. Proposal breaks this link and increases complexity of designs. Also fragmentation loss is added, on average increasing guard band by 1 TQ leading to additional bandwidth loss.

CI 64 SC 64.4.4 P 562 L 17 # 569
 Chan Kim ETRI

Comment Type TR Comment Status D

The definition of pending grants is not clear. It can mean maximum number of grant messages or maximum number of {start,length} pairs. Some readers will be confused.

SuggestedRemedy

Clearly identify that it is maximum number of {start,length} pairs. It's because what counts is the number of such pairs in the grant queue, not frames.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC 64.5.4.2 P 569 L 21 # 201
 Karasawa, Satoru OF Networks

Comment Type E Comment Status D

OM8 is a duplicate of OM7.

SuggestedRemedy

OM8 is omitted.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 64 SC Figure 64-11 P 522 L 12 # 198
 Karasawa, Satoru OF Networks

Comment Type T Comment Status D

The condition "transmitPending != None" is needed before transmitEnable becomes true (Please see Figure 64-5). Therefore, actions in TRANSMIT READY state should be moved to WAIT FOR TRANSMIT state.

SuggestedRemedy

actions in TRANSMIT READY state should be moved to WAIT FOR TRANSMIT state.

Proposed Response Response Status W

PROPOSED ACCEPT.

See 564

CI 64 SC Figure 64-11 P 522 L 18 # 200
 Karasawa, Satoru OF Networks

Comment Type T Comment Status D

There is no definition of SelectFrame().

SuggestedRemedy

Add the definition of SelectFrame().

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Editor would add definition for selectframe()

P802.3ah Draft 1.732 Comments

CI 64 SC Figure 64-11 P 522 L 19 # 199
 Karasawa, Satoru OF Networks
 Comment Type T Comment Status D
 The transmitPending can have DATA and CONTROL value when some frame is transmitted.
 SuggestedRemedy
 "transmitPending <= DATA" should be "transmitPending <= DATA or CONTROL".
 Proposed Response Response Status W
 PROPOSED REJECT.
 See 27

CI 64 SC Figure 64-2 P 510 L 11 # 134
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 Is there a reason Figure 64-2 doesn't include the Emulation sublayer and Figure 56-2 does? Seems odd.
 SuggestedRemedy
 Fix or explain.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Fix 56-2 as emulation layer does not really exist, it is all inside the RS.

CI 64 SC Figure 64-33 P 413 L 1 # 99401
 Hirth, Ryan Terawave Communica
 Comment Type T Comment Status D D1.4 #288
 REGISTER MPCPDU format is inconsistent with REGISTER_REQ and REGISTER_ACK messages.
 All other messages follow the sequence OPCODE, TIMESTAMP, FLAGS. The REGISTER_ACK message goes FLAGS, ASSIGNED PORT while the REGISTER message goes ASSIGNED PORT, FLAGS.
 Consistent definitions will clarify the standard.
 SuggestedRemedy
 Swap the ASSIGNED PORT and FLAGS field in the REGISTER MPCPDU.
 Proposed Response Response Status Z
 WITHDRAWN.

CI 65 SC 65 P 574 L 4 # 476
 Brown, Benjamin Independent
 Comment Type E Comment Status D
 wrong word
 SuggestedRemedy
 Replace "a Ethernet" with "an Ethernet"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 65 SC 65.1.1 P 574 L 21 # 477
 Brown, Benjamin Independent
 Comment Type E Comment Status D
 misspelling
 SuggestedRemedy
 Replace "qacceptable" with "acceptable"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 65 SC 65.1.1 P 574 L 21 # 140
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 "acceptable" is misspelled.
 SuggestedRemedy
 Fix.
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Duplicate of #477

CI 65 SC 65.1.1 P 574 L 50 # 478
 Brown, Benjamin Independent
 Comment Type E Comment Status D
 This paragraph should have been deleted
 SuggestedRemedy
 Delete this paragraph.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 65 SC 65.1.1 P 575 L 12 # 480

Brown, Benjamin Independent

Comment Type E Comment Status D scope_ed

This first sentence says the same thing as info later in this paragraph.

SuggestedRemedy

Remove this first sentence

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 65 SC 65.1.1 P 575 L 13 # 481

Brown, Benjamin Independent

Comment Type T Comment Status D scope

This paragraph contains info about specific MAC types. This level of detail is not desired.

SuggestedRemedy

Remove this entire paragraph, along with the last sentence in this subclause.

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 65 SC 65.1.1 P 575 L 25 # 482

Brown, Benjamin Independent

Comment Type E Comment Status D

This comment should have been removed

SuggestedRemedy

Remove it.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 65 SC 65.1.1 P 575 L 6 # 479

Brown, Benjamin Independent

Comment Type E Comment Status D

Missing text

SuggestedRemedy

Add "CROSS REF" before 64.3.8

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 65 SC 65.1.2.2 P 576 L 5 # 483

Brown, Benjamin Independent

Comment Type T Comment Status D scope

To remove the detail of different MAC types...

SuggestedRemedy

Replace this sentence with:

"This variable shall be 0 of an ONU MAC and may be 0 or 1 for an OLT MAC."

Replace the text starting on line 8 with:

"This variable shall be set to the broadcast value of 0x7FFF for the unregistered ONU MAC. An enabled OLT MAC and a registered ONU MAC may use any value in this variable."

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

P802.3ah Draft 1.732 Comments

CI 65 SC 65.1.2.3.1 P 576 L 48 # 484

Brown, Benjamin Independent

Comment Type E Comment Status D scope_ed

/S/ is split across 2 lines

SuggestedRemedy

keep /S/ together on the same line. This same thing applies to page 582, line 5 and page 583, line 48

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 65 SC 65.1.2.3.3 P 577 L 1 # 100

Thomas Dineen Dineen Consulting

Comment Type TR Comment Status D

I am receiving an increasing number of questions from customers which indicate a certain amount of confusion about the implementation of CRC functions and issues of bit ordering.

To assist in clearing up this confusion I am requesting that an informative annex be added to this clause which includes one to three compliant example frames with the associated correct CRC (FCS) value.

These frames will serve as divining rod frames which an implementor can quickly use to verify the integrity of his CRC implementation and thus achieve early inter operability.

SuggestedRemedy

To assist in clearing up this confusion I am requesting that an informative annex be added to this clause which includes one to three compliant example frames with the associated correct CRC (FCS) value.

Proposed Response Response Status W

PROPOSED REJECT.

Page and line number changed to reflect the diff version.

=====

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

I don't think this is a necessary function of the standard but rather something better handled by UNH-IOL.

P802.3ah Draft 1.732 Comments

CI 65 SC 65.1.2.4.2 P 578 L 31 # 485

Brown, Benjamin Independent

Comment Type T Comment Status D scope

To remove the detail of different MAC types...

SuggestedRemedy

Replace this paragraph with the following:

"If the device is an OLT then the following comparison is made:

- a) the received mode bit is ignored
- b) if the received logical_link_id value matches 0x7FFF and an enabled MAC exists with a logical_link_id variable with the same value then the comparison is considered a match to that MAC.
- c) if the received logical_link_id value is any value other than 0x7FFF and an enabled MAC exists with a mode variable with a value of 0 and a logical_link_id variable with a value matching the received logical_link_id value then the comparison is considered a match to that MAC."

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 65 SC 65.1.2.4.2 P 578 L 42 # 55

ZHU, ZIJIAN I2R

Comment Type E Comment Status D

broadcast value not stated here.

SuggestedRemedy

Suggest define broadcast value to be 0x7FFF here.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Page and line number changed to reflect the diff version.

=====

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

See comment #485 for similar text

CI 65 SC 65.2 P 579 L 18 # 486

Brown, Benjamin Independent

Comment Type T Comment Status D

wrong word

SuggestedRemedy

Replace "implement" with "introduce"

Proposed Response Response Status W

PROPOSED ACCEPT.

P802.3ah Draft 1.732 Comments

CI 65 SC 65.2.1 P 579 L 27 # 525
 Lee, Hoon ETRI

Comment Type E Comment Status D

It would be better change "Figure 65.3 shows the relationship of this sublayer to the ISO/IEC OSI reference model."

SuggestedRemedy
 New text:

"Figure 65.3 shows the relationship between FEC sublayer and the ISO/IEC OSI reference model."

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

"Figure 65.3 shows the relationship between the FEC sublayer and the ISO/IEC OSI reference model."

CI 65 SC 65.2.1 P 579 L 40 # 142
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Awkward word.

SuggestedRemedy
 Consider "compliant" instead of "compliance".

Proposed Response Response Status W
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 65 SC 65.2.2 P 580 L 35 # 526
 Lee, Hoon ETRI

Comment Type T Comment Status D scope

It would be better change "where alpha is equal to 0x02."
 See comment #816 on D1.414

SuggestedRemedy
 New text:

"where alpha is equal to 0x02 is a root of the binary primitive polynomial $x^8+x^4+x^3+x^2+1$."

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

"where alpha is equal to 0x02 and is a root of the binary primitive polynomial $x^8+x^4+x^3+x^2+1$."

How does this polynomial apply to the current FEC code?

CI 65 SC 65.2.2 P 580 L 42 # 527
 Lee, Hoon ETRI

Comment Type T Comment Status D scope

It would be better change "P(x) is the data vector"
 See comment #816 on D1.414

SuggestedRemedy
 Replace "P(x) is the data vector" to "P(x) is the parity vector"

Proposed Response Response Status W
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

P802.3ah Draft 1.732 Comments

CI 65 SC 65.2.3 P 580 L 52 # 101
 Thomas Dineen Dineen Consulting

Comment Type TR Comment Status D

I am receiving an increasing number of questions from customers which indicate a certain amount of confusion about the implementation of Error Detection and Correction Functions and issues of bit ordering.

To assist in clearing up this confusion I am requesting that an informative annex be added to this clause which includes one to three compliant example frames with the associated correct Parity value.

These frames will serve as divining rod frames which an implementor can quickly use to verify the integrity of his CRC implementation and thus achieve early inter operability.

SuggestedRemedy

To assist in clearing up this confusion I am requesting that an informative annex be added to this clause which includes one to three compliant example frames with the associated correct Parity value.

Proposed Response Response Status W
 PROPOSED REJECT.

Page and line number changed to reflect the diff version.

=====

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

I don't think this is a necessary function of the standard but rather something better handled by UNH-IOL.

CI 65 SC 65.2.3.1 P 581 L 3 # 145
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

It is more accurate to say "Ethernet packets are received from the PCS." Making this change would also be consistent with 65.2.4.1.

SuggestedRemedy

Fix.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 65 SC 65.2.3.1 P 581 L 4 # 488
 Brown, Benjamin Independent

Comment Type T Comment Status D scope

From the PCS, there is no /S_FEC/ nor a /T_FEC/

SuggestedRemedy

Replace "/S_FEC/ ordered_set" with "/S/ code-group" and "/T_FEC/ ordered_set" with "/T/ code-group"

Proposed Response Response Status W
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 65 SC 65.2.3.1 P 581 L 6 # 489
 Brown, Benjamin Independent

Comment Type E Comment Status D scope_ed

missing comma

SuggestedRemedy

replace "encoder which" with "encoder, which"

Proposed Response Response Status W
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

P802.3ah Draft 1.732 Comments

CI 65 SC 65.2.3.2 P 581 L 25 # 143
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The equation seems a bit confusing. What is the term L-Ethernet? Is this supposed to imply the length of the fields of an Ethernet frame? If so, why is L-FCS added separately. Also, L-preamble is only 7 octets and doesn't include the SFD, right?

SuggestedRemedy

Either explain or fix.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

This equation is supposed to represent the number of octets for which parity is considered. This should include the following:

Preamble + SFD + DA + SA + L/T + Data + Pad + FCS

However, the Preamble term doesn't include the /S/ nor the potentially dropped octet due to the even alignment within the 1000BASE-X PCS Transmit state diagram. Therefore, coming from the MAC it is impossible to know exactly how many parity octets will be added for a given length frame. Perhaps a formal equation is not the best description of this situation.

I'll recommend we remove this equation and its introductory text.

CI 65 SC 65.2.3.3 P 581 L 35 # 528
Lee, Hoon ETRI

Comment Type E Comment Status D

It would be better change "The marker framing sequences used are at least 5 octets long, long enough to be detected with very high probability."

SuggestedRemedy

New text:

"The length of the marker is at least 5 octets, long enough to be detected with very high probability."

Proposed Response Response Status W

PROPOSED REJECT.

This text change doesn't add anything.

CI 65 SC 65.2.3.3 P 582 L 1 # 490
Brown, Benjamin Independent

Comment Type T Comment Status D

missing code-group

SuggestedRemedy

Replace "/T/" with "/S/, /T/"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 65 SC 65.2.4 P 582 L 28 # 531
Lee, Hoon ETRI

Comment Type T Comment Status D scope

It would be better change "See CROSS REF 36.3.3 for a complete description of the TBI." Because the name of some signals(TBC, RBC0/1, ftx_code_group, COMMA_DETECT) between Clause 65 and CROSS REF 36.3.3 are different.

SuggestedRemedy

New text:

"For a complete description of TBI, see CROSS REF 36.3.3, replacing "PMA_TX_CLK" with "TBC", "PMA_RX_CLK<0>" with "RBC0", "PMA_RX_CLK<1>" with "RBC1", "tx_code_group<9:0>" with "ftx_code_group<9:0>" and "COM_DET" with "COMMA_DETECT"."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

I think it would be easier to change the names in Figure 65-5 rather than call out all the name differences. Reconcile the names in Figure 65-5 to match those in the TBI description in 36.3.3 where possible.

P802.3ah Draft 1.732 Comments

CI 65 SC 65.2.4.2.1 P 582 L 36 # 491
 Brown, Benjamin Independent
 Comment Type T Comment Status D scope
 /T_FEC/ replaces more than just /T/R/ or /T/R/R/
 SuggestedRemedy
 Replace "The /T/R/ or /T/R/R/ is" with "The /T/R/I/I/ or /T/R/R/I/I/ is"
 Also, add to the end of the last sentence ", replacing the stretched inter-frame"
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 65 SC 65.2.4.2.2 P 583 L 38 # 146
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 The word "service" is missing.
 SuggestedRemedy
 Change "**_UNITDATA.indicate primitive"
 to read: "**_UNITDATA.indicate service primitive"
 3 places in sub-clause.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 65 SC 65.2.4.2.2 P 583 L 48 # 529
 Lee, Hoon ETRI
 Comment Type T Comment Status D
 /T_FEC/ is consist of 5(or 6) special code-groups /T/R/I/T/R/(or /T/R/R/I/T/R/).
 While emptying buffer, the latter /T/R/ of the first /T_FEC/ shall be converted to /I/
 So, it would be better change text.
 SuggestedRemedy
 New text:
 "While emptying the buffer, the parity octets, along with the latter /T/R/ of the first /T_FEC/ and the entire second /T_FEC/ are converted to /I/."
 Proposed Response Response Status W
 PROPOSED REJECT.

This text change doesn't add anything.

CI 65 SC 65.2.5.1.1 P 585 L 34 # 147
 Daines, Kevin World Wide Packets
 Comment Type E Comment Status D
 Can you simply include by reference a set of constants, variables, etc? I haven't noticed this being done in the past...but I haven't inspected all 2000 pages either...
 SuggestedRemedy
 Maybe nothing!
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====
I figured someone would complain about this sooner or later. Clause 37 lists each variable but points to 36 for some definitions. Pethaps this would be a better solution. Do we want to make this change before WG? Probably...

P802.3ah Draft 1.732 Comments

Cl 65 SC **65.2.5.1.2** P **585** L **34** # **492**
 Brown, Benjamin Independent
 Comment Type **E** Comment Status **D** scope_ed
 Editor's note is no longer needed
 SuggestedRemedy
 Remove it.
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Cl 65 SC **65.2.5.1.2** P **585** L **54** # **493**
 Brown, Benjamin Independent
 Comment Type **E** Comment Status **D** scope_ed
 missing space
 SuggestedRemedy
 After the semicolon, add a space here as well as on page 586 on lines 1, 16, 17, 23 and 24.
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Cl 65 SC **65.2.5.1.4** P **587** L **12** # **494**
 Brown, Benjamin Independent
 Comment Type **T** Comment Status **D** scope
 wrong process
 SuggestedRemedy
 Replace "byte alignment" with "synchronization"
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Cl 65 SC **65.2.5.2.3** P **588** L **42** # **495**
 Brown, Benjamin Independent
 Comment Type **E** Comment Status **D**
 extra space
 SuggestedRemedy
 remove space before period
 Proposed Response Response Status **W**
 PROPOSED REJECT.

This space doesn't exist in the actual document.

Cl 65 SC **65.2.5.3** P **589** L **49** # **530**
 Lee, Hoon ETRI
 Comment Type **T** Comment Status **D**
 page 589-590.

It would be better remove "When the receiver is in normal mode," from description of buffer_head_coding_violation_counter, FEC_corrected_blocks_counter and FEC_uncorrected_Blocks_counter.
 There is no description of normal mode in the Clause 65.

SuggestedRemedy
 Remove "When the receiver is in normal mode," from description of buffer_head_coding_violation_counter, FEC_corrected_blocks_counter and FEC_uncorrected_Blocks_counter.
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

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Cl 65 SC 65.3 P 590 L 45 # 148
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Is this 1000BASE-PX OLT or should it be 1000BASE-PX-D? Not sure myself.

SuggestedRemedy

Verify.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

Replace with 1000BASE-PX-D

Cl 65 SC 65.3 P 590 L 47 # 496
Brown, Benjamin Independent

Comment Type E Comment Status D scope_ed

missing text

SuggestedRemedy

replace "clause" with "CROSS REF Clause"

Proposed Response Response Status W

PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

Cl 65 SC 65.3 P 590 L 52 # 421
Dawe, Piers Agilent

Comment Type T Comment Status D scope

This subclause appears to define T_CDR combined with T_Code_group_align, but doesn't make it clear. Also, it's rather untidy that the other times are mainly in ns, while this one is in bit times, which don't have much relevance to the serial data stream being recovered. COM_DET is not defined here, and appears to be part of an optional TBI; need to relate this timing to fig. 36-9. Should be able to sync on idles as well as data. No need to subject the ONU's PMA to this spec.

SuggestedRemedy

"A PMA in an OLT shall become synchronised at the bit and code-group level, as shown by the assertion of ?? (see CROSS REF 36.??) within 500 ns of the appearance of a valid (any particular?) 1000BASE-X pattern, as described in CROSS REF 64.x.y.z, at TP4, when the PMA_TX_CLK frequency is equal to twice the PMA_RX_CLK frequency."

Add text to relate this time limit to the quantities in 65.34.

In 65.4.4.5, Change status of BMC1 to OLT:M.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

I agree with making this a requirement for the OLT only.

I agree with changing BT to ns.

I agree that COM_DET is part of an optional TBI. Does this mean that the PICS entry BMC1 need be dependent upon a TBI implementation, too?

"A PMA instantiated in an OLT and implementing a TBI to its superior sublayer shall become synchronised at the bit and code-group level, as shown by the assertion of COM_DET (see CROSS REF 36.3.3), within 500 ns of the appearance of the valid 1000BASE-X pattern at TP4 as described in CROSS REF 64.x.y.z when the PMA_TX_CLK frequency is equal to twice the PMA_RX_CLK frequency. A PMA in an OLT implementing a different interface to its superior sublayer should lock to the incoming signal within the same time period."

Add a TBI row to the Major capabilities/options table in 65.4.3 similar to the PMA row in 36.7.3.

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Change start of BMC1 to "OLT&TBI:M"

CI 65 SC 65.3.1 P 590 L 53 # 532

Lee, Hoon ETRI

Comment Type E Comment Status D scope

To make consistency, it would be better change "PMA_TX_CLK" to "TBC" and "PMA_RX_CLK" to "RBC"

SuggestedRemedy

Replace "PMA_TX_CLK" to "TBC" and "PMA_RX_CLK" to "RBC"

Proposed Response Response Status W

PROPOSED REJECT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

See comment # 531 - changing names in figure to match the signal names from the TBI spec in Clause 36.

CI 65 SC 65.3.4 P 590 L 42 # 315

Glen Kramer Teknovus

Comment Type T Comment Status D scope

T_CDR value should be less than 500 bit times or 400 ns.

SuggestedRemedy

Replace "500ns" by "400ns"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

=====

See comment #421

CI 65 SC 65.3.4 P 591 L 43 # 422

Dawe, Piers Agilent

Comment Type T Comment Status D

Statement that "T_Code_group_align is defined in CROSS REF 36.3.2.4, value is less than 4 octets." doesn't seem to be fully supported by 36.3.2.4, which says "In the event the PMA sublayer detects a comma+ within the incoming rx_bit stream, it may realign its current code-group boundary, if necessary, to that of the received comma+ as shown in Figure 36-3." May, not shall. And then "During the code-group alignment process, the PMA sublayer may delete or modify up to four, but shall delete or modify no more than four, ten-bit code-groups in order to align the correct receive clock and code-group containing the comma+. This process is referred to as code-group slipping." That's 4 slips max, not a maximum time - it doesn't say it must slip at each comma+.

If the burst's training sequence is idles, doesn't only every other code-group contain a comma? That would be 8 code-groups at best, not 4?

SuggestedRemedy

Write out explicitly what a PMA has to do to be usable in burst mode.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

In general, I agree with the issues you've raised but I don't have new text to fill in the blanks. Can someone suggest something?

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CI 65 SC 65.3.4 c) P 591 L 42 # 232
 Yokomoto, Tetsuya FUJITSU ACCESS LIMI

Comment Type E Comment Status D

65.3.4 c) has following description.
 "Tcdr is defined in 65.3.1 and value is less than 500 nsec"
 However 65.3.1 has following description.
 "In the presence of the received data pattern as described in (See CROSS REF 64.x.y.z),
 COM_DET shall assert in less than 500 bit times when PMA_TX_CLK frequency is equal
 to twice the PMA_RX_CLK frequency"
 Moreover, Clause 60 (page:342, line:25) has the following description.
 "Tcdr is defined in section *ref* 65.3.3.1 value is less than 400nsec (defined in *ref*
 65.3.1)"
 First, I think that "500ns" in 65.3.1 c) is a mistake.
 Moreover, in accordance with 65.3.1, I think that "ns" should be unified into "bit times"
 expression.

SuggestedRemedy

I recommend changing description at 65.3.4 c) as follows.
 "Tcdr is defined in 65.3.1, value is less than 500 bit times at the signaling speed (in PMA)"

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

See related comment #422. These should be resolved together. There is a discussion on
 the P2MP reflector asking for a common response to these comments.

CI 65 SC 65.3.4.2 P 592 L 14 # 445
 Murakami, Ken Mitsubishi Electric

Comment Type T Comment Status D

The description "The signal at TP4, at the beginning of the locking, may have any valid
 8B/10B pattern, jitter, or frequency shift matching the standard specifications." is not
 consistent with Figure 60-7. Additionally, frequency shift cannot occur because the loop
 timing is applied to the point-multipoint environment.

SuggestedRemedy

The signal should be IDLE pattern. Additionally, the description related to frequency shift
 should be removed.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Should the signal be IDLE or should it be that signal described in 64.x.y.z as specified in
 65.3.1? Should these patterns match?

"The signal at TP4, at the beginning of the locking, should be the signal described in
 64.x.y.z but may have any jitter matching the standard specifications."

CI 65 SC 65.3.4.2 P 592 L 5 # 30
 ZHU, ZIJIAN I2R

Comment Type E Comment Status D

uplink is not the standard term used throughout

SuggestedRemedy

Suggest changing it to upstream.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 65 SC 65.4.4.3 P 593 L # 533
 Lee, Hoan ETRI

Comment Type T Comment Status D

It would be better add item according to error monitoring capability.

SuggestedRemedy

New item:

Item : FE3
 Feature : FEC error monitoring
 Subclause : 65.2.5.3
 Value/Comment : Support counters of clause 65.2.5.3
 Status : FEC:M
 Support : Yes[] No[]

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Add this entry to 65.4.4.3

CI 65 SC 65.4.4.3 P 595 L 6 # 149
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The text in the Value/Comment column seems larger than the balance of the text. Same
 for 65.4.4.4.

SuggestedRemedy

Shrink.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

It isn't obvious to me that this exists but I'll check it.

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CI 65 SC Figure 65-1 P 574 L 35 # 135
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Figure 65-1 doesn't match Figure 56-2 in that no Emulation sublayer is present. Please explain or fix. Also, see Figure 60-1.

SuggestedRemedy
 See comment.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Clause 65 doesn't describe an Emulation sublayer, only an extension of the Reconciliation sublayer. If this figure is adopted, there will need to be some extensive text modifications as well.

CI 65 SC Figure 65-3 P 580 L 10 # 487
 Brown, Benjamin Independent

Comment Type E Comment Status D scope_ed

Empty text block exists behind "MAC-MEDIA ACCESS CONTROL" that blanks out the lines on both sides of the boxes

SuggestedRemedy
 Delete it in both instances.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Were this a formal recirculation ballot, the comment would be out of scope because it does not address a change from the previous draft and/or areas affected by a change to the previous draft, as was described in the instructions for commenting on this draft.

CI 65 SC Figure 65-4 P 582 L 10 # 144
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The figure is a bit misleading since "FCS" is broken out separately from the "Frame". Also, the SFD is missing. Since the term frame is overloaded in this section, we need to be very explicit when we use the term.

SuggestedRemedy
 For the first issue identified, suggest either
 a) including all fields of a frame, or
 b) dashing the vertical line separating frame and FCS.

For the second issue, suggest adding SFD between Preamble and Frame.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Use option b for the first issue

CI 65 SC Table 65-1 P 576 L 23 # 141
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

The column header "Preamble" should be "Preamble/SFD". Also the column header "Modified preamble" should be "Modified preamble/SFD".

SuggestedRemedy
 Fix. Also, when referencing preamble in 65.1.2.3, also include SFD.

Also, in 65.1.2.4, page 577, line 43 change "preamble" to "preamble/SFD".

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 66 SC 66.6.1 P 599 L 51 # 150
 Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Grammar. Also, there is an unneeded carriage return on line 54.

SuggestedRemedy
 Change "not capable to" to read: "not capable of".

Remove carriage return.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI **66A** SC **Table 66A-1** P **634** L **28** # **153**

Daines, Kevin World Wide Packets

Comment Type **E** Comment Status **D** attn

58.1 uses the phrase "center of the network" while Table 66A-1 uses "core of the network". Let's pick one.

SuggestedRemedy

Pick one.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE. Choice will be discussed at the meeting