C/ 00 SC 0  $P\mathbf{0}$ L 0 # C/ 00 SC 0 P 155 L 30 # 5 Turner, Michelle Kramer, Glen Teknovus, Inc. Comment Type ER Comment Status A Comment Type Comment Status A N-bit This draft has met all editorial requirements. [Marked subclause 0 since it applies to multiple clauses] still many instances where n-bit misses the hyphen SuggestedRemedy SuggestedRemedy insert hyphens Response Response Status W page 155, line 30 --- 64 bit payload page 160, line 14 --- 64 bit payload ACCEPT. Are you sure ? Please check again :)))) page 162, line 38 --- 32 bit timestamp page 173, line 26 --- 32 bit unsigned C/ 00 SC 0 P **122** L 10 page 173, line 42 --- 32 bit unsigned page 174, line 13 --- 16 bit unsigned Kramer, Glen Teknovus, Inc. page 174, line 30 --- 32 bit unsigned Comment Type Comment Status A page 174, line 36 --- 16 bit unsigned page 174, line 43 --- 16 bit unsigned [Marked subclause 0 since it applies to clauses C76 and C77] page 174, line 47 --- 16 bit unsigned Draft uses 7 instances of "byte", while the convention is to use "octets" page 175, line 2 --- 16 bit unsigned SuggestedRemedy page 175, line 7 --- 32 bit unsigned replace "byte" with "octet" page 175, line 12 --- 32 bit unsigned replace "bytes" with "octets" page 175. line 21 --- 8 bit unsigned page 122, line 3 - 1 instance page 174, line 51 --- 16 bit unsigned page 122, line 10 - 2 instances page 183, line 49 --- 16 bit wide page 122, line 11 - 2 instances page 187. line 25 --- 8 bit unsigned page 122, line 12 - 1 instance page 187, line 33 --- 8 bit unsigned page 146, line 3 - 1 instance page 187, line 53 --- 32 bit unsigned page 174, line 53 - 1 instance page 188. line 11 --- 8 bit unsigned page 215, line 41 - 1 instance page 188, line 17 --- 8 bit unsigned page 215, line 43 - 1 instance page 188, line 32 --- 16 bit unsigned page 188, line 41 --- 16 bit unsigned Response Response Status C page 197, line 37 --- 32 bit unsigned ACCEPT. page 201, line 47 --- 32 bit unsigned Replace in all other locations if any are found. page 201, line 53 --- 32 bit unsigned page 202, line 5 --- 32 bit unsigned page 202, line 36 --- 48 bit unsigned page 202. line 37 --- 32 bit unsigned page 202, line 38 --- 16 bit unsigned page 202, line 53 --- 32 bit unsigned page 203. line 18 --- 16 bit unsigned page 203, line 34 --- 32 bit unsigned Response Response Status C

Cl 45 SC 45.2.3.32 P 44 L 18 # 43 Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status A

[Submitted on behalf of Eric Lynskev]

The text swaps the positions of FEC and uncorrected, and is inconsistent with the title of the subclause.

SuggestedRemedy

Change to: uncorrected FEC codewords counter.

Response Status C

ACCEPT.
Text is in line 19.

Cl 45 SC 45.2.3.33 P 44 L 47 # 50

Hajduczenia, Marek

Comment Type T Comment Status A

\*\*\* Comment submitted with the file 33716200024-3av\_0906\_hajduczenia\_3.pdf attached

[submitted on behalf of Hu XinYu, with revisions from Marek Hajduczenia] "10G-EPON BER monitor threshold" occupies bits 8:15 (8 bits) and can have maximum value of 255. Yet, the description of this register states that value of 1600 is supposed to be written into it. Since it is not possible, either (i) limit the size of BER monitor timer and assign extra bits to BER monitor (discouraged, since limits the BER monitor timer value) or (ii) put the BER monitor into separate register at the end of reserved range.

#### SuggestedRemedy

Suggest to use option (ii) with changes listed in 3av\_0906\_hajduczenia\_3.pdf and marked in blue.

Response Status C

ACCEPT IN PRINCIPLE.

Use 3av\_0906\_hajduczenia\_4.pdf.

Editors have explicit editorial license to make additional changes as required in relation with the issue at hand.

Comment Type E Comment Status R

In recent drafts, the words '10/10G-EPON' and '10/1G-EPON' are mainly used instead of 'symmetric-rate' and 'asymmetric-rate'. They are already defined in Subclause 1.4, and no consistency problem exists. But the wording clarification once again in Clause 75 seems much friendlier to the readers.

'10/10G-EPON' and '10/1G-EPON' appear first only slightly in Subclause 75.1.5. But they should be more clearly described in earlier introductory stage of the draft.

# SuggestedRemedy

Insert '10/10G-EPON' and '10/1G-EPON' words in the texts as follows;

- \* PRX-type power budget describes asymmetric-rate PHY for PON operating at 10 Gb/s downstream and 1 Gb/s upstream over a single SMF, i.e. 10/1G-EPON (see objective b.1 above).
- \* PR-type power budget describes symmetric-rate PHY for PON operating at 10 Gb/s downstream and 10 Gb/s upstream over a single SMF, i.e. 10/10G-EPON (see objective b.2 above).

Response Status C

REJECT.

[comment type should be T]

P802.3av when published will make part of 802.3 and as such clause 75 builds on previous clauses through references, includinf definitions, symbols etc. Once a term is included in clause 1.4, there is no need to redefine it again.

Cl 75 SC 75.4 P70 L16 # 11

Hamano, Hiroshi Fuiitsu Component LT

Comment Type E Comment Status A a single-mode solution

The example description '(e.g., a single-mode solution operating at 10.5 km meets the minimum range requirement of 0.5 m to 10 km for PR10)' is strange, unclear, and misleading.

- There exists no minimum range requirement of 0.5 m to 10 km for PR10 in Table 75-1. It was already replaced by maximum reach requirement of >=10 km.
- 10G-EPON has no multi-mode solutions along with a single-mode one, unlike 1000BASE-LX (Subclause 38.4).

### SuggestedRemedy

Delete '(e.g., a single-mode solution operating at 10.5 km meets the minimum range requirement of 0.5 m to 10 km for PR10)'.

It seems that the text just before the description is not necessary, either.

### Response Status C

ACCEPT IN PRINCIPLE.

[comment type should be T]

Delete: "(e.g., a single-mode solution operating at 10.5 km meets the minimum range requirement of 0.5 m to 10 km for PR10)"

Change on page 70, line 16 Change on page 73, line 41

Cl 75 SC 75.5 P73 L41 # 12
Hamano, Hiroshi Fujitsu Component LT

Comment Type E Comment Status A a single-mode solution

The example description '(e.g., a single-mode solution operating at 10.5 km meets the minimum range requirement of 0.5 m to 10 km for PR10)' is strange, unclear, and misleading.

- There exists no minimum range requirement of 0.5 m to 10 km for PR10 in Table 75-1. It was already replaced by maximum reach requirement of >=10 km.
- 10G-EPON has no multi-mode solutions along with a single-mode one, unlike 1000BASE-LX (Subclause 38.4).

#### SuggestedRemedy

Delete '(e.g., a single-mode solution operating at 10.5 km meets the minimum range requirement of 0.5 m to 10 km for PR10)'.

It seems that the text just before the description is not necessary, either.

Response Status C

ACCEPT IN PRINCIPLE. [comment type should be T] See comment #11.

CI 75 SC 75.5.1 P74 L17 # 13

Hamano, Hiroshi Fujitsu Component LT

Comment Type E Comment Status A

Footnote for Launch OMA (min) is mistaken.

SuggestedRemedy

Change footnote 'c' to 'b'.

Response Response Status C

ACCEPT.

[comment type should be T]
Editor: reference to OMA is not live

Cl 75 SC 75.7.10 P82 L28 # 14

Hamano, Hiroshi Fujitsu Component LT

Comment Type E Comment Status A

TDP indicates transmitter AND dispersion penalty, which includes also transmitter impairments NOT caused by chromatic dispersion effects.

SuggestedRemedy

Change the text

'TDP measurement tests transmitter impairments caused by chromatic dispersion effectsc' to

'TDP measurement tests transmitter impairments and its chromatic dispersion effectsc'

Response Status C

ACCEPT IN PRINCIPLE.

[comment type should be T]

'TDP measurement tests transmitter impairments caused by chromatic dispersion effects' to 'TDP measurement tests transmitter impairments, including chromatic dispersion effects.'

Cl 75B SC 75B.2 P 99 L 24 # 20

Feng, Dongning Huawei

Comment Type E Comment Status A

Speficied?

SuggestedRemedy

Specified

Response Status C

ACCEPT.

OPEN

Cl 75C SC 75C.1 P 102 L 23 # 44
Haiduczenia. Marek ZTE Corp.

Comment Type T Comment Status R OPEN

Thank you for correcting Dj to DJ and so on. There is still the issue of "p-p". My point is that there is a parameter called "peak-to-peak jitter" which is a menu pick on an oscilloscope. It is none of these. In a typical measurement, DJ would be less than "peak-to-peak jitter", TJ would be greater than it, and RJ could be either. These jitter metrics DJ, RJ and TJ might be two-sided (late time - early time, not late time - average time) but they don't involve the measured peaks.

# SuggestedRemedy

Delete "p-p", six times. If you want a reference for jitter metrics, it's MJSQ - I can provide the details if you are interested.

Response Response Status C

REJECT.

[this comment was submitted on behalf of Piers Dawe]

DJ is estimated in Uip-p. RJ is Gausian and has no peak-jitter nature, but in the jitter budget tables, the numbers are DJ aligned value derived from RMS to calculate TJ, as indicated in 3av 0809 kozaki 2.pdf. DJ, RJ, and TJ should be all defined in Uip-p.

Cl 76 SC 76.2.1 P105 L 37 # 45

Hajduczenia, Marek ZTE Corp.

Comment Type E Comment Status A

Per ISO/IEC 7 layer standard, I believe "data link layers" should be "Data Link Layers". Although I'm not sure it can be plural, strictly; could change to "MACs". Per 802.3 editors' advice, Physical Layer has capitals.

SuggestedRemedy

Change "data link layers to interface with a single physical layer" to "MACs to interface with a single Physical Layer"

Response Status C

ACCEPT.

[this comment was submitted on behalf of Piers Dawe]

Cl 76 SC 76.3.2.1.5 P 118 L 17 # 51

Hajduczenia, Marek

Comment Type E Comment Status A

In Figure 76-9, state name says "DELTE\_IDLE" while it should say "DELETE\_IDLE".

Please fix it

SuggestedRemedy

per comment

Response Response Status C

ACCEPT IN PRINCIPLE.

Make changes in Figure 76-9 and Figure 76-10.

Cl 76 SC 76.3.2.4.3 P124 L5 # 21

Feng, Dongning Huawei

Comment Type E Comment Status A N-bit

2 bit?

SuggestedRemedy

2-bit or 2 bits

Response Status C

ACCEPT IN PRINCIPLE.

See comment #5

CI 76 SC 76.3.3.1 P 132 L 13 # [7\_\_\_\_\_\_

Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status A

The OLT codeword synchronization function receives data via the 16-bit PMA\_UNITDATA.request primitive is incorrect. PMA\_UNITDATA.request should be PMA\_UNITDATA.indication Compare to similar text for ONU synchronization.

SuggestedRemedy

Replace PMA UNITDATA.request with PMA UNITDATA.indication.

Response Status C

CI 76 SC 76.3.3.2.5 P 140 L **52** # 8 C/ 76A SC 76A.2 P 155 L 37 Kramer, Glen Teknovus. Inc. Haiduczenia. Marek ZTE Corp. Comment Type Comment Status A Comment Type E Comment Status A The OLT synchronizer state diagram has title "Figure 76--18--OLT Synchronizer state To improve readability, please make sure that Table 76A-1 is not divided between pages. diagram", but the ONU synchronizer state diagram has title "Figure 76--20--Codeword lock SuggestedRemedy state diagram". It would be nicer to give these two figures similar titles. Per comment SuggestedRemedy Response Response Status C Change "Figure 76--20--Codeword lock state diagram" to "Figure 76--20--ONU ACCEPT. Synchronizer state diagram" Response Response Status C C/ 76A SC 76A.2 P 156 L 30 ACCEPT IN PRINCIPLE. Feng, Dongning Huawei This is not a critical change. Instruction to Editor: introduce these changes only if that mark entire state diagram as a Comment Type Comment Status A hexidecimal changed text. hexidecimal? wrong spell SC 76.3.3.3.2 Cl 76 P 141 L 44 # 42 SuggestedRemedy Kramer, Glen Teknovus. Inc. hexadecimal Comment Type Ε Comment Status A Response Response Status C [Submitted on behalf of Eric Lynskey] ACCEPT. The two FEC counters defined here are mapped back to 45.2.3.31. If you go to Clause 45, it gives the counters a slightly different name. Instead of FEC\_corrected\_blocks\_counter, it C/ 76A SC 76A.5 P 159 L 27 uses corrected FEC codewords counter. It's a fairly minor issue, but it would be nice to Feng, Dongning Huawei use consistent names. Comment Status A Comment Type E hexidecimal SuggestedRemedy hexidecimal? wrong spell Rename counters in Clause 76 to match those in Clause 45. SuggestedRemedy Response Response Status C hexadecimal ACCEPT. Response Response Status C C/ 76A SC 76A.1 P 155 L 18 # 22 ACCEPT. Huawei Feng, Dongning CI 76A SC 76A.6 P 159 L 46 Ε Comment Status A Comment Type Feng, Dongning Huawei locatio Comment Type E Comment Status A hexidecimal SuggestedRemedy hexidecimal? wrong spell location SuggestedRemedy Response Response Status C hexadecimal ACCEPT. Response Response Status C

ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line

CI **76A** SC **76A.6**  Page 5 of 9 08/06/2009 09:00:59

C/ 76A SC 76A.7 P 159 L 53 # 3 Hajduczenia, Marek ZTE Corp.

Comment Type E Comment Status A

To improve readability, please make sure that Table 76A-6 is not divided between pages.

SuggestedRemedy

Per comment

Response Response Status C

ACCEPT IN PRINCIPLE.

As per comment.

On Pg 160 line 40 change "Table 76G-1" to "Table 76A-8"

CI 77 SC 77.1 P 161 / 11 # 30

Haiduczenia. Marek ZTE Corp.

Comment Type E Comment Status A

[submitted on behalf of Runiian Lin]

in the signal's paths from source to destination.

SuggestedRemedy

in the signal's paths from source to destinations.

Response Response Status C

ACCEPT IN PRINCIPLE.

SC 77.1.2

Suggest to change to "path from source to destination" - at any time the signal has only

L 22

one path i.e. from OLT to ONU or vice versa. P 163

Haiduczenia. Marek ZTE Corp.

[submitted on behalf of Runiian Lin]

MACs are uniquely identified by their LLID which is dynamically assigned by the registration process.

Comment Status A

SuggestedRemedy

Comment Type E

CI 77

MACs are uniquely identified by their LLIDs dynamically assigned by the registration process.

Response Response Status C

ACCEPT IN PRINCIPLE.

Change "MACs are uniquely identified by their LLIDs, which are dynamically assigned by the registration process."

CI 77 SC 77.2.2.3 P 173 L 41 # 48

Haiduczenia. Marek ZTE Corp.

Comment Type T Comment Status A

Variable fecOffset is described as "A clock that advances by 1 after every 8 bit times.". It is not a clock but a variable that advances on clock transitions.

SuggestedRemedy

Change "A clock that advances by 1 after every 8 bit times." to "A variable that advances by 1 every 8 bit times."

Response Response Status C

ACCEPT.

CI 77 SC 77.2.2.3 P 173 L 45 # 49

Hajduczenia, Marek ZTE Corp.

Comment Type E Comment Status A

To simplify the reading process, cross-reference to Figure 77-14 would be nice in the definition of fecOffset variable.

SuggestedRemedy

Add "(see Figure 77-14)" at the end of line 46, make link live.

Response Response Status C

ACCEPT.

SC 77.2.2.3 CI 77 P 175 L 32 # 26

Feng, Dongning Huawei

Comment Type Comment Status A

arrray?

SuggestedRemedy

array

Response Response Status C

ACCEPT.

# 31

Cl 77 SC 77.2.2.3 P 175 L 42 # 32 Hajduczenia, Marek ZTE Corp.

Comment Type E Comment Status A

[submitted on behalf of Runjian Lin] in the process of transmitting a Frame.

SuggestedRemedy

in the process of transmitting a frame.

Response Status C

ACCEPT IN PRINCIPLE.

Change "in a process of transmitting a Frame" to "in the process of transmitting a frame"

CI 77 SC 77.2.2.4 P 176 L 40 # 27

Feng, Dongning Huawei

Comment Type E Comment Status A

arrray?

SuggestedRemedy

array

Response Status C

ACCEPT.

CI 77 SC 77.2.2.7 P181 L13 # 9

Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status D

In the past, the TF has decided to remove Start of Packet alignment function from the PCS sublayer. The arguments were that implementers may or may not implement this function without affecting interoperability. If not implemented, the additional overhead is insignificant. However, with the new ONU Control Multiplexer state diagram in D3.3, it appears there is a very small modification that will guarantee alignment of S character of the first frame in a burst to lane 0 of the first column.

SuggestedRemedy

In Figure 77-14 in transition from FRAME READY to START OF GRANT, change "1" to "2" old condition: grantStart \* fecOffset[1:0] = 0 new condition: grantStart \* fecOffset[2:0] = 0

Proposed Response Response Status Z

REJECT.

This comment was WITHDRAWN by the commenter.

CI 77 SC 77.2.2.7 P 181 L 13 # 47
Haiduczenia, Marek ZTE Corp.

Comment Status A

Jacoborna, Marok

Use of fecOffset[1:0] should be clarified. In other locations, [:] operator is used to bit arrays. In this case it is used on 32 bit unsigned value. Either change this reference into something more representative or explain which bits are taken for comparison and in what order. Definition of fecOffset could be probably a good location for that.

SuggestedRemedy

Comment Type T

Per comment

Response Status C

ACCEPT IN PRINCIPLE.

Suggest to add after definition of fecOffset:

"NOTE: Notation fecOffset[1:0] refers to two least significant bits of this variable."

Make link live. Use proper style for NOTE.

CI 77 SC 77.3.3 P184 L18 # 33

Hajduczenia, Marek ZTE Corp.

Comment Type E Comment Status A

[submitted on behalf of Runjian Lin]

allocating and assigning new port identifiers (LLIDs) and bonding corresponding MACs to the LLIDs

SuggestedRemedy

allocating and assigning a new port identifier (LLID) and bonding a corresponding MAC to the LLID.

Response Status C

Cl 77 SC 77.3.5.3 P 204 L 12 # 41 Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status A

[Submitted on behalf of Eric Lynskey]

Table 77-1 shows the operation of the confirmDiscovery function. All but one possibility is covered regarding the OLT discovery window. It is not clear what value the function should return if it receives a discovery frame that does not open any discovery window. Although such a frame should not be transmitted, the function should have the ability to handle that set of inputs.

# SuggestedRemedy

Add a new row at the bottom of the table: 0, 0, X, X, FALSE. Add a note under the table stating that this set of inputs should not normally be received by the ONU.

Response Status C

ACCEPT IN PRINCIPLE.

Modification of Table 77-1 and suggested text of the footnote per

3av\_0906\_hajduczenia\_2.pdf with changes:

- remove column 'Notes'
- put footnote a) reference to False in column 'confirmDiscovery(data) returns' Change the text of footnote: "These particular values for the Discovery Window fields should not be normally generated by the OLT."

CI 77 SC 77.3.5.3 P 204 L 25 # 29 Feng, Dongning Huawei Comment Type Ε Comment Status A aueueina? SuggestedRemedy queuing Response Response Status C ACCEPT. CI 77 SC 77.3.5.3 P 204 L 8 # 28 Huawei Feng, Dongning

Comment Status A

functon?

SuggestedRemedy

Comment Type

function

Response Status C

E

ACCEPT.

Cl 77 SC 77.3.5.6 P 208 L 1 # 46
Haiduczenia, Marek ZTE Corp.

Comment Type T Comment Status A

[submitted on behalf of Yang Cheng, with revisions from Marek Hajduczenia] Transition between CHECK GATE TYPE and WAIT FOR START TIME on ELSE may lead to unexpected behaviour. If grantList contains a single grant, it is removed in WAIT FOR START TIME state and grantList becomes empty. If the retrieved grant is malformed in any way (neither of exit conditions from CHECK GATE TYPE state is met), ELSE exit condition will actuate, transferring state diagram back to WAIT FOR START TIME, where next grant will be again extracted but the grantList is still empty. It is much safer to make the transition from CHECK GATE TYPE on ELSE condition to WAIT FOR GRANT state.

SuggestedRemedy

Per comment

Response Status C

ACCEPT IN PRINCIPLE.

In Figure 77-30, make the transition from CHECK GATE TYPE on ELSE condition to WAIT

FOR GRANT state.

In Figure 77-30, change 'removeHead' to 'RemoveHead'.

CI 77 SC 77.3.6.3 P215 L37 # 6

Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status A

unneeded space between "10" and "G" in "10 G registration attempt"

SuggestedRemedy

remove the space

Response Status C

Cl 77 SC 77.4.1 P 218 L 51 # 34 Hajduczenia, Marek ZTE Corp.

Comment Type E Comment Status R

[submitted on behalf of Runjian Lin]

This field allows the OLT to relay speed-specific information regarding the discovery window to the different ONUs

SuggestedRemedy

This field allows the OLT to relay speed-specific information regarding the discovery windows to the different ONUs

Response Response Status C

REJECT.

[The comment is against unchanged text, therefore is outside the scope of this recirculation ballot]

The previous line says "An additional field (Discovery Information field) was added to the 10 Gb/s discovery GATE MPCPDU." the text is therefore correct.

CI 77 SC 77.4.2 P 219 L 52 # 35

Hajduczenia, Marek ZTE Corp.

Comment Type E Comment Status D

[submitted on behalf of Runjian Lin]

and if a 1Gb/s discovery window is opened, the ONU may attempt to register in the EPON.

SuggestedRemedy

and if a 1Gb/s discovery window is opened, the ONU may attempt to register in the 10/1G EPON.

Proposed Response Status Z

REJECT.

This comment was WITHDRAWN by the commenter.

CI 77 SC 77.4.2 P 220 L 44 # 36
Hajduczenia, Marek ZTE Corp.

Comment Type E Comment Status D

[submitted on behalf of Runiian Lin]

and if a 10Gb/s discovery window is opened, the ONU may attempt to register in the EPON.

SuggestedRemedy

and if a 10Gb/s discovery window is opened, the ONU may attempt to register in the 10G-EPON.

Proposed Response Response Status Z
REJECT.

This comment was WITHDRAWN by the commenter.