#17 Type: E TF: TF4 Clause: 9 Page: 102 Line: 29 Commenter: Shukla, Ishita / Arista Networks

Comment Status: Resolved Response Status: AIP Commenter Satisfaction: None Category: -

Slightly different format than intended

Would be great to follow standard format

Applied proper text style to page 102, paragraph in line 28 onwards

#10 Type: E TF: TF4 Clause: 9.3.4.1 Page: 117 Line: 13 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: None Category: -

Caption of Figure 9-9 is shown on a different page than the figure itself.

Move the caption to be on the same page as the figure.

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#1 Type: TR TF: TF4 Clause: 3.1 Page: 28 Line: 2 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: Satisfied Category: -

Missing definitions for "envelope quantum" and "envelope quantum time"

Add the following definition of envelope quantum (copied from 802.3-2022): "envelope quantum: A unit of information volume. Each envelope quantum represents 64 bits of data plus the layer-specific encoding. Thus, at the MAC Control sublayer and above, an envelope quantum is equal to 64 bits. Within the MCRS, an envelope quantum contains 72 bits (i.e., 64 bits of data and 8 bits of control). Within the PCS, after the 64B/66B encoding, an envelope quantum contains 66 bits, and after 256B/257B encoding, four envelope quanta are packed into a single 257-bit block. Add the following definition of envelope quantum time: "The unit of measurement of time for various time-related parameters and OAM attributes. Each envelope quantum time unit represents the time required to transmit one envelope quantum between the MCRS and the PCS sublayers across 25GMII, and is equal to 2.56 ns."

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#4 Type: T TF: TF4 Clause: 3.2 Page: 32 Line: 7 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: None Category: -

Sub-clause 3.2 includes many acronyms that are not used anywhere in text.

Delete entries for the following acronyms: 10GE, ACS, ADSL, bL-ONU, bRTT, BW, DEI, DSLAM, EDP, EER, FDV, FE, FLR, FRD, GDA, GE, HGU, HGW, LOID , MTU, nbL-ONU, PBS, PCP, PIR, RGU, RR, RRQ, SCB, SD, SF, SMB, SNMP, SP, STP, TDMA, TRx, UGS, UGS-AD, URL, USB, VDSL2, WFQ, WLAN, WRQ, WRR, wRTT

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#2 Type: TR TF: TF4 Clause: 3.2 Page: 33 Line: 7 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: Satisfied Category: -

Missing acronyms for "EQ" and "EQT"

Add the following acronyms: EQ envelope quantum EQT envelope quantum time

-

#3 Type: TR TF: TF4 Clause: 3.2 Page: 36 Line: 7 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: Satisfied Category: -

The unit of TQ is not applicable to 25G-EPON and 50G-EPON systems. Instead, EQT should be used.

Delete the definition of "time quantum". Delete the acronym "TQ time quantum" In the attribute aClockTranspTransfer (0xDB/0x07-03), replace TQ and EQT (page 361, line 7) In the attribute aClockTranspRtt (0xDB/0x07-05), replace TQ and EQT (page 362, line 13)

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#5 Type: E TF: TF4 Clause: 14 Page: 364 Line: 1 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: None Category: -

Page 364 in the middle of clause 14 is left blank.

Remove the blank page

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#6 Type: E TF: TF4 Clause: 4.9 Page: 54 Line: 20 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: AIP Commenter Satisfaction: None Category: -

A cross-reference to Figure 4-5 contains both Figure number and full title. All other cross-references only contain the Figure number.

If this deviation is not intentional, remove the figure title from the cross-reference.

Removed the figure title from the cross-reference.

#8 Type: ER TF: TF4 Clause: 7.4.1 Page: 61 Line: 38 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: Satisfied Category: -

Cross-references to figures in Clause 7 are wrong.

page 61, line 38: 7-20 should reference 7-1 page 62, line 7: 7-20 should reference 7-1 page 62, line 13: 7-20 should reference 7-1 page 62, line 18: 7-20 should reference 7-1 page 64, line 29: 7-21 should reference 7-2 page 65, line 4: 7-22 should reference 7-3 page 65, line 8: 7-23 should reference 7-4 page 65, line 13: 7-24 should reference 7-5

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#12 Type: E TF: TF4 Clause: 7 Page: 62 Line: 5 Commenter: Shukla, Ishita / Arista Networks

Comment Status: Resolved Response Status: AIP Commenter Satisfaction: None Category: -

Discrepancy between the Figure numbers in the diagram vs the text, please correct. For example: Multicast group control requirements cover methods and protocols used to create and delete multicast groups and to add or remove destination output ports to and from the existing multicast groups (see step 1 in Figure 7-20) ---> there is no figure 7-20.

Requesting a look over this clause, as the discrepancy can be confusing to a consumer of standards. I have noticed this multiple times under clause, please correct

Replaced all instances of: - Figure 7-20 with Figure 7-1 - Figure 7-21 with Figure 7-2 - Figure 7-22 with Figure 7-3 - Figure 7-23 with Figure 7-4 - Figure 7-24 with Figure 7-5

#13 Type: T TF: TF4 Clause: 7 Page: 64 Line: 1 Commenter: Shukla, Ishita / Arista Networks

Comment Status: Resolved Response Status: AIP Commenter Satisfaction: None Category: -

Technical clairity needed here: Note that the downstream MPCPDUs sent in envelopes with mPLIDs are typically delivered to multiple ONUs, and therefore the Timestamp values in these MPCPDUs are not pre-compensated for the individual ONU's RTTs. Consequently, an ONU shall not attempt to synchronize its local MPCP clock using the Timestamp values from the MPCPDUs received over the unidirectional PLIDs.

Where does this Timestamp originate from, and does it not change per frame here? Also how is the sychronization of clocks happening here if timestamp is not being used?

Added the followng text at the end of 7.4.2.1.1. "The MPCP clock synchronization process is defined in IEEE Std 802.3, 144.3.1.1."

#7 Type: E TF: TF4 Clause: 7.4.2.2 Page: 65 Line: 16 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: None Category: -

Captions of Figures 7-3 and 7-4 are shown on different pages than the figures themselves.

Move the captions to be on the same page as the figures.

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#14 Type: T TF: TF4 Clause: 7 Page: 68 Line: 10 Commenter: Shukla, Ishita / Arista Networks

Comment Status: Resolved Response Status: Reject Commenter Satisfaction: None Category: -

Technical clairity needed here: A server-controlled group membership (sometimes referred to as static multicast session) is initiated and configured by a multicast server or NMS without any explicit input from multicast clients.

How is the membership being initiated from the server--is the server simply sending the feed or is it supposed to send membership requests/joins?

As indicated in the text, the process is driven by the NMS/server, which decides based on operator input to put specific ONUs into a given multicast group as receipients of the multicast group content. Whether clients actively receive this content or not, they still have it available at the ONU level to pull it. This allows us to minimize group setup latency for some common channel lineups, while not wasting resources on the PON, since this content is still accessible to all potential clients. No changes made.

#15 Type: E TF: TF4 Clause: 7 Page: 69 Line: 10 Commenter: Shukla, Ishita / Arista Networks

Comment Status: Resolved Response Status: AIP Commenter Satisfaction: None Category: -

Noticed odd format for this paragraph in particular, not sure if this was intended or not

Would be great if we can correct format here

Applied proper text style to page 69, paragraph in line 10.

#16 Type: T TF: TF4 Clause: 7 Page: 70 Line: 12 Commenter: Shukla, Ishita / Arista Networks

Comment Status: Resolved Response Status: Reject Commenter Satisfaction: None Category: -

Technical clarity needed here: A multicast group at an ONU denotes a set of service ports configured to forward frames belonging to a given multicast session. A multicast group is created at an ONU when the first service port is configured to forward frames belonging to a given multicast session. A multicast group is considered deleted when the last port is configured to not forward frames belonging to a given multicast session.

Sure, this talks about the when the port is configured to not forward the frames, however the this does not account for the feed being received from upstream, although the ONU no longer forwards the traffic, but it can potentially get overwhelmed due to excessive traffic being received. Do we have any mechanism to flag the upstream to not forward the feed here?

In PON, the same downstream traffic is delivered to every ONU. As long as any ONU in PON is receiving a given multicast content, this content is sent downstream. Each ONU receives data at full PON line rate and is generally designed to not get overwhelmed. This specific section describes the intra-ONU forwarding, i.e., handling of the frames that were already accepted and processed by the MAC. If the last service port is removed from the multicast group, these multicast frames are discarded because there is no destination queue configured for them (see page draft IEEE P1904.4, D3.0, 71, lines 3-5). Generally, when the NMS removes the last service port, it would also remove the entire ONU from the multicast group, as explained in section 7.4.4.1, although there may be use cases when the latter step is omitted or delayed. Removing the ONU from the multicast group causes the ONU to discard the frames (envelopes) with a given multicast LLID before these frames reach the MAC. The exact NMS behavior is operator-dependent and is not in scope for this standard. No changes made.

#11 Type: E TF: TF4 Clause: - Page: 8 Line: - Commenter: Stanley, Dorothy / Hewlett Packard Enterprise

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: None Category: -

The officer list of the Standards Board is not up to date.

Update to the current officers, see https://standards.ieee.org/about/sasb/ ,

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#18 Type: T TF: TF4 Clause: 8 Page: 86 Line: 17 Commenter: Shukla, Ishita / Arista Networks

Comment Status: Resolved Response Status: Reject Commenter Satisfaction: None Category: -

Technical clairty needed here: For sections: 8.4.3.2 Frame fragmentation in upstream direction 8.4.3.2.1 Frame reassembly function in the OLT 8.4.3.2.2 Frame segmentation function in the ONU

How does the OLT maintain fragment order per LLID during reassembly and How are overlapping or out-of-order fragments handled in the reassembly buffer?

Preservation of fragment order during reassembly is the fundamental behavior of 25G-EPON and 50G-EPON systems. This behavior is fully specified in IEEE Std 802.3, Clause 143. As indicated in sections 1.2 "Purpose" and Clause 5 Scope and Coverage of the Standard", compliance with IEEE 802.3, Clause 143 is mandatory. No changes were made.

#9 Type: E TF: TF4 Clause: 8.4.3.4.1 Page: 89 Line: 16 Commenter: Kramer, Glen / Broadcom Corporation

Comment Status: Resolved Response Status: Accept Commenter Satisfaction: None Category: -

Caption of Figure 8-5 is shown on a different page than the figure itself.

Move the caption to be on the same page as the figure.

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