Type: TR TF: TF4 Clause: 12 Page: 229 Line: 1 Commenter: Marek Hajduczenia / Charter

Comment Status: Resolved Response Status: AIP Commenter Satisfaction: Satisfied

With no profiles in 1904.4, there is very little reason to separate eOAM description into Clause 12 and Clause 13.

Merge Clause 12 and Clause 13 into a single Clause 13 as shown in tf4\_2110\_hajduczenia\_combined\_c12\_c13.pdf, with the additional changes as outlined below: - changes to 13.1 (removed and reformatted statements to align with Nx25G-EPON) - changes in 13.2.2 (reworded first sentence, added the second statement on frame rate being configurable via specific TLV) - changes in 13.2.3 (minor rewrite to last two sentences) - new 13.2.4 (requirements for LLID in the context of Nx25G-EPON) - new 13.2.5 (support for 1904.2 VLC in Nx25G-EPON architecture) - new content in tables 13-5 (version reservation of 0x30 for 1904.4) and 13-7 (reformatting of the previously existing table) PICS will need to be combined and updated due to new requirements.

### Implement changed per comment, addressing also modifications per comment #1, #4, #6, #2, #5, #9 ###

#6 Type: TR TF: TF4 Clause: 12 Page: 229 Line: 1 Commenter: Marek Hajduczenia / Charter

Comment Status: Resolved Response Status: AIP Commenter Satisfaction: Satisfied Category:

Under action Item #13, add version OAM discovery and negotiation process from IEEE Std 1904.1-2017, to allow ONUs to report supported versions and negotiate the actual version to be used with the OLT

Make the following changes to Clause 12. Replace 12.2.2 with the following text "The eOAM discovery process in the EPON is used to identify whether the given connected ONU supports the specific subtype of the Organization Specific OAM extensions (as identified by the OUI) and further to identify the capabilities of such an ONU device in terms of the supported OAM functions. The ONU and OLT implement the eOAM discovery process by exchanging the Organization Specific Information TLV, as defined in IEEE Std 802.3, 57.5.2.3, and further specified in 13.2.2.3.1, referred to as Extended Information TLV, embedded in the Information OAMPDU, as defined in IEEE Std 802.3, 57.4.3.1. The format of the Extended Information TLV is defined in 13.2.2.3.1. The eOAM discovery process specified for this profile is executed immediately after the successful completion of the OAM discovery process, as specified in IEEE Std 802.3, 57.3.2.1. The OLT shall disable all data services for the given ONU until the successful completion of the OAM discovery process (see IEEE Std 802.3, 57.3.2.1) and the eOAM discovery process and the completion of the optional authentication process, if enabled by the operator." Copy text, state diagrams, etc. from IEEE Std 1904.1-2017, sublause 12.2.1.2.2 and all associated subclauses under 12.2.2.3, replacing existing text. Update / Create new PICS as needed.

Replace 12.2.2 with the following text "The eOAM discovery process in the EPON is used to identify whether the given connected ONU supports the specific subtype of the Organization Specific OAM extensions (as identified by the OUI) and further to identify the capabilities of such an ONU device in terms of the supported OAM functions. The ONU and OLT implement the eOAM discovery process by exchanging the Organization Specific Information TLV, as defined in IEEE Std 802.3, 57.5.2.3, and further specified in 13.2.2.3.1, referred to as Extended Information TLV, embedded in the Information OAMPDU, as defined in IEEE Std 802.3, 57.4.3.1. The format of the Extended Information TLV is defined in 13.2.2.3.1. The eOAM discovery process is executed immediately after the successful completion of the OAM discovery process, as specified in IEEE Std 802.3, 57.3.2.1. The OLT shall disable all data services for the given ONU until the successful completion of the OAM discovery process (see IEEE Std 802.3, 57.3.2.1) and the eOAM discovery process and the completion of the optional authentication process, if enabled by the operator." Copy text, state diagrams, etc. from IEEE Std 1904.1-2017, sublause 12.2.1.2.2 and all associated subclauses under 12.2.2.3, replacing existing text. Update cross-references as needed. Update / Create new PICS as needed.

Type: TR TF: TF4 Clause: 12 Page: 229 #4 Line: 1 Commenter: Marek Hajduczenia / Charter

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

Under action Item #13, add the following text "The eOAM discovery process is executed once per ONU. The eOAM discovery process shall be executed on the primary MLID." to 12.2.2 to restrict the OAM processing to the MLID only

Per comment

Changes per comment + create new PICS. Remove sentence "The eOAM discovery proces is executed once per physical ONU device." from tf4 2110 hajduczenia 01.pdf

Page: 229 #1 Type: TR TF: TF4 Clause: 12 Line: 1 Commenter: Marek Hajduczenia / Charter

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

Editorial cleanup updates to Clause 12 content as follows: - remove "12.2.1 DPoE eOAM management" (no more profiles) and promote all subclauses by one level - remove "12.3.1 Software upgrade using DPoE eOAM management" (no more profiles) and promote all subclauses by one level, merge text from under 12.3.1 into 12.3 - replace all references to 1G/10G-EPON MPCP with 802.3ca, 144.3.7 - fix cross references to all figures and subclauses in Clause 12 itself - replace references to 13.4 and 14.4 (no more profiles) with Clause 13 and Clause 14, respectovely - update all references to subclauses and tables in Clause 13 and Clause 14 with proper references - replace "The eOAM version negotiation phase, such as the one described in 12.2.1, is not used in this profile, and tThe OLT is expected to support all the versions of the eOAM management suite that are supported by the fielded ONUs connected to its ports. " with "The OLT is expected to support all the versions of the eOAM management suite that are supported by the fielded ONUs connected to its ports. " since there are no more profiles. - strike 4 instances of "complying with the requirements of this profile" - there are no more profiles - strike "for this profile " - there are no more profiles

See tf4 2110 hajduczenia 01.pdf for all the tracked changes to Clause 12. Update PICS (not covered in this contribution)

#5 Type: TR TF: TF4 Clause: 13 Page: 246 Line: 1 Commenter: Marek Hajduczenia / Charter

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

Under action Item #13, revise Table 13-5, Version field, to use only value 0x30 to signal complaince with IEEE Std 1904.4. All other values are reserved for backward compatibility

See tf4 2110 hajduczenia 02.pdf for all the tracked changes to Clause 13. Update PICS (not covered in this contribution)

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

Editorial cleanup updates to Clause 13 content as follows: - remove all references to profile by striking the following statements: "specified in this profile" (3x), ", and defined by this profile" (3x), " used by this profile", "specified for this profile" (3x), "for this profile" (3x), and "required for compliance with this profile " - we do not have profiles anymore

See tf4 2110 hajduczenia 02.pdf for all the tracked changes to Clause 13. Update PICS (not covered in this contribution)

TF: TF4 Clause: 13.4 Line: 16 Commenter: Glen Kramer / Broadcom #9 Type: T Page: 265 Comment Status: Resolved Response Status: Accept Commenter Satisfaction: None Category: -

It is unclear which OAM error codes should apply in situation when a requested attribute is recognized, but is not valid under the supplied context. Also, some error codes refer to "requested action", while others refer to "requested attribute". All instances should refer to "requested action or attribute".

Add a new error code for "Invalid Context Object" to table 13-26 as shown in tf4 2110 kramer 1.pdf. Clarify the descriptions of other error codes as indicated.

Type: TR TF: TF4 Clause: 14 Page: 267 Line: 1 Commenter: Marek Hajduczenia / Charter

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

Under Action Item #13, device and capability discovery to address new capabilities (multiple channels, fragmentation, etc.) was requested. However, all channel-related capability discovery and configuration is already covered by CCP included in IEEE Std 802.3ca. There is no need to duplicate this functionality in eOAM at this time. The only new addition to address Action Item #13 is the new attribute to discover and configure fragmentation support

No changes to the draft needed to address support for channel discovery and configuration - that is covered under CCP in 802.3ca. For fragmentation support attribute changes, see tf4\_2110\_hajduczenia\_03.pdf - the new attribuye should be added under 0xDB branch, ONU management section, likely as 0x00-19 leaf (between aOnuServicePortDescription and aOnuFwFileName). Update table Table 14-55 and update PICS (not covered in this contribution)

Changes per comment, but remove "If the supplied context object repesents the primary PLID or any unidirectional LLID, the ONU shall respond with the error code 0xA1 'Unsupported" (see 13.4)."

#3 Type: TR TF: TF4 Clause: 14 Page: 267 Line: 1 Commenter: Marek Hajduczenia / Charter

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

Editorial cleanup updates to Clause 14 content as follows: - remove all references to profile by striking the following statements: "by this profile" and "used by this profile" there are no profiles anymore

See  $\sf tf4\_2110\_hajduczenia\_03.pdf$  for all the tracked changes to Clause 14. Update PICS (not covered in this contribution)

See tf4 2110 hajduczenia 04.pdf for all the tracked changes to Clause 14. Update PICS (not covered in this contribution)

#12 Page: 302 Line: 3 Commenter: Jc MARION / TiBiT Communications Type: ER TF: TF4 Clause: 14.4.1.10

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

MPCP, OAM and user traffic are segregated in distinct LLIDs

 $^{\circ}$ emove second sentence of the paragraph (Only OAM, eOAM, and MPCP remain enabled regardless of the L-ONU forwarding state)

Type: ER TF: TF4 Clause: 14.4.1.10 #13 Line: 13 Commenter: Jc MARION / TiBiT Communications Page: 302

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

Forwarding States should be associated with the LLIDs that carry the User Traffic

add 'that represents ULIDs' at the end of the first sentence.

add 'that represents a ULID' at the end of the first sentence. Replace all instances of "L-ONU" with "ULID" in 14.4.1.10

#10 Type: ER TF: TF4 Clause: 14.4.1.11 Page: 302 Line: 18 Commenter: Jc MARION / TiBiT Communications

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

OAM Frame Rate is a per-ONU attribute

Replace L-ONU with C-ONU. Replace L-ONU with ONU.

Line: 18 Commenter: Jc MARION / TiBiT Communications #11 Type: ER TF: TF4 Clause: 14.4.1.11 Page: 303

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

OAM Frame Rate should be associated with the LLID that represents the primary MLID

add 'that represents the primary MLID' at the end of the first sentence.

Change "The aLlidOamFrameRate attribute is associated with the LLID object" to "The aLlidOamFrameRate attribute is associated with the ONU object'