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| **STUDY GROUP 15** | |
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DRAFT TD/WP3 for SG15 2019 July Plenary meeting

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| **Keywords:** | Correspondence report, G.8052.1 |
| **Abstract:** | This report summarizes the Q14/15 virtual meetings on coordination of Information and Data modelling and IEEE 802.1 CFM YANG model. |

A series of virtual meetings were held on 2018 Nov 19, Dec 17, 2019 Jan 14, Feb 18, Mar 11, Apr 15, May 20, and Jun 17. Modelling experts of IEEE 802.1, IEEE 802.3, ONF, MEF, BBF, and IETF were invited via LS *Coordination of Ethernet information and data modelling work* {Ref: SG15-TD275/PLEN-Annex C}.

**Announcement** of the virtual meetings was posted on: <https://www.itu.int/net/ITU-T/lists/rgm.aspx?Group=15&type=interim>

**Logistics** information and input/output documents of the virtual meetings are available at: <https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/>

**GoToMeeting link**: <https://global.gotomeeting.com/join/897704405>

#### Document links

* **IEEE 802.1 CFM YANG:**
  + <https://github.com/YangModels/yang/tree/master/standard/ieee/802.1/draft>
* **ITU-T Q14/15 CD:** 
  + <https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/>

**Virtual Meetings Summary**

#### 2018 November 19

* Attendees:
  + David Ball (Cisco), Italo Busi (Huawei), Kam Lam (FiberHome), Karthik Chandra Bose Subas (Nokia), Qilei WANG (ZTE), Shu LI (FiberHome), Yuji Tochio (Fujitsu), ZHAN Zhiguo (ZTE), ZHANG Ying (FiberHome),
  + Apology:
* Administrative
  + Time of next call: 1400 – 1500 Geneva time on December 17, 2018
  + Action items: None
* Work plans & progress
  + IEEE:
    - LLDP YANG updated
    - The 802.1Qcx CFM YANG will move to WG ballet
    - Next Yangster call on Nov. 28 <https://1.ieee802.org/yangsters/yangsters-call-information/>
  + ITU-T:
    - Plan to consent G.8052.1 in 2019.06
    - Latest draft: v0.06 of G.8052.1 in [TD328/WP3](https://www.itu.int/md/T17-SG15-181008-TD-WP3-0328/en)
  + MEF:
    - Nothing new yet. Waiting for the completion of the IEEE CFM Yang. LS from IEEE 802.1 received.
* Document considered at this meeting
  + CD04: 2018.10.22 version of the CFM YANG modules
  + CD05: 2018.11.16 version of the re-engineered UML of the 2018.10.22 CFM YANG
  + CD06: Draft G.8052.1 v0.07
* Discussion:
  + CFM YANG 2018.10.22 (*cd04\_ieee802-dot1q-cfm-yang\_2018.10.22.zip*) was presented
    - Changes from the 2018.07.03 version were presented using *Notepad++ Compare* and noted.
  + CFM UML 2018.11.16 (re-engineer the 2018.10.22 CFM YANG) (*cd05\_PapyrusIeeeCfmOxygenWorkspace\_181116.zip*) was presented
    - Changes from the 2018.09.18 (re-engineer the 2018.07.03 CFM YANG)
      1. Removed MaintenanceDomains, i.e., Cfm directly composites MaintenanceDomain
         * Paths were modified (removed the “/maintenance-domains” level” accordingly:

M.A.Group to M.D, to M.A;

MepDb to M.A.Mep List

* + - 1. Deleted the attribute ccmInterval from the ContinuityCheck class
      2. Changed data type names
         * MdNameChoice 🡪 MdNameChoiceGrouping
         * MacAddressAndUnitType 🡪 MacAddressAndUnitTypeGrouping
         * MaNameChoice 🡪 MaNameChoiceGrouping
      3. Defined the data types Destination and Target, for the operations transmitLoopback and transmitLinkTrace respectively, as choice
    - Concluded that no impact on the touch point (augmentation), i.e., the MEP and MIP
  + G.8052.1 v0.07 (*cd06\_g8052.1\_v0.07draft\_2018.11.18.docx*) was presented
    - Changes from TD328/3 v0.06
      * Augmenting to the 2018.11.16 CFM UML
    - Noted that ETY TTP Bi/Sink/Source classes have been replaced by ETHnull TTP Bi/Sink/Source in the AAP G.8052.
      * Clause 9.2.3/G.8021: The ETHnull Bi/Sink/Source functions exist for the purpose of satisfying the G.806 binding rules when terminating ETH sublayers that do not perform OAM.
      * ETHnull supposes to be generic. The only application of ETHnull currently is only for LAG.
      * Agreement: The discussion agreed to simply remove ETY TTP from G.8052.1
  + Will continue the attribute pruning/refactoring for G.8052.1 in the next call.
  + Will consider whether need to keep the TP classes in G.8052.1

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#### 2018 December 17

* Attendees:
  + Akira SAKURAI (NEC), Andrea MAZZINI (Nokia), Bernd ZEUNER (DT), David BALL (Cisco), Kam LAM (FiberHome), Karthik Chandra Bose SUBAS (Nokia), Marc HOLNESS (Ciena), Mark ELLISON (), Scott MANSFIELD (Ericsson), Qilei WANG (ZTE), Yuji TOCHIO (Fujitsu), YUN Xiang (FiberHome), ZHAN Zhiguo (ZTE)
  + Apology:
* Administrative
  + Time of next call: [1400 – 1500 Geneva time on January 14, 2019](https://www.itu.int/net/itu-t/lists/rgmdetails.aspx?id=9484&Group=15)
  + Action items: Scott – IEEE 802.1 latest CFM YANG liaison to SG15, MEF, & ONF
* Work plans & progress
  + IEEE:
    - Next Yangster call on January 30th <https://1.ieee802.org/yangsters/yangsters-call-information/>
    - Latest IEEE 802.1 CFM YANG: 2018.12.10 version. Available on <https://github.com/YangModels/yang/tree/master/standard/ieee/802.1/draft>.
    - Restructure of the IEEE Github repository directory is in Pull Request (#521)
  + ITU-T:
    - Plan to consent G.8052.1 in 2019.07
    - Latest draft: v0.07 of G.8052.1 [CD06r1](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd06r1_g8052.1_v0.07draft_2018.12.16.docx) (2018.12.16)
  + MEF:
    - Waiting for the completion of the IEEE CFM Yang.
* Document considered in this meeting
  + [CD04r1](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd04r1_ieee802-dot1q-cfm-yang_2018.12.10.zip): 2018.12.10 CFM YANG;
  + [CD05r1](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd05r1_PapyrusIeeeCfmOxygenWorkspace_181120.zip): 2018.11.20 CFM UML of the 2018.10.22 CFM YANG (penultimate latest)
  + [CD06r1](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd06r1_g8052.1_v0.07draft_2018.12.16.docx): Draft G.8052.1 v0.07 (2018.12.16), associated with 2018.11.20 CFM UML
* Discussion:
  + CFM YANG 2018.12.10
    - The [cd04r1\_ieee802-dot1q-cfm-yang\_2018.12.10.zip](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd04r1_ieee802-dot1q-cfm-yang_2018.12.10.zip) file contains the 2018.12.11 version of the CFM YANG download from <https://github.com/YangModels/yang/tree/master/standard/ieee/802.1/draft>.
    - Marc informed that this version of the YANG modules is the outcome of resolving the received letter ballot comments, over 100 and mostly from David
      * The three modules *ieee802-dot1q-cfm-types.yang*, *ieee802-dot1q-cfm.yang*, and *ieee802-dot1q-cfm-bridge.yang* have been updated.
      * The *ieee802-dot1q-cfm-mip.yang* module contains no update.
        + There are two ways of creating MIP. The explicit creation is not described. The module eventually will be deleted as anticipating the MIP yang module will be defined by other SDO.
      * The CFM YANG modules are part of the Draft IEEE 802.1Qcx v1.03 that is in WG ballot.
      * Marc and Scott will check to ensure it be liaised to BBF, SG15, MEF, ONF
      * The CFM YANG is considered stable. But it is still open for comment.
      * Scott can help to coordinate the submitting of comments
    - Bernd shared the in progress re-engineered UML of the 2018.12.11 CFM YANG. There are quite a lot of changes due to many changes in the source YANG modules. He will provide the complete Papyrus once finishing the re-engineering.
  + CFM UML 2018.11.20 (re-engineer the 2018.10.22 CFM YANG, the penultimate latest version)
    - The only change in this version of the UML w.r.t. the 2018.11.16 UML is a new UML diagram of MIP “ieee802-dot1q-cfm-mip ClassDiagram”, which hasn’t been created in the past.
    - Kam brought up a comment that was raised from the [ONF OT-IM 11/20/2018](https://wiki.opennetworking.org/display/OTCC/2018-11-20+OT-IM+Meeting+Notes?flashId=-1205053973) call on CFM UML 2018.11.16
      * It would make more sense to swap the position of the Mep class and the MaintenanceAssociationMepList class, i.e., MaintenanceAssociation aggregates (<StrictComposite>) Mep and MaintenanceAssociationGroup aggregate (<StrictComposite>) MaintenanceAssociationMepList. Note that the CFM UML is a literal translation of the CFM YANG. The CFM YANG would have to be modified so that to achieve the swap in the UML
      * Marc explained that both ways are not wrong, but the current way (i.e., Mep is aggregated directly in MaintenanceAssociationGroup, which provides a handle to a unique pair of MD and MA) is more efficient (easier/quicker) to access the target Mep instance for configuration and operation on the Mep.
      * Kam noted there may be further input to follow up on this comment. Due to the holiday season, such input may not be available before January. Marc said January is fine.
  + G.8052.1 v0.07 (*cd06r1\_g8052.1\_v0.07draft\_2018.12.16.docx*) was presented
    - Kam noted the changes from CD06 (G.8052.1 v0.07 2018.11.18) to CD06r1 (G.8052.1 v0.07 2018.12.16)
      * Augment 2018.11.20 CFM UML (cd05r1)
      * Add Figure 7-1.F (ieee802-dot1q-cfm-mip.png)
      * Obsolete EtyTtpBi/Si/SoPac
      * Remove EtyTtpBi/Si/SoPac and ETY TTP Bi/Sink/Source from UML diagram G.8052.1\_v0.07-model\_tp and Figure 7-2.B
      * Prune/refactor for G.8052.1 the attributes of the following G.8052 object classes :
        + ETH CTP Bi/Sink/Source
        + ETH TTP Bi/Sink/Source

(See detail updates in clause 7.2.2.1)

* + Next step:
    - Will prun/refactor the MEP and measurement job classes for G.8052.1 based on the latest re-engineered UML, once it is available from Bend.
    - Will consider whether need to keep the TP classes in G.8052.1

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#### 2019 January 14

* Attendees:
  + Andrea MAZZINI (Nokia), Bernard Sales (Nokia), David BALL (Cisco), Italo Busi (Huawei), Kam LAM (FiberHome), Karthik Sethuraman (NEC), Marc HOLNESS (Ciena), Nigel Davis (Ciena), Scott MANSFIELD (Ericsson), Shu LI (FiberHome), Yuji TOCHIO (Fujitsu), YUN Xiang (FiberHome)
  + Apology:
* Administrative
  + Time of next call: [1400 – 1500 Geneva time on February 18, 2019](http://www.itu.int/net/itu-t/lists/rgmdetails.aspx?id=9478&Group=15)
  + Previous Action items: Scott – IEEE 802.1 latest CFM YANG liaison to SG15, MEF, & ONF
  + Action items: Marc & Scott to check if the 2018.12.10 CFM document/YANG has been liaised to ITU-T SG15, ONF, MEF, BBF yet
* Work plans & progress
  + IEEE:
    - Next Yangster call on January 30th <https://1.ieee802.org/yangsters/yangsters-call-information/>
    - Latest IEEE 802.1 CFM YANG: 2018.12.10 version. Available on <https://github.com/YangModels/yang/tree/master/standard/ieee/802.1/draft>.
      * Comment submission closed on January 9, 2019
      * Plan is to complete the response and update the YANG
    - Restructure of the IEEE Github repository directory is in Pull Request (#521)
  + ITU-T:
    - Plan to consent G.8052.1 in 2019.07 assuming IEEE 802.1 CFM YANG is finalized in time
    - Latest draft: v0.07 of G.8052.1 [CD06r2](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd06r2_g8052.1_v0.07draft_2019.01.13.docx) (2019.01.13)
  + MEF:
    - Waiting for the completion of the IEEE CFM Yang.
* Document considered in this meeting
  + [CD04r1](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd04r1_ieee802-dot1q-cfm-yang_2018.12.10.zip): 2018.12.10 CFM YANG;
  + [CD05r2](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd05r2_PapyrusIeeeCfmOxygenWorkspace_181218.zip): 2018.12.18 CFM UML of the 2018.12.10 CFM YANG (latest)
  + [CD06r2](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd06r2_g8052.1_v0.07draft_2019.01.13.docx): Draft G.8052.1 v0.07 (2019.01.13), associated with 2018.12.18 CFM UML
* Discussion:
  + CFM YANG 2018.12.10
    - The [cd04r1\_ieee802-dot1q-cfm-yang\_2018.12.10.zip](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd04r1_ieee802-dot1q-cfm-yang_2018.12.10.zip) file contains the 2018.12.11 version of the CFM YANG download from <https://github.com/YangModels/yang/tree/master/standard/ieee/802.1/draft>.
    - Covered in the last call
      * It has not been liaised to BBF, SG15, MEF, and ONF yet. Marc and Scott to check.
      * The CFM YANG is considered stable. But it is still open for comment.
      * Scott can help to coordinate the submitting of comments
  + CFM UML 2018.12.18 (re-engineer the 2018.12.10 CFM YANG, the latest version)
    - Discussed again the comment regarding swapping the position of the Mep class and the MaintenanceAssociationMepList class. No conclusion was made. Marc and Karthik Sethuraman might have follow up off-line discussion.
  + G.8052.1 v0.07 ([*cd06r2\_g8052.1\_v0.07draft\_2019.01.13.docx*](https://www.itu.int/ifa/t/2017/sg15/exchange/wp3/q14/2018.11-2019.06_eMeetings_Modeling/cd/cd06r2_g8052.1_v0.07draft_2019.01.13.docx))
    - The result and rationale of the G.8052 Mep/Bi/Sink/Source classes pruning/refactoring for G.8052.1were presented. (See Table 7-2).
    - Items (listed below) that need confirmation were discussed and confirmed.
      * CC Priority
      * MEP to peer MEPs
      * 1DM Priorities at MEP Sink
  + Next step:
    - Will prune/refactor the MIP class and Operations for G.8052.1 based on the latest re-engineered UML.
    - Will consider whether need to keep the TP classes in G.8052.1

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