Participants, Patents, and Duty to Inform

All participants in this meeting have certain obligations under the IEEE-SA Patent Policy.

- **Participants [Note: Quoted text excerpted from IEEE-SA Standards Board Bylaws subclause 6.2]:**
  - **"Shall inform the IEEE (or cause the IEEE to be informed)" of the identity of each "holder of any potential Essential Patent Claims of which they are personally aware" if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents**
  - **"Should inform the IEEE (or cause the IEEE to be informed)" of the identity of "any other holders of potential Essential Patent Claims" (that is, third parties that are not affiliated with the participant, with the participant's employer, or with anyone else that the participant is from or otherwise represents)**
- **The above does not apply if the patent claim is already the subject of an Accepted Letter of Assurance that applies to the proposed standard(s) under consideration by this group**
- **Early identification of holders of potential Essential Patent Claims is strongly encouraged**
- **No duty to perform a patent search**

January 2018

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Patent Related Links

All participants should be familiar with their obligations under the IEEE-SA Policies & Procedures for standards development.

Patent Policy is stated in these sources:

IEEE-SA Standards Boards Bylaws

http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6

IEEE-SA Standards Board Operations Manual

http://standards.ieee.org/develop/policies/opman/sect6.html#6.3

Material about the patent policy is available at

http://standards.ieee.org/about/sasb/patcom/materials.html

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit http://standards.ieee.org/about/sasb/patcom/index.html

This slide set is available at https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.ppt

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Call for Potentially Essential Patents

- If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance:

  - Either speak up now or
  - Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible or
  - Cause an LOA to be submitted

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Other Guidelines for IEEE WG Meetings

- **All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.**

    - **Don't discuss the interpretation, validity, or essentiality of patents/patent claims.**

    - **Don't discuss specific license rates, terms, or conditions.**

        - Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.

            - Technical considerations remain primary focus

    - **Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.**

    - **Don't discuss the status or substance of ongoing or threatened litigation.**

    - **Don't be silent if inappropriate topics are discussed … do formally object.**

See *IEEE-SA Standards Board Operations Manual,* clause 5.3.10 and "Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy" for more details.

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Agenda

- YANG Recap from IEEE 802.1 & 802.3 Interim Meeting
  - 22 – 26 January 2018
- Topics
  - List of YANG work
  - Coordination between IEEE and ITU-T on CFM
  - Open Discussion on YANG usage
- Administrative
  - Next call scheduling
- AoB
- Attendees

YANG Recap from January Interim

- 802.1Qcp
  - Bridges and Bridged Networks Amendment: YANG Data Model
  - cx-mholness-YANG-Model-Overview-0118-v02.pdf
- 802.1ABcu
  - LLDP YANG Data Model
  - cu-mansfield-draft-YANG-0118-v01.pdf
- 802.1Qcw
  - YANG Data Models for Scheduled Traffic, Frame Preemption, and Per-Stream Filtering and Policing
- 802.1Qcx
  - YANG Data Model for Connectivity Fault Management
- P802.1Xck
  - Port-Based Network Access Control—Amendment 2: YANG Data Model
- P802.3.2 (IEEE 802.3cf)
  - YANG Data Model Definitions Task Force

- https://github.com/YangModels/yang

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IEEE ITU-T Workshop

- Joint IEEE 802 and ITU-T Study Group 15 workshop "Building Tomorrow's Networks"

- **Session 4: Management, YANG, and Data Modeling**
  This session will include speakers from 802.1Qcp and 802.1Qcx YANG Models for bridging and CFM, P802.3.2 Yang Models for 802.3, and ITU-T Q14/15 Management and control of transport systems and equipment.

- *ITU-T Information & Data Modeling and status*, Kam Lam
  [Biography l Presentation]
- *IEEE 802.1 YANG work status, overview of 802.1Qcp and 802.1Qcx*, Marc Holness [Biography l Presentation]
- *IEEE 802.3.2 YANG work status and overview of 802.3cf*, Yan Zhuang
  [Presentations]
- *Overview of YANG plans for IEEE 1588*, Rodney Cummings
  [Biography l Presentation]
- *Discussion for goal & objectives of 28 January Sunday interim meeting*, Scott Mansfield [Biography l Presentation]

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Q14/15 Experts Interim on YANG

- Discussed creation of a list a items to discuss and agree

- Decision was made to hold Conference Calls
  - Conference calls to discuss YANG structure and interoperability between IEEE 802.1, 802.3, and ITU-T Q14/15
  - Details TBD

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CFM Related Discussion Topics

- (Paraphrased from Marc Holness)

- Understand the [proposed] major object relationships.
- Determine if the indexing scheme is acceptable to you or not.
    - Discuss Maintenance Domain object is indexed.
- ITU-T Coordination
    - Start considering how use IEEE CFM objects that are needed to support Y.1731 OAM protocols
    - Consider how your MEGID can be overlaid or supported by this model.

- Work out the details related to structuring first before getting into the YANG code. Sometimes, when we start with the YANG code, we spend much time looking at individual "trees", and not focusing on the model which is the "forest".

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YANG Issue Brainstorming

- Follow the IETF's YANG Guidelines found in this update to RFC6087
  - draft-ietf-netmod-rfc6087bis
- Augment or Leafref is a choice that needs to be made and then consistently applied for ease of reading and maintenance
- Use of an opaque pointer with indirection so that CFM model can point to non-802.1Q bridges
  - There are groups that would like to use CFM or LLDP for equipment that is not a IEEE 802.1Q bridge
- The IETF Interfaces YANG model document that supports NMDA should be an RFC before the March 2018 IETF meeting
- Discussed TAddress and TDomain issue
  - Action: Scott to follow-up with IEEE 802.1Q experts and YANG experts in IETF to understand the scope of the issue

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TAddress and TDomain

l   IEEE 802.1Q appears to have a tight coupling to SNMP. Using 802.1Q-rev-d2-1.pdf as a reference, there are a number of statements made that tie the standard to SNMP. The crux of the problem is that there is a CFM related TLV that requires the use of an SNMP OID to point to a structure in SNMP that contains a list of the potential address types. For example here is the Managed Object that is used in the TLV and the section specifically about how the management address is defined.

l   More Information here →

taddress-tdomain

Administrative

- Website
    - http://1.ieee802.org/yangsters/
- Mailing List
    - STDS-802-YANG@listserv.ieee.org

- Meeting Time
    - Bridge: join.me/ieee802.1
    - Wednesday, January 31, 2018 6:00 AM (US-Pacific) – this Call
    - Plan for future meeting
        - 28 Feb
        - Last Wednesday of every month at 0600 US-Pacific
    - The plan is to continue to request meeting slots based on the rule of thumb above at each IEEE 802 Plenary meeting.

- Reminder:
    - Regardless of daylight savings time, the time of the call is 0600 AM US-Pacific time

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AoB

l Suggestion to keep the status of related YANG work from other SDOs on the Yangsters page.

l Rob provided a verbal status on the IETF NMDA work

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NMDA Status

- The following documents are important to ensure the IEEE YANG Models have normative documents to reference related to NMDA

- Network Management Datastore Architecture
  - draft-ietf-netmod-revised-datastores
  - Submitted for publication (reviews are finished)
  - Timeframe: RFC before March 2018 IETF meeting
- NETCONF Extensions to Support the Network Management Datastore Architecture
  - draft-ietf-netconf-nmda-netconf
  - Working Group Draft
  - Timeframe: RFC before March 2018 IETF Meeting
- YANG Library
  - draft-ietf-netconf-rfc7895bis
  - Working Group Draft
  - Timeframe: RFC before July 2018 IETF Meeting (probably sooner)

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Attendees

- Meeting Attendees:
    - Lihao Chen
    - Rodney Cummings
    - Stephan Kehrer
    - Scott Mansfield
    - Glenn Parsons
    - Ludwig Pauwels
    - Duane Remein
    - Jessy Rouyer
    - Johannes Specht
    - Rob Wilton