#### 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



## **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



## **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



#### **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.

# Agenda

- YANGsters Status
- Topics
  - List of YANG work
  - Notice of coordination calls between IEEE and ITU-T on CFM
  - Known YANG issues for coordination
  - Open Discussion on YANG usage
  - Copyright, Trademark, and Patent Issues
  - Open Source Pilot
- Administrative
  - Next call scheduling
- I AoB



#### **YANGsters status**

- Have held 6 meetings, one meeting was cancelled due to technical difficulties
- Workshop with ITU-T held in January
- Interim meeting with ITU-T with experts from IEEE invited in January



# **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



# Q14/15 Experts Interim on YANG

- Discussed creation of a list a items to discuss and agree
- The ITU-T Q14/15 decided to hold Conference Calls
  - Conference calls to discuss YANG structure and interoperability between IEEE 802.1, 802.3, and ITU-T Q14/15
  - Details
    - account: <u>tsbsg15@itu.int</u>
    - password: gotosg15
    - The third Monday of every month March September inclusive 1300-1400 Geneva Switzerland Time
    - First meeting is 19 March 2018



## **Current Activities**

- Work with IEEE 803.2.3 and evaluate ways tooling can be used to help the creation of diagrams and keep document text aligned
- OID and Taddress and Tdomain issue
- Marc's thinking about Augment or
  Leafref and the support of an opaque reference to allow non-802 bridges to use CFM



## **TAddress and TDomain**

- 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.
- More Information here  $\rightarrow$



taddress-tdomain



## **TAddress and TDomain**

- More information from Andy Bierman
  - https://www.ietf.org/mailarchive/web/netmod/current/msg02457.html
- Can we treat (or think of) an identity ref (URI) in YANG as an OID?
  - A YANG identity is more like an SMIv2 OBJECT-IDENTITY.
  - The encoding is nothing like OIDs. It is more of a QName than an OID. Each identity name is unique within the module that contains the definition, so an identity is fully qualified as <module-name>:<identity-name>
  - The OID used as a object identifier is actually an XPath absolute expression,
  - using the YANG build-in type instance-identifier



#### **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)



# Patents, Trademark, Copyright

- Clarify copyright release
- Define a change control ownership and document maintenance process
- Confirm patent policy compatibility and clarify patent declaration process
- Impact on the Standards Process
  - Use of open repository and issue tracking tools
  - Need a definition of what constitutes a contribution
  - The source code is considered an integral part of the standard only in the published standard document, not in the online repository
    - The master branch that has the same source code found in the standard will be used to create the source code that is placed in the published standard
    - Need a process (like the current standards approval process) that leads to a published standard that had been augmented with the updated source code.
- Looking at the IEEE Standards Process there is a lot of time required to go through the balloting, and committee approvals.
  - Will those processes need to remain in place for updated source code to be published in a Standard?
  - I understand from an archival perspective, it may not be acceptable to simply have a link to the master branch of the source code.
- Will we need to go through the PAR process every time a standard is being revised (even if it is only the source code that is changing)?



## **Open Source Pilot**

- Overview:
  - http://www.ieee802.org/1/files/public/docs2 017/yang-parsons-open-source-motivation-1217.pdf
  - Pilot Form
    - http://www.ieee802.org/1/files/public/docs2017/ yangsters-smansfield-meeting-05-pilot-query-1117-v02.docx



# Administrative

- Website
  - http://1.ieee802.org/yangsters/
- Mailing List
  - STDS-802-YANG@listserv.ieee.org
- Meeting Time
  - Bridge: join.me/ieee802.1
  - Wednesday, February 28, 2018 6:00 AM (US-Pacific)
  - Plan for future meeting
    - Request at Chicago Plenary for more YANGsters sessions
    - 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.



#### AoB

Other Items For Consderation?

