

Maintenance Task Group Meeting

November 10th, 2015
John Messenger

Maintenance

November 10, 2015 Agenda

- Patents and Guidelines
- Attendees
- Status
- New Maintenance items
 - There are none
- Existing Maintenance items
 - SC6
 - 802.1AB, 802.1AX, 802.1AS, 802.1BA, 802.1Q-2014, 802.1AC
 - Security
- Comment resolution
 - 802.1AC-Rev/D2.1
 - 802.1AX Cor-1/D0.2
 - 802.1AB-Rev
- Liaisons
 - Two on 802.1AX
- SC6 comment resolution
- SC6 status

Instructions for the WG Chair

The IEEE-SA strongly recommends that at each WG meeting the chair or a designee:

- Show slides #1 through #4 of this presentation
- Advise the WG attendees that:
 - The IEEE's patent policy is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*;
 - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
 - There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- Instruct the WG Secretary to record in the minutes of the relevant WG meeting:
 - That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
 - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard
 - Any responses that were given, specifically the patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.
- The WG Chair shall ensure that a request is made to any identified holders of potential essential patent claim(s) to complete and submit a Letter of Assurance.
- It is recommended that the WG chair review the guidance in *IEEE-SA Standards Board Operations Manual* 6.3.5 and in FAQs 14 and 15 on inclusion of potential Essential Patent Claims by incorporation or by reference.

Note: **WG** includes Working Groups, Task Groups, and other standards-developing committees with a PAR approved by the IEEE-SA Standards Board.



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.

November 10th, 2015 Attendees

Messenger, John;

...

Status Update

- 802.1Q-2014-Cor1/D1.1 is on RevCom agenda for December
- 802.1AB-Rev/D1.1 Sponsor ballot closed Oct 1st.
 - 9 comments require review.
- 802.1AC-Rev/D3.0 was out for initial Sponsor ballot
 - 60 comments. Comment resolution this week in Maintenance, TSN and Joint 802.1/802.11 meeting this week, then sponsor recirculation ballot.
 - MEC done, pool formed.
- 802.1AS-Cor2 is on RevCom agenda for December.
 - Was the final recirculation ballot done following July? Was it clean?
- 802.1AS-Rev/D2.0 was out for TG ballot before the November meeting
 - Comment resolution this week in TSN.
- 802.1AX-2014-Cor1/D0.2 WG ballot closed Oct 20th
 - Comment resolution this week in Maintenance
- 802.1Xck not yet issued for ballot.

802.1 Maintenance Status

Category	Count
Approved	0
Ready for Ballot	3
Complete then Ballot	8
Complete then Errata	0
Errata	0
Failed	0
Incomplete	0
Rejected	19
Published	95
Received	0
Errata Sheet Published	0
Technical experts review	4
Balloting	17
Withdrawn	0

SC6 items

- See status at the end of this presentation.
- Comment responses have been developed for
 - 802.1BA 60-day pre-ballot
 - 802.1BR 60-day pre-ballot
 - See <http://www.ieee802.org/1/files/public/docs2015/liaison-randall-SC6response1BAand1BR-1115.pdf>
- Discussion....
- Approval....

Existing Maintenance Items

- All existing open maintenance items are included here, **except** items which are in “balloting” state already, as those aren’t really interesting to track.

802.1AB items

- These comments are not included in 802.1AB-Rev
- 0153: 802.1AB PortAutoNegAdvertisedCap objects are the wrong size – **move to 802.3**
 - Post-meeting note: the objects are no longer in 802.1AB, having been moved into an 802.3 standard.

802.1AS items

- 0140: 802.1AS asCapable Hair Trigger – **issue agreed, solution developed**, to be included in next draft of **802.1AS-Rev**
- 0061: 802.1AS variable names – ongoing

802.1AX-2014 items

- Items to be addressed in a new corrigendum
 - 0163: Multiple aggregators and IPL failure – balloting in AX/Cor1
 - 0151: Bit numbering error in 802.1AX – balloting in AX/Cor1
 - 0146: Reintroduced errors in IEEE8023-LAG-MIB – balloting in AX/Cor1
- Comment resolution on 802.1AX-2014-Cor1/D0.2 in this meeting
- Progress to WG recirculation balloting after this meeting.

802.1BA items

- 0122: Basic Support for Streams in Talkers – review
 - Marked as Ready for Ballot, but where's the text?

802.1Q-2014 items

- 0158: SRP: Proposed changes to allow use of VLAN 1 – tech experts review – **issue agreed, target 802.1Qcc**

802.1AC items

- 0141: 802.1AC items to be removed from Q – waiting

802.1 Security items

- 0165: Authenticator PACP state machine – tech experts review
- 0136: 802.1X incorporation of HKDF – long term waiting for Sec TG
- 0154: 802.1X MIB `ieee8021XPaePortAuthenticatorEnable` and `ieee8021XPaePortSupplicantEnable` – waiting for Sec TG – target 802.1Xck
- 0155: 802.1X MIB `ieee8021XAuthPaeReAuthEnabled` – waiting for Sec TG – target 802.1Xck
- 0157: 802.1X MIB typo in `ieee8021XEapolStartFramesTx` – waiting for Sec TG
- 0162: Writeability of certain 802.1AE-2006 MIB variables – tech experts review

BALLOT RESOLUTION

- 802.1AX-2014-Cor1/D0.2
- 802.1AB-Rev/D1.1
- 802.1AC-Rev/D3.0

EXISTING MAINTENANCE ITEMS

Maintenance Item – 0061

Request 61

- Submission: Paul Woods – October 2012
- Issues:
 - 10.2.6.1.1: The name rcvdPSSync is used in 10.2.11.1.1 and 10.2.12.1.1 for different variables, which is confusing.
- Discussion:
 - It is true that fundamentally local variables in different functions or state machines can have the same name; however, it would be helpful to the user if the names of different variables were different. For example, this would facilitate searching for all instances of a variable.
 - If we do rename variables so that variables in different functions or state machines have different names, how should we pick the new names (e.g., append the numbers 1, 2, ... to each name that is a different variable?).
 - The practice in 802.1 is to use unique names even for local variables. As a result, it is recommended to implement this improvement in .1ASbt.
 - An initial .1ASbt draft is available. However, as this is a significant change, the editor will do this last.
- Latest Status: Change Text - Ballot

Maintenance Item – 0122

- Submission: Tony Jeffree – July 2013
- Issues:
 - In 802.1BA, clause 6.7.2
 - b) The implementation shall be capable of declaring the MSRP attributes associated with a single stream; i.e., a single Talker declaration, and registering the MSRP attributes associated with the Listener declaration(s) that result from that Talker declaration (see 3.5.1.2 and 3.5.1.3 of IEEE Std 802.1Q).
- Proposed Resolution:
 - The references in bullet b) should be to 35.1.2 and 35.1.3
- Discussion:
 - Proposal agreed, ready for ballot
 - This editorial is not critical enough for a corrigendum, target for next update of 802.1BA

Maintenance Item – 0125

- Submission: John Messenger – September 2013
- Issues:
 - The definition of the ISS belongs in 802.1AC rather than 802.1Q. 802.1AC-2012 was based on text from 802.1Q-2011. Since then, amendments have made changes to the ISS and these have been incorporated into 802.1Q. This is probably wrong, and material should be moved from 802.1Q to 802.1AC. There may be a problem with 802.1Qbp as well.
- Proposed Resolution:
 - Some items have been added back into 6.6 ISS and 6.7 of 802.1Q
 - 6.6.1 Stream Reservation Protocol (SRP) Domain status parameters
 - 6.6.2 Control primitives and parameters
 - 6.6.3 EVB status parameters
 - 6.7.1 Support of the Internal Sublayer Service by IEEE Std 802.3 (CSMA/CD)
 - Do we want to remove this into 802.1AC?
- Discussion:
 - Move 6.6.2 to clause 11 of .1AC (as part of .1AC-rev) (done: 11.4), retain in Q until AC published
 - Move 6.7.1 to clause 12 of .1AC (as part of .1AC-rev) (done: end of 12.1), retain in Q until AC published
 - Move 6.6.1 & 6.6.3 to more suitable places in .1Q (included in current.1Q-rev draft) (done)
 - Ballotting in ~~802.1Q-Rev (published)~~ and 802.1AC-Rev

Maintenance Item – 0132

- Submission: Norm Finn – March 2014
- Issues:
 - Table D-3 is wrong. It numbers the bits 0-7, and Figure D-7 numbers them 1-8. This is not a major problem; most readers should be able to detect the blunder and do the right thing.
 - However, this TLV is now documented in three places: < 802.1AB-2009, exactly as in 802.1Q-REV D2.0 < 802.1Q-2012, exactly as in 802.1Q-REV D2.0 < P802.1AX-REV, corrected and extended. This standard is starting sponsor ballot.
- Proposed Resolution:
 - Delete section D.2.7 and renumber the remaining sections of Annex D.2. Replace all references to D.2.7 in the document with the corresponding references to 802.1AX-REV Annex F.1.
 - Check knock-on effects in the rest of the document (e.g., MIB)
- Discussion:
 - Agreed
 - Decided to not align Table D-2 with numbering convention
 - Balloting in 802.1Q-2014/Cor-1
 - See 0152

Maintenance Item – 0136

- Submission: Mick Seaman – May 2014
- Issues:
 - 802.1X clause 6.2.1 possible incorporation of HKDF (RFC 5869)
- Proposed Resolution:
 - Add or substitute the RFC 5868 (HKDF) for the current KDF.
 - Placeholder for future discussion rather than a recommended change.
- Discussion:
 - Evaluation performed by Security TG – this only needs to be added if there's a future non-compatible change in this area.

Maintenance Item – 0140

- Submission: Bob Noseworthy – July 2014
- Issues:
 - 802.1AS-2011 clause 11 – asCapable Hair Trigger
 - Numerous scenarios wherein asCapable, once set TRUE, can immediately be set FALSE with little or no delay.
- Proposed Resolution:
 - Increase hysteresis
 - asCapable could be set to FALSE only if 3 faults are detected in a row
- Discussion:
 - Agreed to be an issue
 - Included in Annex Z of 802.1ASbt but no solution developed

Maintenance Item – 0141

- Submission: John Messenger – July 2014
- Issues:
 - Item 0125 copied ISS functions from 802.1Q-2011 to 802.1AC-Rev.
 - Once 802.1AC-Rev is approved, we need to remove them from Q
- Proposed Resolution:
 - Delete 802.1Q 6.6.1 and 6.7.1
 - Fix up references as documented in maintenance request.
- Discussion:
 - Propose to fix this in next maintenance of 802.1Q

Maintenance Item – 0145

- Submission: Tony Jeffree – October 2014
- Issues:
 - 802.1Q subcluse 17.7.12
 - the ETS code point needs adding to the textual convention IEEE8021FqtssTxSelectionAlgorithmIDValue
- Proposed Resolution:
 - Include an enumerated value for this, and change the "reserved" values, as shown:
 - 2: Enhanced Transmission Selection algorithm
 - 3-255: Reserved for future standardization.
- Discussion:
 - Balloting in 802.1Q-2014/Cor-1.

Maintenance Item – 0146

- Submission: John Messenger/Mark van Tol – November 2014
- Issues:
 - 802.1AXbk rebased its MIB on the 802.3ad version
 - This may have reintroduced errors from that version
- Proposed Resolution:
 - Change the value range of all 6 "Priority" objects of dot3adAggPortTable from (0..255) to (0..65535).
 - Change the OID for the MIB from
 - { iso(1) member-body(2) us(840) 802dot3(10006) snmpmibs(300) 43 }
 - To
 - { iso(1) member-body(2) us(840) ieee802dot3(10006) snmpmibs(300) 43 }
- Discussion:
 - Existence of a problem is agreed
 - Change is not allowed per SMI rules. Object must be deprecated, but given the OID issue, the entire MIB must be deprecated and re-rooted.
 - Solution needs to be developed.
 - Target 802.1AX-2014-Cor1?

Maintenance Item – 0151

- Submission: Kenneth Williams – November 2014
- Issues:
 - 802.1AX bit numbering reference error
 - Bit position reference is incorrect in text which describes counting/indexing method.
- Proposed Resolution:
 - Replace 'seventeenth' with 'sixteenth' in sentence which read:
 - "... of the second octet are assigned the value of the ninth through seventeenth bits ..."
- Discussion:
 - Issue and proposed solution agreed. Awaiting suitable amendment or revision.
 - Include in 802.1AX-2014/Cor-1

Maintenance Item – 0153

- Submission: Raphael Garti – January 2015
- Issues:
 - 802.1AB PortAutoNegAdvertisedCap objects are the wrong size
- Proposed Resolution:
 - Make changes to the MIB detailed in the request
- Discussion:
 - John emailed Howard Frazier (copy Glenn) to confirm issues – no reply
 - Need to deprecate MIB objects and add new ones with correct syntax
 - Need to include in .1AB-REV. Dan Romascanu will enter a sponsor ballot comment on 802.1AB-Rev and we will draw attention of anyone else knowledgeable on MIBs.

Maintenance Item – 0154

- Submission: Raphael Garti – January 2015
- Issues:
 - 802.1X-2010 PAE MIB definitions
 - ieee8021XPaePortAuthenticatorEnable and ieee8021XPaePortSupplicantEnable
- Proposed Resolution:
 - Make changes to the MIB detailed in the request
- Discussion:
 - Refer items 154-157 to Security Task Group for review
 - Status in <http://www.ieee802.org/1/private/email2/msg22740.html>
 - Need a vehicle. Can we use 802.1Xck?

Maintenance Item – 0155

- Submission: Raphael Garti – January 2015
- Issues:
 - 802.1X-2010 PAE MIB definitions
 - ieee8021XAuthPaeReAuthEnabled should not always return FALSE
- Proposed Resolution:
 - Omit the requirement to always return false.
 - Make changes to the MIB detailed in the request
- Discussion:
 - Refer to Security Task Group for review
 - Change provisionally agreed – need a vehicle.
 - Status in <http://www.ieee802.org/1/private/email2/msg22740.html>

Maintenance Item – 0157

- Submission: Raphael Garti – January 2015
- Issues:
 - 802.1X-2010 PAE MIB definitions
 - Typo in description of ieee8021XEapolStartFramesTx
- Proposed Resolution:
 - Change description from “counts the number of *received* frames”. Should be *transmitted*.
 - Make changes to the MIB detailed in the request
- Discussion:
 - Refer to Security Task Group for review
 - Provisionally agreed
 - Target 802.1Xck
 - Status in <http://www.ieee802.org/1/private/email2/msg22740.html>

Maintenance Item – 0158

- Submission: Norman Finn – January 2015
- Issues:
 - SRP: Proposed changes to allow use of VLAN 1
- Proposed Resolution:
 - Add the core/not variables to Clauses 12 and 17.
 - Mention this in a NOTE 4 in 8.8.2
 - Add explanatory why/how text somewhere in Clause 35
 - Add a “shall” clause to 35.1.4 saying that the Static VLAN Registration Entry for transmitting the SR_PVID tagged/untagged changes when the core port status changes.
- Discussion:
 - Discuss in TSN and Interworking

Maintenance Item – 0162

- Submission: Raphael Garti – 12 May 2015
- Issues:
 - Writeability of certain 802.1AE-2006 MIB variables
 - **Proposed Resolution:**
 - Change writeability of certain items depending on whether they're used in conjunction with 802.1X
- Discussion:
 - Refer to Security Task Group

Maintenance Item – 0163

- Submission: Stephen Haddock – 18 May 2015
- Issues: 802.1AX-2014
 - When a DRNI portal is created, it is critical for the LACP partner of the portal to be configured with one and only one aggregator using the same key value as the ports connected to the DRNI portal. Failure to do this will result in a loop if the IPL in the Portal fails. The necessity of this configuration for loop-free fault recovery is not mentioned anywhere in the document.
 - Proposed Resolution:
 - Add an explanatory paragraph to the end of 9.3.2 (prior to 9.3.2.1) or in Clause 6:
 - The operation of the DR Function state machines and Control Protocol specified in the following sections assures that if a loss of connectivity via the IPL results in a Portal System being unable to communicate with other Portal Systems in the Portal, those Portal Systems will use different key values in LACPDU's exchanged on the Aggregation Links attached to the Portal Systems. This prevents Aggregation Links attached to Portal Systems that cannot communicate via an IPL from being selected for the same LAG. It is possible that these Aggregation Links could become operational in separate LAGs, however, potentially creating a communication loop through the LACP partner of the Portal Systems. To prevent this loop it is essential that the LACP partner of the DRNI Portal be configured such that there is one and only one Aggregator with the same key value as the Aggregation Ports connected to the DRNI Portal.
 - Discussion:
 - Agreed. Urgent issue will require a corrigendum. 802.1AX-2014/Cor-1
 - NOTE: Panos suggests this is already addressed in 9.4.3, but this doesn't cover the case of a legacy dual-homed LAG station.

Maintenance Item – 0165

- Submission: Poddobny Yuri – 16 June 2015
- Issues: 802.1X-2010
 - The subject of revision is the Authenticator PACP state machine, shown at Figure 8-7. If authenticator state machine is currently in AUTHENTICATING state. Authenticator is sending EAPoL message to Supplicant, but Supplicant doesn't respond. In this case after eapTimeout the state machine will increment auth.retryCount and will return again to AUTHENTICATING. When retryMax will be reached - the state machine will go to UNAUTHENTICATED state, will clear auth.retryCount and will forever circulate like this as long as Supplicant doesn't respond.
 - Proposed Resolution:
 - When retryMax will be reached - the state machine will go to HELD state.
 - Discussion:
 - Refer to Security Task Group

NEW MAINTENANCE ITEMS

LIAISONS

ITU-T SG15-LS272: LS on request for clarification on IEEE STD 802.1AX **(from July)**

<http://www.ieee802.org/1/files/public/docs2015/liaison-SG15-LS272-802.1AX-0715.docx>

Response draft: <http://www.ieee802.org/1/files/public/docs2015/liaison-response-SG15-LS272-802-1AX-1115-v01.pdf>

ITU-T SG15-LS290: LS on IEEE STD 802.1AX

<http://www.ieee802.org/1/files/public/docs2015/liaison-SG15-LS290-802.1AX-1115.docx>

JTC1 SC6 STATUS

ISO/IEC JTC1 SC6 Status

- PSDO agreement in place to allow progress of IEEE standards in ISO/IEC
- EC JTC1 standing committee is administering the process for IEEE 802 Standards
 - 802.1, 802.3, 802.11, 802.22
- 802.1 has previously agreed to submit its standards to SC6
 - Most standards and their amendments
 - Currently phasing in approvals
 - Motion required per standard
 - To forward sponsor ballot draft for comment
 - To submit approved standard for PSDO approval

802.1 Stds for SC6 approval (1/2)

– PSDO approved

- 802.1AE
- 802.1X
- 802.1AS (Time synch)
- 802.1AB (LLDP)
- 802.1AR (Secure device ID)
- 802.1AEbn-2011
- 802.1AEbw-2013

- FDIS passed Oct 2013, cmnts liaised Jan 2014
- FDIS passed Oct 2013, cmnts liaised Jan 2014
- FDIS passed Dec 2013, cmnts liaised May 2014
- FDIS passed Dec 2013, cmnts liaised May 2014
- FDIS passed Dec 2013, cmnts liaised May 2014
- ISO/IEC 8802-1AE:2015/Amd 1 (Apr 2015)
- ISO/IEC 8802-1AE:2015/Amd 2 (Apr 2015)

– PSDO in process (FDIS)

- 802.1Xbx
- 802.1Q-2014
- 802.1AX-2014
- 802

- FDIS ballot closes Jan 28th, 2016
- FDIS ballot closes Jan 28th, 2016
- FDIS ballot closes Nov 20th, 2015
- FDIS ballot closes Nov 2nd, 2015

– PSDO in process (Pre-ballot)

- 802.1BA-2011 (AVB systems)
- 802.1BR-2012 (Port extender)

- pre-ballot passed w/2 cmnts; response drafted
- pre-ballot passed w/1 cmt; response drafted

802.1 Stds for SC6 approval (2/2)

- For “Information”
- To be submitted now (802.1 work in progress)
 - 802.1Qca – July 2015: send as info to SC6; waiting for IEEE staff action
 - 802.1Qbu – send as information to SC6; waiting for IEEE staff action
 - 802.1Qbv – send as information to SC6; waiting for IEEE staff action
 - 802.1AC-Rev – November 2015: in Sponsor Ballot - send to SC6
 - 802.1Qbz – November 2015: in Sponsor Ballot - send to SC6
 - 802.1AB-Rev – November 2015: in Sponsor Ballot - send to SC6
- Next to send?