

IEEE 802.3 Maintenance Task Force

9th November 2016

San Antonio, TX USA

Adam Healey
Chair, IEEE 802.3 Maintenance TF
Vice-Chair, IEEE 802.3 Working Group

Agenda

- Introductions
- Review and approve agenda
- Approve minutes
- Patent policy
- Attendance procedures
- Review status of open revision requests
- Review revision requests
- IEEE P802.3-2015/Cor 1 to Sponsor ballot
- China NB comments against IEEE Std 802.3bw-2015
- Standards to ISO/IEC for approval
- Request to IANA for additions to the IANA MAU MIB
- Discuss revision plan
- Future meetings

Agenda and Minutes Motions

- Motion #1: Approve the agenda
 - M: Thompson S: Grow
 - Passes by voice vote without opposition
- Motion #2: Approve the [September 2016 minutes](#)
 - M: Carlson S: Law
 - Passes by voice vote without opposition
- September 2016 minutes were posted 6 October 2016

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.

Attendance

- IEEE Meeting Attendance Tool
 - <http://imat.ieee.org/>
- For more information, please see...
 - http://ieee802.org/3/minutes/attendance_procedures.pdf
- Please sign the attendance sheet for the Task Force meeting minutes

Revision request ballot status

- http://www.ieee802.org/3/maint/requests/open_num.html

Project	Revision Requests
P802.3bt	1271 – IEEE P802.3bt/D0.4 comment #139 1273 – IEEE P802.3bt/D0.4 comment #141 1276 – IEEE P802.3bt/D2.0 comment #5 1278 – IEEE P802.3bt/D2.0 comment #6 1294 – IEEE P802.3bt/D1.7 comment #147

New revision requests

- 5 new revision requests were received since the September 2016 meeting

#	Date	Standard	Clause	Subject
1299	27-Sep-16	802.3-2015	91	FEC synchronization state diagram
1300	07-Oct-16	802.3-2015	33.3.7.9	Backfeed voltage
1301	28-Oct-16	802.3-2015	90	Timestamp reference point for 100BASE-T
1302	03-Nov-16	802.3-2015	36	Cross-reference(s) to Table 36-1(a-e)
1303	06-Nov-16	802.3bz-2016	Eq. 126-38	Incorrect frequency range

Revision request status summary

- 28 open maintenance requests
- Current status of open requests
 - Approved 0
 - Balloting 3
 - Ready for ballot 15
 - Awaiting clarification 0
 - Errata 0
 - To be categorised 10

Review revision requests

- Deadline for consideration at this meeting was 3 October 2016

#	Date	Standard	Clause	Subject
1277	25-Mar-15	802.3-2012	33	Load during inrush
1283	26-Aug-15	802.3-2012	73.6.4	Backplane/twinax PHY advertisement
1296	09-Sep-16	802.3-2015	1.3	Sort order
1297	09-Sep-16	802.3-2015	1.4	Sort order
1298	09-Sep-16	802.3-2015	78	Sort order
1299	27-Sep-16	802.3-2015	91	FEC synchronization state diagram

Revision request 1277

- Submitted as IEEE P802.3bt/D1.3 comment #21 (AIP)
- Subclause further modified by D1.7 comment #215
 - *PDs shall draw less than I_{Inrush} PD and I_{Inrush} PD-2P from $T_{Inrush-2P}$ min until $T_{delay-2P}$ min. This delay is required so that the Type 2, Type 3 and Type 4 PD does not enter a high power state before the PSE has had time to change the available current from the POWER UP to the POWER ON limits. A PD can meet this requirement by either having C_{port} or $C_{Port-2P}$ charged within $T_{Inrush-2P}$ min, or, by limiting the input inrush current.*
- Possible further modification due D2.1 comment #244
- In scope: Yes / ~~No~~
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- Change status to “Ready for Ballot” and forward to P802.3bt for consideration

Revision request 1283

- Updated request with new revision text received (see following slide).
- In scope: Yes / ~~No~~
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- Change status to “Ready for Ballot” and forward to P802.3cd for consideration

Revision request 1283, continued

- 73.6.4, 3rd paragraph

- ~~— For 25 Gb/s operation the same bits are used to advertise backplane and copper cable assembly operation. For other speeds, a PHY for operation over an electrical backplane (e.g., 1000BASE-KX, 10GBASE-KX4, 10GBASE-KR, 40GBASE-KR4, 100GBASE-KP4, 100GBASE-KR4) shall not be advertised simultaneously with a PHY for operation over a copper cable assembly (e.g., 40GBASE-CR4, 100GBASE-CR10, 100GBASE-CR4).~~
- NOTE—Previous editions of this standard prohibited advertisement of PHYs that support operation over electrical backplanes with PHYs that support operation over copper cable assemblies.

Revision request 1296

- Normative references are not sorted consistently
- IEEE 802.3 editorial conventions have been updated to include the target definition sort order
 - http://www.ieee802.org/3/WG_tools/editorial/requirements/words.html
- Proposal is to sort normative references using this same convention
- In scope: Yes / ~~No~~
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- Change status to “Ready for Ballot” and target next revision

Revision request 1297

- Definitions are not sorted consistently
- Proposal is to apply the recently stated definition sort orders
- In scope: Yes / ~~No~~
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- Change status to “Ready for Ballot” and target next revision

Revision request 1298

- Intended sort order for the PHYs/interfaces in Table 78-1, 78-2, and 78-4 is not clear
- No specific sort order is proposed
- In scope: Yes / ~~No~~
- Errata: ~~Yes~~ / No
- Complete: ~~Yes~~ / **No**
- Request revision request be re-submitted with specific revision text (suggest that Table 78-4 be sorted with the same order used in Tables 78-1 and 78-2).
- Status to remain “Received”.

Revision request 1298, continued

- Tables 78-1 and 78-2 sort order in IEEE Std 802.3-2015 reverses of Auto-Negotiation priority resolution order
 - a) increasing speed (10BASE-Te before 100BASE-TX)
 - b) increasing medium length (10GBASE-KR before 10GBASE-T)
 - c) decreasing number of physical lanes (10GBASE-KX4 before 10GBASE-KR)
 - d) and/or decreasing signaling rate (100GBASE-KP4 before 100GBASE-KR4)
- Table 78-4 is not consistent with this order
 - The sort order is unclear

Revision request 1299

- Change the FEC synchronization state diagram (Figure 91-8) to optionally check for correct alignment markers (AMs) after lock is achieved
- Position of alignment markers can slip in certain OTN applications and failure to continuously check for AMs leads to strange failure modes
- Similar change has been adopted for 200 and 400 Gb/s Ethernet
- In scope: Yes / ~~No~~, Errata: ~~Yes~~ / No, Complete: Yes / ~~No~~
- Change status to “Ready for Ballot” and forward to P802.3cd for consideration

IEEE P802.3-2015/Cor 1 Multilane Timestamping Corrigendum

[Ballot results and comment resolution]

Ballot results

- D1.0 initial Working Group ballot
 - Opened 8 August 2016, closed 6 September 2016
- D1.1 Working Group recirculation ballot
 - Opened 23 September 2016, closed 7 October 2016

	D1.0				D1.1			
	Count	%		Status	Count			Status
		Actual	Req'd					
Abstain	16	14.95	< 30	PASS	21	16.03	< 30	PASS
Disapprove	1	-	-	-	0	-	-	-
Disapprove w/o comment	0	-	-	-	0	-	-	-
Approve	90	98.9	≥ 75	PASS	110	100	≥ 75	PASS
Ballots returned	107	50.47	> 50	PASS	131	61.79	> 50	PASS
Voters	212	-	-	-	212	-	-	-
Comments	12	-	-	-	0	-	-	-

Sponsor ballot motion

- Motion #3: Progress the IEEE Std 802.3-2015/Cor 1 draft to IEEE 802 LMSC sponsor ballot.
- M: Grow S: Carlson
 - Technical $\geq 75\%$
 - Passes by voice vote without opposition

Projected schedule

8/8/2016 WB day 1

9/6/2016 WB closes

9/15/2016 Maintenance TF meeting

9/23/2016 WB-r1 day 1

10/7/2016 WB-r1 closes

11/9/2016 Maintenance TF meeting

11/11/2016 SB approval

11/16/2016 SB day 1

12/15/2016 SB closes

1/12/2017 Maintenance TF meeting

1/19/2017 SB-r1 day 1

2/2/2017 SB-r1 closes

2/10/2017 RevCom submittal deadline

3/15/2017 Maintenance TF meeting

3/17/2017 Approval for RevCom submittal

3/23/2017 SASB meeting

Response to China NB comments against IEEE Std 802.3bw-2015

[Review comments and draft liaison letter]

China NB comment response motion

- Motion #4: Approve IEEE_802d3_to_ISOIEC_JTC1_SC6_1116_draft.pdf with editorial license granted to the Chair (or his appointed agent) as liaison communication from the IEEE 802.3 Working Group to ISO/IEC JTC 1/SC 6.
 - M: Thompson S: Wienckowski
 - Technical $\geq 75\%$
 - Passes by voice vote without opposition

Standards to ISO/IEC for approval

Standards to ISO/IEC motion

- Motion #5: Submit IEEE Std 802.3br-2016 and IEEE Std 802.3bz-2016 to ISO/IEC JTC 1/SC 6 for ratification under the PSDO agreement.
 - M: Grow S: Law
 - Technical $\geq 75\%$
 - Passes by voice vote without opposition

Request to IANA for additions to the IANA MAU MIB

[Review document provided by
Matt Callaghan]

Revision plan

[Discussion item]

Future meetings

- Week of 9 January 2016
 - Huntington Beach, CA USA

Adjourn

Maintenance web and reflector

- IEEE 802.3 Maintenance web site
 - <http://www.ieee802.org/3/maint/>
- IEEE 802.3 Maintenance Request form
 - http://www.ieee802.org/3/private/maint/revision_request.html
 - Username: XXXXX
 - Password: XXXXXXXX
- IEEE 802.3 Maintenance reflector
 - stds-802-3-maint@ieee.org