

# IEEE 802.3 Maintenance Task Force

## 5<sup>th</sup> November 2014

### San Antonio, TX USA

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

# Agenda

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- Introduction
- Review patent slides
- Review and approve agenda
- Approve minutes
- Review status of open revision requests
- Consider new revision requests
- IEEE 802.3 revision
- Response to China NB comment
- Future meetings

# 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 12 and 12a 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**
    - **“Personal awareness” means that the participant “is personally aware that the holder may have a potential Essential Patent Claim,” even if the participant is not personally aware of the specific patents or patent claims**
  - **“Should inform the IEEE (or cause the IEEE to be informed)” of the identity of “any other holders of such 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](mailto: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.**

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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 and Minutes Motions

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- Motion #1: Approve the agenda
  - M: M. Hajduczenia                      S: B. McClellan
  - Passes by voice vote without opposition
  
- Motion #2: Approve the September 2014 minutes with the following correction to the Action Item tracker: “The IEEE 802.3 Maintenance Task Force Chair to discuss Maintenance Request ~~#1255~~#1264 with the Submitter.”
  - M: B. McClellan                      S: M. Hajduczenia
  - Passes by voice vote without opposition



# Attendance

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

# Revision request ballot status

#	Sep-14	Nov-14	Target project	Update
<a href="#">1238</a>	<a href="#">B</a>	B	Revision	
<a href="#">1239</a>	<a href="#">B</a>	B	Revision	
<a href="#">1242</a>	<a href="#">V</a>	V	P802.3bm	Initial LMSC Sponsor Ballot comment i-21
<a href="#">1243</a>	<a href="#">B</a>	B	Revision	
<a href="#">1244</a>	<a href="#">V</a>	V	P802.3bm	Initial LMSC Sponsor Ballot comment i-22
<a href="#">1246</a>	<a href="#">V</a>	V	P802.3bm	Initial LMSC Sponsor Ballot comment i-23
<a href="#">1247</a>	<a href="#">B</a>	B	Revision	
<a href="#">1249</a>	<a href="#">B</a>	B	Revision	
<a href="#">1250</a>	<a href="#">B</a>	B	Revision	
<a href="#">1251</a>	<a href="#">B</a>	B	Revision	
<a href="#">1252</a>	<a href="#">V</a>	V	P802.3bm	Initial Working Group Ballot comment #31

# Revision request ballot status cont'd

#	Sep-14	Nov-14	Target project	Update
<a href="#">1253</a>	<a href="#">B</a>	B	Revision	
<a href="#">1254</a>	<a href="#">B</a>	B	Revision	
<a href="#">1255</a>	<a href="#">B</a>	B	Revision	
<a href="#">1256</a>	<a href="#">B</a>	B	Revision	
<a href="#">1257</a>	<a href="#">B</a>	B	Revision	
<a href="#">1258</a>	<a href="#">B</a>	B	Revision	
<a href="#">1259</a>	<a href="#">B</a>	B	Revision	
<a href="#">1260</a>	<a href="#">B</a>	B	Revision	
<a href="#">1262</a>	<a href="#">B</a>	B	Revision	
<a href="#">1263</a>	<a href="#">R</a>	R		
<a href="#">1264</a>	<a href="#">R</a>	R		
<a href="#">1265</a>	<a href="#">R</a>	B	Revision	

# New revision requests

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- Deadline for consideration at this week's meeting was 29<sup>th</sup> September
  - 2 requests did not meet deadline for September consideration
  - 3 new requests received since September

<a href="#">1266</a>	05-Aug-14	802.3-2012	55.3.4	Remove 10GBASE-T periodic training sequence
<a href="#">1267</a>	05-Sep-14	802.3-2012	72.10.4.4	CF7 missing Status/Support
<a href="#">1268</a>	08-Sep-14	802.3-2012	72.10.4.5	TC10 missing Status/Support
<a href="#">1269</a>	08-Sep-14	802.3-2012	72.10.4.5	TC19 missing Status/Support
<a href="#">1270</a>	29-Sep-14	802.3-2012	Figure 25-3	Encoder deadlock

# Revision request status

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- 28 open revision requests
- Current status of open requests
  - Approved 0
  - Ready for ballot 17
  - Balloting 4
  - To be categorized 7

# Revision request 1263

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- Add encodings to Figure 49-7 that represent “illegal” inter-packet gaps
- This is a new feature request
- In scope: ~~Yes~~ / No
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- Propose to “Reject” as beyond the scope of maintenance

# Revision request 1264

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- In Annex 28C.13, correct two typos and...
- Change the last sentence to read...  
~~If the~~The Next Page flag ~~is~~shall be set, ~~and~~ the message page shall be followed by an unformatted Extended Next Page containing user-defined data.
- In scope: Yes / No
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- While the typos need to be corrected, this appears to be a new requirement (existing implementations that send all of the user-defined data in bits U31-U24 would become non-compliant).
- Withdrawn by the submitter.

# Revision request 1266

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- Remove the unused optional periodic training sequence in the 10GBASE-T specification
- In scope: Yes / No
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- Propose refer to the P802.3bq Task Force



# Revision request 1267

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- In 72.10.4.4 (PICS), CF7 is missing Status/Support
- In scope: Yes / ~~No~~
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- Propose change status to “Ready for Ballot” and target the revision

# Revision request 1268

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- In 72.10.4.5 (PICS), TC10 is missing Status/Support
- In scope: Yes / ~~No~~
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- Propose change status to “Ready for Ballot” and target the revision

# Revision request 1269

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- In 72.10.4.5 (PICS), TC19 is missing Status/Support
- In scope: Yes / ~~No~~
- Errata: ~~Yes~~ / No
- Complete: Yes / ~~No~~
- Propose change status to “Ready for Ballot” and target the revision

# Revision request 1270

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- Figure 25-3 modifies the TP-PMD encoder state diagram to support Energy Efficient Ethernet
- “link\_status  $\neq$  OK + ...” term for entry to ZERO-V state
  - link\_status is a PMA service interface primitive variable (to PCS)
  - In the ZERO-V state, encoder output is ZERO\_VOLTAGE
  - However, for link\_status = OK, signal\_status must be ON
- Is there a deadlock condition?

# Revision request 1270, cont'd

- Per 25.5.1, “the PMD in the **LPI mode** shall implement the Encoder state diagram as depicted in Figure 25–3.”
- What is **LPI mode**?
  - 78.1.3.3.1: When the start of “Assert LPI” encoding on the xMII is detected, the PHY signals sleep to its link partner to indicate that the local transmitter is entering LPI mode.
  - [Coincides with tx\_quiet=FALSE (Figure 24-8)]
  - In the receive direction, entering the LPI mode is triggered by the reception of a sleep signal from the link partner, which indicates that the link partner is about to enter the LPI mode.
  - [Coincides with rx\_lpi=TRUE (Figure 24-8)]
- How does transmitter behave when not in **LPI mode**?
  - Presumably it reverts back to TP-PMD?

# Revision request 1270, cont'd

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- Can port be in **LPI mode** when link\_status  $\neq$  OK? (see Figure 24-8, Figure 24-11)
- There does not appear to be a deadlock condition even though the link\_status term appears to be vestigial
- In scope: Yes / No
- Errata: ~~Yes~~ / No
- Complete: ~~Yes~~ / No
- The revision request includes three options.
- Discuss with the submitter and request it be re-submitted with a clear statement of the resolution
- Propose to keep status “Received”

# Revision Request 1263 Motion

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- Motion #3: Reject revision request 1263 as beyond the scope of maintenance because it is a request for a new feature
  - M: M. Hajduczenia                      S: V. Maguire
  - Technical ( $\geq 75\%$ )
  - Y: 5, N: 0, A: 1
  - Motion PASSES

# IEEE 802.3 revision plan



# IEEE 802.3 Revision Plan (July 2014)

Initial WG ballot  
 IEEE Std 802.3-2012 + ...  
 IEEE Std 802.3bk-2013 + ...  
 IEEE Std 802.3bj-2014 + ...  
 Revision requests "Ready for ballot"  
 IEEE P802.3bm

WG approve PAR  
 EC approve PAR

WG-r1

Conditional approval  
 WG-r2

No Sponsor ballots for amendments

Initial Sponsor ballot  
 IEEE Std 802.3-2012 + ...  
 IEEE Std 802.3bk-2013 + ...  
 IEEE Std 802.3bj-2014 + ...  
 IEEE Std 802.3bm-2014 + ...  
 Revision requests "Ready for ballot"

IEEE P802.3bm SB-r2

[Conditional] approval  
 IEEE P802.3bm SB-r3

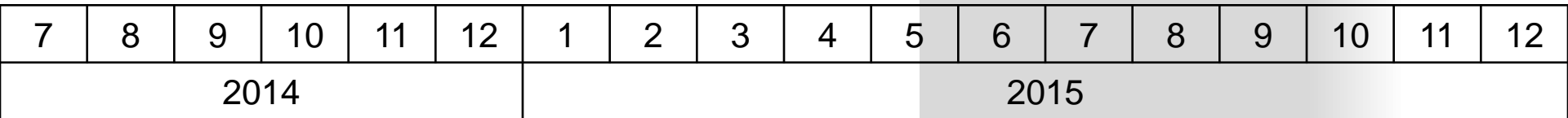
IEEE P802.3bm SB-r4?

SASB approve PAR?

SASB approval

Conditional approval  
 SB-r1

SASB approval



# Progress toward plan

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- IEEE P802.3 (IEEE 802.3bx) PAR approved 27<sup>th</sup> October
- IEEE P802.3 (IEEE 802.3bx) web area created
- IEEE P802.3 (IEEE 802.3bx) Draft 1.0 posted for Working Group preview 27<sup>th</sup> October
  - Thanks to the **editorial team!**
  - Thanks to Michelle Turner who provided a consolidated edition of IEEE Std 802.3-2012, 802.3bk-2013, and 802.3bj-2014 to use as a starting point

<b>Pete Anslow</b>	<b>Section 4 and Section 6 editor</b>
<b>Marek Hajduczenia</b>	<b>Section 5 editor</b>
<b>Adam Healey</b>	<b>Section 2 and Section 3 editor, Editor-in-chief</b>
<b>Valerie Maguire</b>	<b>Section 1 editor</b>

# Schedule concerns

Year	2014		2015												2016												2017				
Month	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	
P802.3bm				Std																											
P802.3bn					WG								SB																		
P802.3bp					WG								SB				Std														
P802.3bq					WG								SB																		
P802.3br					WG								SB																		
P802.3bs													WG																		Std
P802.3bt													WG																		Std
P802.3bu													WG																		Std
P802.3bw	WG												SB																		Std
P802.3bx	WG																														Std

- Proposed revision schedule may result in significant delay in P802.3bw approval

# Proposed revision schedule

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<b>11/10/2014</b>	WB opens	<b>4/2/2015</b>	Maintenance TF meeting (if needed)
<b>12/10/2014</b>	WB closes	<b>4/8/2015</b>	SB opens
<b>12/23/2014</b>	Ad hoc teleconference #1	<b>5/8/2015</b>	SB closes
<b>1/8/2015</b>	Ad hoc teleconference #2	<b>5/20/2015</b>	Maintenance TF meeting
<b>1/14/2015</b>	Maintenance TF meeting	<b>6/1/2015</b>	SB-r1 opens
<b>1/30/2015</b>	RevCom recommends P802.3bm approval?	<b>6/16/2015</b>	SB-r1 closes
<b>2/9/2015</b>	WB-r1 opens	<b>6/18/2015</b>	Maintenance TF meeting (if needed)
<b>2/24/2015</b>	WB-r1 closes	<b>6/23/2015</b>	SB-r2 opens
<b>3/11/2015</b>	Maintenance TF meeting	<b>7/8/2015</b>	SB-r2 closes
<b>3/13/2015</b>	Conditional SB approval	<b>7/17/2015</b>	RevCom submittal
<b>3/16/2015</b>	WB-r2 opens	<b>8/28/2015</b>	P802.3 approved!?!)
<b>3/31/2015</b>	WB-r2 closes		

# Implications of proposal schedule

Year	2014		2015												2016												2017				
Month	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	
P802.3bm				Std																											
P802.3bn					WG								SB																		
P802.3bp					WG								SB																		
P802.3bq					WG								SB																		
P802.3br					WG								SB																		
P802.3bs													WG																		Std
P802.3bt													WG																		Std
P802.3bu													WG																		Std
P802.3bw	WG												SB																		Std
P802.3bx	WG																														

- Contain impact to P802.3bw to one “cycle”
- Requires parallel Sponsor ballots for Revision and first amendment to the Revision

# Next steps

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- Request Working Group ballot at the closing plenary

# Working Group Ballot Motion

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- Motion #4: Request that the IEEE 802.3 Working Group chair progress IEEE P802.3Rev (IEEE 802.3bx) Draft 2.0 to Working Group ballot. Draft 2.0 is Draft 1.0 (preview draft) plus the IEEE Std 802.3-2012 errata.
  - M: M. Hajduczenia                      S: V. Maguire
  - Technical ( $\geq 75\%$ )
  - Y: 6, N: 0, A: 1
  - Motion PASSES

# ISO/IEC voting on IEEE Std 802.3.1-2013

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- Technical comment from China NB
  - **Comment:** “Although there are the parts describing the relationship to other MIB modules, it still lacks of the description of the relationship to some other greatly-related MIB modules, such as IEEE 802.1AE MIB, IEEE 802.1X MIB.”
  - **Proposed change:** “Add the relationship to some other greatly-related MIB modules in the proposal.”



# Liaison Communication Motion

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- Motion #5: Approve the text in “IEEE\_802d3\_to\_ISOIEC\_JTC1\_SC6\_1114\_draft”, with editorial license granted to the IEEE 802.3 Working Group chair (or his appointed agent), as a liaison communication to ISO/IEC JTC 1/SC 6 in response to the China NB comment on IEEE Std 802.3.1-2013.
  - M: G. Thompson                      S: B. Grow
  - Technical ( $\geq 75\%$ )
  - Y: 7, N: 0, A: 0
  - Motion PASSES

# Future meetings

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- Tentative “Ad hoc” teleconferences
  - 23<sup>rd</sup> December, 2014
  - 8<sup>th</sup> January 2015
- Week of 12<sup>th</sup> January 2015
  - Atlanta, GA, USA

# Adjourn

# Maintenance web and reflector

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- 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](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](mailto:stds-802-3-maint@ieee.org)

# Revision project web and reflector

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- IEEE P802.3 (IEEE 802.3bx) Task Force web site
  - <http://www.ieee802.org/3/bx/>
- IEEE P802.3 (IEEE 802.3bx) Task Force private area
  - <http://ieee802.org/3/private/maint/bxballot/index.html>
  - Username: XXXX
  - Password: XXXXXXXX
- Reflector is the IEEE 802.3 Maintenance reflector
  - [stds-802-3-maint@ieee.org](mailto:stds-802-3-maint@ieee.org)