

IEEE 802.3 Maintenance Task Force

13th July 2015

Waikoloa, HI

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

Agenda

- Introduction
- Review patent slides
- Review and approve agenda
- Approve minutes
- Review status of open revision requests
- IEEE P802.3 ballot results
- IEEE P802.3/D3.1 comment resolution
- Review revision plan
- Review new revision requests
- Future meetings

IEEE P802.3 (Revision) editorial team

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

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.

Agenda and Minutes Motions

- Motion #1: Approve the agenda
 - M: Thompson S: Anslow
 - Passes by voice vote without opposition

- Motion #2: Approve the May 2015 minutes
 - M: Anslow S: Thompson
 - Passes by voice vote

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

#	May-15	July-15	Target project	Update
1238	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1239	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1243	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1247	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1249	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1251	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1253	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1254	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1255	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1256	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	
1257	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Revision	

Revision request ballot status cont'd

#	May-15	July-15	Target project	Update
1258	<u>V</u>	V	Revision	
1259	<u>V</u>	V	Revision	
1260	<u>V</u>	V	Revision	
1262	<u>V</u>	V	Revision	
1265	<u>V</u>	V	Revision	
1266	<u>V</u>	V	P802.3bq	Initial Working Group ballot comment #103
1267	<u>V</u>	V	Revision	Initial Working Group ballot comment #37
1268	<u>V</u>	V	Revision	Initial Working Group ballot comment #38
1269	<u>V</u>	V	Revision	Initial Working Group ballot comment #39
1270	<u>V</u>	V	Revision	Initial Working Group ballot comment #47
1271	<u>B</u>	B	P802.3bt	
1273	<u>B</u>	B	P802.3bt	

Revision request ballot status cont'd

#	May-15	July-15	Target project	Update
1274	B	B	P802.3bt	
1276	R	R		
1277	R	R		

Revision request status summary

- 28 open maintenance requests
- 1 new request since May 2015
 - Deadline for consideration: 8 June 2015
- Current status of open requests
 - Approved 0
 - Balloting 22
 - Ready for ballot 3
 - Awaiting clarification 0
 - Errata 0
 - To be categorised 3

New requests

1278	19-May-2015	802.3-2012	1.4, 33.1.4	Incorrect placement of definitions
------	-------------	------------	-------------	------------------------------------

Ballot results

- IEEE P802.3/D3.1 1st Sponsor ballot recirculation
 - Opened 16 June 2015
 - Closed 1 July 2015

	D3.0				D3.1			
	Count	%		Status	Count			Status
		Actual	Req'd			Actual	Req'd	
Abstain	11	8.21	< 30	PASS	9	6.57	< 30	PASS
Disapprove	6	-	-	-	2	-	-	-
Disapprove w/o comment	0	-	-	-	0	-	-	-
Approve	117	95.12	≥ 75	PASS	126	98.44	≥ 75	PASS
Ballots returned	134	83.75	≥ 75	PASS	137	85.63	≥ 75	PASS
Voters	160	-	-	-	160	-	-	-
Comments	109*	-	-	-	9	-	-	-

* Includes 5 comments received after ballot closed.

IEEE P802.3/D3.1 comment resolution

22.1

The purpose of this interface is to provide a simple, inexpensive, and easy-to-implement interconnection between Media Access Control (MAC) sublayers and PHYs for data transfer at 10 Mb/s and 100 Mb/s, and between Station Management (STA) and ~~PHY entities. The Clause 45 Management Data Input/Output (MDIO) Interface is recommended in place of the MII Management Interface (see 22.2.4) as the interface between Station Management and PHY entities for new implementations~~PHYs.

...

a) It is capable of supporting 10 Mb/s and 100 Mb/s rates for data transfer, and management functions ~~for PHYs supporting data transfer at 10 Mb/s or above (see 22.2.4 or Clause 45).~~

22.1.2

This clause applies to the interface between MAC sublayer and PHYs ~~and, for some PHY types,~~ and between PHYs and Station Management entities.

...

~~Use of the management interface and registers specified in Clause 45 is recommended for new PHY types and new implementations rather than the management interface and registers specified in 22.2.4.~~

22.1.5

The Gigabit Media Independent Interface (GMII) is similar to the MII. The GMII uses the MII ~~management interface and register set specified in 22.2.4. Some 100 Mb/s~~ [Management Interface](#) and ~~4000 Mb/s PHY types use the Clause 45 MDIO Interface. Implementations where the PHY type specifies use of the~~ register set specified in 22.2.4 ~~can do so via mappings of the register set into the Clause 45 register space.~~ These common elements of operation allow Station Management to determine PHY capabilities and configure the station based on those capabilities.

22.2.4

The MII Management Interface consists of a pair of signals that physically transport the management information across the MII or GMII, a frame format and a protocol specification for exchanging management frames, and a register set that can be read and written using these frames. ~~The register set can also be read and written through the mapping of the register set to the MDIO Interface (see Clause 45). The register~~ definition specifies a basic register set with an extension mechanism. The MII uses two basic registers. The GMII also uses the same two basic registers and adds a third basic register. ~~Some PHYs define Clause 45 registers other than the mapped MII Management Interface registers.~~

22.2.4 continued

The MII basic register set consists of two registers referred to as the Control register (Register 0) and the Status register (Register 1). All PHYs that provide an MII Management Interface ~~or the MDIO Clause 22 extension Manageable Device (see 45.2.8)~~ shall incorporate the basic register set.

22.2.4.2.16

When read as a logic one, bit 1.8 indicates that the base register status information is extended into Register 15. All PHYs supporting 1000 Mb/s operation ~~and the extended register set~~ shall have this bit set to a logic one. When read as a logic zero, bit 1.8 indicates that the extended status is not implemented.

22.8.3.5

MF79	Extended Status	22.2.4.2.16	GM:M		Yes (1.8 always = 1 for 1000 Mb/s operation and extended register set <u>operation</u>)
------	-----------------	-------------	------	--	---

2nd paragraph of 34.1

- The Gigabit Ethernet MAC layer interface connects through a Gigabit Media Independent Interface layer to Physical Layer entities (PHY sublayers). The set of PHY sublayer specifications include operation over multiple media (e.g., copper cables, fiber optic cables and backplanes).

35.1.3

PHYs that provide a GMII shall support 1000 Mb/s operation, and may support additional rates using other interfaces (e.g., MII). PHYs must report the rates at which they are capable of operating via ~~a~~ the management ~~interface (e.g., as described in Clause 22 or Clause 45)~~ interface. Reconciliation sublayers that provide a GMII shall support 1000 Mb/s and may support additional rates using other interfaces.

35.2.5

The GMII shall use ~~either~~ the MII management register set specified in 22.2.4 ~~or 45.2. Which register set is used and the~~ The detailed description of some management registers are dependent on the PHY type ~~and, if applicable, the type of auto-negotiation used~~ and are specified in either 22.2.4 or 37.2.5.

35.6.3.6

Item	Feature	Subclause	Value/Comment	Status	Support
MF1	Management registers	35.2.5	Use register set specified in 22.2.4 or 45.2	M	Yes []

Note

- 1000BASE-KX is the only example in IEEE Std 802.3™-2012 where the GMII “data path” is paired with Clause 45 MDIO

- See 70.1

“This clause specifies the 1000BASE-KX PMD and baseband medium. When forming a complete PHY, a PMD shall be combined with the appropriate sublayers (see Table 70–1), and with the management functions that are optionally accessible through the management interface defined in Clause 45.”

- See 70.10.3

GMII	GMII	70.1, 35	Interface is supported	O	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
*MD	MDIO interface	70.5	Device implements MDIO	O	Yes [<input type="checkbox"/> No [<input type="checkbox"/>

Motion

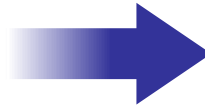
- Generate Draft 3.2 for SB recirculation from Draft 3.1 and closed comments
- M: Anslow S: Thompson
- Technical ($\geq 75\%$)
- Passes by voice without opposition

Motion

- Request conditional approval for submission of IEEE P802.3 to RevCom
- M: Law S: Anslow
- Technical ($\geq 75\%$)
- Y: 4, N: 0, A: 0
- Motion passes

Updated revision schedule

11/8/2014	WB opens	6/16/2015	SB-r1 opens
12/11/2014	WB closes	7/1/2015	SB-r1 closes
12/23/2014	Ad hoc teleconference #1	7/13/2015	Maintenance TF meeting
1/8/2015	Ad hoc teleconference #2	7/17/2015	Conditional approval for RevCom submittal
1/14/2015	Maintenance TF meeting	7/20/2015	SB-r2 opens
2/7/2015	WB-r1 opens	7/24/2015	RevCom submittal deadline
2/21/2015	WB-r1 closes	8/4/2015	SB-r2 closes
3/9/2015	Maintenance TF meeting	8/12/2015	Maintenance TF meeting (if needed)
3/13/2015	SB approval	8/14/2016	SB-r3 opens (if needed)
3/25/2015	SB opens	8/29/2016	SB-r3 closes
4/24/2015	SB closes	9/2/2016	RevCom meeting
5/21/2015	Maintenance TF meeting	9/15/2016	Maintenance TF meeting



Revision request 1276

- Add definition of “PoE” to IEEE Std 802.3
- The term “PoE” could be expanded in the frontmatter (introduction), added as a definition (1.4), or included in Clause 33
- May 2015
 - Further consideration is needed to determine the best location.
- July 2015
 - Thompson accepted an action item to draft a change to 33.1 that expands “PoE”. There will be related additions to definitions and abbreviations.

Revision request 1277

- Add text to clarify that PDs should not turn on their DC-DC load during inrush
- May 2015
 - Further consideration is necessary to determine whether or not this request adds a new requirement
- July 2015
 - Deferred to September 2015 meeting in order to gather more information

Revision request 1278

- Iport (1.4.234), Vpd (1.4.425), Vpse (1.4.426) are not technical terms and should not be included in the list of definitions
- Suggested placement is adjacent to Icable definition in 33.1.4.
- Forward to P802.3bt for action (and copy P802.3bu).
Change status to “Ready for Ballot”

Future meetings

- 12th August 2015
 - Contingent on additional recirculation ballot/comments
 - Durham, NH USA (hosted by UNH-IOL)
- 15th September 2015
 - Bonita Springs, FL USA (hosted by NEC)

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

Revision project web and reflector

- 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