# IEEE 802.3 Maintenance Task Force 14th January 2009, New Orleans, LA

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# Agenda

- Review and approve agenda
- Review patent slides
- Approve November minutes
- New maintenance requests
  - 1200, 1201, 1202, 1203 and 1204
- 802.3ay final update
- 802.3bb
- 802.3bc
- 802.3.1
- IEEE 802.3 maintenance web site

# 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 consistent with the ANSI patent policy and 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.

**(Optional to be shown)**

# Participants, Patents, and Duty to Inform

**All participants in this meeting have certain obligations under the IEEE-SA Patent Policy. Participants:**

- **"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**

Quoted text excerpted from IEEE-SA Standards Board Bylaws subclause 6.2

- **Early identification of holders of potential Essential Patent Claims is strongly encouraged**
- **No duty to perform a patent search**

**Slide #1**

# 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/guides/bylaws/sect6-7.html#6*

IEEE-SA Standards Board Operations Manual

*http://standards.ieee.org/guides/opman/sect6.html#6.3*

Material about the patent policy is available at

*http://standards.ieee.org/board/pat/pat-material.html*

**If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit http://standards.ieee.org/board/pat/index.html**

**This slide set is available at http://standards.ieee.org/board/pat/pat-slideset.ppt**

**Slide #2**

# 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.**

**Slide #4**

# Agenda and Minutes Motions

- Motion to approve the agenda
  - M:H. Barrass S:B. Booth
  - Passes by voice vote without opposition

- Motion to approve the November 2008 minutes
  - M: B. Booth S: H. Barrass
  - Passes by voice vote without opposition

# Maintenance Request Status

- 24 Open Maintenance requests
- 5 new request since November
  - Related to 10GKR electrical characteristics, INCITS selector field and 10BT/1000BT CM Output Voltage Freq Test Range, Accuracy and resolution of numerical quantities
- Current status of open requests:

| | |
|---|---|
| Balloting | 10 |
| Ready for ballot | 4 |
| Awaiting clarification | 0 |
| To be categorised | 10 |

Notes: Some ‘Balloting’ assigned to IEEE P802.3at

New requests

| Request | Standard | Subclause | Subject |
|---|---|---|---|
| **1200** | **802.3ap-2007** | **72.7.1** | **10GBASE-KR Electrical Characteristics** |
| **1201** | **802.3-2008** | **28A, 30** | **INCITS Selector Field** |
| **1202** | **802.3-2008** | **14.3.1.2.5** | **10BASE-T CM Output Voltage Frequency Test Range** |
| **1203** | **802.3-2008** | **40.8.3.3** | **1000BASE-T CM Output Voltage Frequency Test Range** |
| **1204** | **802.3-2008** | **1.2** | **Accuracy and resolution of numerical quantities** |

# Maintenance Request 1200

- Requested revision
  - Standard: 802.3ap-2007 / 72.7.1 (10GBASE-KR)
- Proposed revision text
  - In Table 72-6 "Transmitter characteristics for 10GBASE-KR", change "Transition time (20%-80%)" to 24-47 ps.
- Rationale for revision
  - In Table 72-6, "Transition time (20%-80%)" is specified to be 2-47 ps.
  - In 72.7.1.7, transition time is specified to be 24-47 ps.
- Impact to existing networks

# Request 1200 – Notes

- Notes from discussion
  - It appears that the issue has been fixed in 802.3ay which was published as IEEE 802.3-2008 in December 2008
  - There was no objection to rejecting the request
- State of request
  - Changed from “Received” to “Reject”

# Maintenance Request 1201

- Requested revision
  - Standard: 802.3-2008 / 28A, 30 (Selector field INCITS)
- Proposed revision text
  - See maint_1201.pdf.
- Rationale for revision
  - To update IEEE Std 802.3 with the Auto-Negotiation Selector field allocated to INCITS on 10th October 2006.
- Impact to existing networks
  - None, this is an additional network type supported by Auto-Negotiation. In addition the value has been available on the IEEE 802.3 selector field web page, referenced in IEEE Std 802.3 as the up-to-date source for these values, since its allocation.

# Request 1201 – Notes

- Notes from discussion
  - Proposed request and change look complete
  - No objection in progressing the comment to "Ready for Ballot"
- State of request
  - Changed from "Received" to "Ready for Ballot"

# Maintenance Request 1202

- Requested revision
  - Standard: 802.3-2008 / 14.3.1.2.5 (Common-mode output voltage)
- Proposed revision text
  - Existing Text: The magnitude of the total common-mode output voltage of the transmitter, Ecm, measured as shown in Figure 14-14, shall be less than 50 mV peak.
  - Change to: The magnitude of the total common-mode output voltage of the transmitter, Ecm, measured as shown in Figure 14-14, shall be less than 50 mV peak. The frequency of the measurement shall be from 1 MHz to 100 MHz.
- Rationale for revision
  - The IEEE 802.3-2008 specification is not consistent with its common mode noise measurement requirements. Clause 33 specifies a range of 1 MHz to 100 MHz for a power souring equipment intended to provide 10BASE-T, 100BASE-TX, or 1000BASE-T interoperability. Other clauses have no concept of a measurement bandwidth. Reducing the measurement bandwidth of common mode measurements will not reduce the compliance of legacy systems. Requiring a PSE to meet unnecessary common mode noise requirements below 1 MHz places an unnecessary cost burden on the system.
- Impact to existing networks: None

# Maintenance Request 1203

- Requested revision
  - Standard: 802.3-2008 / 40.8.3.3 (Common-mode output voltage)
- Proposed revision text
  - Existing Text: The magnitude of the total common-mode output voltage, Ecm_out, on any transmit circuit, when measured as shown in Figure 40-32, shall be less than 50 mV peak-to-peak when transmitting data.
  - Change to: The magnitude of the total common-mode output voltage, Ecm_out, on any transmit circuit, when measured as shown in Figure 40-32, shall be less than 50 mV peak-to-peak when transmitting data. <u>The frequency of the measurement shall be from 1 MHz to 100 MHz.</u>
- Rationale for revision
  - The IEEE 802.3-2008 specification is not consistent with its common mode noise measurement requirements. Clause 33 specifies a range of 1 MHz to 100 MHz for a power souring equipment intended to provide 10BASE-T, 100BASE-TX, or 1000BASE-T interoperability. Other clauses have no concept of a measurement bandwidth. Reducing the measurement bandwidth of common mode measurements will not reduce the compliance of legacy systems. Requiring a PSE to meet unnecessary common mode noise requirements below 1 MHz places an unnecessary cost burden on the system.
- Impact to existing networks: None

# Requests 1202 and 1203 – Notes

- Notes from discussion
  - After discussion, the suggested text was changed to say The frequency of the measurement shall be above 1 MHz.
  - Lower frequency may be discussed during ballot if there are any objections
  - Poll
    - In favour of proposed change: 4
    - Against: 0
- State of requests
  - 1202: Changed from “Received” to “Ready for Ballot”
  - 1203: Changed from “Received” to “Ready for Ballot”

# Maintenance Request 1204

- Requested revision
  - Standard: 802.3-2008 / 1.2.5 (New)
- Proposed revision text
  - New 1.2.5 Accuracy and resolution of numerical quantities
  - Unless the context requires otherwise, numerical limits in this standard are to be taken as exact, with the number of significant digits and trailing zeros having no significance.
- Impact on existing networks
  - Unknown, probably negligible.

# Maintenance Request 1204

- Rationale for revision

  There is disagreement on this question:

  If 802.3 says the limit for something is 3 (or 3.0, or 3.000), what does this mean? One interpretation is that the trailing zeros have no meaning. Another, which is widely taught as good scientific measurement technique, is that 3 means anywhere between 2.5 and 3.5, while 3.0 means anywhere between 2.95 and 3.05.

  The second interpretation, while seen as correct for reporting measurements, seems inconvenient for a standard: one party might think that his measured 3.3 passes while another might say it fails.

# Maintenance Request 1204

- Rationale for revision

  In addition to making the situation unambiguous in the standard, guidance on trailing zeros should be provided to editors for future projects.

  Is there another standard that addresses this question?

  We could go further and say something like this:

  The instruments for measurement are assumed to be exact. Any offset from these values required to ensure that the limits are met in the presence of imperfect instrument accuracy, noise, bandwidth and so on is the responsibility of the implementer.

# Request 1204 – Notes

- Notes from discussion
  - There was no consensus on proceeding with the request
  - Request stays as “Received”
- State of request
  - Remains “Received”

# 802.3ay Final Update

- 802.3ay published as IEEE 802.3-2008 on December 26th 2008!!!!!!
- Project directory will be moved to archived projects
- All new maintenance requests against 802.3-2008

# 802.3bb Draft Review

- Requested Changes
  - Change:
    - At operating speeds of 10 Gb/s, a station with a 10GBASE-T or a 10GBASE-KR with FEC PHY
    - To: At operating speeds of 10 Gb/s, a station with a 10GBASE-T PHY or a 10GBASE-KR with FEC PHY
  - There was no objection to the above requested change

# IEEE 802.3bb Motion

Move:

- Submit draft D1.0 with comments captured in diab_1_0109.pdf for Working Group preview at the March 2009 plenary
- Request that the 802.3 Working Group conduct a ballot on the draft

- M: D. Law S: H. Barrass
- Technical (75%)
- All: Y:5 N:0 A:0
- Motion Passes

# 802.3bc Draft Review

- Containment
  - 802.3at: Draft is currently silent on whether unmanaged PSEs and PDs can implement LLDP. Discuss with 802.3at
  - Current containment used in 802.3at requires that the parent management is implemented. 802.1 containment does not require any other management MIB object to be implement to support LLDP
  - Resolve above 2 issues during ballot
- No other comments were received

# 802.3.1

Howard Frazier

# 802.3.1

- Reviewed frazier_1_0109.pdf
- Worked on responses to NesCom comments on the PAR

# Motion for 802.3.1 Structure

- Move to adopt the document structure presented in frazier_1_0109.pdf
  - M: D. Law S: S. Carlson
  - Passed by voice vote without opposition

# Motion to Adjourn

- Move to adjourn
  - M: S. Carlson S: H. Barrass
  - Passed by voice vote without opposition
- Adjourned at 12.20pm

# Maintenance Web Information

- IEEE 802.3 Maintenance web site:
  http://www.ieee802.org/3/maint/index.html
- IEEE 802.3 Maintenance request form is available at:
  http://www.ieee802.org/3/private/maint/revision_request.html
- Access information

  Username: ********

  Password: ********

  (Password **is** case sensitive)
- IEEE 802.3 Maintenance reflector

  stds-802-3-maint@ieee.org