

# IEEE 802.3 Working Group Opening Plenary 14th July 2014

David Law  
Chair, IEEE 802.3 Working Group  
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Agenda, voter lists:  
<http://www.ieee802.org/3/minutes/jul14/index.html>

# IEEE 802.3 Officers

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IEEE 802.3 Chair: David Law <dlaw@hp.com>

IEEE 802.3 Vice Chair: Adam Healey <adam.healey@avagotech.com>

IEEE 802.3 Secretary: Pete Anslow <panslow@ciena.com>

IEEE 802.3 Executive Secretary: Steve Carlson <scarlson@ieee.org>

IEEE 802.3 Treasurer: Valerie Maguire <valerie\_maguire@siemon.com>

## **IEEE 802.3 Task Force chairs**

IEEE P802.3bj 100 Gb/s Backplane and Copper Cable: Adam Healey <adam.healey@avagotech.com>

IEEE P802.3bm 40 Gb/s and 100 Gb/s Fiber Optic: Dan Dove <dan\_dove@ieee.org>

IEEE P802.3bn EPON Protocol over Coax (EPoC): Mark Laubach <laubach@broadcom.com>

IEEE P802.3bp 1000BASE-T1 PHY: Steve Carlson <scarlson@hspdesign.com>

IEEE P802.3bq 40GBASE-T: Dave Chalupsky <david.chalupsky@intel.com>

IEEE P802.3br Interspersing Express Traffic: Ludwig Winkel <ludwig.winkel@siemens.com>

IEEE P802.3bs 400 Gb/s Ethernet: John D'Ambrosia <john\_dambrosia@dell.com>

IEEE P802.3bt DTE Power via MDI over 4-Pair: Chad Jones <cmjones@cisco.com>

IEEE P802.3bu 1-Pair Power over Data Lines (PoDL): Dave Dwelley <ddwelley@linear.com>

## **IEEE 802.3 Study Group chairs**

IEEE 802.3 Gigabit Ethernet Over Plastic Optical Fiber: Bob Grow <bob.grow@ieee.org>

IEEE 802.3 1 Twisted Pair 100 Mb/s Ethernet: Thomas Hogenmueller <thomas.hogenmueller@de.bosch.com>

# WG Decorum

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- Photography or recording by permission only (December 2013 IEEE-SA Standards Board Ops Manual 5.3.3.4)
- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (December 2013 IEEE-SA Standards Board Ops Manual 5.3.3.5)
- Cell phone ringers off
- Wear your badges at all times in meeting areas
  - Help the hotel security staff improve the general security of the meeting rooms
  - **PCs HAVE BEEN STOLEN** at previous meetings
  - **DO NOT** assume that meeting areas are secure
- Please observe proper decorum in meetings

# Brian James Misek

21st April 1961 - 22nd March 2014



# Hugh Barrass

9<sup>th</sup> November 1962 – 24<sup>th</sup> June 2014



# Agenda and Minutes

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- Approve agenda
  - <http://www.ieee802.org/3/minutes/jul14/>
  - Any modifications, additions or deletions?
- Approve March 2014 minutes
  - <http://www.ieee802.org/3/minutes/mar14/>
  - Published 29th March 2014
    - There was a minor update (typo correction) to the draft minutes posted on 31 March 2014
  - Any corrections, modifications, additions?

# 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.

# IEEE 802.3 Standards

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- IEEE Std 802.3™-2012 (30th Aug 12 / 28th Dec 12)\*
- IEEE Std 802.3bk™-2013 (23rd Aug 13 / 30th Aug 13)\*
- IEEE Std 802.3bj™-2014 (12th Jun 14 / TBD)
  
- IEEE Std 802.3.1™-2013 (14th Jun 13 / 2nd Aug 13)\*

\* Available through Get IEEE 802

<http://standards.ieee.org/getieee802/802.3.html>

Note 1: Dates are Approval date / Publication date

# Activities since March 2014 meeting

## Interim meetings

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- 12th through 16th May 2014, Norfolk, VA, USA
  - IEEE 802.3 Maintenance Task Force
  - IEEE P802.3bm 40 Gb/s and 100 Gb/s Fiber Optic Task Force
  - IEEE P802.3bn EPON Protocol over Coax (EPoC) Task Force
  - IEEE P802.3bp 1000BASE-T1 PHY Task Force
  - IEEE P802.3bq 40GBASE-T Task Force
  - IEEE P802.3br Interspersing Express Traffic Task Force
  - IEEE P802.3bs 400 Gb/s Ethernet Task Force
  - IEEE P802.3bt DTE Power via MDI over 4-Pair Task Force
  - IEEE P802.3bu 1-Pair Power over Data Lines (PoDL) Task Force
  - IEEE 802.3 Gigabit Ethernet Over Plastic Optical Fiber Study Group
  - IEEE 802.3 1 Twisted Pair 100 Mb/s Ethernet Study Group
  - IEEE 802.3 Next Generation EPON (NGEPON) Industry Connections Ad Hoc

# Activities since March 2014 meeting

## IEEE 802.3 balloting

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- Working Group Ballots:
  - IEEE P802.3bm 2nd recirculation ballot
- Sponsor Ballots:
  - IEEE P802.3bj 2nd recirculation ballot
  - IEEE P802.3bm initial ballot
- Sponsor Ballots group formations
  - None

# Documents for July business

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- IEEE P802.3bm 40 Gb/s and 100 Gb/s Over Fiber Optic Cable
  - IEEE P802.3bm/D3.0, Initial sponsor ballot comments
- IEEE 802.3 Gigabit Ethernet Over Plastic Optical Fiber Study Group
  - New PAR request and supporting CSD and objectives
    - IEEE P802.3bv Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for 1000 Mb/s Operation Over Plastic Optical Fiber
- IEEE 802.3 1 Twisted Pair 100 Mb/s Ethernet Study Group
  - New PAR request and supporting CSD and objectives
    - IEEE P802.3bw Standard for Ethernet Amendment Physical Layer Specifications and Management Parameters for 100 Mb/s Operation over a Single Balanced Twisted Pair Cable (100BASE-T1)

# Membership and attendance recording

## Membership requirements

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- Membership requirements (gaining and retaining)
  - 75% attendance at 2 of last 4 plenary sessions (a qualifying interim may be substituted for one plenary)
  - Request to become member during IEEE 802.3 potential voter agenda item
  - Participate in 2 of last 3 WG ballots (retaining membership)
  - Maintain valid contact information
  - Consistent declaration of affiliation



# Membership and attendance recording

## Meeting attendance tool procedures

Pete Anslow  
IEEE 802.3 Working Group Secretary  
panslow@ciena.com

# Membership and attendance recording

## Review of membership

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- **IEEE 802.3 voters**

[http://www.ieee802.org/3/minutes/jul14/0714\\_voters.pdf](http://www.ieee802.org/3/minutes/jul14/0714_voters.pdf)

- **IEEE 802.3 voters in peril**

[http://www.ieee802.org/3/minutes/jul14/0714\\_peril.pdf](http://www.ieee802.org/3/minutes/jul14/0714_peril.pdf)

- **IEEE 802.3 potential voters**

[http://www.ieee802.org/3/minutes/jul14/0714\\_potential.pdf](http://www.ieee802.org/3/minutes/jul14/0714_potential.pdf)

# Reflectors and Working Group information

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- IEEE 802.3 Working Group reflector <stds-802-3@ieee.org>
  - Not general discussion reflector
  - Subscription limited to members and observers
  - Monitored reflector for announcements of WG business
  - Archive is password protected
- IEEE 802.3 dialog reflector <stds-802-3-dialog@ieee.org>
  - Location for appropriate non project related discussion
- Meeting announcements
  - Sent to IEEE 802.3 and relevant TF/SG reflector(s)
- IEEE 802.3 TF/SG reflectors
  - Location for appropriate project related discussion
  - Subscription instructions are on the related TF/SG web page
- IEEE 802.3 Working Group web site
  - [www.ieee802.org/3](http://www.ieee802.org/3)
  - Private areas access information announced in reports

# IEEE 802.3 Working Group Treasurer's Report

Valerie Maguire  
IEEE 802.3 Working Group Treasurer  
valerie\_maguire@siemon.com

# IEEE-SA Standards Board IEEE 802.3 related actions since March

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- NesCom recommendations (March IEEE-SASB meeting)
  - IEEE P802.3bs 400 Gb/s Operation PAR approved
- NesCom recommendations (June IEEE-SASB meeting)
  - IEEE P802.3bp 1 Gb/s Operation over a Single Twisted Pair Copper Cable PAR modification approved
    - Title change from ‘fewer than three’ to ‘a single’
  - IEEE P802.3bs 400 Gb/s Operation PAR modification approved
    - Correction to item 5.5 ‘Need for the project’ and item 5.6 ‘Stakeholders for the Standard’ PAR responses to the text approved in March 2014
- RevCom recommendations (June IEEE-SASB meeting)
  - IEEE Std 802.3bj-2014 100 Gb/s Operation Over Backplanes and Copper Cables standard approved
- ICom recommendations
  - None

# IEEE-SA Standards Board

## March and June 2014 meeting highlights

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- ICCom
  - ICCom IPR Ad Hoc
- ProCom
  - Behavior of Balloters
  - Trial Use Standards
- PatCom
  - Enforcement agencies challenges Ad Hoc
- IEEE-SA Standards Board
  - Potential Scope Overlap between Different Sponsors for Proposed New PARs Ad Hoc
  - Proposal for new Type 2 SCC on Transportation

# IEEE 802 Executive Committee report (p.1)

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- IEEE 802 Overview and Architecture
  - IEEE Std 802-2014 Overview and Architecture approved at June IEEE-SASB meeting
- Treasury
  - IEEE 802 Treasurer's Report
  - Beijing results: \$438K deficit
  - Total reserve: \$894K

# IEEE 802 Executive Committee report (p.2)

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- IEEE 802 rules
  - Proposed changes
    - <https://mentor.ieee.org/802-ec/dcn/14/ec-14-0035-00-00EC-rule-changes-for-july-2014.pdf>
  - Proposal of note
    - Working Group meeting clarification
      - All WG meetings shall only be face to face
      - Special provisions for invited experts
      - Believe no change from current IEEE 802.3 operation
    - Plenary PAR review deadlines
      - Move from 17:00 to 18:30
    - Re-establishing voting rights after loss
      - If due to lack of participation in 2 out of last 3 WG ballots
        - » All previous attendance credit lost
      - If due to lack of participation
        - » Attendance credit is retained



# IEEE 802 Executive Committee report (p.3)

## Meeting for the week

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- Sunday 7:00-9:30pm LMSC Rules Review (Bankers Hill)
- Mon 6:00-10:00pm 3 Tutorials (Seaport FGH)
- Tue 7-8am PCO RFP review (executive session, Bankers Hill)
- Tue 8-9am University Outreach Orientation (Promenade AB)
- Tue 1:30-3:30pm prepare 3GPP liaison response (802.19/La Jolla A)
- Tue 1:30pm-3:30pm JTC1/SC6 standing committee (Hillcrest CD)
- Tue 4:00pm-4:30pm 802/IETF standing committee (Bankers Hill)
- Tue 7:30-9:30pm 802.24 Nuts and Bolts of Internet of Things (Seaport C)
- Wed 8:00-10:00am Future Venue details (Bankers Hill)
- Wed 8:00-10:00am 802/ITU Standing Committee (Cortez Hill C)
- Wed 1:30pm-3:30pm JTC1/SC6 standing committee (Hillcrest CD)
- Thu 9:00-10:00 802 Chair's Open Office hour (Bankers Hill)
- Thu 10:30-12:00 IEEE 802 Task Force (Bankers Hill)
- Thu 12:00-12:30 getIEEE802 program review (executive session, Bankers Hill)
- Thu 1:30pm-3:30pm JTC1/SC6 standing committee (Hillcrest C)

# IEEE 802 Executive Committee report (p.4)

## IEEE 802 Task Force draft agenda

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- IEEE 802 Task Force, Thurs 10:30AM-12:30 (room: TBD)
  - Status of IEEE feedback on indemnification clarification request
  - 802/SA Roles and Responsibilities
  - IEEE Internet Initiative
  - SA tools re-architecture status update
    - Mentor
    - Everything else
  - Web conferencing pilot program status, follow up on March Action Items
  - Follow up on March Action Items from 802/SA relevant EC workshop items (e.g., 07DEC 802/SA mtg, 22JAN EC discussion, etc.)
  - Action item review
  - Executive Session commences
  - Get IEEE 802 program review
  - Adjourn

# IEEE 802 Chair requested straw poll

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- Do you support the get802 program?
  - Yes: 156
  - No: 0
  - Abstain: 14

# IEEE 802 Tutorials and Birds-of-a-Feather session

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- Session #1, Monday 18:00 to 19:30
  - Pervasive Surveillance of Internet
- Session #2, Monday 19:30 to 21:00
  - Spectrum Occupancy Sensing
- Session #3, Monday 21:00 to 22:30
  - NETCONF/YANG Tutorial for the IEEE 802
- Emerging Applications Birds-of-a-Feather
- Wednesday 18:30 to 21:00
  - I Feel the Need... for Low Speed
  - Emerging Applications of Enhanced User and Device Identities
  - IOT2.0: When the IOT and Micro Location Converge

# Other IEEE 802 PARs under consideration

## Comments due by 17:00 Tuesday

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- New Standard
  - IEEE P802.1AEcg Media Access Control (MAC) Security Amendment: Ethernet Data Encryption devices
  - IEEE P802.1ARce Secure Device Identity Amendment: SHA-384 and P-384 Elliptic Curve
  - IEEE P802.15.4s Low-Rate Wireless Personal Area Networks Amendment: Spectrum Resource Measurement
  - IEEE P802.22.3 Standard Specifying Spectrum Occupancy Sensing (SOS) Measurement Devices and Means that Enable Coalescing the Results from Multiple Such Devices
- PAR extension
  - IEEE P802.11ah Wireless LAN MAC and PHY Specifications Amendment: Sub 1 GHz License-Exempt Operation
  - IEEE P802.11ai Wireless LAN MAC and PHY Specifications Amendment: Fast Initial Link Setup

# IEEE 802.24 proposed scope change

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- IEEE 802.24 Vertical Applications TAG focuses on application categories that use IEEE 802 technology and are of interest to multiple IEEE 802 WGs and have been assigned to IEEE 802.24 by the IEEE Executive Committee.
- For those application categories, IEEE 802.24:
  - Acts as a liaison and point of contact with regulatory agencies, industry organizations, other SDOs, government agencies, IEEE societies, etc., for questions regarding the use of 802 standards in those emerging applications.
  - Develops white papers, guidelines, presentations and other documents that do not require a PAR that describe the application of 802 standards to those emerging applications
  - Acts as a resource for understanding 802 standards for certification efforts by industry bodies.
- NOTE: The horizontal technologies are applied to the vertical applications. IEEE 802.24 determines what makes that horizontal technology or what enhancements are required to make them more applicable to a specific vertical application.
- Examples of current and potential application categories are: Smart Grid, Machine to Machine (M2M), Internet of Things (IoT), Vehicular Networking

# Proposed process for adding IEEE 802.24 Task Groups for new areas of interest

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- Schedule time for a presentation (the best is a tutorial slot) that describes the new application category. The presentation should be:
  - Application focused, supported by multiple members and multiple companies
- If the response from the presentation is favorable, request from the IEEE 802.24 TAG the formation of a subgroup to write a TG scope document for that application category (the current form is 24-14-0014-01). Approval for forming a subgroup is a majority vote.
- When the subgroup has achieved consensus, get approval of the scope document from the IEEE 802.24 TAG. Approval requires a 75% majority vote according to the IEEE 802 LMSC Policies and Procedures.
- Submit the document to all IEEE 802 WGs for review following the rules for a PAR for a new project in the IEEE 802 LMSC Operations Manual.
- Get a motion in a minimum of 2 IEEE 802 WGs (not TAGs) that expresses support for adding this application category and that they will be active participants. The WGs that approve the motion should also identify specific topics of that application category that are relevant to that WG.
- Bring a motion to the EC to approve adding the area to IEEE 802.24.
- If the EC approves the formation of the TG, the TG may begin operation immediately.
- A TG is dissolved by a majority vote of the TAG.

# Scope document for Smart Grid IEEE 802.24 Task Group

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- Scope
  - This group addresses the use of IEEE 802 standards in supporting the data link communications needs of Smart Grid systems.
  - The Smart Grid TG acts as a liaison and point of contact with regulatory agencies, industry organizations, other SDOs, government agencies, IEEE societies, etc., for questions regarding the use of IEEE 802 standards in those emerging applications.
  - Develops white papers, guidelines, presentations and other documents that do not require a PAR that describe the application of IEEE 802 standards to those emerging applications
  - Acts as a resource and knowledge base on IEEE 802 standards for certification efforts by industry bodies
  - Identify technology gaps in Smart Grid communications and recommend standardization tasks to the appropriate IEEE 802 WG
- <https://mentor.ieee.org/802.24/dcn/14/24-14-0015-01-0000-smart-grid-tg-scope.pdf>



# Continuing Agenda ...