

# Electrical Interface Ad-hoc Meeting

IEEE P802.3bs 400Gb/s Ethernet Task Force  
12 February 2015 Version r1

# Opening

- The stated charter is: Work on technical proposals related to the 400GbE Electrical Interfaces.
- Any changes to the meeting minutes from the following meetings:
  - 18 Dec 2014
- Next Ad-hoc Meeting
  - Thursday 26 Feb 2015 at 7:30am pacific time

# 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>**

IEEE P802.3bs 400Gb/s Electrical Interface Ad-hoc – 12 February 2015 Conference Call

# 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 P802.3bs Electrical Interface Ad-hoc Meeting*

Build Consensus towards a presentation or adoption covering interface type, rate, modulation, and loss – we need proposals

Offer lots of constructive comments to converge quickly

Please mute your phone

Request Presentation Time Often

There are some things discussed that are outside the scope of the project, but are necessary to complete the system level discussion and drive the best Electrical Interface possible. Please clearly identify those parts in your discussions and contributions.

Please note that all meetings are planned for 90 minutes, but the outlook schedule is for 120 minutes. The meeting is still planned to end in 90 minutes.

# The Process Steps

The following simplified process steps are used to build consensus:

- Defining / Discussing Reach
- System Architecture
- Channel Loss
- Modulation– WE ARE HERE
- Equalization
- Error Correction
- Power



# Presentation Requests for March

- Get your request to John
  - Request Thursday, 26 February 2015
  - Email to [jdambrosia@ieee.org](mailto:jdambrosia@ieee.org) Monday, 3 March 2015
- Joel / Vasu actions for January – adhoc summary
  - Anything else??
- John D'Ambrosia - Given the results of the January Interim, the scope of the March meeting is to address the "Big Ticket Items" list identified at the January Interim. (See [http://www.ieee802.org/3/bs/public/15\\_01/big\\_ticket\\_items\\_3bs\\_01\\_0115.pdf](http://www.ieee802.org/3/bs/public/15_01/big_ticket_items_3bs_01_0115.pdf)).
- Request Form
  - Presenter:
  - Title:
  - Time:
  - Topic:
  - Big Ticket Item being addressed

# Agenda

ADHOC Agenda

Joel Goergen – Cisco / Vasu Parthasarathy – Broadcom

goergen\_01\_0215\_elect

Big Ticket Items

January 2015 Interim

big\_ticket\_items\_3bs\_01\_0115 (pages 9-12)

PAM4 Public Demo discussion

Vasu Parthasarathy – Broadcom

parthasarathy\_01\_0215\_elect

PAM2 / NRZ Public Demo discussion

Jeff Twombly

twombly\_01\_0215\_elect



# Thank you!

From:

Vasu Parthasarathy

Beth Kochuparambil

Vivek Telang

Joel Goergen