

# Agenda and General Information

IEEE P802.3bp  
1000BASE-T1 PHY

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High Speed Design, Inc.  
November 2014 – San Antonio, TX

# Agenda

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- Appoint Recording Secretary
- Welcome and Introductions
- Approve Agenda
- Approve previous Minutes
- Goals for this meeting
- Reflector and Web
- Ground Rules
- IEEE
  - Structure
  - Bylaws and Rules
  - Call for Patents
  - IEEE Standards Process
  - Task Force Operation
- Liaisons and Communications
- Review of Action Items from previous Meeting
- Daily Schedule
  - Tuesday: Presentations and comment resolution
  - Wednesday: 100BASE-T1 and joint time
  - Thursday AM: Motions
- Future Meetings

# Task Force Decorum



- Photography or recording by permission only (2010 SASB Op Manual 5.3.3.4)
- Cell phone ringers off
- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (5.3.3.5)
- 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

# Goals for the meeting

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- Reports from ad hocs
- Presentations
  - P802.3bu liaison report
  - Channel ad hoc
  - Comment resolution D1.0
  - PHY baselines
  - Adopt baselines
- Set goals for next meeting
  - Continue work on channel, EMC and PHY baselines
  - Create D1.1 and review and comment
  - Discuss timeline
  - **Build consensus**

# Reflector and Web

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- To subscribe to the RTPGE reflector, send an email to:

[ListServ@ieee.org](mailto:ListServ@ieee.org)

with the following in the body of the message (do not include “<>”):

*subscribe* stds-802-3-RTPGE <yourfirstname> <yourlastname>

- Send RTPGE reflector messages to:

**stds-802-3-RTPGE** [@listserv.ieee.org](mailto:stds-802-3-RTPGE@listserv.ieee.org)

- Task Force web page URL:

[www.ieee802.org/3/bp/index.html](http://www.ieee802.org/3/bp/index.html)

# Task Force Officers

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- **Steve Carlson**  
Task Force Chair
- **Marek Hajduczenia**  
Task Force Editor-in-Chief
- **Curtis Donahue**  
Task Force PICS Editor
- See <http://www.ieee802.org/3/contacts.html#RTPGE> for contact info

# Ground Rules

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- Based upon IEEE 802.3 Rules
  - Foundation based upon Robert's Rules of Order
  - Anyone in the room may speak
  - Anyone in the room may vote
- **RESPECT**... give it, get it
- NO product pitches
- NO corporate pitches
- NO prices!!!
  - This includes costs, ASPs, etc. no matter what the currency
- NO restrictive notices

# Attendance

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- Tutorial Material on attendance tool
  - [http://www.ieee802.org/3/minutes/attendance\\_procedures.pdf](http://www.ieee802.org/3/minutes/attendance_procedures.pdf)
- URL
  - URL: [imat.ieee.org](http://imat.ieee.org)
- Please sign the sheet that will be circulated each day including both employer and affiliation



# Important Bylaws and Rules

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- **IEEE-SA Operations Manual**  
<http://standards.ieee.org/sa/sa-om.pdf>
- **IEEE-SA Standards Board Bylaws**  
<http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf>
- **IEEE-SA Standards Board Operations Manual**  
<http://standards.ieee.org/guides/opman/sb-om.pdf>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Policies and Procedures**  
<http://standards.ieee.org/about/sasb/audcom/pnp/LMSC.pdf>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Operations Manual**  
[http://www.ieee802.org/PNP/2010-07/IEEE\\_802\\_LMSC\\_OM\\_approved\\_100716.pdf](http://www.ieee802.org/PNP/2010-07/IEEE_802_LMSC_OM_approved_100716.pdf)
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Working Group (WG) Policies and Procedures**  
[http://www.ieee802.org/PNP/2010-07/IEEE\\_802\\_LMSC\\_WG\\_PandP\\_approved\\_100716.pdf](http://www.ieee802.org/PNP/2010-07/IEEE_802_LMSC_WG_PandP_approved_100716.pdf)
- **IEEE 802.3 Working Group Operating Rules**  
[http://ieee802.org/3/rules/P802\\_3\\_rules.pdf](http://ieee802.org/3/rules/P802_3_rules.pdf)

# 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.

(Optional to be shown)

25 March 2008 (updated January 2012)



# 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

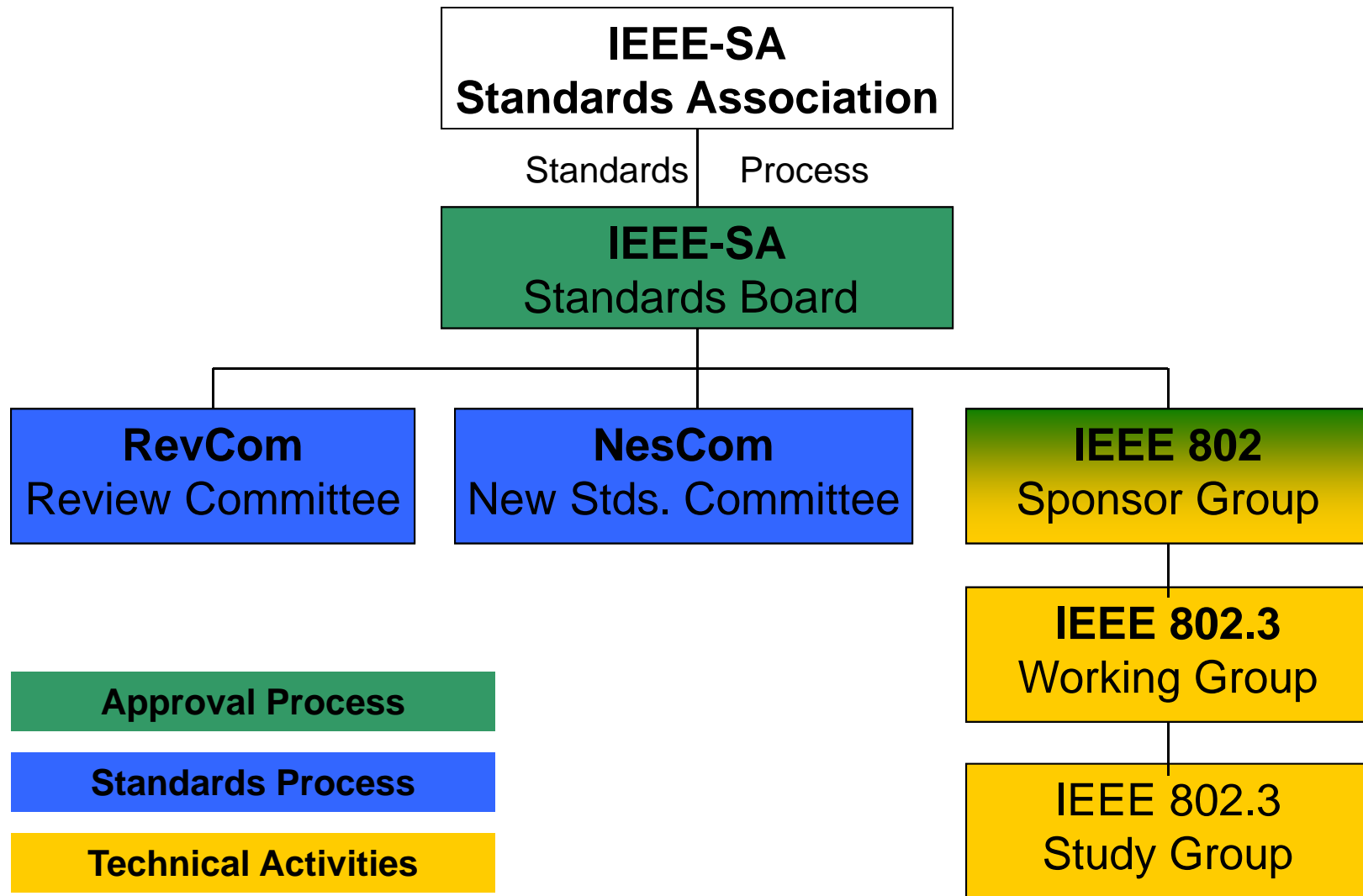
- If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance:
  - Either speak up now or
  - Provide 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

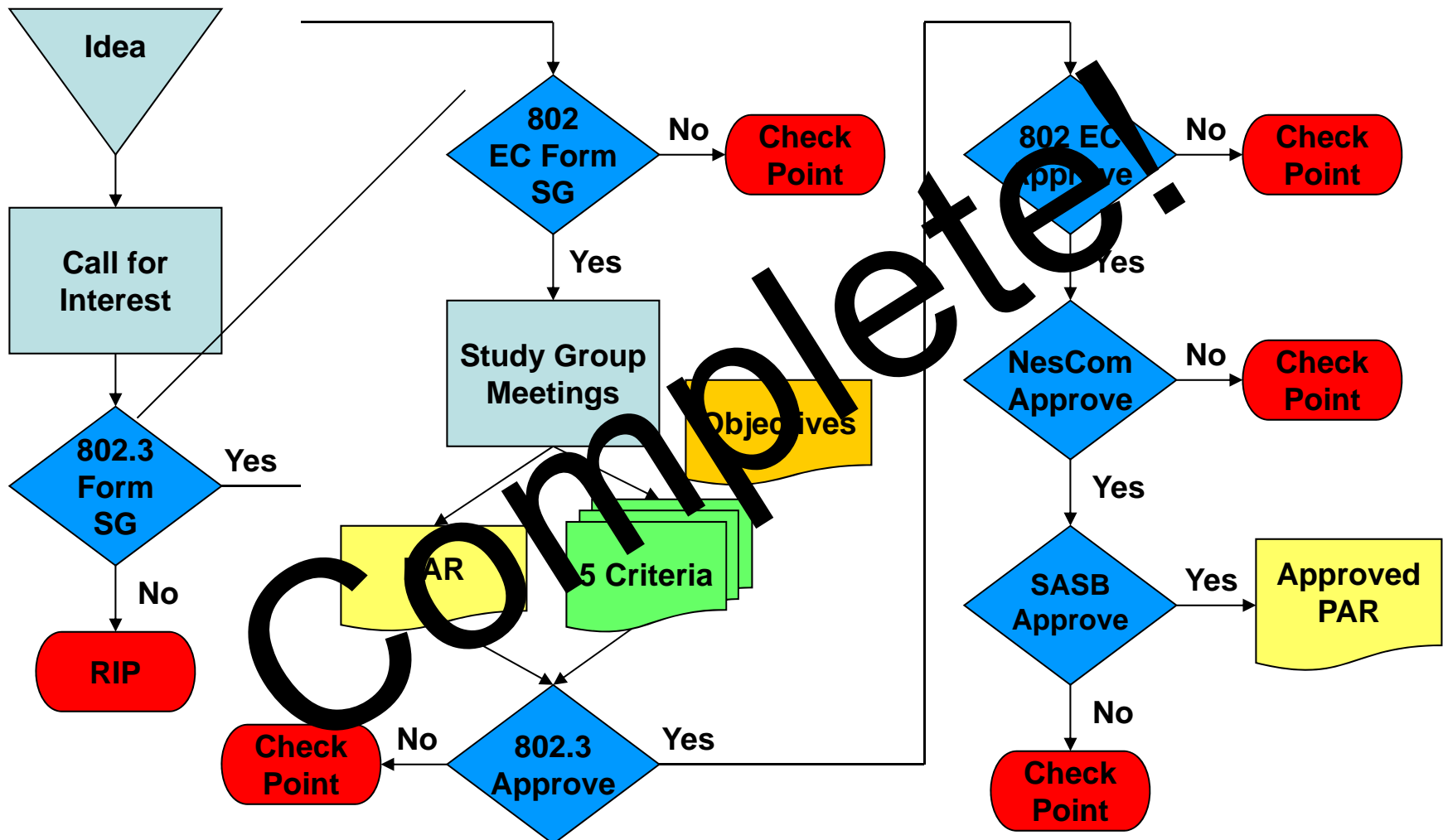
- **All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.**
  - **Don't discuss the interpretation, validity, or essentiality of patents/patent claims.**
  - **Don't discuss specific license rates, terms, or conditions.**
    - 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 Structure



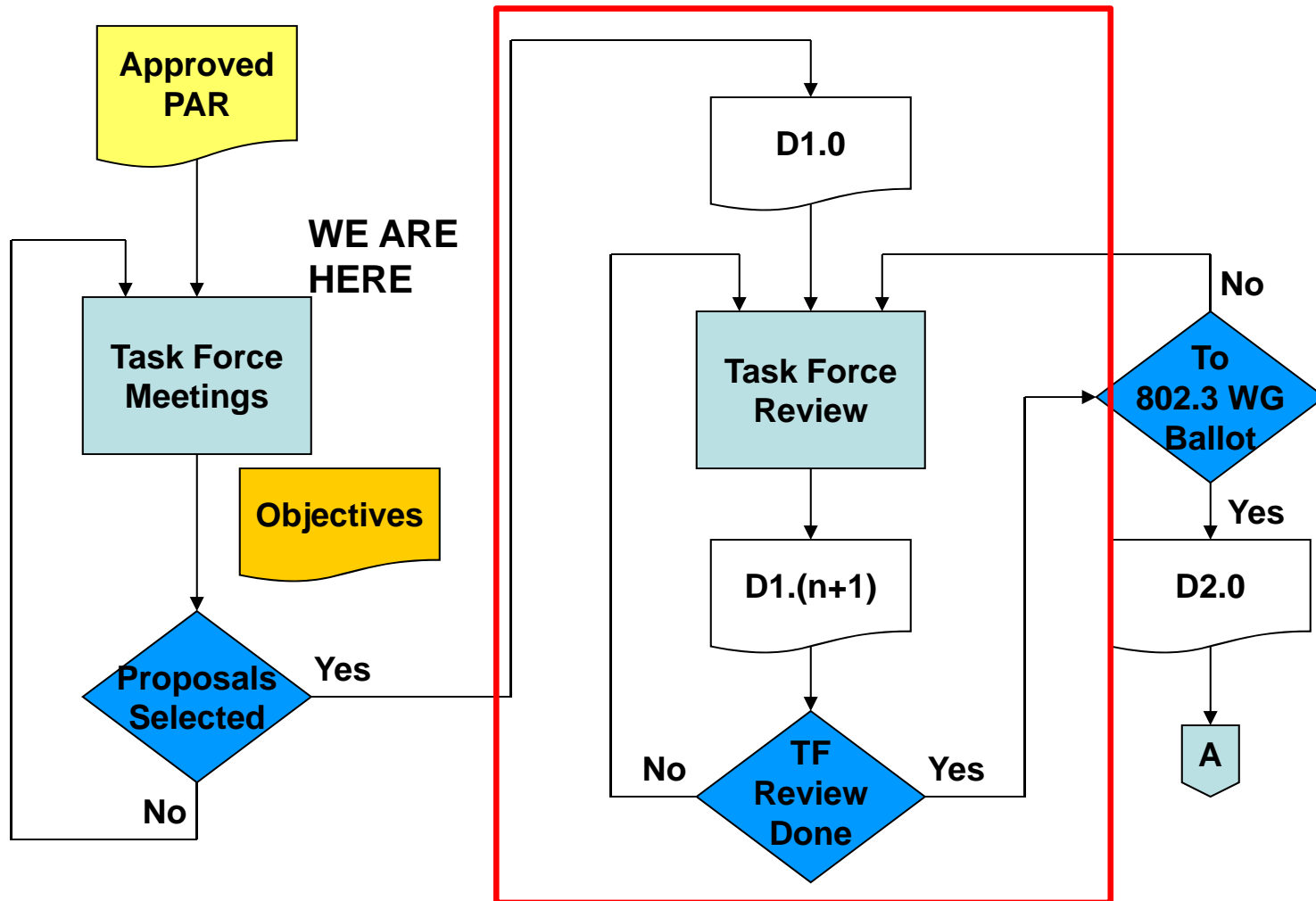
# Overview of IEEE 802.3 Standards Process (1/5)- Study Group Phase



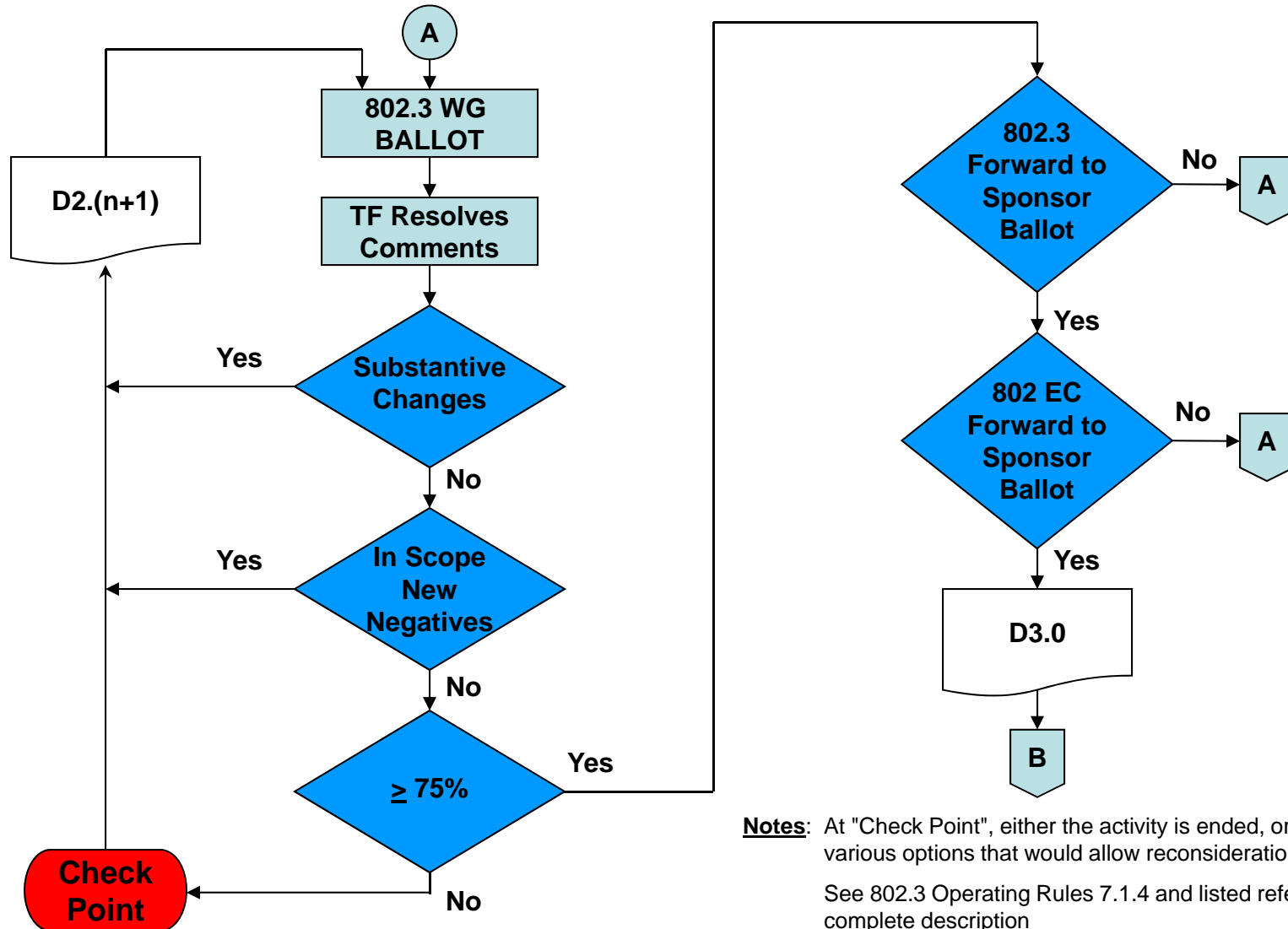
Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.



# Overview of IEEE 802.3 Standards Process (2/5) – Task Force Comment Phase



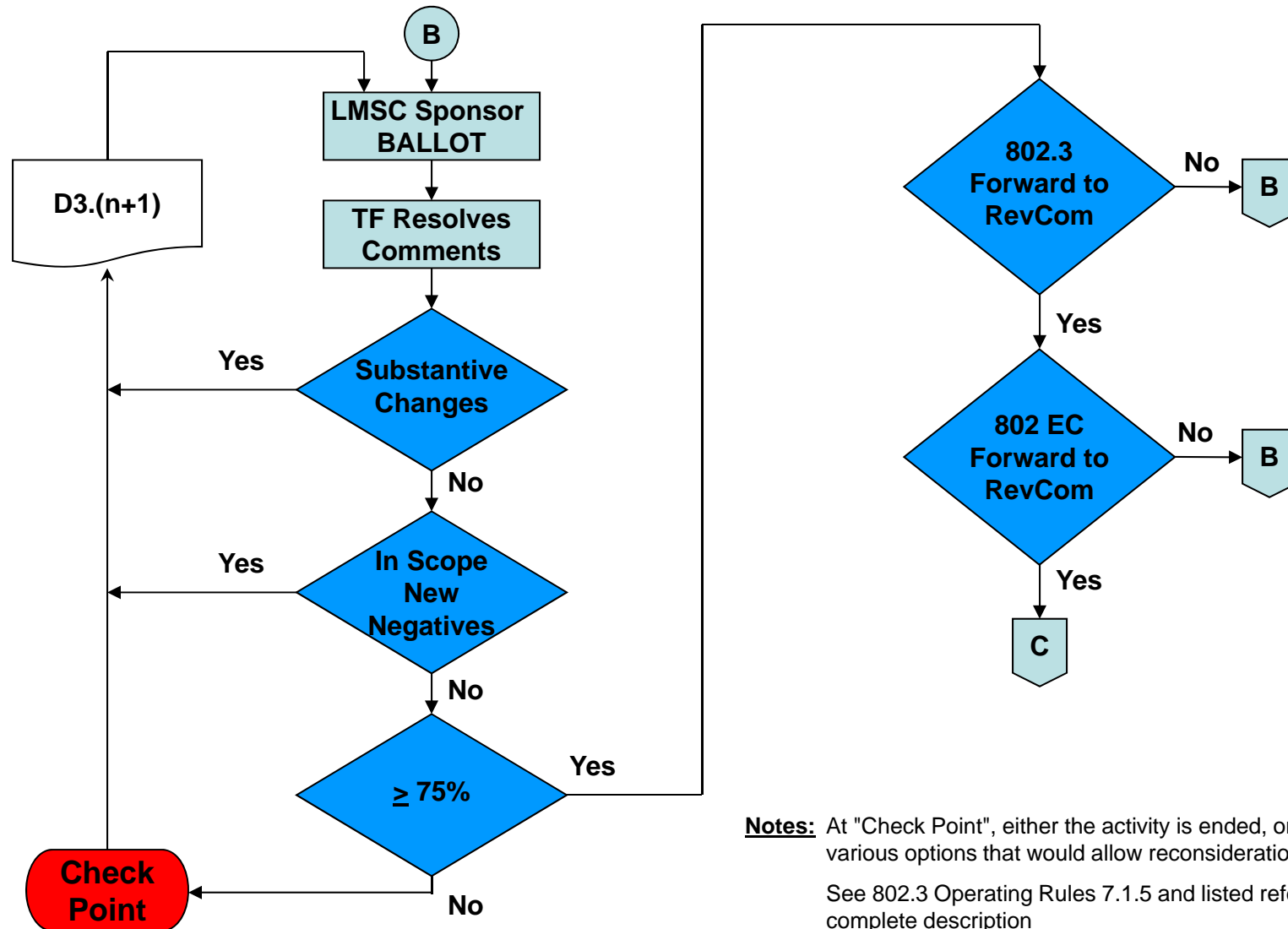
# Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



**Notes:** At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

See 802.3 Operating Rules 7.1.4 and listed references for complete description

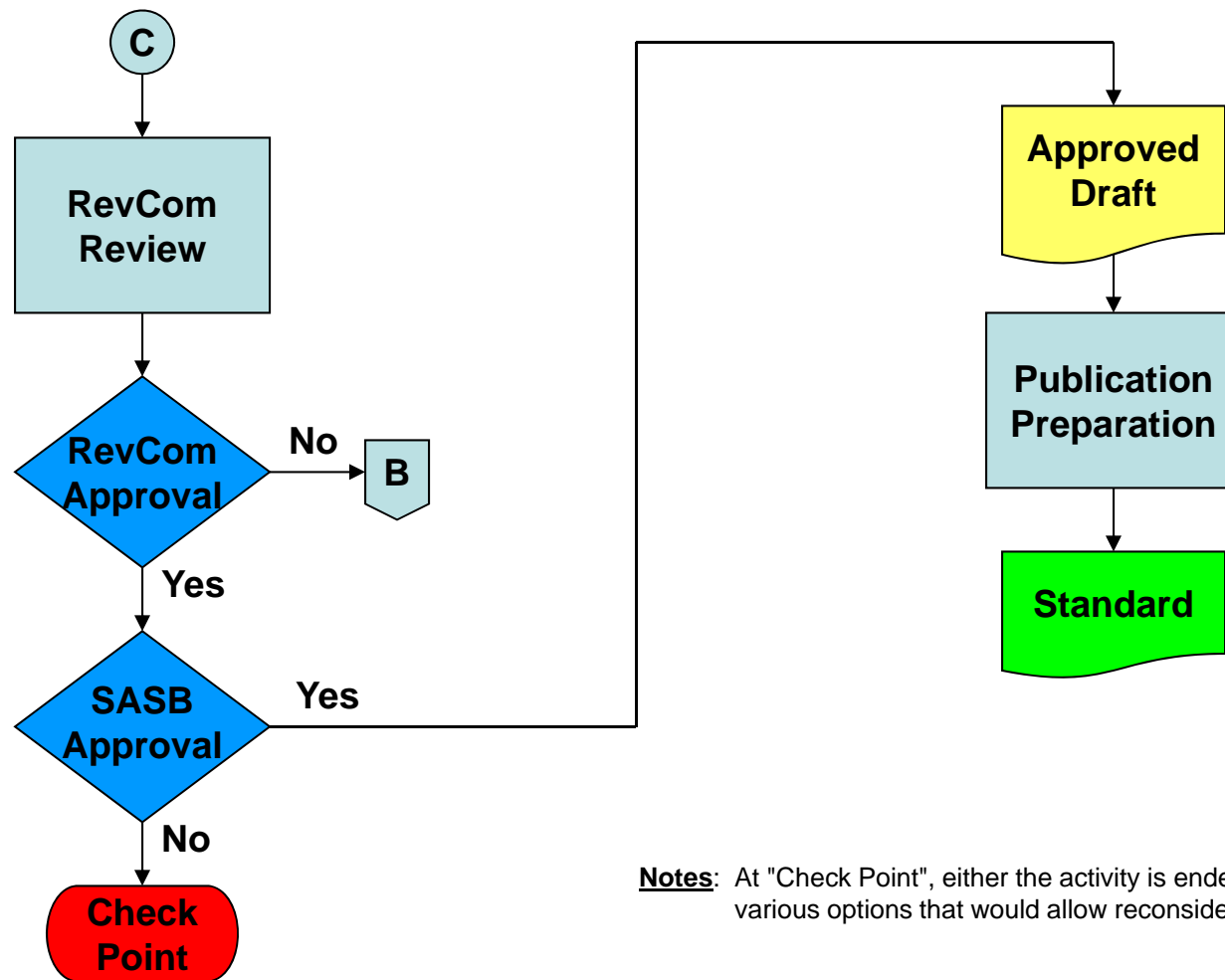
# Overview of IEEE 802.3 Standards Process (4/5)- Sponsor Ballot Phase



**Notes:** At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

See 802.3 Operating Rules 7.1.5 and listed references for complete description

# Overview of IEEE 802.3 Standards Process (5/5) – Final Approvals / Standard Release



**Notes:** At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

# Liaisons and Communications

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- PoDL - 1000BASE-T1 Liaison Report –  
Dave Dwelley

# Private Area

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- What is posted to the private area?
  - Drafts of the standard
  - Any drafts from other SDOs that have been supplied to us
  - Login and password info is never posted on slides or in emails
  - Login and password should not be given out to anyone

# Task Force Operation

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- The Task Force writes the standard
- P802.3bp will be a new clause to the 802.3 Standard
- P802.3bp will modify existing clauses 1, 30, 45 and 78
- Other clauses may also be modified

# Action Items

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- Comment resolution to D1.0
- EMC and channel
- Work on joint PHY proposals
- Liaisons with P802.3bu PODL
- Adopt baselines
- Work on timeline
- Get text for standard



# IEEE P802.3bp Reduced Twisted Pair Gigabit PHY Task Force Project Documents

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- PAR
  - <http://www.ieee802.org/3/bp/P802.3bp.pdf>
- 5 Criteria
  - <http://www.ieee802.org/3/bp/5Criteria.pdf>
- Objectives
  - <http://www.ieee802.org/3/bp/Objectives.pdf>

# Presentation Issues

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- Late requests/submissions
  - All requests received after the two-week deadline will be placed in the best-effort queue
  - Late submissions of PDFs to the Chair will be placed in the best-effort queue
  - Late presentations **WILL NOT** be posted to the Website until (or if) they are presented

# Presentation Issues

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- Updates to submitted presentations
  - Updates will be accepted AFTER submission only if there is a technical correction
  - A final update (which can include added supporters, typo corrections, etc.) will be accepted at the end of the meeting for presentations and posting
  - Presentations must be read and approved by the Chair prior to presenting

# Presentation Issues

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- Filename conventions:
  - *presenter\_name\_3bp\_XYr\_mmyy*
  - *XY* is presentation number, i.e. 01, 02 ,03
  - Revisions (r) are a,b,c, etc.
  - Example: carlson\_3bp\_01a\_0113

# Nomenclature

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- It's 1000BASE-T1
  - Not 1000Base T1
  - Not 1000Base-T1

# Presentations

The Chair reserves the right to re-order presentations to maximize meeting efficiency. This is list in order of receipt. Presentation order with be different.

[IEEE P802.3bp \(1000BASE-T1\) PHY Task Force Channel Definitions Ad Hoc Report](#)

Chris DiMinico  
Mehmet Tazebay

MC Communications/Panduit  
Broadcom

[Comment responses D1.0 San Antonio, Texas November 2014](#)

Chris DiMinico

MC Communications/Panduit

[Proposal for an OAM channel v.0.1](#)

Christoph Schmutzler  
Efsthios Larios  
Kirsten Matheus

BMW  
JLR  
BMW

[97.3 Physical Coding Sublayer \(PCS\) Proposed Baseline Text](#)

Brett McClellan

Marvell

[Auto-Negotiation Baseline Proposal](#)

Brett McClellan

Marvell

[P802.3bp 1000BASE-T1 Auto-Negotiation on Single Twisted Pair Baseline Text Proposal](#)

Brett McClellan

Marvell

[Training & EEE Baseline Proposal](#)

William Lo

Marvell

[Generator polynomials for 1000BASE-T1 FEC](#)

BZ Shen  
Mehmet Tazebay  
Mike Yu

Broadcom

[Clarifications of PCS 80B/81B Control Block for 1000BASE-T1](#)

Steven Chen

Broadcom

[PCS Transmit and Receive Bit Ordering for 1000BASE-T1](#)

Mike Tu

Broadcom

[PAM2 Training States and InfoField for 1000BASE-T1](#)

Mike Tu

Broadcom

[EEE Update for 1000BASE-T1](#)

Jim Graba

Broadcom

[TX distortion measurement and limit for 1000BASE-T1](#)

Ahmad Chini

Broadcom

[Design Challenges for PoDL Coupling Circuit in 100BASE-T1 and 1000BASE-T1](#)

Ahmad Chini

Broadcom

[Improvements on DME-based Autoneg Signaling](#)

Mike Tu  
Jay Cordaro  
Ahmad Chini

Broadcom

[FEC and PAM3 mapping for 1000BASE T1 D3](#)

BZ Shen

Broadcom

# Other business

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<http://standards.ieee.org/about/get/802/802.3.html>

Full PDF copy of IEEE Std 802.3-2012 for free

# Future Meetings

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- See:  
<http://www.ieee802.org/3/interims/index.html>
- **IEEE 802 interim**  
**Atlanta, GA**
- **Week of January 12, 2015**

Attending the January interim?

Yes:

Maybe:

No:

- Anyone interested in hosting a meeting contact Steve Carlson



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# Thank You!