

Agenda and General Information

IEEE P802.3ch Multi-Gigabit Automotive Ethernet PHY
Task Force and IEEE Greater than 10 Gb/s Automotive
Ethernet Electrical PHYs Study Group
Joint Interim

Steve Carlson, Chair
High Speed Design, Inc., Robert Bosch, Marvell
Indianapolis, IN, USA
September 10 – 13, 2019

Agenda

- Jon Lewis – Recording Secretary
- Welcome and Introductions
- Approve Agenda
- Approve meeting minutes from July and ad hoc calls
- Goals for this meeting – discuss how joint meetings work
- Big Ticket Items
- Reflector and Web
- Ground Rules
- IEEE
 - Structure, Bylaws and Rules
 - Call for Patents
 - IEEE Standards Process
- Liaisons and Communications
- Review of Action Items from July meeting
- Tuesday - Opening business, Editor's report, EZ bucket, begin comment resolution
- Wednesday - continue comment resolution
- Future Meetings

Task Force Decorum



- An officer is permitted to make an audio or slideshow recording of this meeting exclusively for the purpose of generating minutes which shall not be copied or distributed. **IEEE 802.3 meetings do not use this option.** Recording of the proceedings by any other participant or observer, in part or in whole, via any means, is prohibited. (June 2018 IEEE-SA Standards Board Ops Manual 5.3.3.2)
- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (June 2018 IEEE-SA Standards Board Ops Manual 5.3.3.3)
- 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

Goals for the meeting

- Review Task Force Operation and IEEE Process
- Comment resolution to D2.1 1st recirculation WG ballot
- Editor will implement major changes and post for review
- Create D2.2 and recirc
- Possible contingent telephone interim 15 October
- Possible D2.3 recirculation out of 15 October telecon
- D2.3 comment resolution in November
- Request progress to SA ballot in November
- Stay on our timeline!

Big ticket items

- Comment resolution to D2.1 and planning for SA ballot

Reflector and Web

- To subscribe to the Multi-Gigabit Automotive Ethernet PHY reflector, send an email to:
ListServ@ieee.org

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

```
subscribe STDS-802-3-NGAUTO <yourfirstname> <yourlastname>  
end
```

- Send Multi-Gigabit Automotive Ethernet PHY reflector messages to:
STDS-802-3-NGAUTO@listserv.ieee.org
- Task Force web page URL:
<http://www.ieee802.org/3/ch/index.html>

Task Force Private Area

URL: <http://www.ieee802.org/3/ch/private/index.html>

- Username: 802.3ch
- Password: *****
- Write it down...
- Note - The draft, and any other content, is posted for your review only, and neither the content nor access information should be copied or redistributed to others in violation of document copyrights.

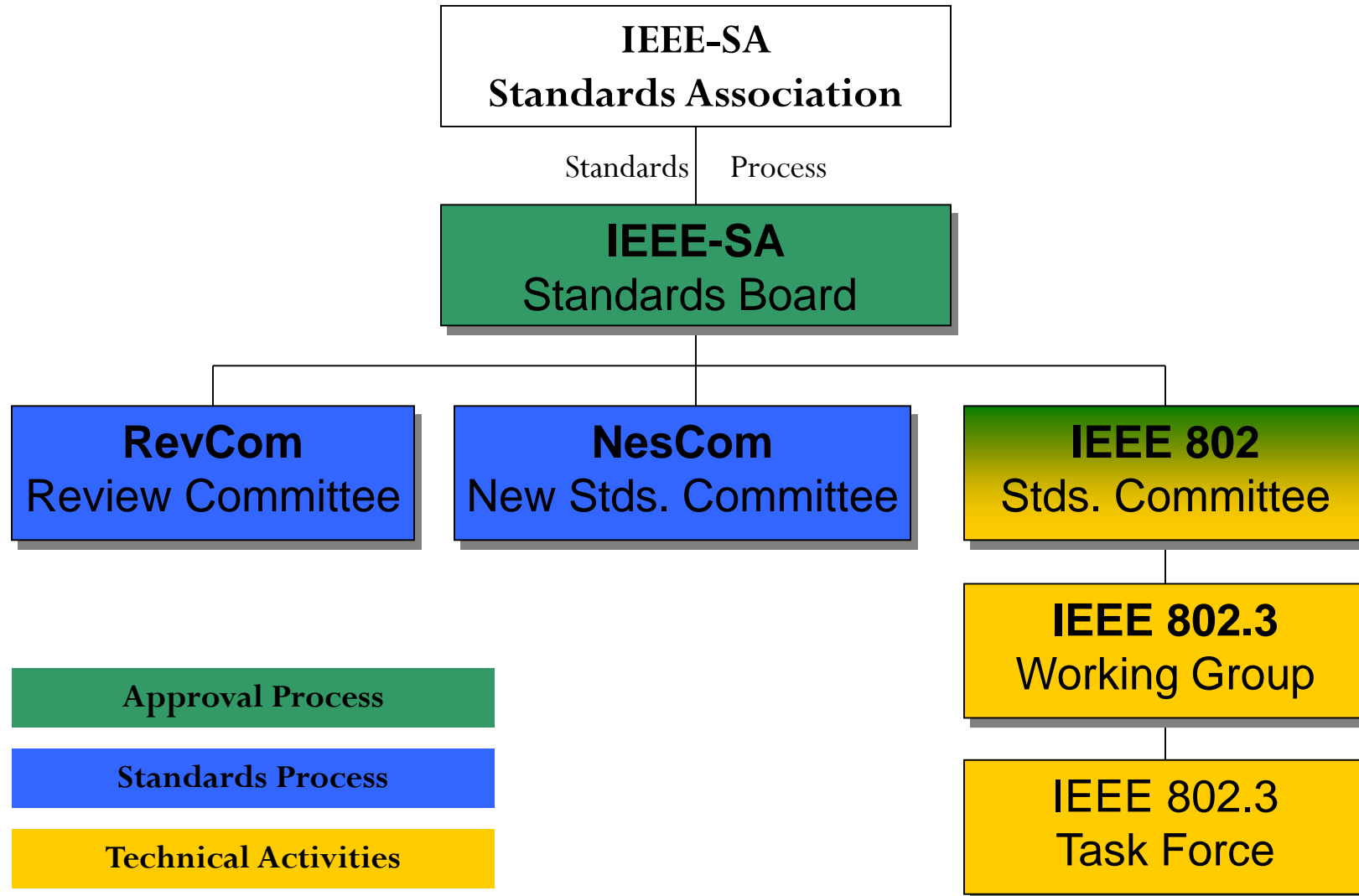
Ground Rules

- 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

- Tutorial Material on attendance tool
 - http://ieee802.org/3/minutes/attendance_procedures.pdf
- Access details
 - URL: <http://imat.ieee.org/>
 - Session access code: _____
 - Please sign the paper attendance sheet

IEEE Structure



Important Bylaws and Rules

- **IEEE-SA Operations Manual**
http://standards.ieee.org/develop/policies/sa_opman/
- **IEEE-SA Standards Board Bylaws**
<http://standards.ieee.org/develop/policies/bylaws/>
- **IEEE-SA Standards Board Operations Manual**
<http://standards.ieee.org/develop/policies/opman/>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Policies and Procedures**
<https://ieee.app.box.com/v/PandP-LMSC>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Operations Manual**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802 LAN/MAN Standards Committee (LMSC) Working Group (WG) Policies and Procedures**
<http://www.ieee802.org/devdocs.shtml>
- **IEEE 802.3 Working Group Operating Rules**
http://ieee802.org/3/rules/P802_3_rules.pdf

Participants have a duty to inform the IEEE

- 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
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

**Early identification of holders of potential
Essential Patent Claims is encouraged**

Ways to inform IEEE

- Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); 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
- **Speak up now and respond to this 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, please respond at this time by providing relevant information to the WG Chair

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 of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
 - Technical considerations remain the 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.

For more details, see *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and *Antitrust and Competition Policy: What You Need to Know* at <http://standards.ieee.org/develop/policies/antitrust.pdf>

Patent-related information

The patent policy and the procedures used to execute that policy are documented in the:

- ***IEEE-SA Standards Board 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**

Participation in IEEE 802 Meetings

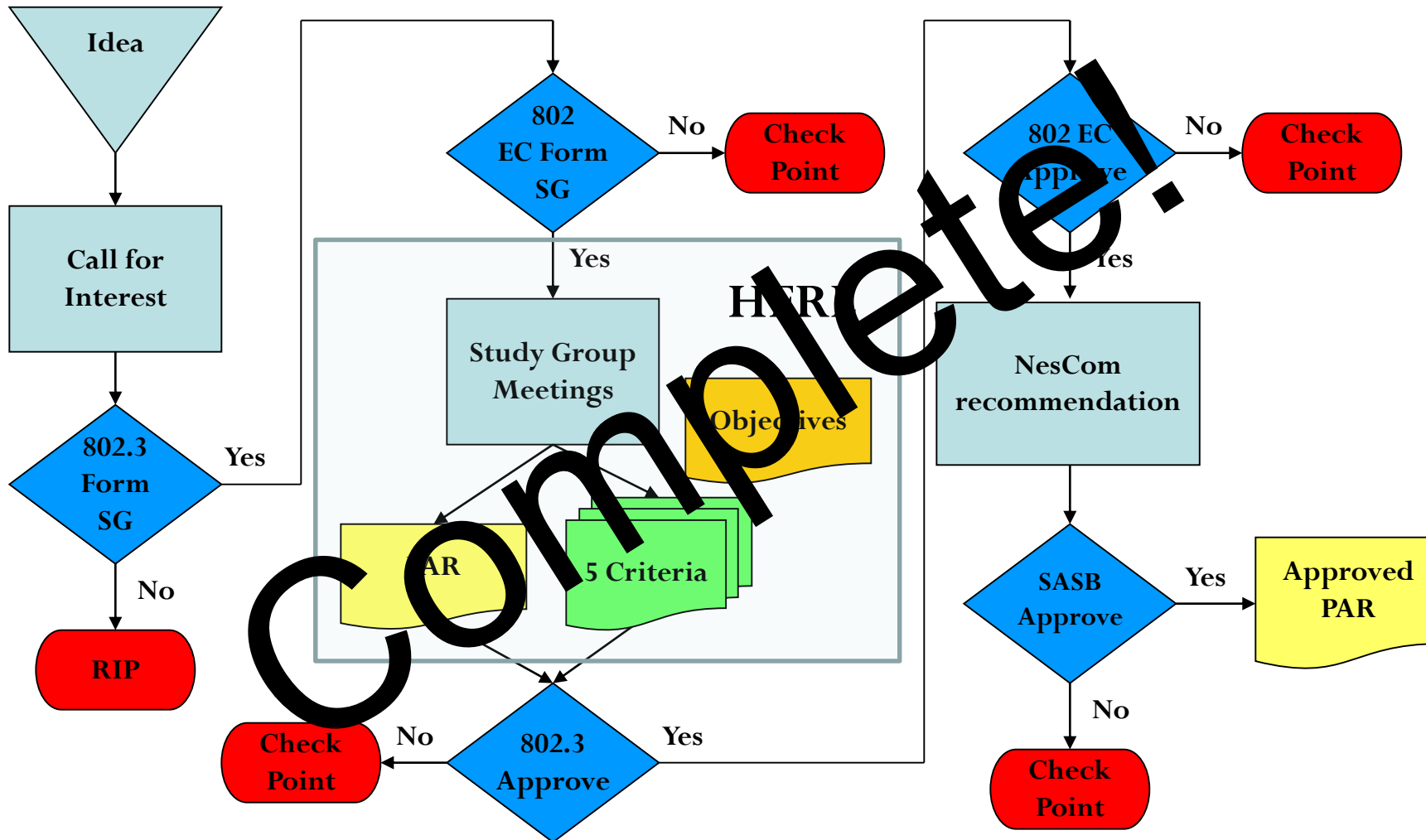
Participation in any IEEE 802 meeting (Sponsor, Sponsor subgroup, Working Group, Working Group subgroup, etc.) is on an individual basis

- **Participants in the IEEE standards development individual process shall act based on their qualifications and experience. (https://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdf section 5.2.1)**
- **IEEE 802 Working Group membership is by individual; “Working Group members shall participate in the consensus process in a manner consistent with their professional expert opinion as individuals, and not as organizational representatives”. (subclause 4.2.1 “Establishment”, of the IEEE 802 LMSC Working Group Policies and Procedures)**
- **Participants have an obligation to act and vote as an individual and not under the direction of any other individual or group. A Participant’s obligation to act and vote as an individual applies in all cases, regardless of any external commitments, agreements, contracts, or orders.**
- **Participants shall not direct the actions or votes of any other member of an IEEE 802 Working Group or retaliate against any other member for their actions or votes within IEEE 802 Working Group meetings, see https://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdf section 5.2.1.3 and the IEEE 802 LMSC Working Group Policies and Procedures, subclause 3.4.1 “Chair”, list item x.**

By participating in IEEE 802 meetings, you accept these requirements. If you do not agree to these policies then you shall not participate.

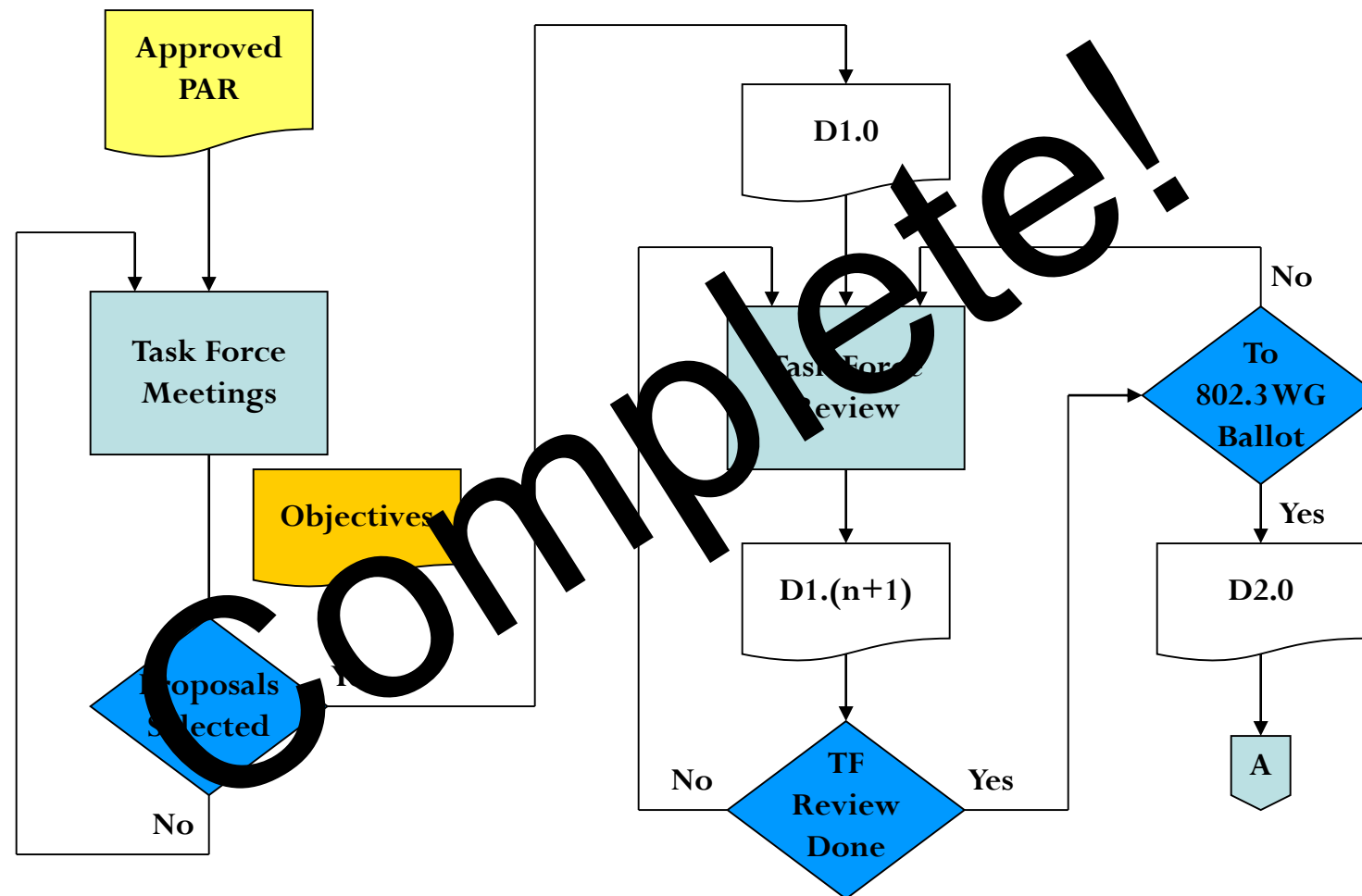
(Latest revision of IEEE 802 LMSC Working Group Policies and Procedures: <http://www.ieee802.org/devdocs.shtml>)

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

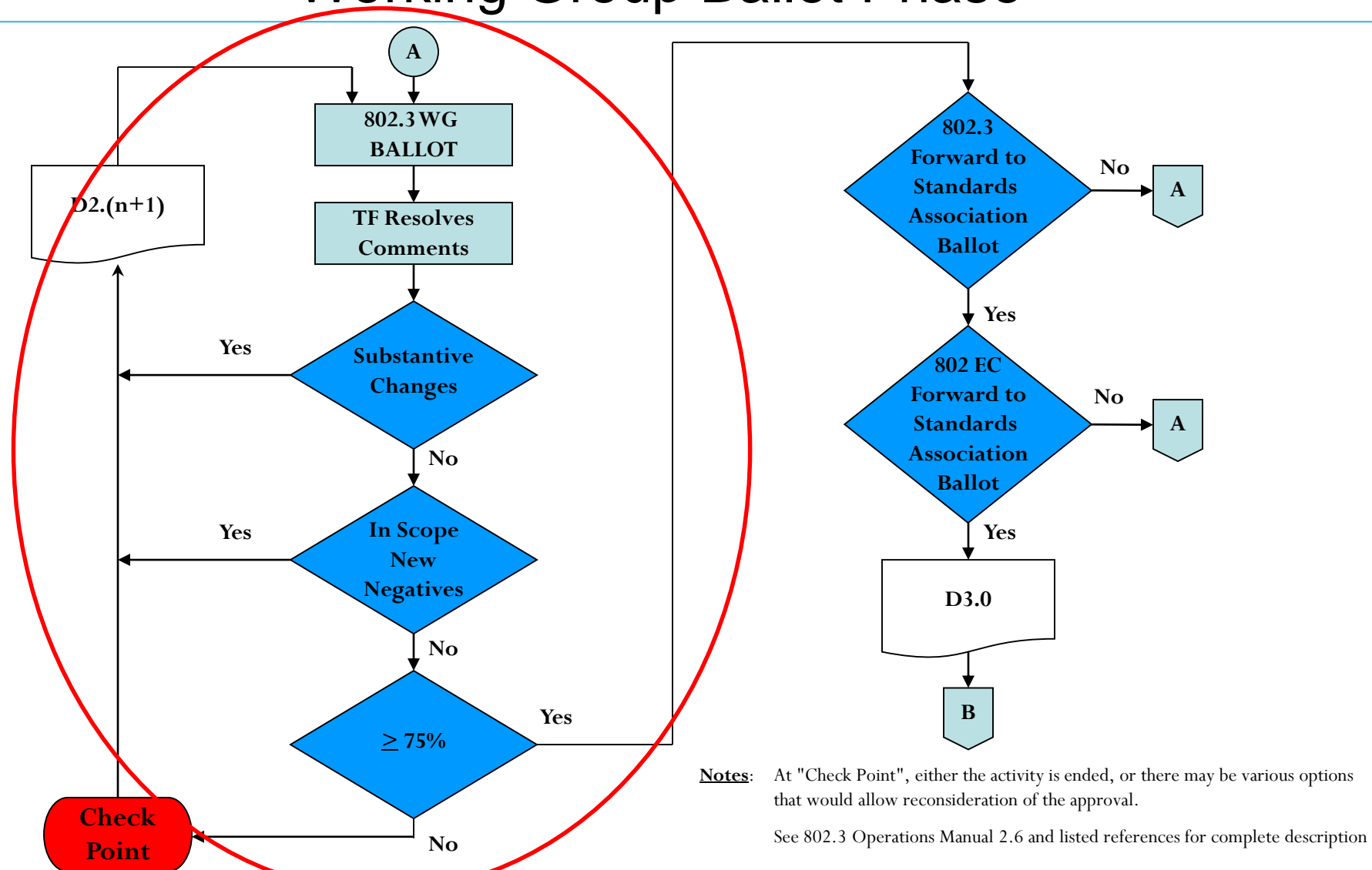


Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

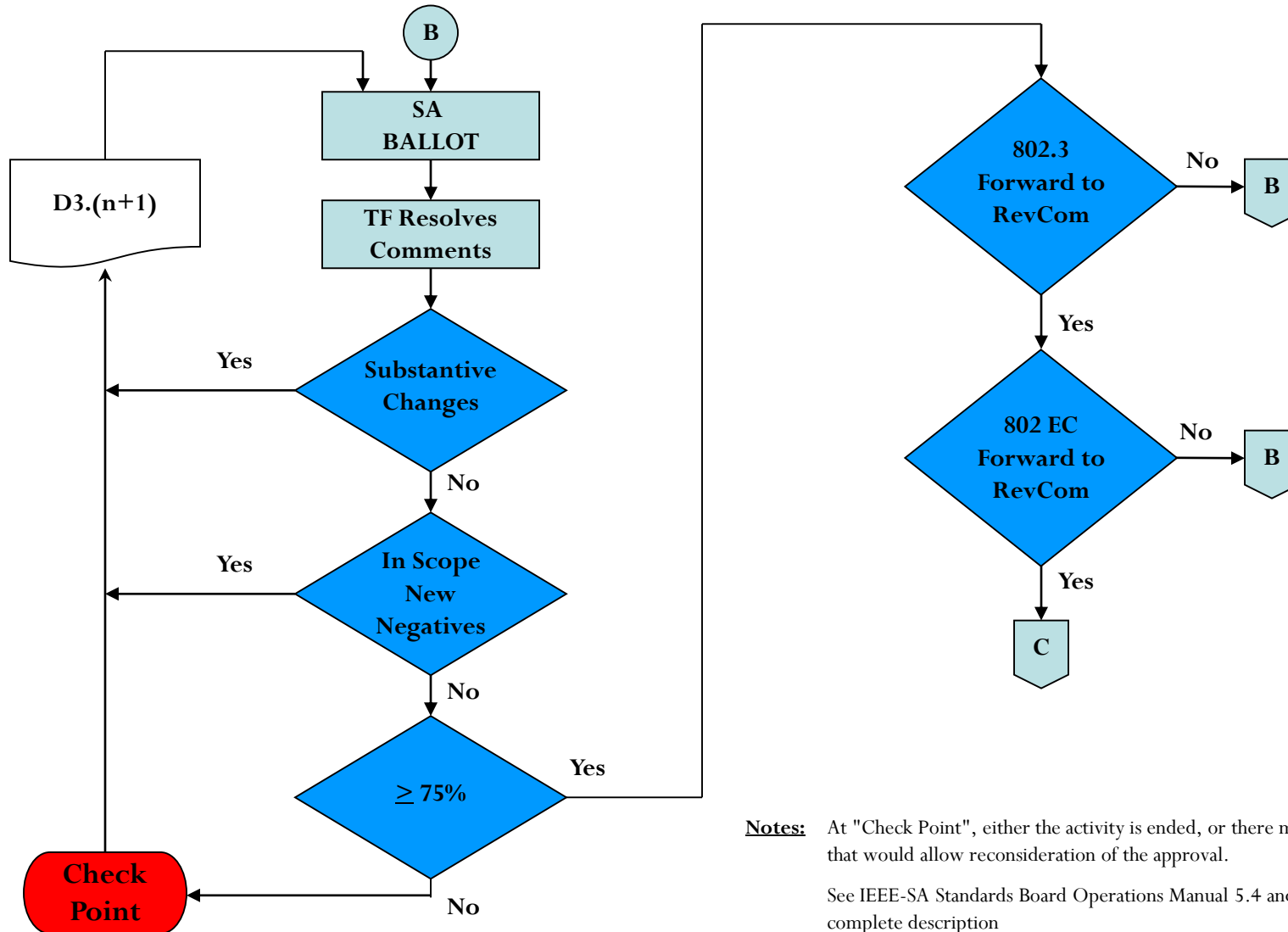
Overview of IEEE 802.3 Standards Process (2/5) – Task Force Comment Phase



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

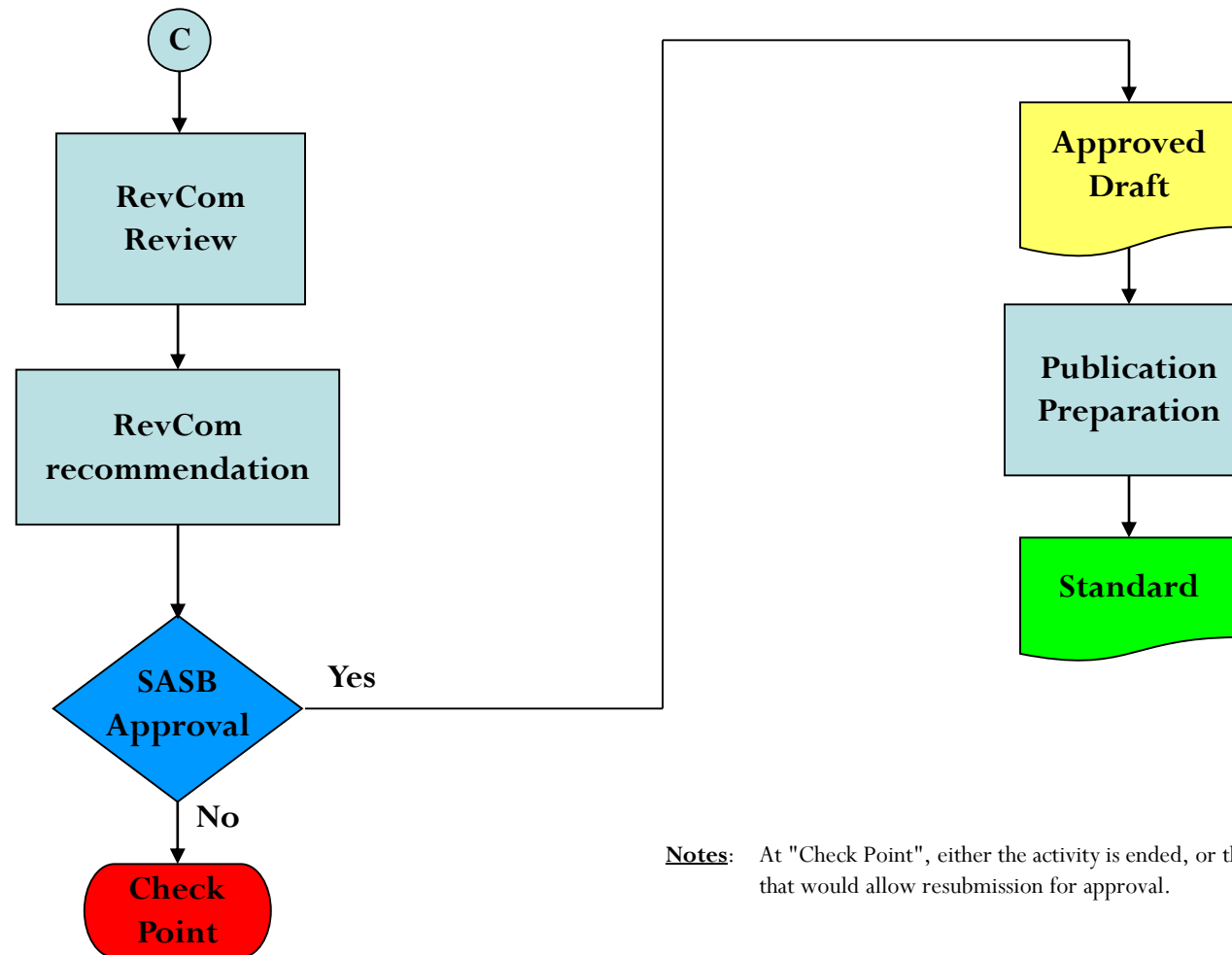


Overview of IEEE 802.3 Standards Process (4/5)- IEEE Standards Association (SA) Ballot Phase



Notes: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.
See IEEE-SA Standards Board Operations Manual 5.4 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 resubmission for approval.

IEEE P802.3ch NGAUTO Ethernet PHY Task Force

Approved Project Documents

- PAR
 - http://ieee802.org/3/ch/P802.3ch_PAR.pdf
- 5 Criteria
 - <https://mentor.ieee.org/802-ec/dcn/17/ec-17-0069-00-ACSD-802-3ch.pdf>
- Objectives
 - http://ieee802.org/3/ch/0317_approved_objectives_3NGAUTO.pdf

IEEE P802.3 P802.3ch NGAUTO Ethernet PHY Task Force Objectives

1. Preserve the IEEE 802.3/Ethernet frame format at the MAC client service interface
2. Preserve minimum and maximum frame size of the current IEEE 802.3 standard
3. Support full duplex operation only
4. Define optional startup procedure which enables the time from power_on=FALSE to a state capable of transmitting and receiving valid data to be less than 100ms
5. Support data rates of 2.5 Gb/s, 5 Gb/s and 10 Gb/s at the MAC/PLS service interface.
6. Support a BER better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent)
7. Support optional Auto-Negotiation
8. Support optional Energy Efficient Ethernet
9. Support operation in automotive environments (e.g., EMC, temperature)
10. Do not preclude meeting FCC and CISPR EMC requirements.

IEEE P802.3ch NGAUTO Ethernet PHY Task Force Objectives

11. Define the performance characteristics of an automotive link segment and an electrical PHY to support 2.5 Gb/s point-to-point operation over this link segment supporting up to four inline connectors for at least 15m on at least one type of automotive cabling (e.g., UTP, STQ, STP, SPP, Coax, or Twinax).
12. Define the performance characteristics of an automotive link segment and an electrical PHY to support 5 Gb/s point-to-point operation over this link segment supporting up to four inline connectors for at least 15m on at least one type of automotive cabling.

IEEE P802.3 P802.3ch NGAUTO Ethernet PHY Task Force Objectives

13. Define the performance characteristics of an automotive link segment and an electrical PHY to support 10 Gb/s point-to-point operation over this link segment supporting up to four inline connectors for at least 15m on at least one type of automotive cabling.

14. Support optional Clause 104 power over data lines on appropriate media.

Liaisons and Communications

Presentation Guidelines

- **Filenames**
 - Please follow the format
 - Revision
- **Templates**
 - Please make the title and author field selectable
- **PDF properties**
 - Please fill these fields out to aid the search engine
- **Confidentiality Statements**
 - No problems
 - Applies to presentations and emails
- **Discussion of Cost**
 - No issues

Presentation Guidelines

- Material from other presentations
 - If you use material from another presentation, it must be properly attributed
 - Use the filename
- Material from outside sources
 - Make sure you have permission and indicate that on the slide

Joint Meetings - Change 1-03/19

- The purpose, objective, or problem

Currently, there is no definition of operation of Joint Task Force Meetings within the IEEE 802.3 Operations Manual, including voting within this type of meeting. Given the growing interaction between task forces, this would be beneficial to effective operation.

Joint Meetings - Change 1-03/19

Specific text changes

Insert the following at the end of 3.3.2 Meetings and Participation:

IEEE 802.3 Task Forces may meet jointly at the discretion and agreement of the respective Task Force Chairs and the Working Group chair. Task Forces operating with membership rules for voting (see 3.3) cannot meet jointly.

Motions, other than approval of Joint Task Force meeting agenda and minutes, may only be taken in respect to a project in a joint Task Force meeting with the prior approval of the IEEE 802.3 Working Group.

Insert the following at the end of 3.4.2 Voting:

Motions are defined as either technical or procedural by the TF Chair, or the respective individual chairing a joint task force meeting.

Motion #9 – July 2019 WG

MOTION #9

Move that the IEEE 802.3 Working Group grant approval for the P802.3ch Task Force and the IEEE 802.3 Greater than 10 Gb/s Automotive Ethernet Electrical PHYs Study Group to take motions during any joint meeting between these groups only.

M: S. Carlson S: N. Weinckowski

Procedural (>50%)

Passed by voice vote without opposition 18-Jul 2019, 2:45 pm

Presentations

- [Ad Hoc Report](#)
- Opening Editor's Report – D2.1
- Presentations in support of comments will be done when those comments are considered
- Major changes – Chief Editor
- Closing Editor's Report – D2.2
- Preparation for D2.2 and contingent interim telecon
- SA ballot pool close 21 September

Motions and Straw Polls

- Straw Polls and Motions
- Motions
- Other business

Future Meetings

- See: <http://www.ieee802.org/3/interims/index.html>
- November 2019 Plenary
 - November 10-15
 - Hilton Waikoloa Village, Kona, HI, USA
- January 2020 802.3 interim
 - January 20 - 24
 - ITU Headquarters, Geneva, CH
- Anyone interested in hosting an interim meeting contact the IEEE 802.3 Executive Secretary [Steve Carlson](#).

Future Meetings

Attendance:

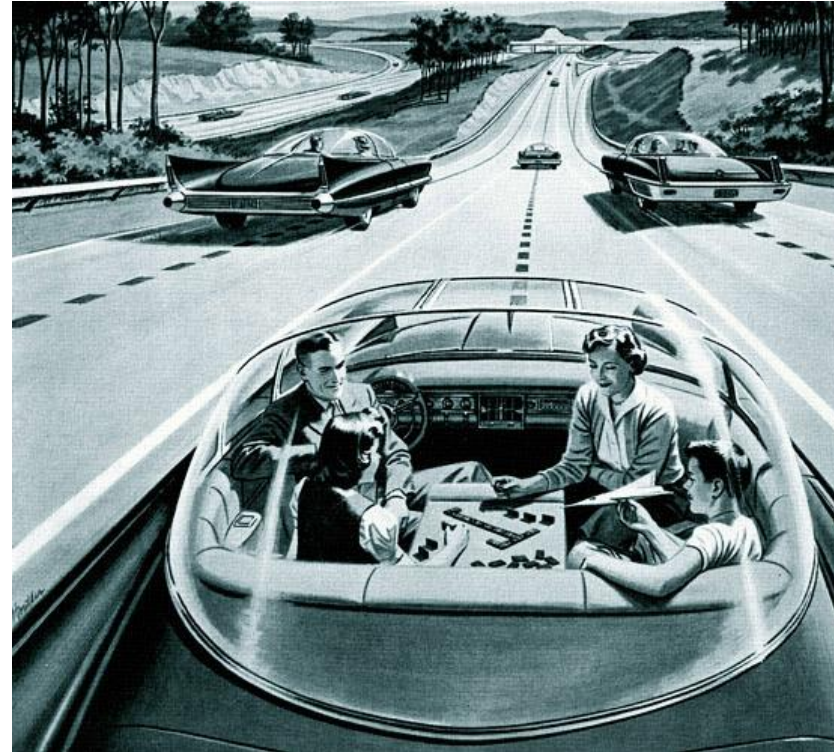
Attend November 2019 802 Waikoloa plenary:

Y: N: M:

Attend January 2020 802.3 interim Geneva:

Y: N: M:

Questions?



Thank you!