

IEEE P802.3cn Task Force: 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s over Single-Mode Fiber and DWDM

Agenda and General Information

John D'Ambrosia,
Acting Chair, IEEE P802.3cn Task Force
Futurewei, Subsidiary of Huawei
IEEE 802 Nov 2018 Plenary
Bangkok, Thailand

Agenda

- Appointment of Recording Secretary
- Confirmation of Task Force Chair
- Welcome / Introductions
- Approval of Agenda
- IEEE 802 Participation
- Task Force Information
- Attendance
- Approval of Study Group Sept 2018 Interim / Task Force Ad hoc Minutes
- Patent Policy
- Ground Rules
- The Role of the Chair
- IEEE
 - Structure
 - Bylaws and Rules
 - IEEE 802.3 Standards Process
- Goals for the Week
- Liaisons & Communications
- Ad Hocs Reports
- Presentations General / 40 km – Discussion & Strawpolls
- Presentations 80 km– Discussion & Strawpolls
- Motions
- Consideration of Splitting PAR (Motions if applicable)
- Closing Business
- 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

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>)

IEEE 802 Executive Committee

IEEE P802.3cn Task Force Information

- John D'Ambrosia, Acting Chair
- Home Page - <http://www.ieee802.org/3/cn/index.html>
- Reflector Information – <http://www.ieee802.org/3/cn/reflector.html>
- Editorial Team
 - Pete Anslow – 40Km Objectives Supporting Clauses
 - Peter Stassar – 40km Optical PHY Clauses
- Project Documentation
 - PAR - http://www.ieee802.org/3/cn/P802.3cn_PAR.pdf
 - CSD - <https://mentor.ieee.org/802-ec/dcn/18/ec-18-0166-00-ACSD-802-3cn.pdf>
 - Objectives - http://www.ieee802.org/3/B10K/project_docs/Objectives_180712.pdf

Attendance

- Tutorial Material on attendance tool
 - http://ieee802.org/3/minutes/attendance_procedures.pdf
- Attendance books
 - Keeps track of attendance in room
 - Used to support requests to verify attendance by chair if IMAT not used.

Minutes for approval

- Sept Interim

- http://www.ieee802.org/3/B10K/public/18_05/minutes_b10k_01_0518_unapproved.pdf

- Nov 7 Task Force Ad hoc Call

- http://www.ieee802.org/3/cn/public/adhoc/18_1107/minutes_3cn_181107_unapproved.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:**
 - 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 IEEE is not aware. Additionally, neither 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 14 and 15 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 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**

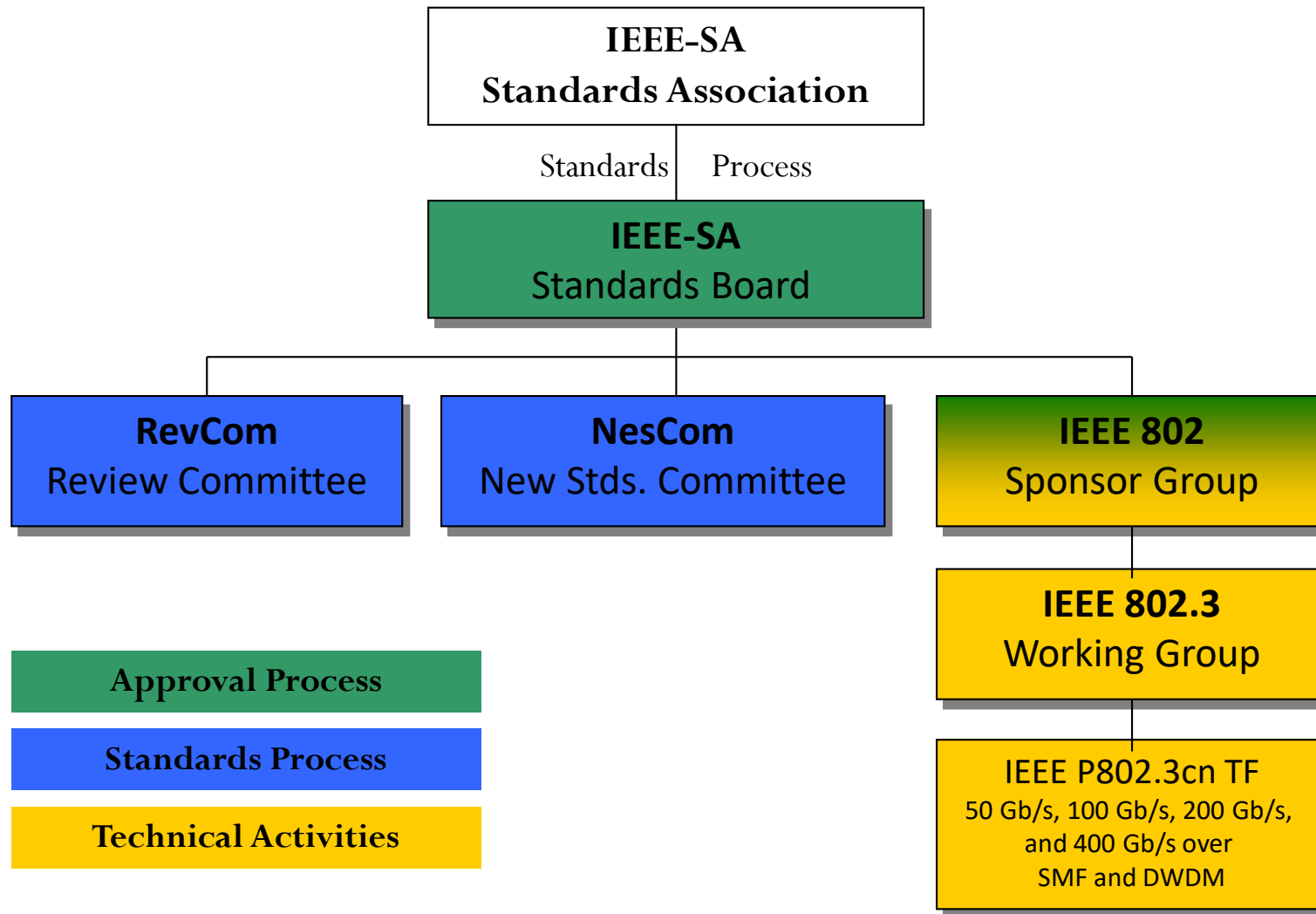
Ground Rules

- 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

The Role of the Chair

- Per the IEEE 802.3 Ethernet WG Operations Manual (http://www.ieee802.org/3/rules/P802_3_rules.pdf)
 - The operation of the TF has to be balanced between democratic procedures that reflect the desires of the TF members and the TF Chair's responsibility to produce a draft standard, recommended practice, or guideline in a reasonable amount of time for review and approval by the WG. Robert's Rules of Order shall be used in combination with these operating rules to achieve this balance.
 - The full responsibilities of the chair are specified in 3.4.3 Task Force Chair's Responsibilities.
- Reminder - individual standards activities within the WG are, at the discretion of the WG, carried out by Task Forces (TF) operating under, and reporting to, the WG.

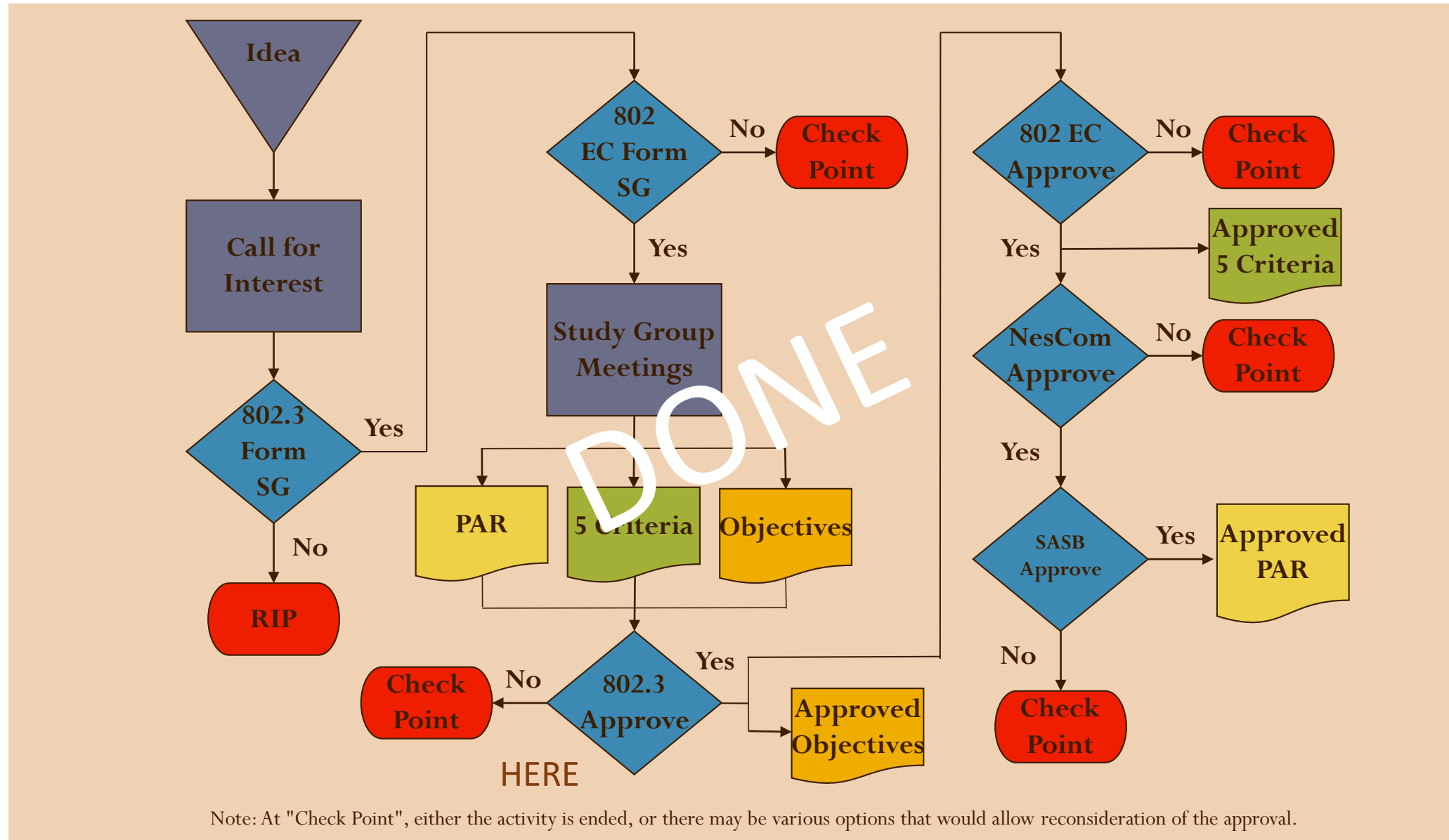
IEEE Structure



Important Bylaws, Rules, and References

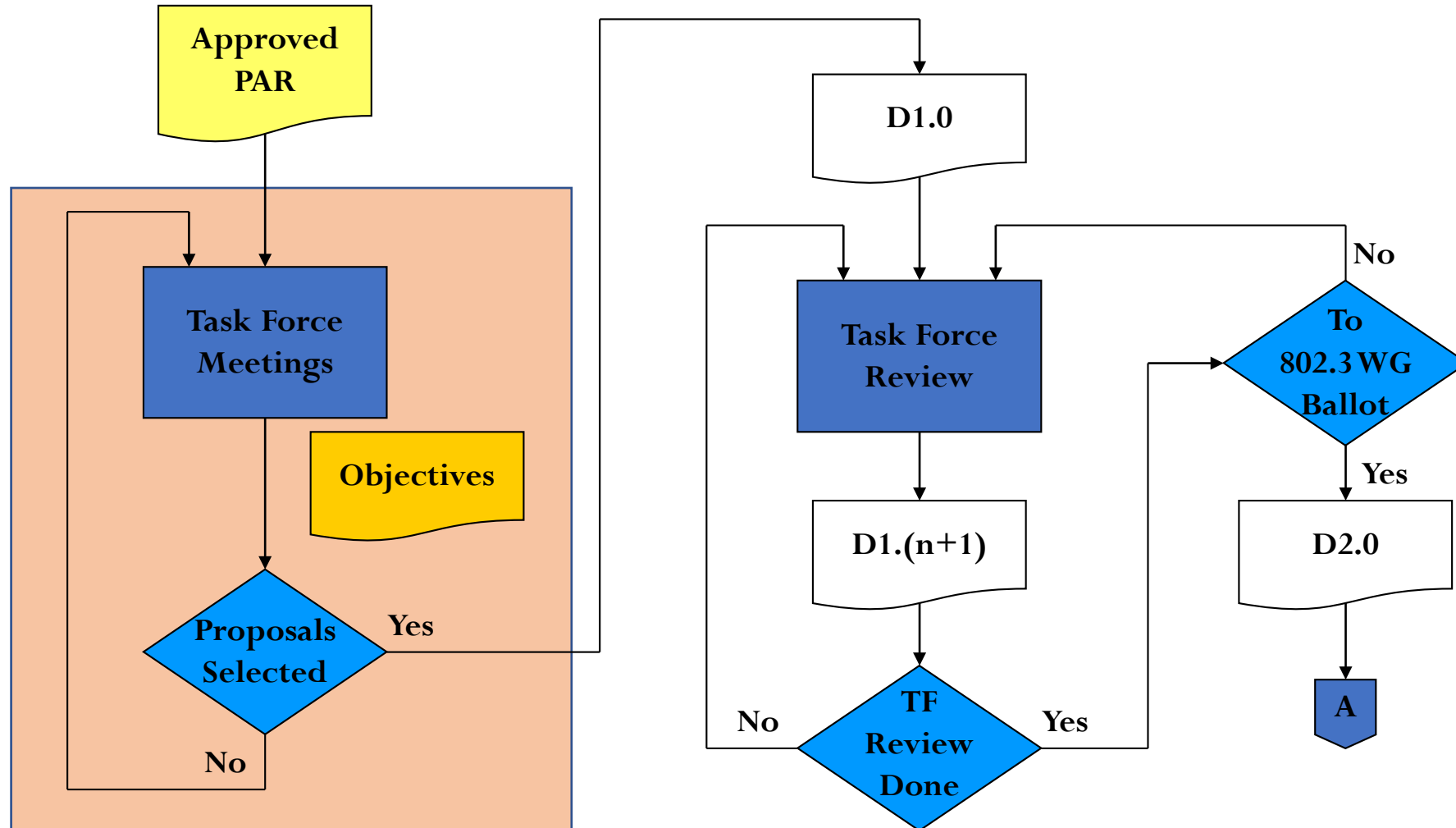
- **IEEE-SA Operations Manual**
http://standards.ieee.org/develop/policies/sa_opman/
- **IEEE-SA Standards Board Bylaws**
<http://standards.ieee.org/develop/policies/bylaws/>
- **IEEE-SA Standards Board Operations Manual**
<http://standards.ieee.org/develop/policies/opman/>
- **IEEE 802 LAN/MAN Standards 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
- **“Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy”**
<http://standards.ieee.org/develop/policies/antitrust.pdf>

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

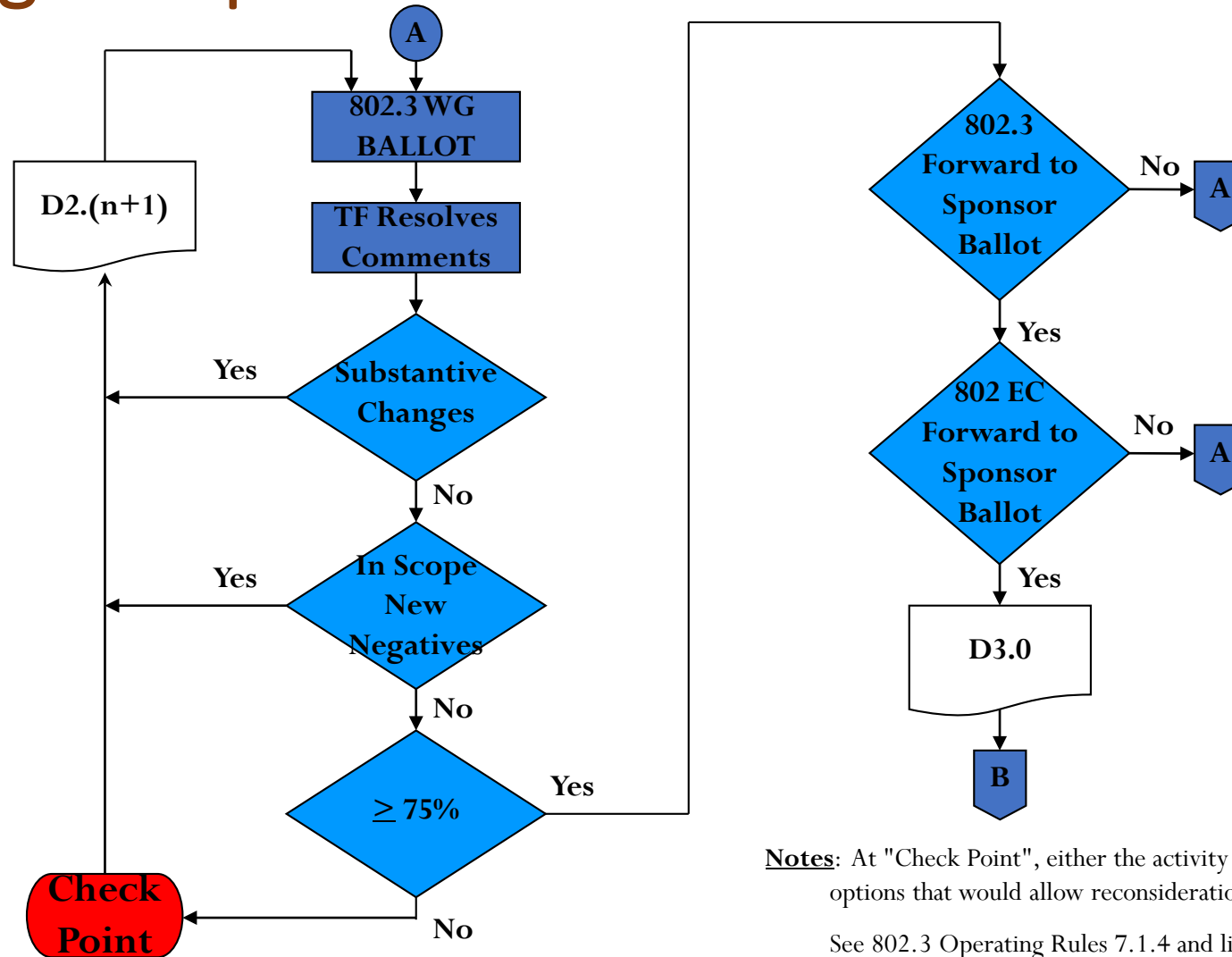


Overview of IEEE 802.3 Standards Process (2/5) – Task Force Comment Phase

We
are
here



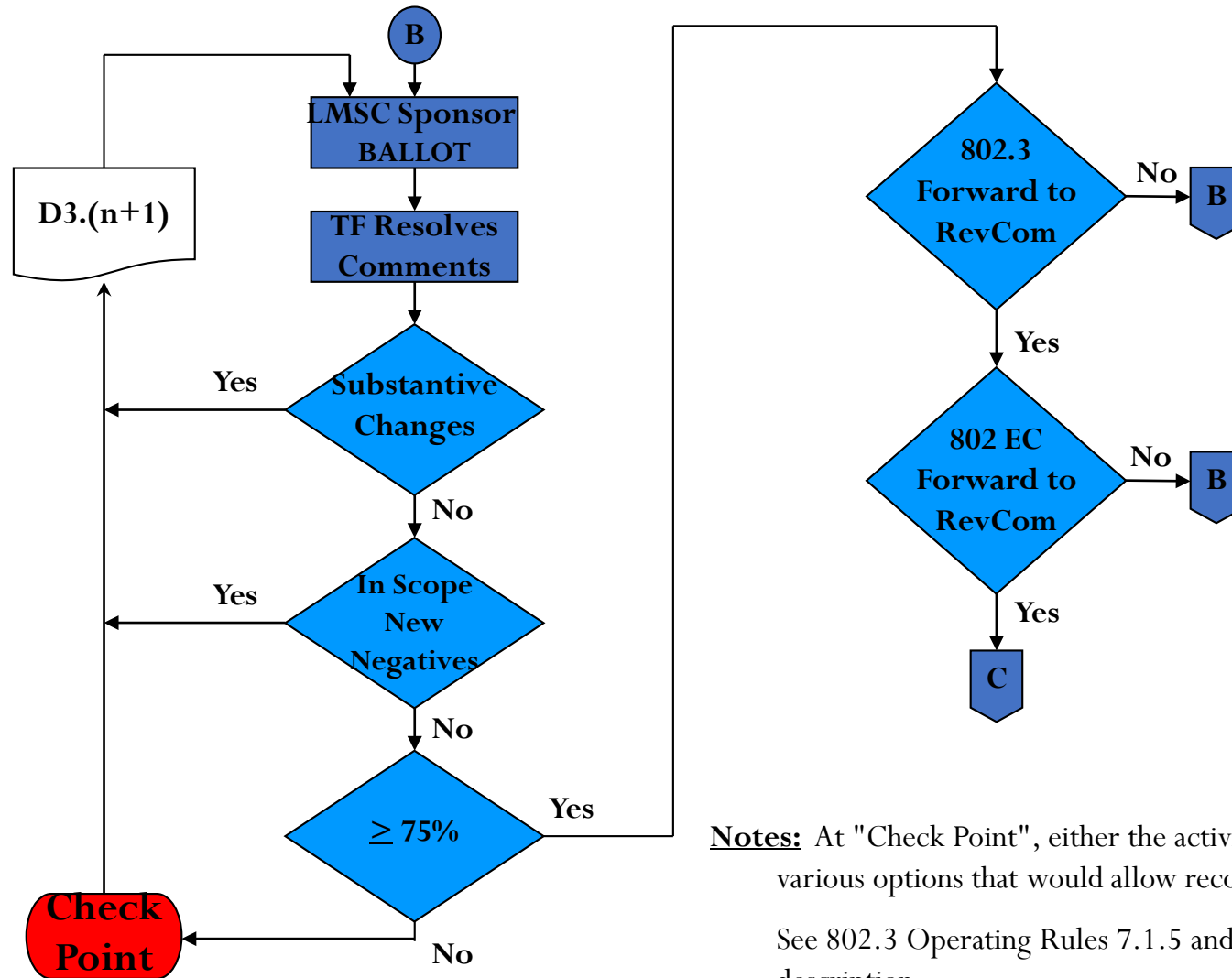
Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



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

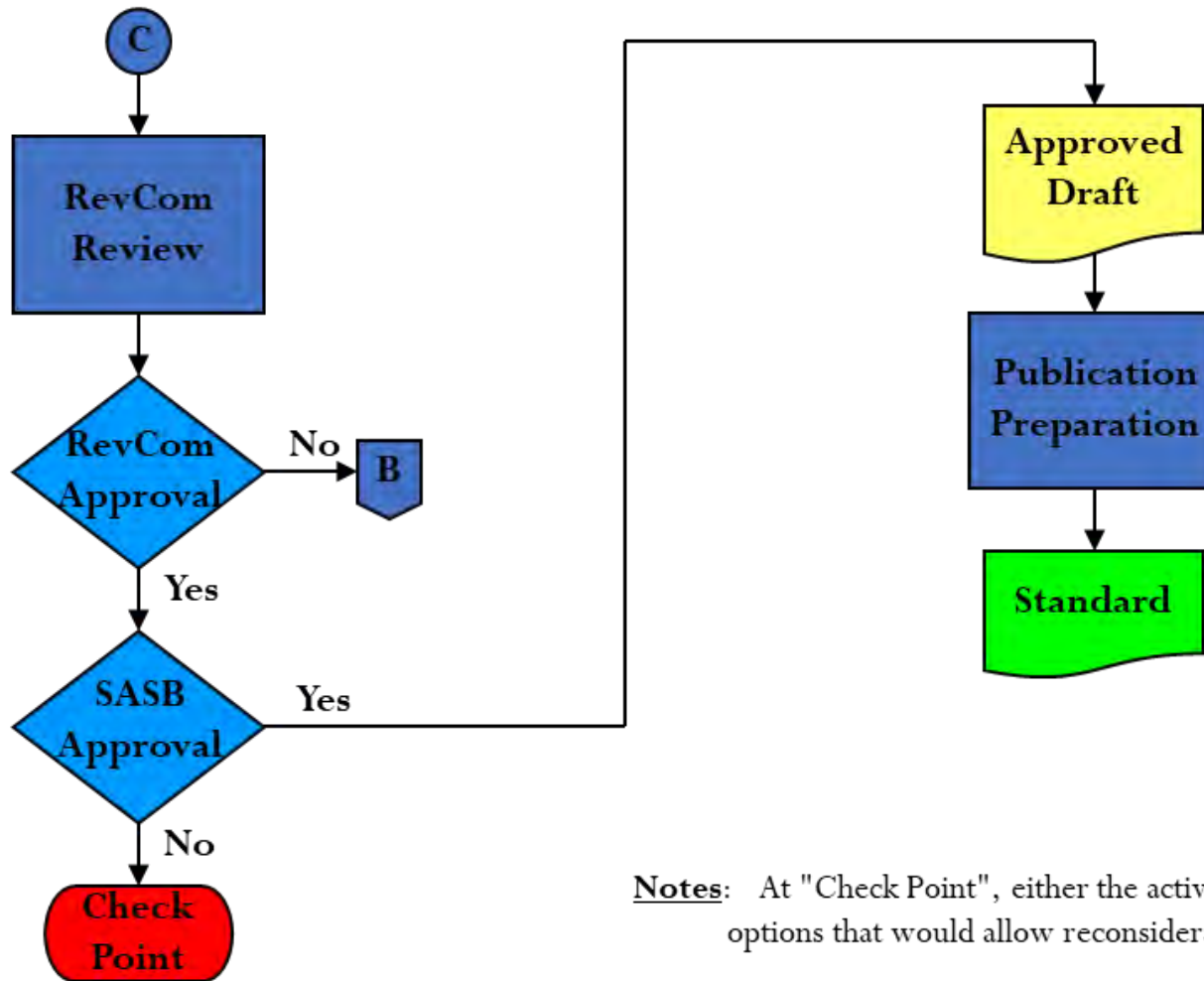
Overview of IEEE 802.3 Standards Process (4/5)- Sponsor Ballot Phase



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.

Goals for the Week

- Presentations
- Baseline Proposals Selection
- Consider Splitting IEEE P802.3cn PAR
 - PAR 1 – targeting 40km related objectives
 - PAR 2 – targeting 80km related objectives
- Consider Liaisons from COBO, ITU-T SG15, and OIF

Liaisons and Communications

- **COBO**

- http://www.ieee802.org/3/minutes/nov18/incoming/COBO_to_IEEE_802d3_Oct_2018.pdf

- **ITU-T SG15**

- http://www.ieee802.org/3/minutes/nov18/incoming/ITU_SG15_LS-150_to_IEEE_802d3.pdf
- [Attachments](#) (Password protected)

- **OIF**

- [OIF to IEEE 802.3 regarding 400ZR Interop Project](#)
- [Attachment](#) (Password protected)

Ad hoc Reports

- Three Task Force Ad Hoc Meetings
 - Oct 23 – 100 GbE Architecture
 - http://www.ieee802.org/3/cn/public/adhoc/18_1023/index.html
 - Oct 25 – Compliance Metrics
 - http://www.ieee802.org/3/cn/public/adhoc/18_1025/index.html
 - Nov 7 – Discussion regarding splitting PAR and project documentation
 - http://www.ieee802.org/3/cn/public/adhoc/18_1107/index.html

Schedule

| <u>Monday</u> | <u>12-Nov-18</u> | <u>All</u> | | |
|---------------|--------------------------------|------------------------------------|---|-------------------------|
| Time | Presenter | Affiliation | Title | File Name |
| 1:00 PM | John D'Ambrosia | Futurewei, Subsidiary of Huawei | Agenda and General Information | agenda_3cn_01_1118 |
| 1:30 PM | Pete Anslow | Ciena | PMD Naming | anslow_3cn_01_1118 |
| 1:45 PM | Peter Stassar | Huawei | Overview of (editing) work required to create physical layer specifications for n*50G PAM4 over 40 km | stassar_3cn_01a_1118 |
| 2:00 PM | Yu Xu | Huawei | Baseline Proposal for 50 Gb/s Ethernet 40km SMF, 50GBASE-ER in 802.3cn | xu_3cn_01_1118 |
| 2:25 PM | Yu Xu | Huawei | Baseline Proposal for 200 Gb/s Ethernet 40km SMF, 200GBASE-ER4 in 802.3cn | xu_3cn_02_1118 |
| 2:50 PM | Frank Chang | Source Photonics | 400GBASE-ER8 40km SMF PMD Preliminary Specification Proposal | chang_3cn_01_1118 |
| 3:15 PM | Break | | | |
| 3:30 PM | Strawpolls & Discussion (40km) | | | |
| 4:15 PM | Peter Stassar | Huawei | Introducing the ITU-T SG15 Liaison Statement with the recently consented revised Recommendation G.698.2 clarifying the specification methodology for 100 Gb/s coherent DWDM systems | stassar_3cn_03_1118 |
| 5:00 PM | Peter Stassar | Huawei | Considerations on establishing physical layer specifications for 100 Gb/s and 400 Gb/s over 80 km DWDM systems | stassar_3cn_02_1118 |
| 5:30 PM | Ilya Lyubomirsky | Inphi Corp. | OSNR Link Budget Methodology | lyubomirsky_3cn_01_1118 |
| 6:00 PM | Break for the Day | | | |

| <u>Tuesday</u> | <u>13-Nov-18</u> | | | |
|----------------|--|------------------------------------|--|-------------------------|
| Time | Presenter | Affiliation | Title | File Name |
| 8:00 AM | John D'Ambrosia | Futurewei, Subsidiary of Huawei | Opening Comments | |
| 8:05 AM | John DeAndrea | Finisar | Coherent 100 and 400G PMD Layer WDM considerations | deandrea_3cn_01a_1118 |
| 8:35 AM | Ilya Lyubomirsky | Inphi Corp. | Baseline Proposal for 400G/80km | lyubomirsky_3cn_02_1118 |
| 9:05 AM | Strawpolls & Discussion (80km) | | | |
| 10:00 AM | Break | | | |
| 10:15 AM | Motions (40km / 80km) | | | |
| 11:00 AM | Consideration of Splitting IEEE P802.3cn PAR (Motions if applicable) | | | dambrosia_3cn_01_1118 |
| | | | | dambrosia_3cn_02_1118 |
| 11:45 AM | Closing Business | | | |
| 12:00 PM | Adjourn | | | |

Future Meetings

See: <http://www.ieee802.org/3/interims/index.html>
for meeting details and additional meetings.

- Jan 2019
 - Week of Jan 14
 - Hilton Long Beach
 - Long Beach, CA, USA
- Mar 2019
 - Week of March 11
 - Fairmont Hilton Vancouver
 - Vancouver, BC, Canada
- May 2019
 - Week of May 20
 - Sheraton Salt Lake City
 - Salt Lake City, UT, USA
- July 2019
 - Week of July 15th
 - Austria Congress Centre
 - Vienna, Austria
- Sept 2019
 - Week of Sept 9
 - Location / Venue TBD
- Nov 2019
 - Week of Nov 11
 - Hilton Waikoloa Village
 - Waikoloa Village, HI, USA

Thank You!