Agenda and General Information

IEEE P802.3cp 10, 25, and 50 Gb/s
bidirectional optical access PHYs

Frank Effenberger
Futurewei technologies
Indinanapolis, Sep 2019

Meeting coordinates

- ## Meeting time
  - Monday 09:00 ~ 18:00

- ## Meeting place
  - House room, Westin Indianapolis

Agenda

- Welcome and Introductions
- Approve Agenda
- Approve July 2019 Minutes
- Goals for this meeting
- Big Ticket Items
- Reflector and Web
- Ground Rules
- IEEE
  - Structure, Bylaws and Rules
  - Call for Patents
  - IEEE Standards Process
- Presentations
- Review the draft
- Liaisons and Communications
- Future Meetings
- Motions and Closing Business

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

Initial motions

- Move to approve this agenda
  - M: S:
  - Yes: No: Abs:
  - Motion result

- Move to approve the minutes from July 2019, located at: http://www.ieee802.org/3/cp/public/1907/minutes_unapproved_ NGBiDi_TF_071119_Vienna.pdf
  - M: S:
  - Yes: No: Abs:
  - Motion result

Goals for the meeting

- Consider presentations
- Identify candidates for baseline proposals

- Lay the ground work for the next meeting

Big ticket items

- Wavelength plans
- Loss budgets
- Baseline proposals for power budgets

Reflector and Web

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

    ListServ@ieee.org

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

    subscribe stds-802-3-NGBIDI <yourfirstname> <yourlastname>

    end

- Send <<*Task Force name*>> reflector messages to:

    stds-802-3-NGBIDI@listserv.ieee.org

- Task Force web page URL:

    http://www.ieee802.org/3/cp/

Task Force Private Area

- URL: http://www.ieee802.org/3/cp/private/
  - Username: 802.3cp
  - Password: <<*xxxxxxx*>>

- 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.
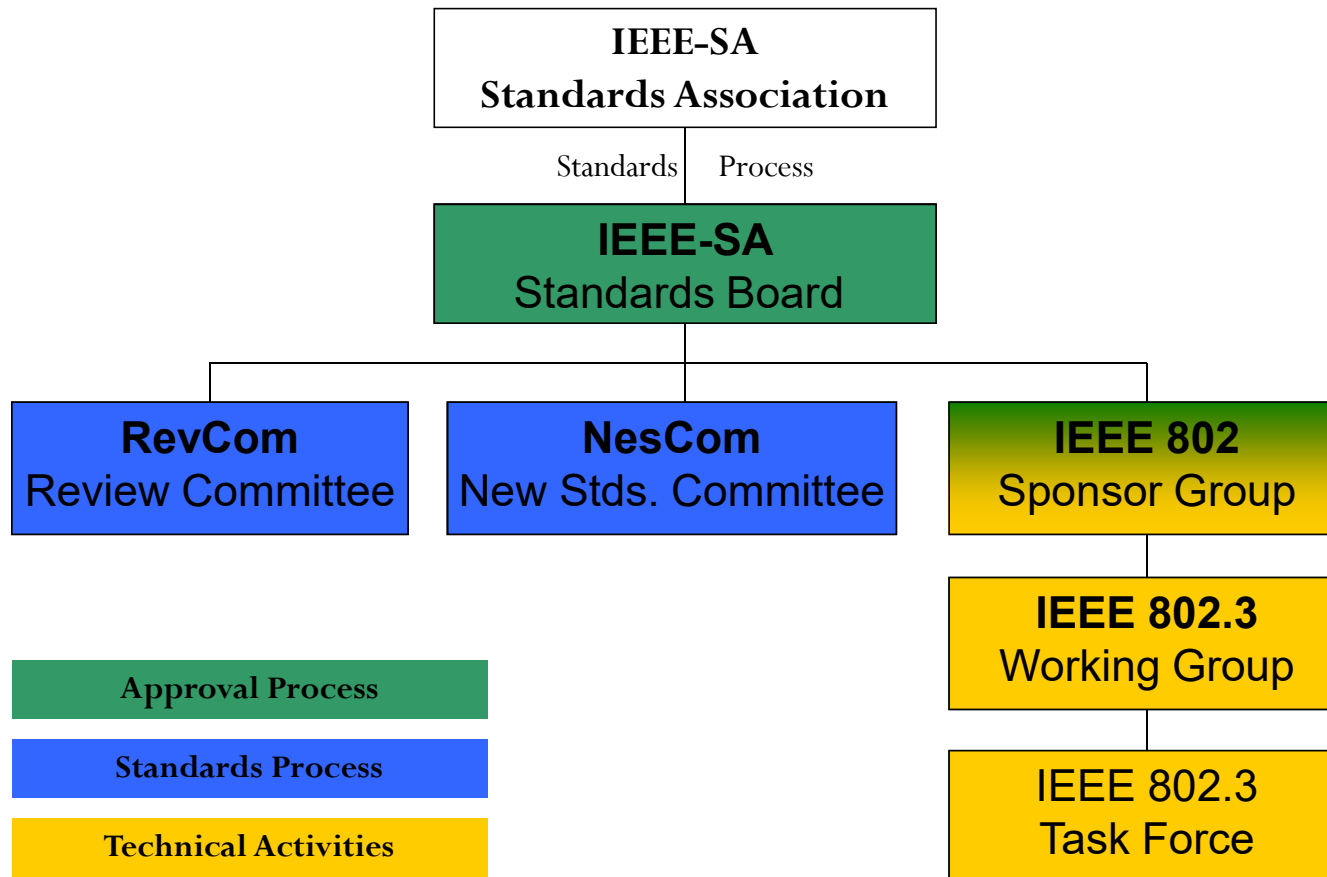
Ground Rules

- 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/
  - (For interim) Password will be provided

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

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.

(Optional to be shown)

02 January 2018

IEEE

Participants have a duty to inform the IEEE

- Participants <u>shall</u> 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 <u>should</u> 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

◆IEEE

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

02 January 2018

◆IEEE

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**

IEEE

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

02 January 2018
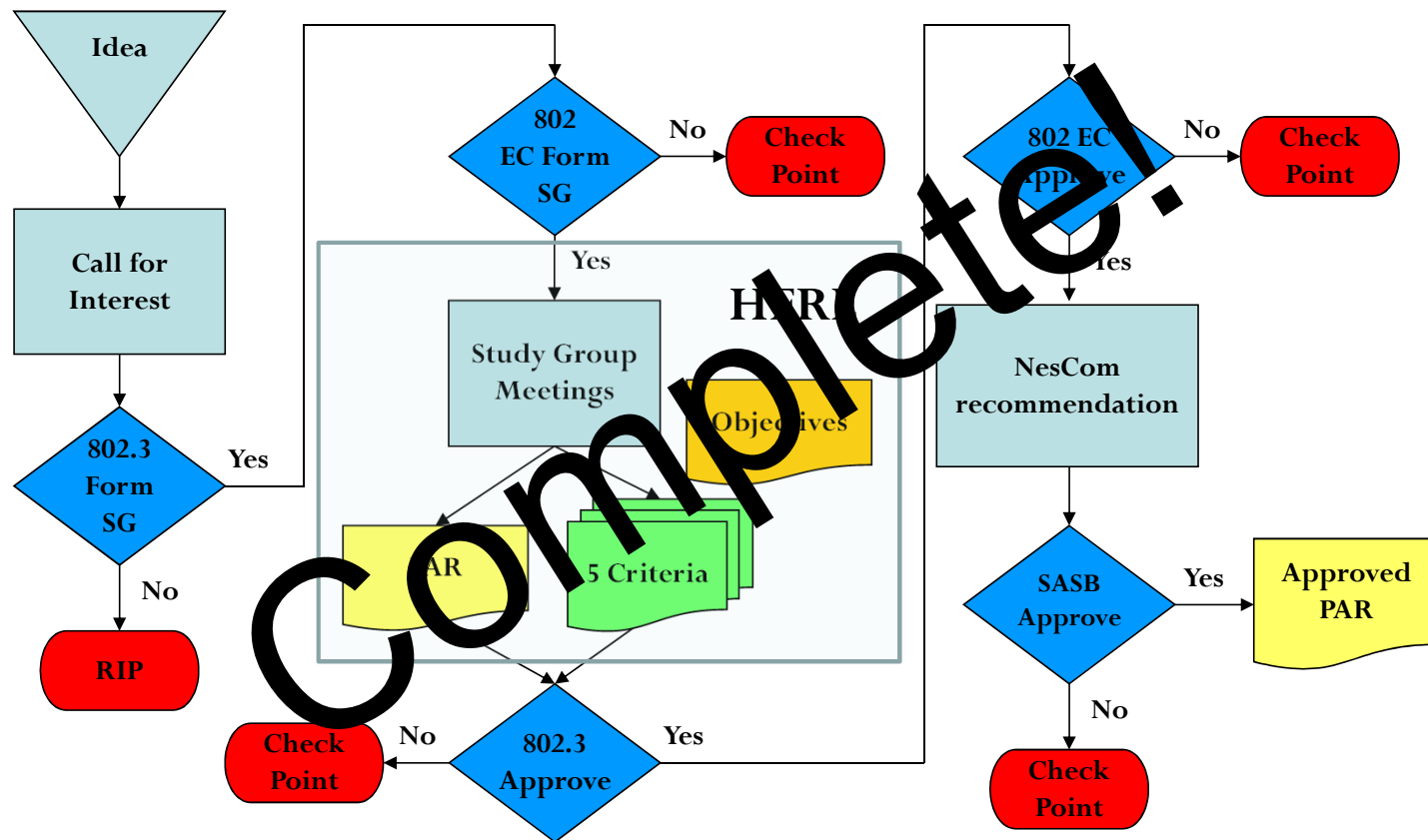
Participation in IEEE 802 Meetings

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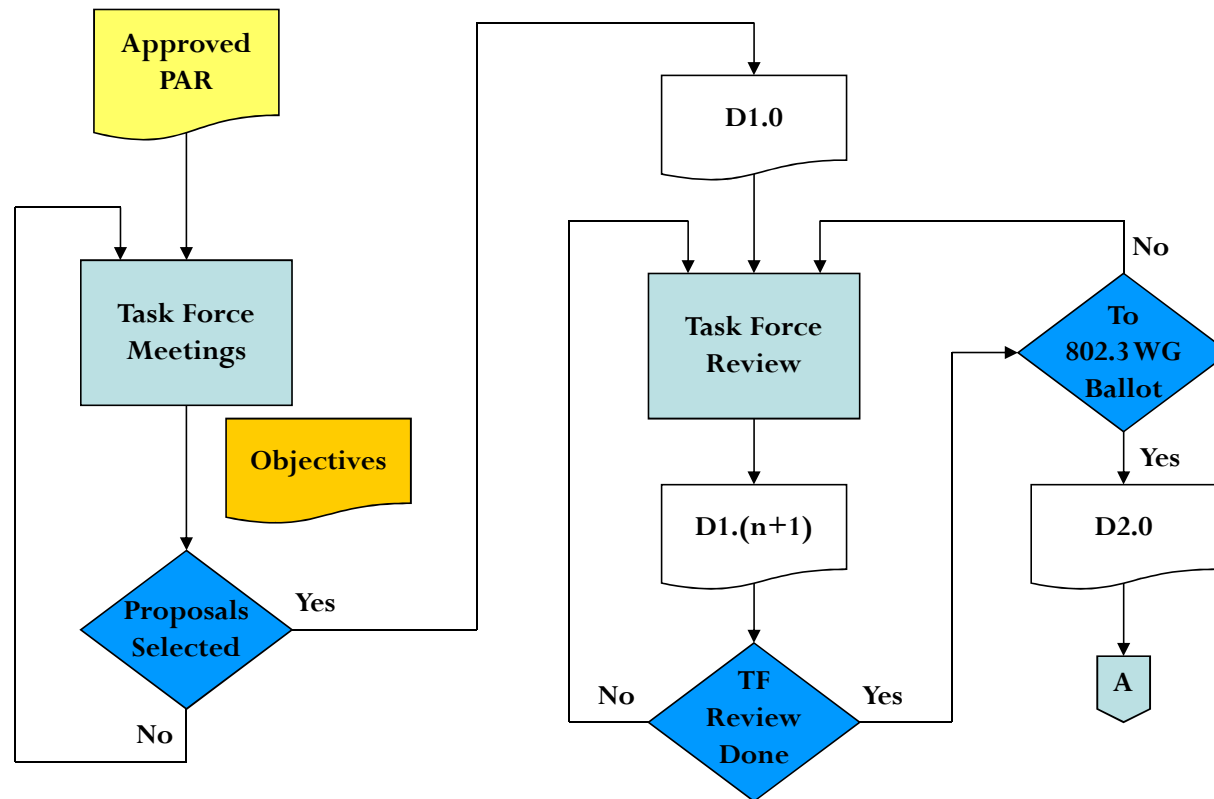
(Latest revision of IEEE 802 LMSC Working Group Policies and Procedures: http://www.ieee802.org/devdocs.shtml)

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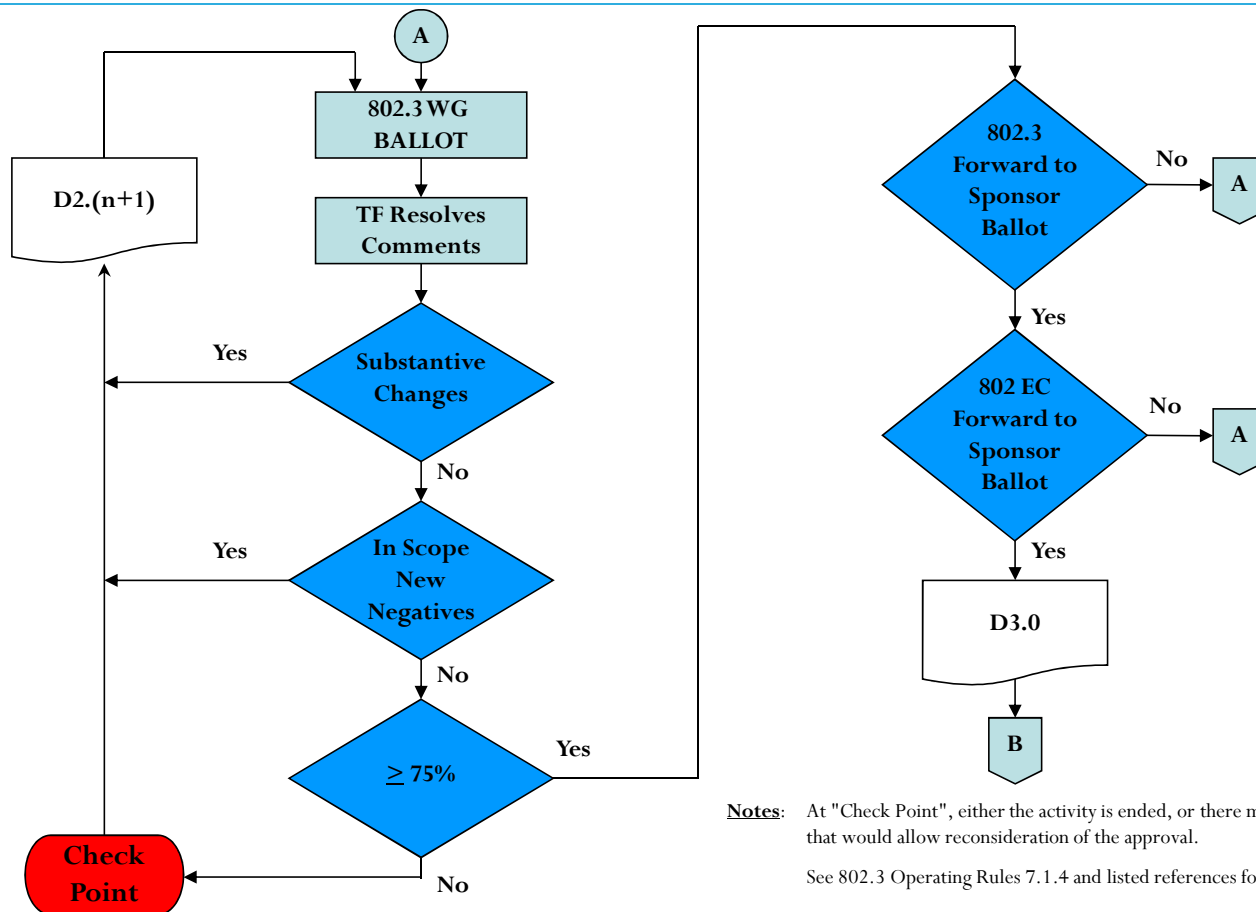

Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

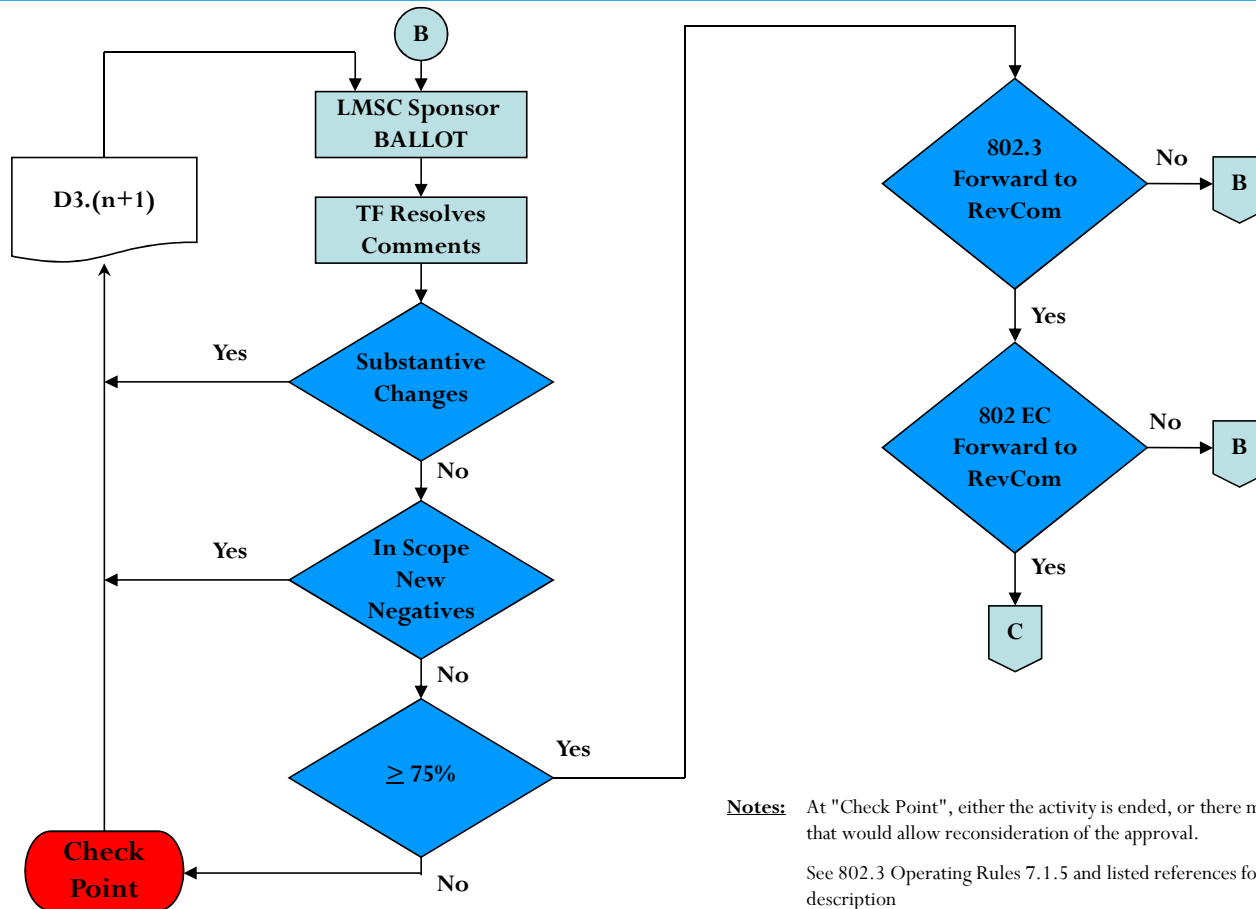# Overview of IEEE 802.3 Standards Process (2/5) – Task Force Comment Phase

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

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

B

LMSC Sponsor BALLOT

D3.(n+1)

TF Resolves Comments

Substantive Changes — Yes / No

In Scope New Negatives — Yes / No

≥ 75% — Yes / No

Check Point

802.3 Forward to RevCom — No → **B** / Yes

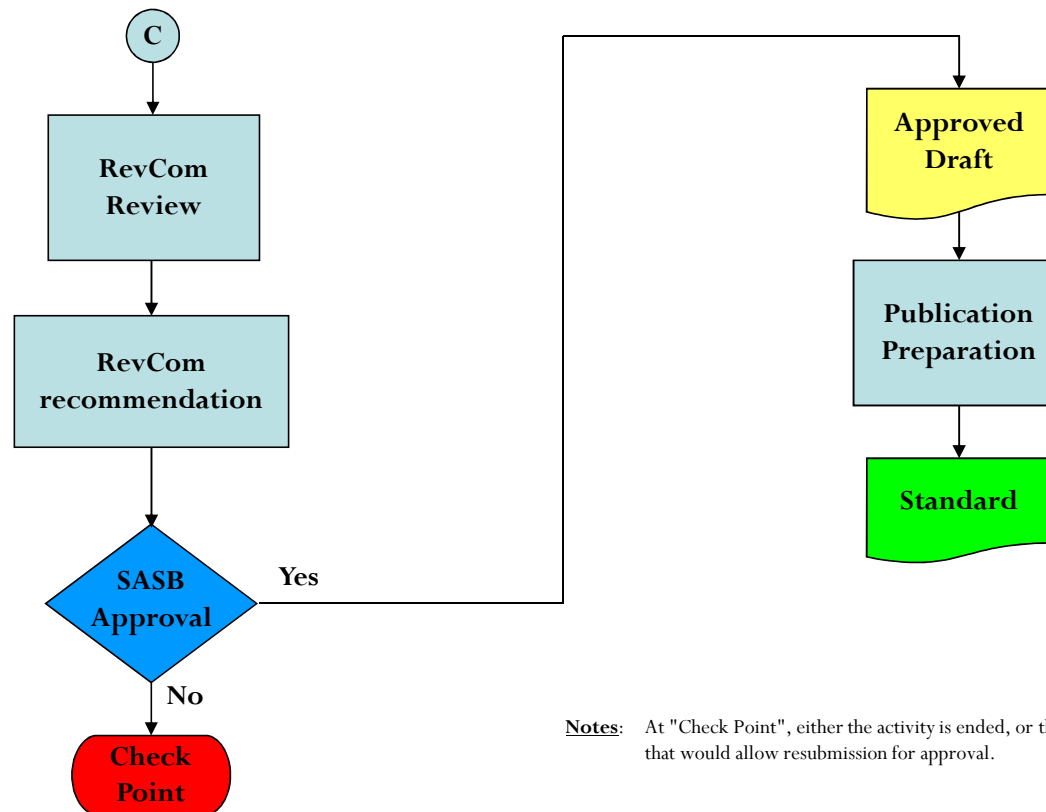**802 EC Forward to RevCom** — No → **B** / Yes

C

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

C

RevCom Review

RevCom recommendation

SASB Approval — **Yes** / **No**

Check Point

Approved Draft

Publication Preparation

Standard

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

IEEE P802.3cp
10, 25, & 50 Gb/s bidirectional optical access PHYs
Approved Project Documents

- PAR
  - http://www.ieee802.org/3/cp/P802_3cp_PAR.pdf
- 5 Criteria
  - https://mentor.ieee.org/802-ec/dcn/18/ec-18-0245-00-ACSD-p802-3cp.pdf
- Objectives
  - http://www.ieee802.org/3/cp/180911_802d3_OBJ_BiDi_v2.pdf

IEEE P802.3cp Bidi optical access PHYs Objectives

- Support full-duplex operation only
- Support bidirectional transmission over a single strand of single mode fiber using a single wavelength in each direction
- Support MAC data rates of 10 Gb/s, 25 Gb/s, and 50 Gb/s
- Support distances of at least 10 km, at least 20 km, and at least 40 km
- Preserve the Ethernet frame format utilizing the Ethernet MAC
- Support a BER of better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent)
- Support optional Energy-Efficient Ethernet operation
- Support silent start* operation to prevent bidirectional PHYs interfering with P2MP networks
* Silent start means that the upstream-facing PHY does not transmit unless a valid downstream signal is received. This prevents the bidirectional PHY from jamming transmission on the P2MP network in cases of unintentional connection

IEEE P802.3cp Bidi optical access PHYs Working Group ballot results

- Item 1 - Date the ballot closed:
  - The << [*Initial | X^xx*] >> Working Group <<*recirculation*>> ballot on IEEE P802.3<<*xx*> draft D<<*n.n*> closed on <<*date*>> at 11:59 PM AOE.

- Item 2 - Vote tally:

Comments: <<*nn*>>	<< [*Initial	X^xx recirculation*] >> Draft D <<*n.n*>			Req %
	#	%	Status	
Abstain	*nn*	*nn*	PASS/FAIL	< 30
Disapprove with comment	*n*	-	-	-
Disapprove without comment	*n*	-	-	-
Approve	*nn*	*nn*	PASS/FAIL	≥ 75
Ballots returned	*nn*	*nn*	PASS/FAIL	> 50
Voters	*nn*	-	-	-

IEEE P802.3cp Bidi optical access PHYs Sponsor ballot results

- Item 1 - Date the ballot closed:
  - The << [*Initial | X^{xx}*] >> Sponsor <<*recirculation*>> ballot on IEEE P802.3<<*xx*> draft D<<*n.n*> closed on <<*date*>> at 11:59 PM <<*EST/EDT*>>.

- Item 2 - Vote tally:

Comments: <<*nn*>>	<< [*Initial | X^{xx} recirculation*] >> Draft D <<*n.n*>			Req %
	#	%	Status	
Abstain	*nn*	*nn*	PASS/FAIL	< 30
Disapprove with comment	*n*	-	-	-
Disapprove without comment	*n*	-	-	-
Approve	*nn*	*nn*	PASS/FAIL	≥ 75
Ballots returned	*nn*	*nn*	PASS/FAIL	≥ 75
Voters	*nn*	-	-	-

Action Items from last meeting

- None

Presentations

- [Simplified Loss Budgets](#) Frank Effenberger Futurewei
- [Dispersion penalty models](#) Xiang Liu Futurewei
- [Wavelength Considerations](#) Ray Nering Cisco
- [Some baselines for 50G bidi](#) Jialong Shuai Huawei

- [Draft 0.3](#)(Password) Task Force

Motions and Comment Madness

Motion #3

- Move to x.
  - M: S:
  - Technical >=75%
  - Yes: No: 0   Abs: 0
  - Motion result: Passes

Liaisons and Communications

- Liaison to ITU-T Q2/15

Motion #x

- Move that the IEEE 802.3 Working Group approve IEEE_802d3_to_SG15_BiDi_0919_draft with editorial license granted to the Chair (or his appointed agent) as a liaison communication from the IEEE 802.3 Working Group to ITU-T SG15.
- Technical (>=75%)
- M: Frank Effenberger S:
- Results Y: N: A:

Motion #x+1

- Move that the editor create draft 1.0 based upon draft 0.3, reflecting the motions and comments collected in this meeting.
- Technical (>=75%)
- M: Frank Effenberger S:
- Results Y: N: A:

Future Meetings

- See: http://www.ieee802.org/3/interims/index.html

I expect to attend this meeting

	Yes	Maybe	Nope

- Nov 2019 *Plenary*
  - Waikoloa, HI
  - Nov 11-14

- Jan 2020 *Interim*
  - Geneva
  - Jan 20-24

- Joint Workshop with SG15 on Jan 25 Q2 meets Feb 3-6

- Anyone interested in hosting a interim meeting contact me or the IEEE 802.3 Executive Secretary Steve Carlson.

Any other issues?

Motion #x+2

- Move to adjourn the meeting.
- Procedural (>50%)
- M: S:
- Results Y: N: A:

Thank You!