
Agenda and General Information

IEEE P802.3cu 100 Gb/s and 400 Gb/s over SMF
at 100 Gb/s per Wavelength Task Force

Mark Nowell, Cisco

Geneva, Switzerland

Jan 20th, 2020

Agenda

- Welcome and Introductions
- Approve Agenda
- Approve Minutes
- Reflector and Web
- Ground Rules
- IEEE
 - Structure, Bylaws and Rules
 - Call for Patents
 - IEEE Standards Process
- Liaisons and Communications
- Ad hocs
- Goals for this meeting
- Meeting Schedule
- Future Meetings
- Motions and Closing Business

P802.3cu Task Force Organization

- Chair: Mark Nowell, Cisco
- Recording Secretary: Kenneth Jackson, Sumitomo
- Chief Editor: Gary Nicholl, Cisco
- Ad hoc chair: ad hoc

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. (December 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 (December 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

Reflector and Web

- To subscribe to the Study Group's reflector, send an email to:

ListServ@ieee.org

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

```
subscribe stds-802-3-100G-OPTX <yourfirstname> <yourlastname>  
end
```

- Send Study Group reflector messages to:

stds-802-3-100G-OPTX@listserv.ieee.org

- Task Force's web page URL:

<http://www.ieee802.org/3/cu/index.html>

Task Force Private Area:

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

U: 802.3cu

P: ***

(The global 802.3 WG password will always work too)

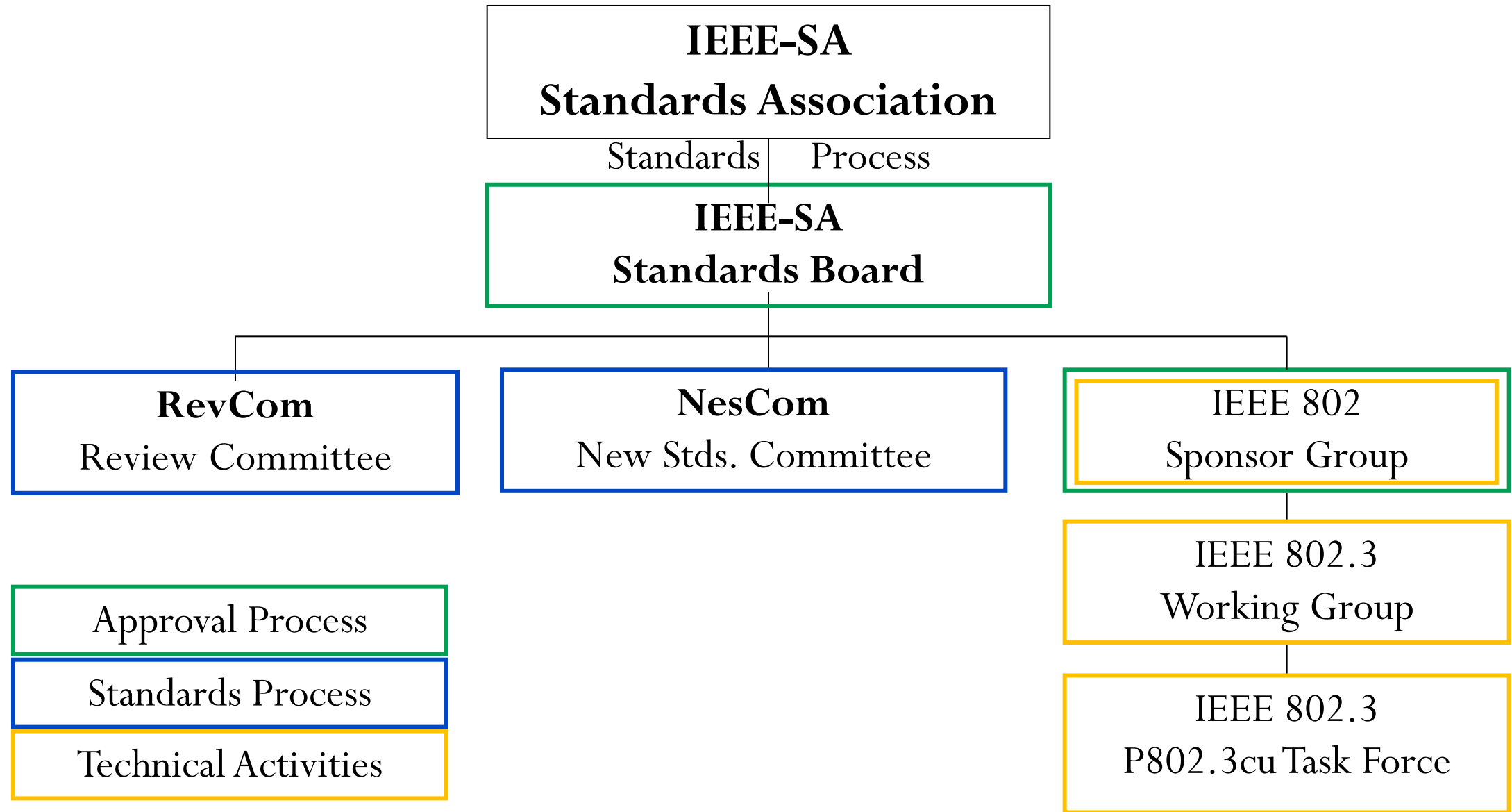
Ground Rules

- 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/>
 - Use your imat login
 - (must be on meeting SSID – no VPN)

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

IEEE SA Copyright Policy

- By participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including, but not limited to, the IEEE SA Copyright Policy.
 - Previously Published material (copyright assertion indicated) shall not be presented/submitted to the Working Group nor incorporated into a Working Group draft unless permission is granted.
 - Prior to presentation or submission, you shall notify the Working Group Chair of previously Published material and should assist the Chair in obtaining copyright permission acceptable to IEEE SA.
 - For material that is not previously Published, IEEE is automatically granted a license to use any material that is presented or submitted.

IEEE SA Copyright Policy

- The IEEE SA Copyright Policy is described in the IEEE SA Standards Board Bylaws and IEEE SA Standards Board Operations Manual
 - IEEE SA Copyright Policy, see
 - Clause 7 of the IEEE SA Standards Board Bylaws
<https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7>
 - Clause 6.1 of the IEEE SA Standards Board Operations Manual
<https://standards.ieee.org/about/policies/opman/sect6.html>
- IEEE SA Copyright Permission
 - <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip>
- IEEE SA Copyright FAQs
 - <http://standards.ieee.org/faqs/copyrights.html/>
- IEEE SA Best Practices for IEEE Standards Development
 - http://standards.ieee.org/develop/policies/best_practices_for_ieee_standards_development_051215.pdf
- Distribution of Draft Standards (see 6.1.3 of the SASB Operations Manual)
 - <https://standards.ieee.org/about/policies/opman/sect6.html>

Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct

- All participants in IEEE-SA activities are expected to adhere to the core principles underlying the:
 - [IEEE Code of Ethics](#)
 - [IEEE Code of Conduct](#)
- The core principles of the IEEE Codes of Ethics & Conduct are to:
 - *Uphold the highest standards of integrity, responsible behavior, and ethical and professional conduct*
 - *Treat people fairly and with respect, to not engage in harassment, discrimination, or retaliation, and to protect people's privacy.*
 - *Avoid injuring others, their property, reputation, or employment by false or malicious action*
- The most recent versions of these Codes are available at <http://www.ieee.org/about/corporate/governance>

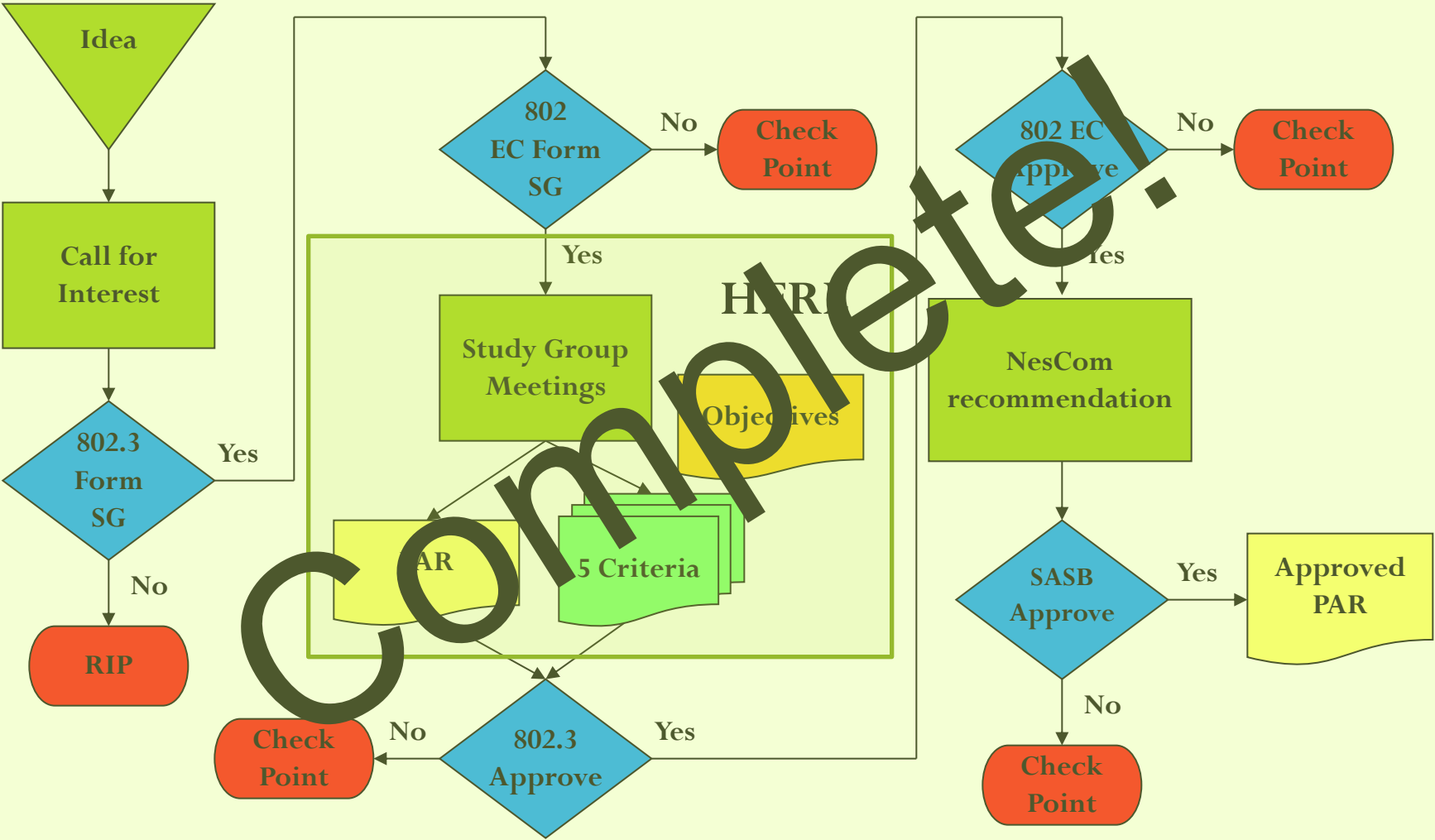
Participants in the IEEE-SA “*individual process*” shall act independently of others, including employers

- The [IEEE-SA Standards Board Bylaws](#) require that “*participants in the IEEE standards development individual process shall act based on their qualifications and experience*”
- This means participants:
 - **Shall act & vote** based on their personal & independent opinions derived from their expertise, knowledge, and qualifications
 - **Shall not act or vote** based on any obligation to or any direction from any other person or organization, including an employer or client, regardless of any external commitments, agreements, contracts, or orders
 - **Shall not direct** the actions or votes of other participants or retaliate against other participants for fulfilling their responsibility to act & vote based on their personal & independently developed opinions
- By participating in standards activities using the “*individual process*”, you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation

IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints

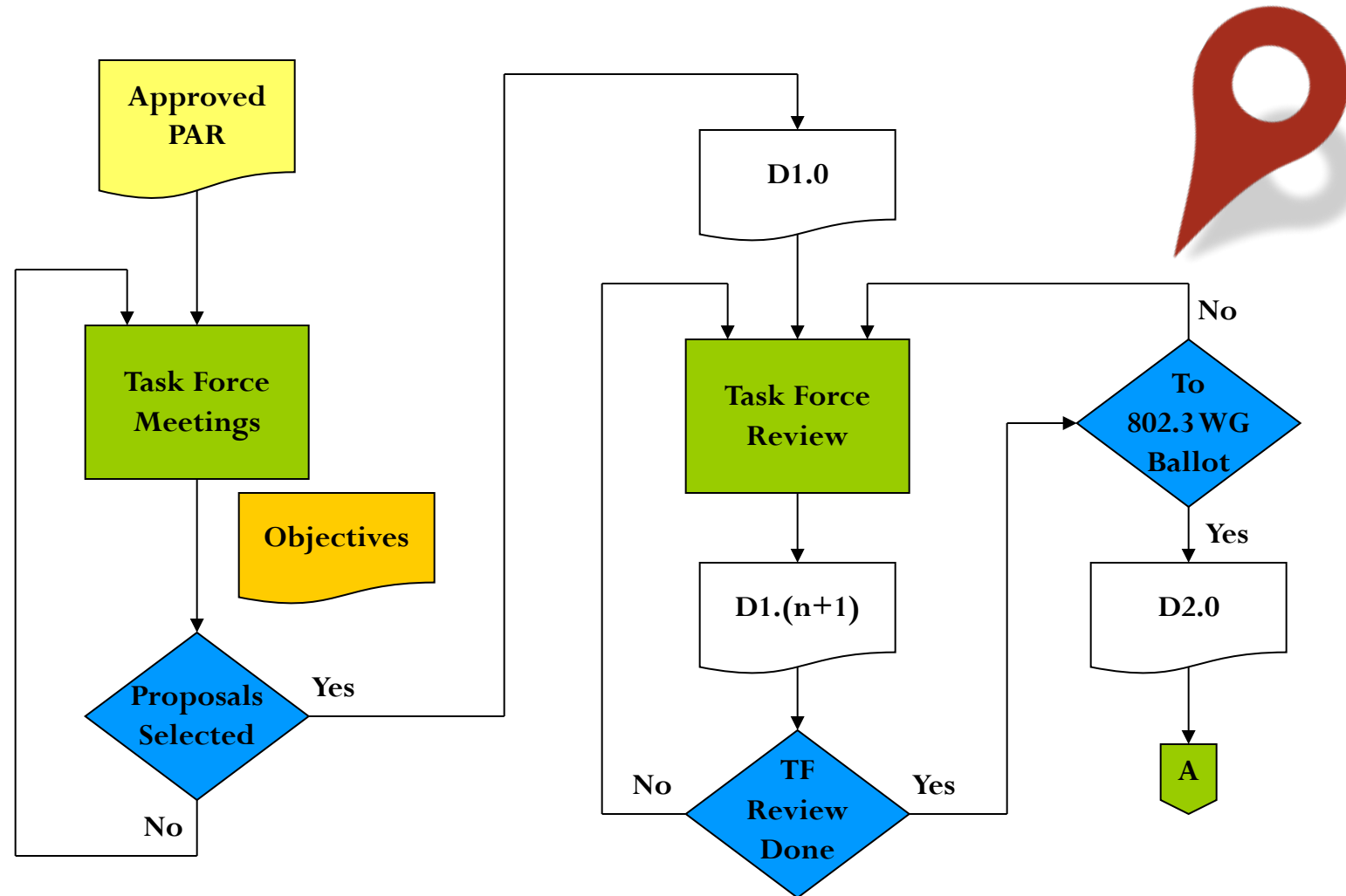
- The [IEEE-SA Standards Board Bylaws](#) (clause 5.2.1.3) specifies that *“the standards development process shall not be dominated by any single interest category, individual, or organization”*
 - This means no participant may exercise *“authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints”* or *“to hinder the progress of the standards development activity”*
- This rule applies equally to those participating in a standards development project and to that project’s leadership group
- Any person who reasonably suspects that dominance is occurring in a standards development project is encouraged to bring the issue to the attention of the Standards Committee or the project’s IEEE-SA Program Manager

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

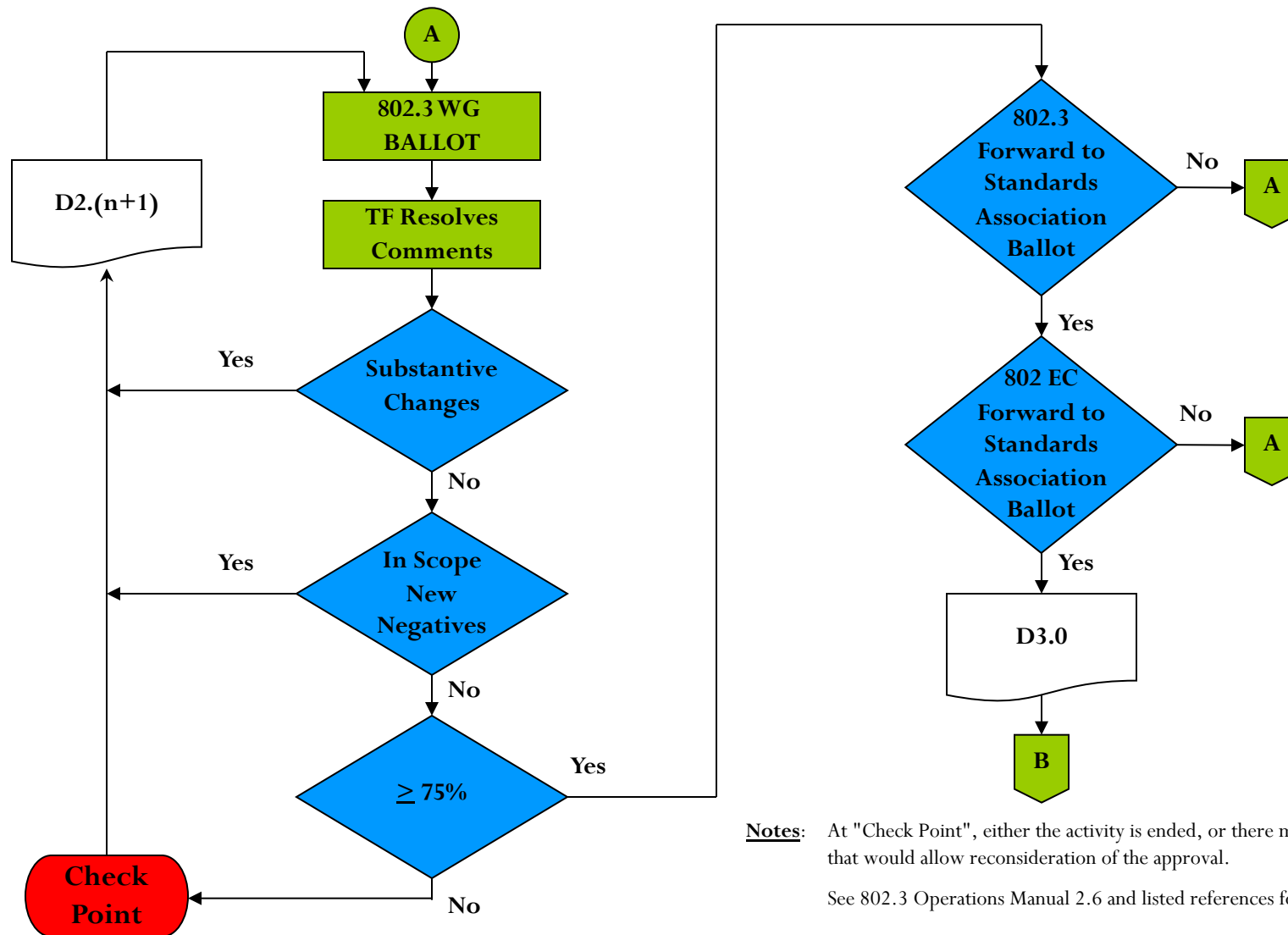


Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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



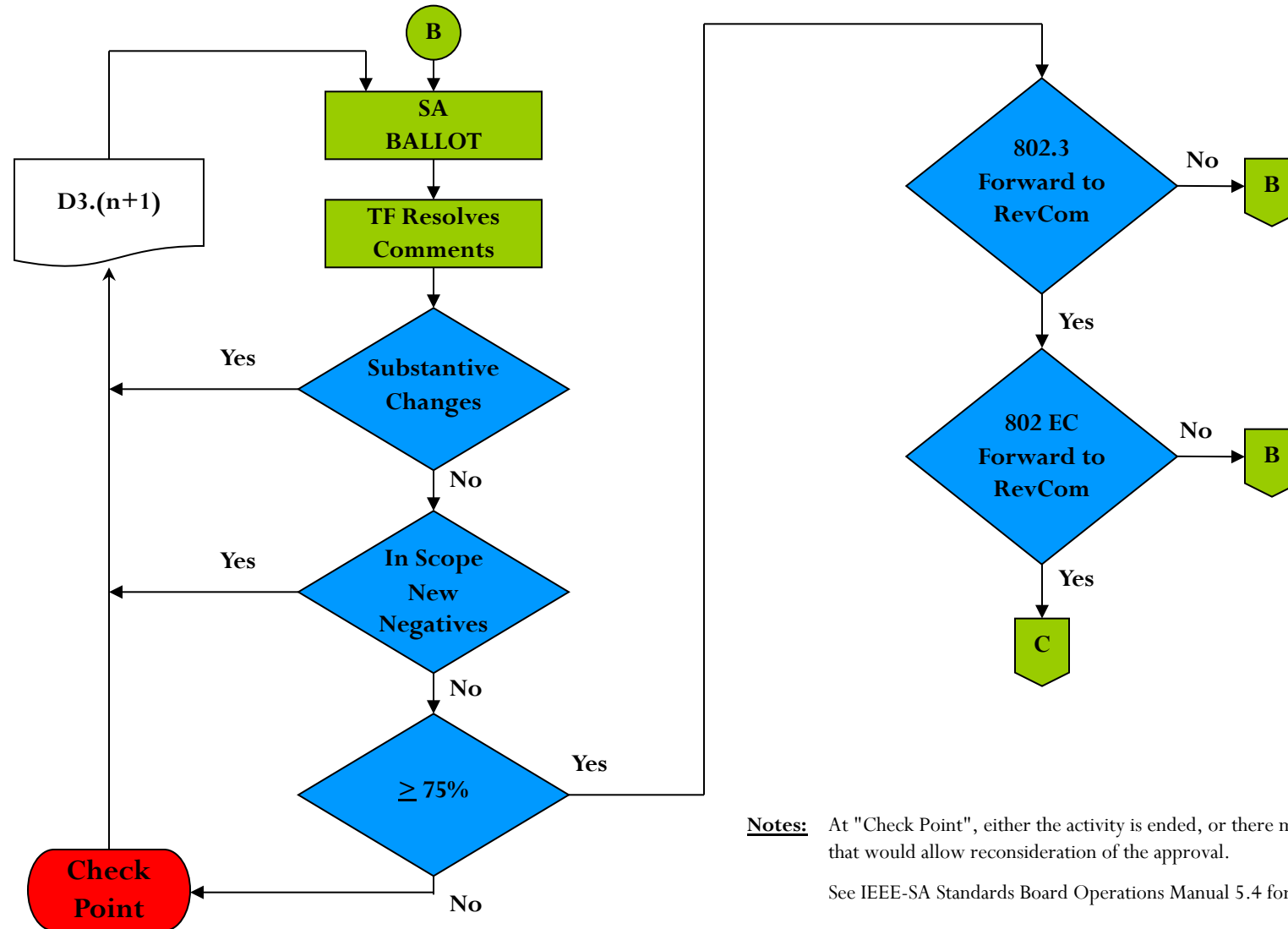
Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



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

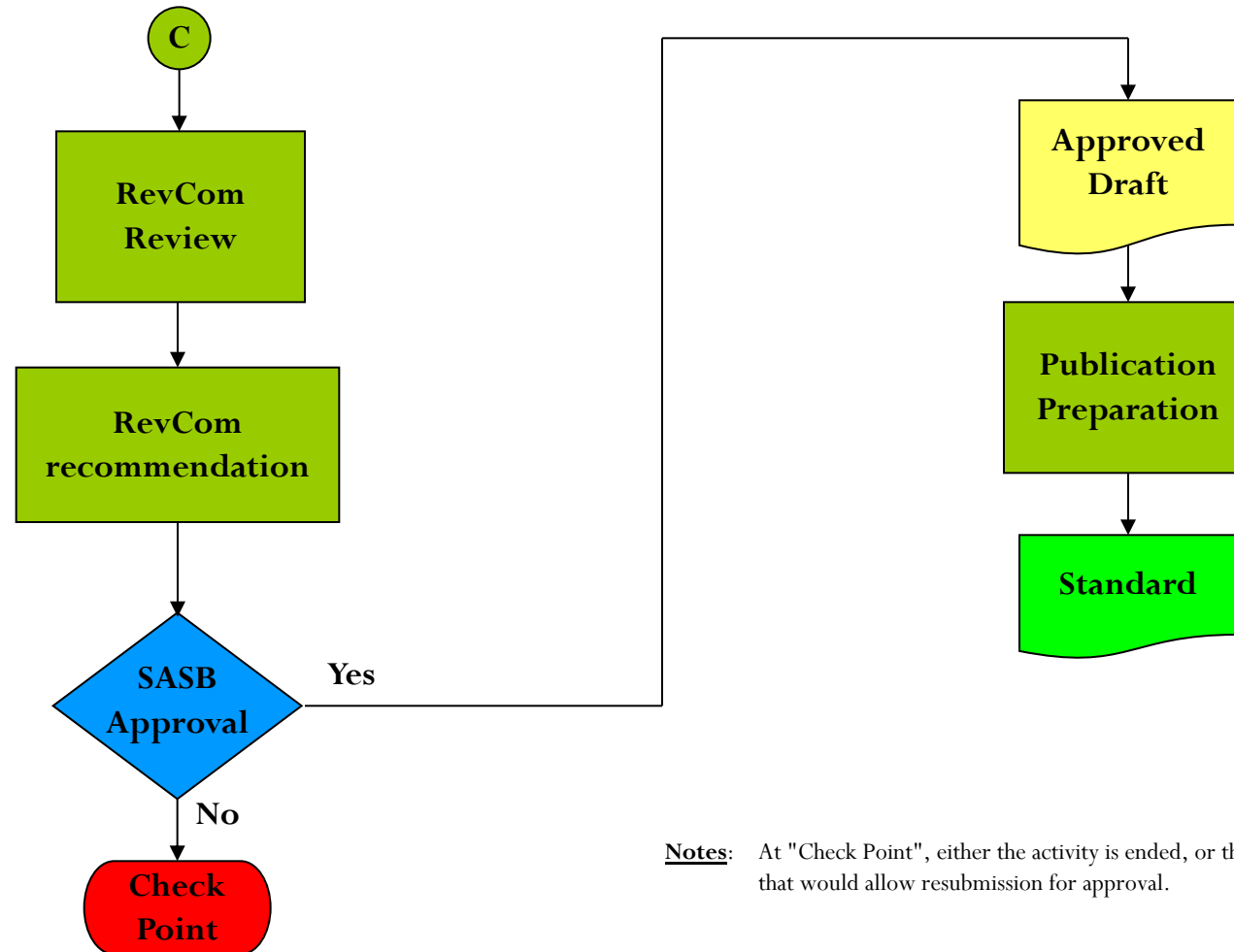
See 802.3 Operations Manual 2.6 and listed references for complete description

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 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.

Liaisons and Communications

none

Ad hocs

Charter: The charter of the IEEE 802.3cu Ad hoc is to discuss topics and provide contributions towards helping the Task Force with its decisions.

Chair: Mark Nowell (provisional)

http://www.ieee802.org/3/cu/public/cu_adhoc/cu_archive/index.html

Expected to continue the regular cadence.

- Timeslot: Typically Wed @ 8am PT

Note: Going forward we will be looking how we can use ad hoc (or teleconference interims) to accelerate comment resolution as our draft stabilizes.

Ad Hoc Report

2 meetings were held with 2 technical contributions

Title	Date	Author(s)	Affiliation
Jan 8th, 2020 Teleconference			
802.3cu D1.1 Spec Proposed TX Changes	10-Jan-2020	Chris Cole	II-VI
Dec 11th, 2019 Teleconference			
802.3cu D1.1 PMD Spec Comments	11-Dec-2019	Chris Cole	II-VI

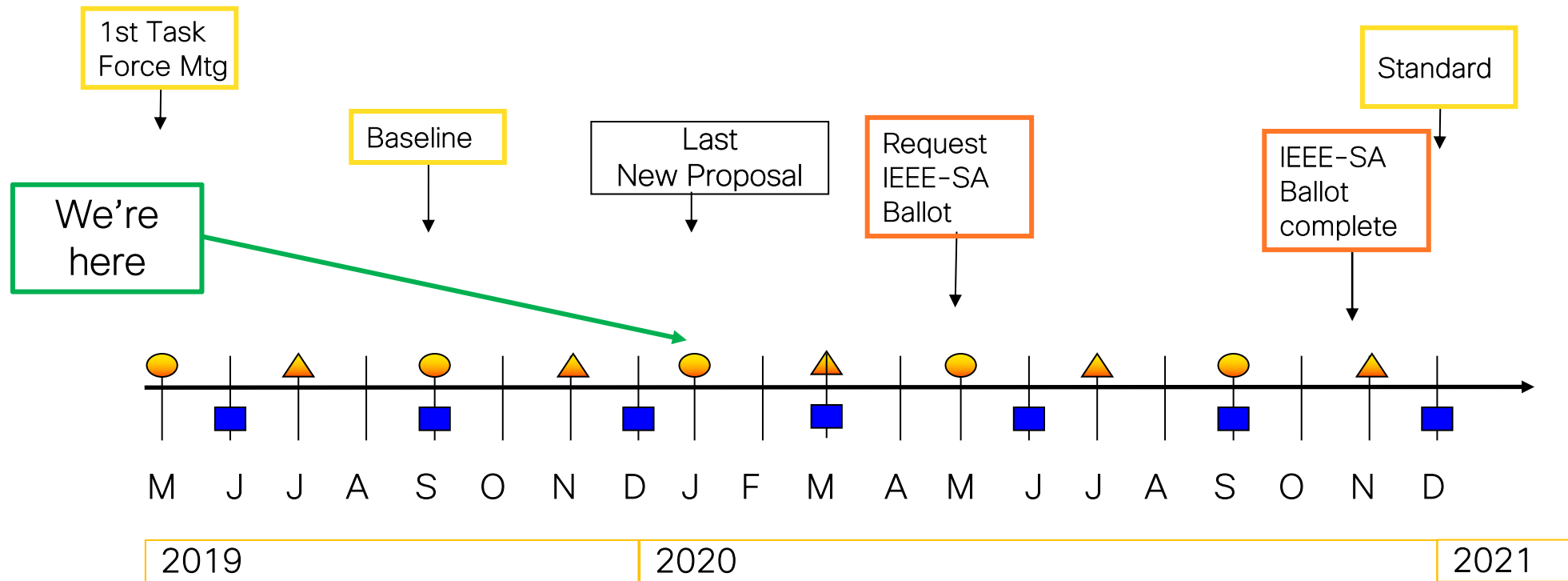
IEEE P802.3cu Task Force Approved Project Documents

- PAR
 - http://www.ieee802.org/3/cu/P802_3cu_PAR.pdf
- CSD
 - <https://mentor.ieee.org/802-ec/dcn/19/ec-19-0062-00-ACSD-p802-3cu.pdf>
- Objectives
 - http://www.ieee802.org/3/cu/Objectives_Approved_Sept_2019.pdf
- Timeline
 - http://www.ieee802.org/3/cu/P8023cu_Timeline_Approved_Nov_2019.pdf

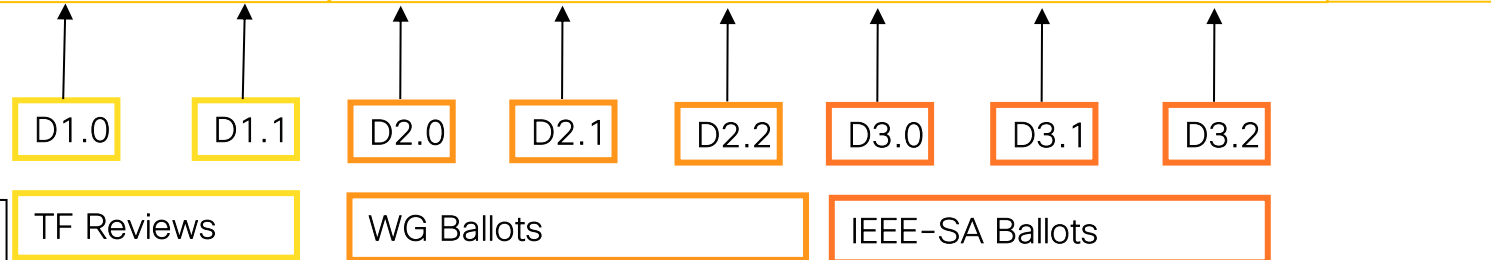
Approved Objectives (Updated Sept 2019)

- Support a MAC data rate of 100 Gb/s
- Support a MAC data rate of 400 Gb/s
- Support full-duplex operation only
- Preserve the Ethernet frame format utilizing the Ethernet MAC
- Preserve minimum and maximum FrameSize of current IEEE 802.3 standard
- Provide appropriate support for OTN
- Support a BER of better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent) for 100 Gb/s operation
- Support a BER of better than or equal to 10^{-13} at the MAC/PLS service interface (or the frame loss ratio equivalent) for 400 Gb/s operation
- Define a single-wavelength 100 Gb/s PHY for operation over SMF with lengths up to at least 2 km
- Define a single-wavelength 100 Gb/s PHY for operation over SMF with lengths up to at least 10 km
- Define a four-wavelength 400 Gb/s PHY for operation over SMF with lengths up to at least 2 km
- Define a four-wavelength 400 Gb/s PHY for operation over SMF with lengths up to at least 6 km

IEEE P802.3cu Task Force draft Timeline



- Legend
- ▲ IEEE 802 Plenary
 - IEEE 802.3 Interim
 - IEEE-SA Standards Board



RevCom Submittal dates
 • 13 Oct 2020

Goals for the meeting

- Resolve comments received against D1.1
 - Review any technical contributions (including proposals aimed towards spec changes)
- Request approval at Thursday's 802.3 WG meeting to move to Working Group Ballot

Meeting Logistics

- Meeting:
 - Monday 9am-finish (5pm)
 - Room TBD (email will be sent when details available)

Contributed Presentations

Title	Updated	Author(s)	Affiliation
General Information			
Agenda	16-Jan-2020	Mark Nowell	Cisco
Chief Editor Report	16-Jan-2020	Gary Nicholl	Cisco
Comment Agenda	16-Jan-2020	Gary Nicholl	Cisco
Minutes		Kenneth Jackson	Sumitomo Electric
Contributed Presentations			
802.3cu D1.1 Spec Proposed Changes	16-Jan-2020	Chris Cole	II-VI
On guarding against overshoot and undershoot in standards using TDECO measurement	16-Jan-2020	Pavel Zivny	Tektronix
Tx Headroom Budget for 400GBASE-LR4-6	16-Jan-2020	Ryo Okabe Hideki Isono	Fujitsu Optical Components Fujitsu Optical Components
Late Contributions			
Updated Documents During TF meeting			

Meeting Schedule – Mon

Note –Times listed are subject to change.
Updated versions will be captured with new
filename versions

Monday

20-Jan-20

<u>Time</u>	<u>Presenter</u>	<u>Affiliation</u>	<u>Title</u>	<u>File Name</u>	<u>Dur.</u>
9:00 AM	Mark Nowell	Cisco	Agenda and General Information	agenda_3cu_01_0120.pdf	0:45
9:45 AM	Gary Nicholl	Cisco	Chief Editor Report	nicholl_3cu_01_0120.pdf	0:10
9:55 AM	Gary Nicholl	Cisco	Comment Agenda	nicholl_3cu_02_0120.pdf	0:15
10:10 AM	Ryo Okabe	Fujitsu Optical Component	Tx Headroom Budget for 400GBASE-LR4-6	okabe_3cu_01_0120.pdf	0:20
10:30 AM	Break				0:15
10:45 AM	Comment Resolution (and presentations as needed)				1:15
12:00 PM	Lunch				1:00
1:00 PM	Comment Resolution (and presentations as needed)				1:30
2:30 PM	Break				0:20
2:50 PM	Comment Resolution (and presentations as needed) and closing business				2:10
5:00 PM	Adjourn				-

Future Meetings & Ad hocs

- Ad-hoc meeting plans
 - On-going quasi-bi-weekly meetings, agendas will be published.
 - Timeslot TBD
- See: <http://www.ieee802.org/meeting/index.html>
- March 2020, Plenary
 - Week of March 16th, 2020. Atlanta, Ga.
- May 2020, Interim
 - Week of May 18th, 2020. Pasadena, Ca.
- July 2020 Plenary
 - Week of July 13th, 2020. Montreal, QC
- Sept 2020 Interim
 - Week of Sept 21, 2020. Kansas City, Mo.

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

Thank You!