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# 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

Kona, Hawaii

Week of Nov 11th, 2019

# 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](mailto: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](mailto: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)

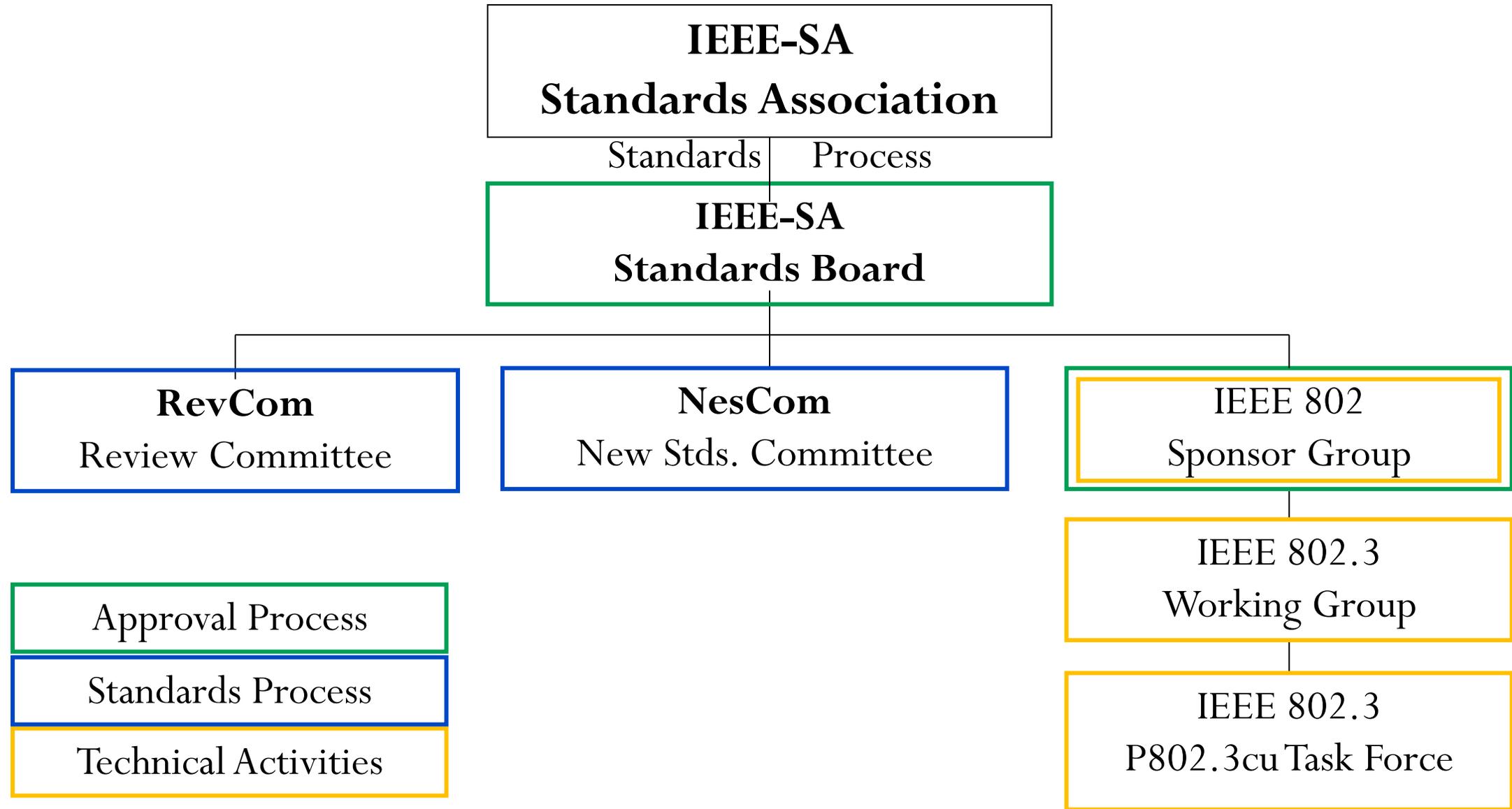
# Ground Rules

- 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](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/](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](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.

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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](mailto:patcom@ieee.org)

# Participation in IEEE 802 Meetings

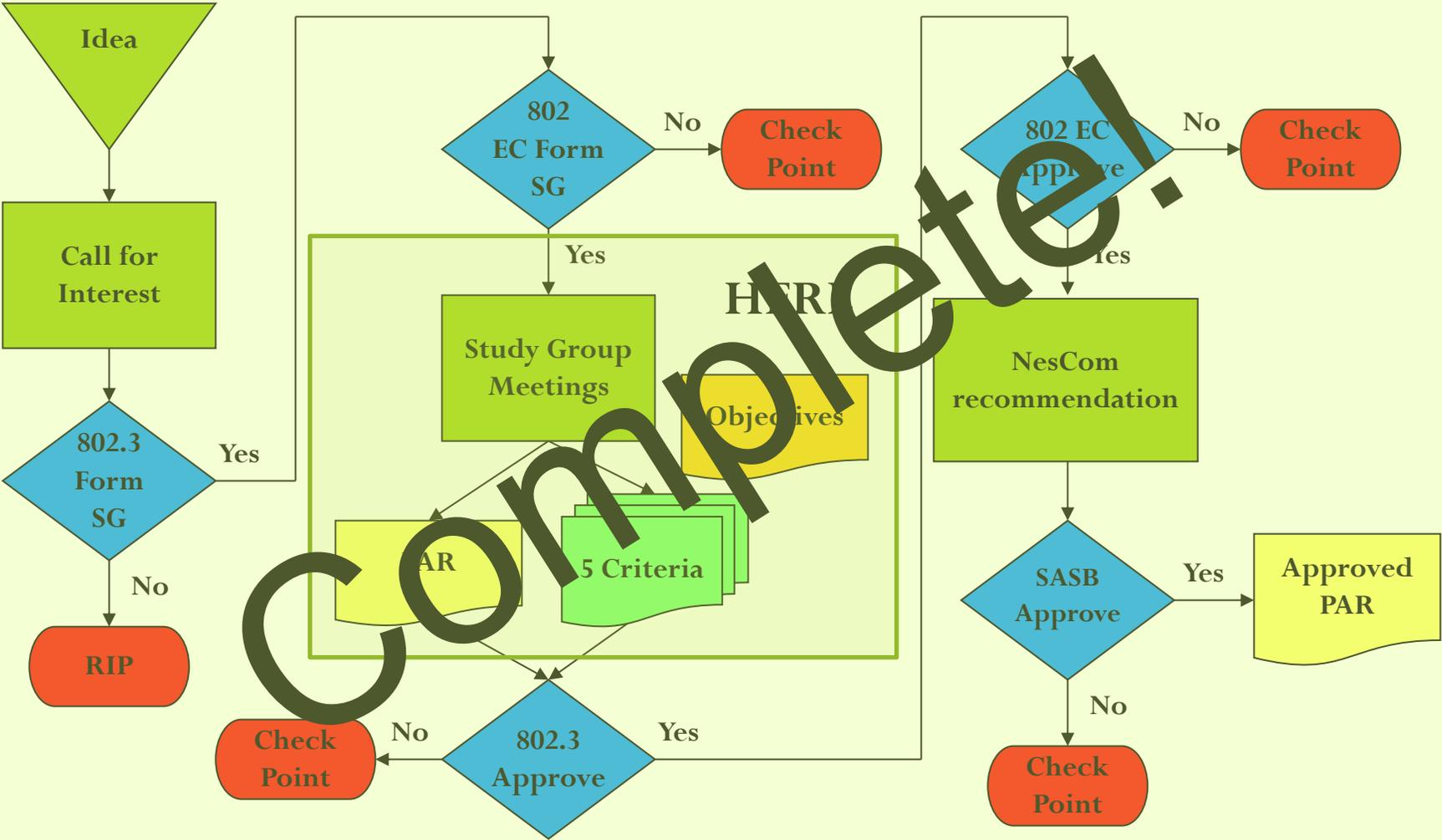
Participation in any IEEE 802 meeting (Sponsor, Sponsor subgroup, Working Group, Working Group subgroup, etc.) is on an individual basis

- 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](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](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.

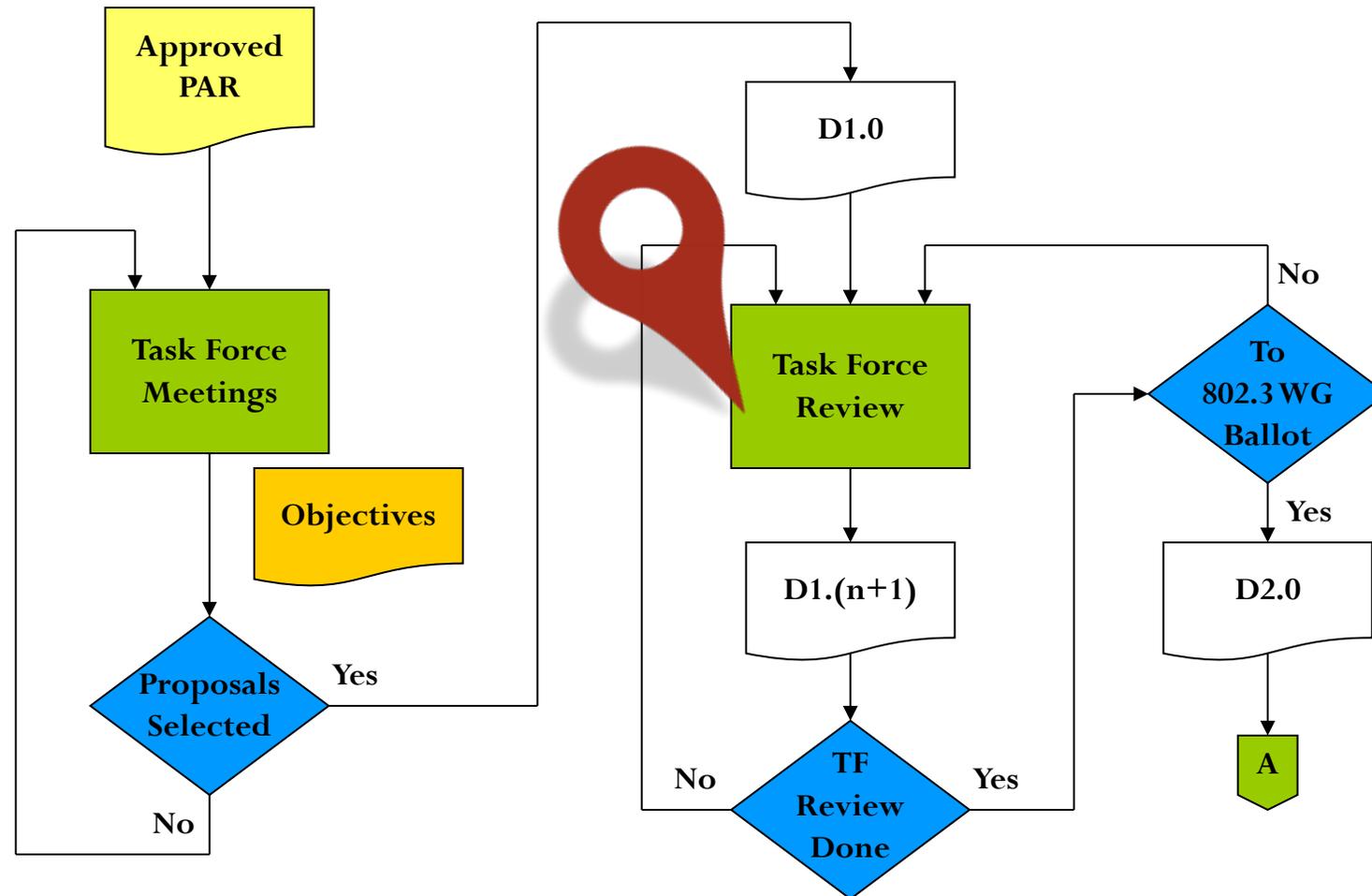
(Latest revision of IEEE 802 LMSC Working Group Policies and Procedures: <http://www.ieee802.org/devdocs.shtml>)

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

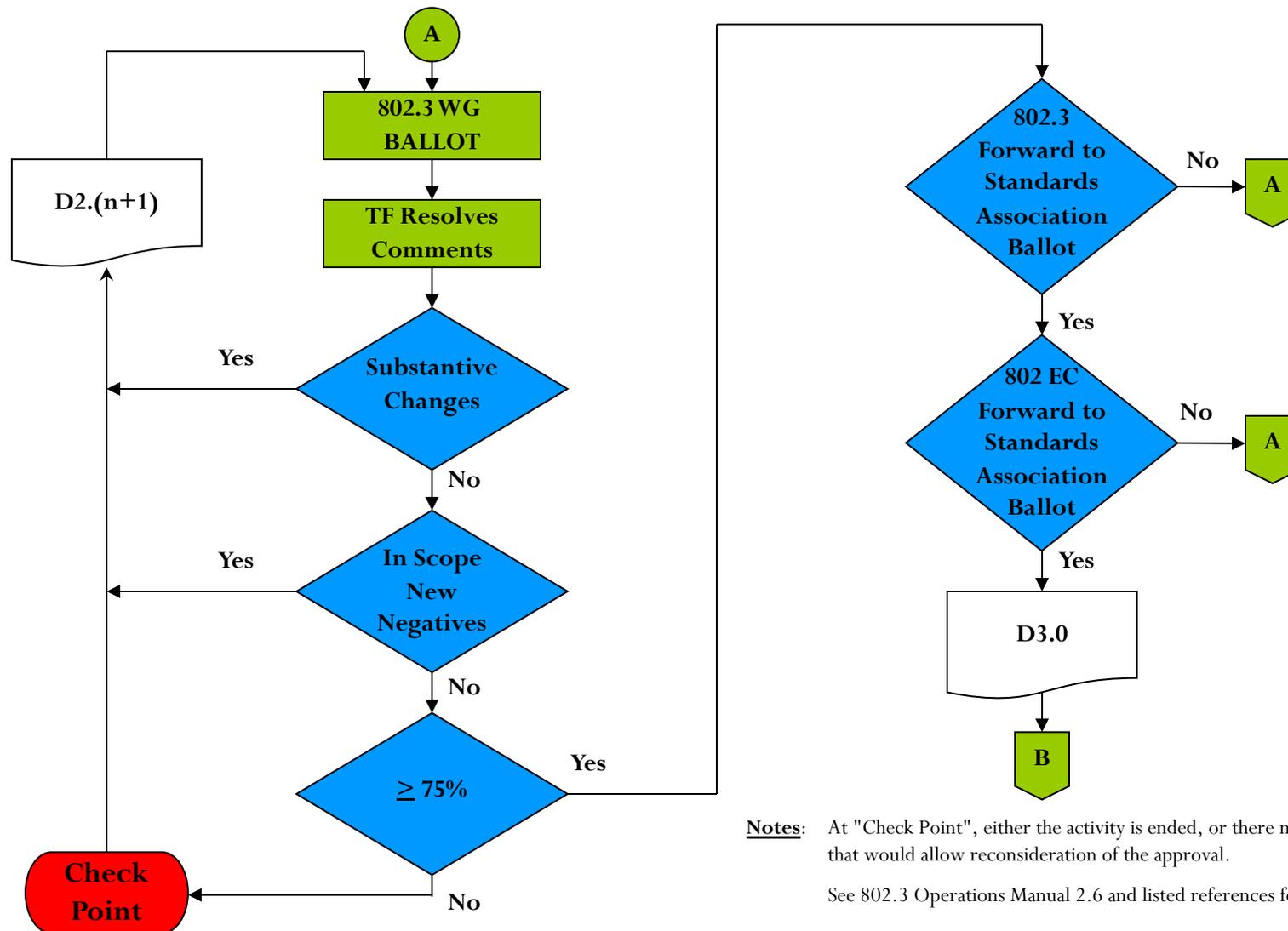


Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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



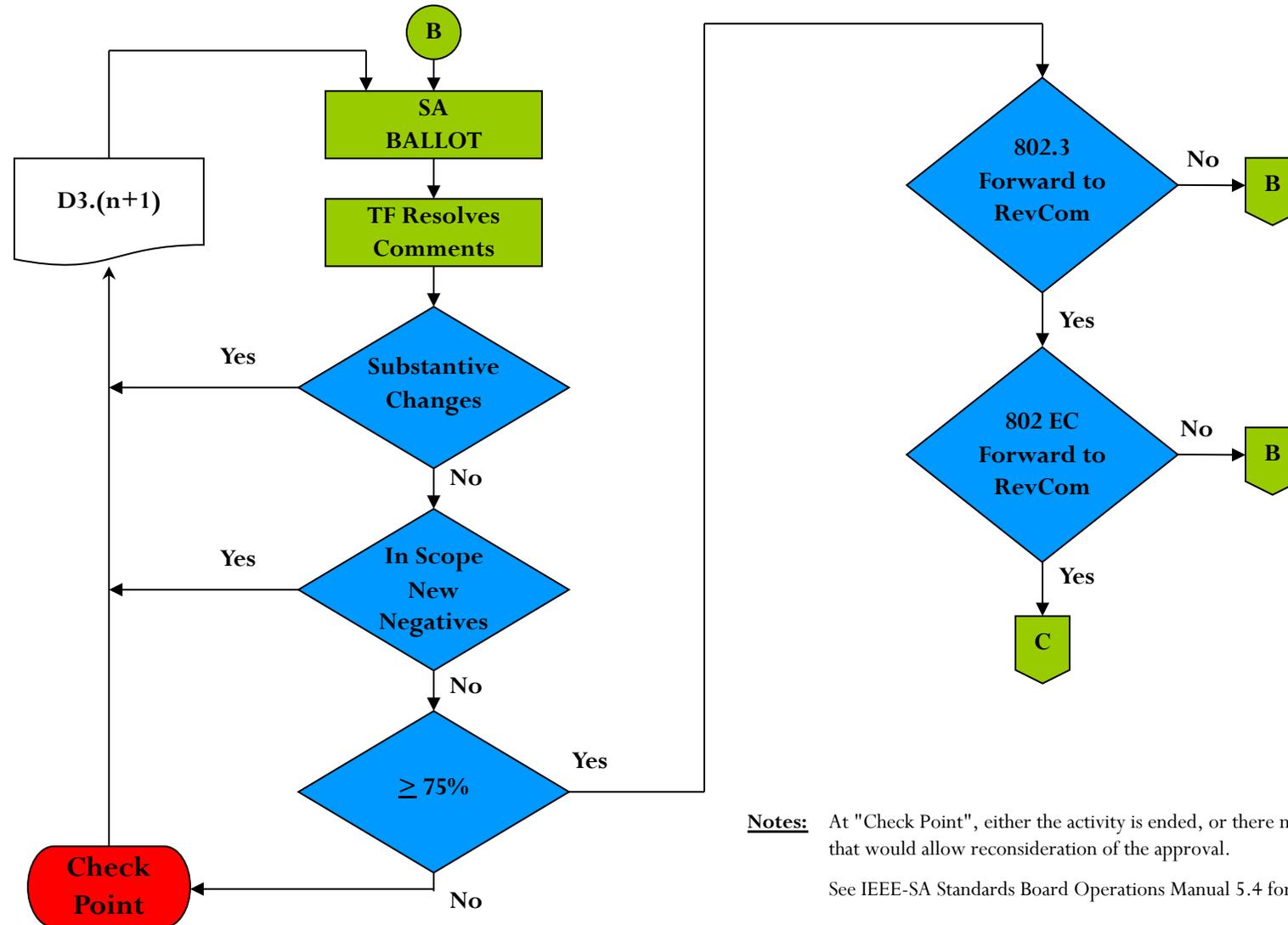
# Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



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

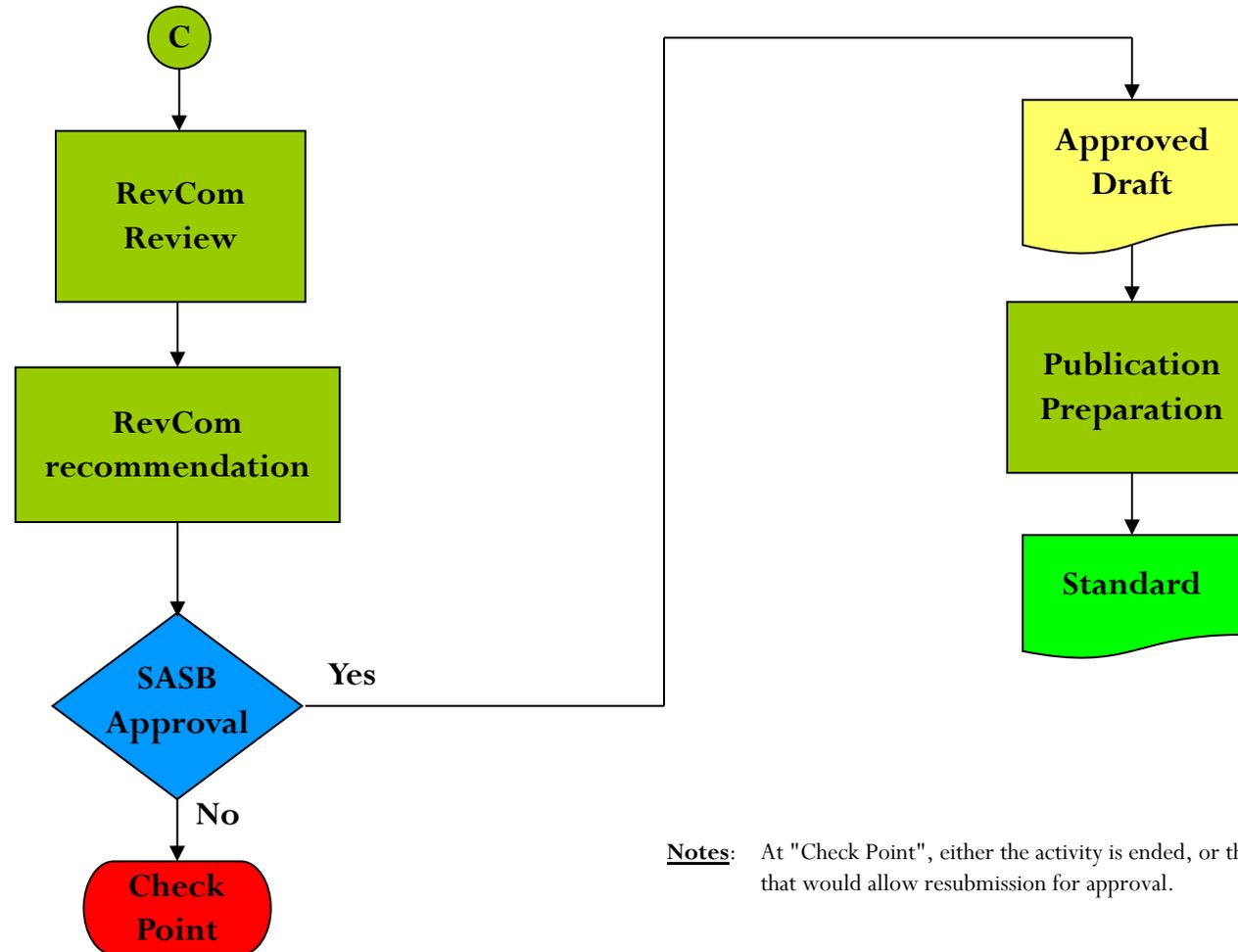
See 802.3 Operations Manual 2.6 and listed references for complete description

# 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](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

3 meetings were held with 5 technical contributions

Nov 6th, 2019 Teleconference			
<a href="#">802.3cu D1p0 TDECQ-SECQ considerations</a>	6-Nov-2019	Marco Mazzini	Cisco
<a href="#">Clarification of proposal for value of TDECQ –SECQ Related to comment #7</a>	6-Nov-2019	Peter Stassar	Huawei
Oct 23rd, 2019 Teleconference			
<a href="#">802.3 SMF PMD Nomenclature Proposal with Application to 400GBASE-LR4</a>	23-Oct-2019	Chris Cole	Finisar
<a href="#">Considerations on overload for 100GBASE-FR1</a>	23-Oct-2019	Peter Stassar	Huawei
Oct 15th, 2019 Teleconference			
<a href="#">802.3cu D1p0 - proposed editing to 100GBASE FR1/LR1 and 400GBASE FR4/LR4 PMDs</a>	15-Oct-2019	Marco Mazzini	Cisco

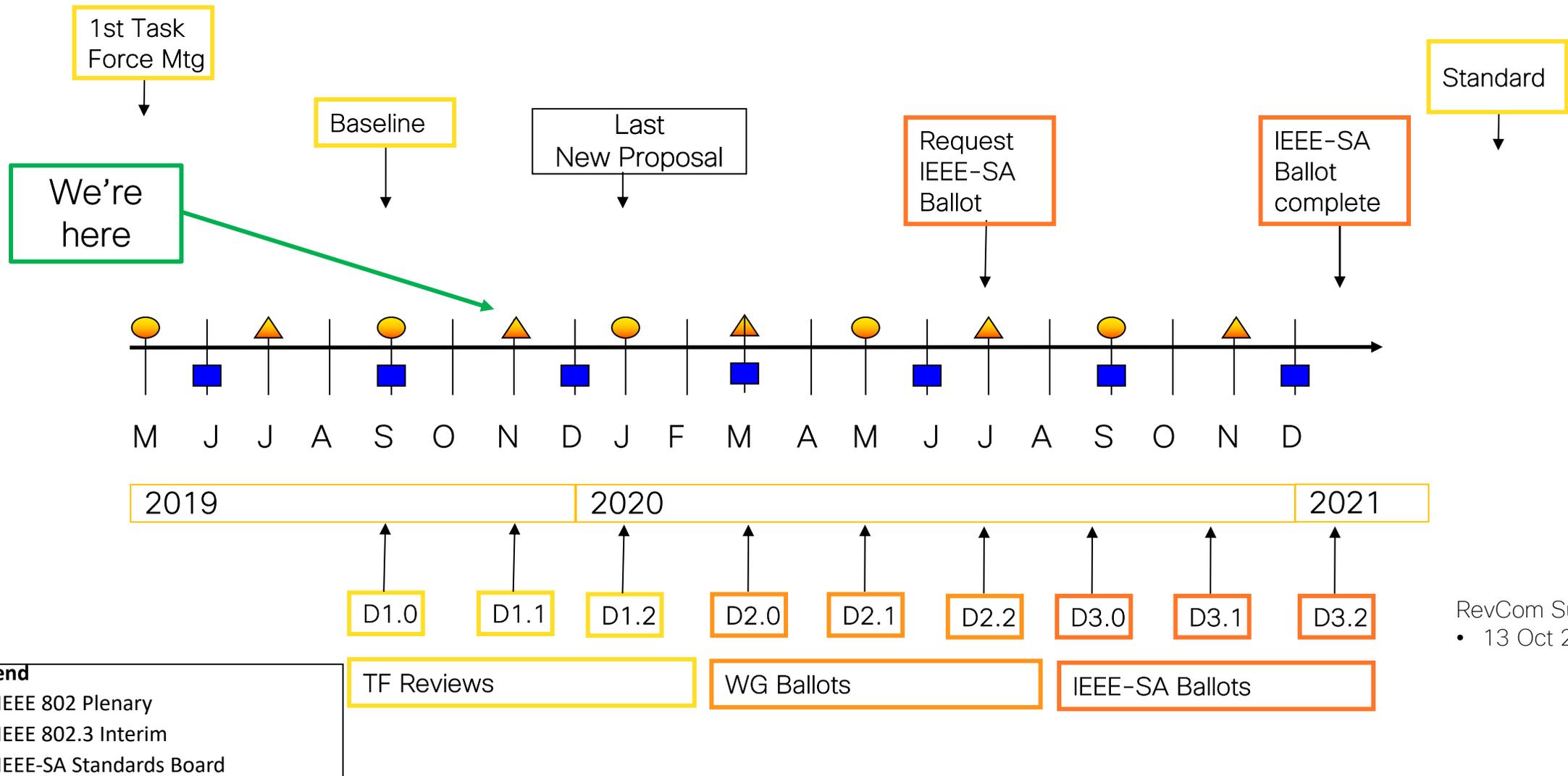
# IEEE P802.3cu Task Force Approved Project Documents

- PAR
  - [http://www.ieee802.org/3/cu/P802\\_3cu\\_PAR.pdf](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](http://www.ieee802.org/3/cu/Objectives_Approved_Sept_2019.pdf)
- Timeline
  - TBD

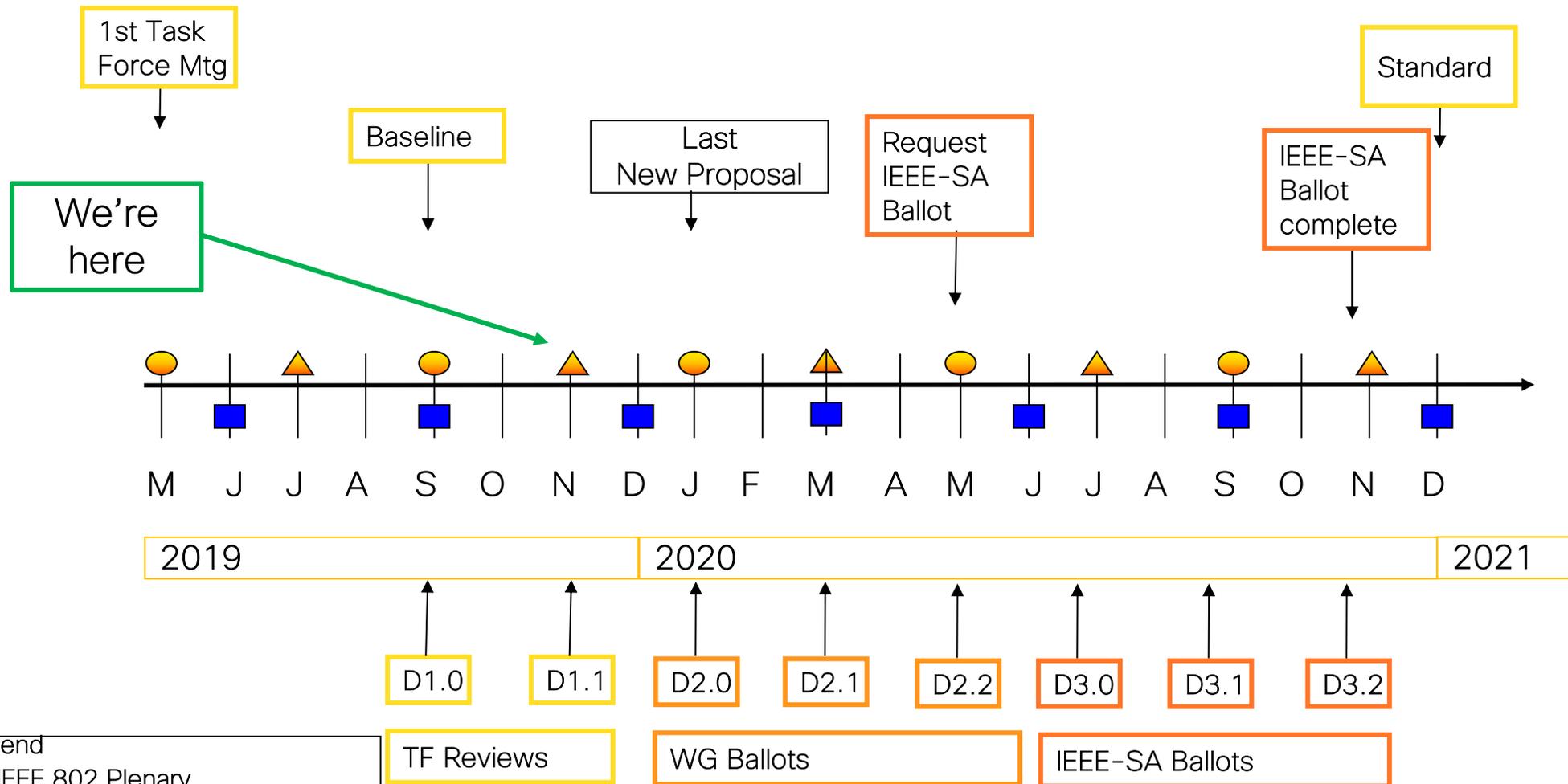
# Approved Objectives (Updated Sept 2019)

- 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



# IEEE P802.3cu Task Force draft Timeline



RevCom Submittal dates  
 • 13 Oct 2020

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

# Goals for the meeting

- Resolve comments received against D1.0
  - Review any technical contributions (including proposals aimed towards spec changes)
- Consider any contributions on nomenclature (to be handled outside the comment process)
- Adopt a Task Force timeline

# Meeting Logistics

- Meeting:
  - Monday afternoon 1pm-5pm (Queen's 5)
  - Tues all day 9am-5pm (Kona 5)

# Contributed Presentations

Title	Updated	Author(s)	Affiliation
<b>General Information</b>			
<a href="#">Agenda</a>	7-Nov-2019	Mark Nowell	Cisco
<a href="#">Chief Editor Report</a>	7-Nov-2019	Gary Nicholl	Cisco
<a href="#">Comment Agenda</a>	7-Nov-2019	Gary Nicholl	Cisco
Minutes		Kenneth Jackson	<a href="#">Sumitomo Electric</a>
<b>Contributed Presentations</b>			
<a href="#">802.3 SMF PMD Nomenclature Proposal with Application to 400GBASE-LR4</a>	7-Nov-2019	Chris Cole	II-VI
<a href="#">Nomenclature of 4X100 Gb/s optical PHY for lengths up to at least 6km</a>	7-Nov-2019	<a href="#">Xinyuan Wang</a> <a href="#">Yu Xu</a>	<a href="#">Huawei</a> <a href="#">Huawei</a>
<a href="#">Select SMF and Link Specifications Review</a>	7-Nov-2019	Chris Cole	II-VI
<a href="#">802.3cu D1p0 proposed editing to 100GBASE-FR1/LR1 and 400GBASE-FR4/LR4 PMDs</a>	7-Nov-2019	Marco Mazzini <a href="#">Brian Welch</a> <a href="#">Matt Traverso</a>	Cisco Cisco Cisco
<a href="#">802.3cu D1p0 TDECO-SECO considerations</a>	7-Nov-2019	Marco Mazzini <a href="#">Brian Welch</a>	Cisco Cisco
<a href="#">Clarification of proposal for value of TDECO – SECO related to comment #7</a>	7-Nov-2019	<a href="#">Peter Stassar</a>	<a href="#">Huawei</a>

# Meeting Schedule – Mon/Tues

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

Monday  
11-Nov-19

<u>Time</u>	<u>Presenter</u>	<u>Affiliation</u>	<u>Title</u>	<u>File Name</u>	<u>Dur.</u>
1:00 PM	Mark Nowell	Cisco	Agenda and General Information	agenda_3cu_01_1119.pdf	0:45
1:45 PM	Gary Nicholl	Cisco	Chief Editor Report	nicholl_3cu_01_1119.pdf	0:15
2:00 PM	Gary Nicholl	Cisco	Comment Agenda	nicholl_3cu_02_1119.pdf	0:10
2:10 PM	Chris Cole	II-VI	802.3 SMF PMD Nomenclature Proposal with Application to 400GBASE-LR4	cole_3cu_01_1119.pdf	0:25
2:35 PM	Xinyuan Wang	Huawei	Nomenclature of 4X100 Gb/s optical PHY for lengths up to at least 6km	wang_3cu_01_1119.pdf	0:30
3:05 PM	<b>Break</b>				0:15
3:20 PM	Nomenclature Discussion, Straw Polls, Motions				0:30
3:50 PM	Chris Cole	II-VI	Select SMF and Link Specifications Review	cole_3cu_02_1119.pdf	0:20
4:10 PM	Comment Resolution (and presentations as needed)				1:20
5:30 PM	<b>Break</b>				0:20

Tuesday  
12-Nov-19

<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	Opening	agenda_3cu_01_1119.pdf	0:15
9:15 AM	Comment Resolution (and presentations as needed)				1:15
10:30 AM	<b>Break</b>				0:15
10:45 AM	Comment Resolution (and presentations as needed)				1:15
12:00 PM	<b>Lunch</b>				1:00
1:00 PM	Comment Resolution (and presentations as needed)				2:00
3:00 PM	<b>Break</b>				0:15
3:15 PM	Comment Resolution (and presentations as needed)				1:45
	<b>Adjourn when complete</b>				

# 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>
- Jan 2020, Interim
  - Week of Jan 20thm 2020, Geneva, CH
- March 2020, Plenary
  - Week of March 16<sup>th</sup>, 2020. Atlanta, Ga.
- May 2020, Interim
  - Week of May 18<sup>th</sup>, 2020. Pasadena, Ca.
- July 2020 Plenary
  - Week of July 13<sup>th</sup>, 2019. Montreal, QC
  
- Anyone interested in hosting an interim meeting contact me or the IEEE 802.3 Executive Secretary Steve Carlson.

Thank You!