Agenda and General Information

IEEE P802.3CB CU4HDD Task Force

Yong Kim, Acting Chair
Broadcom Corporation
Atlanta, GA, USA, January 20~21, 2016

Agenda

- *Appointment of Recording Secretary*
- *Confirmation of Chair*
- Welcome and Introductions
- Approve Agenda
- Approve Nov 2015 Plenary SG Minutes
- Goals for this meeting
- 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 <<*meeting date*>> Meeting~~
- ~~Comment resolution~~
- Presentations
- Motions and Closing Business
- Future Meetings

Task Force Decorum

- Photography or recording by permission only (December 2014 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 2014 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

- Entertain and consider technical presentations
- Identify big ticket items – e.g. non-consensus and gaps in task force baseline.
- Discuss project timeline
- Fully staff the task force volunteer work force.
- Lay the ground work for the next meeting in March (re: project timeline).

Big ticket items

- Lay the ground work for the next meeting

Reflector and Web

- To subscribe to the STDS-802-3-CU4HDD@listserv.ieee.org reflector, send an email to:

  ListServ@ieee.org

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

  subscribe stds-802-3-CU4HDD <yourfirstname> <yourlastname>

  end

- Send stds-802-3-CU4HDD reflector messages to:

  stds-802-3-CU4HDD *@listserv.ieee.org*

- Task Force web page URL:

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

Task Force Private Area

- URL: http://www.ieee802.org/3/cb/private/ - Username: 802.3cb
  - Password: <<*xxxxxxx*>> ← don't have one yet.

- 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
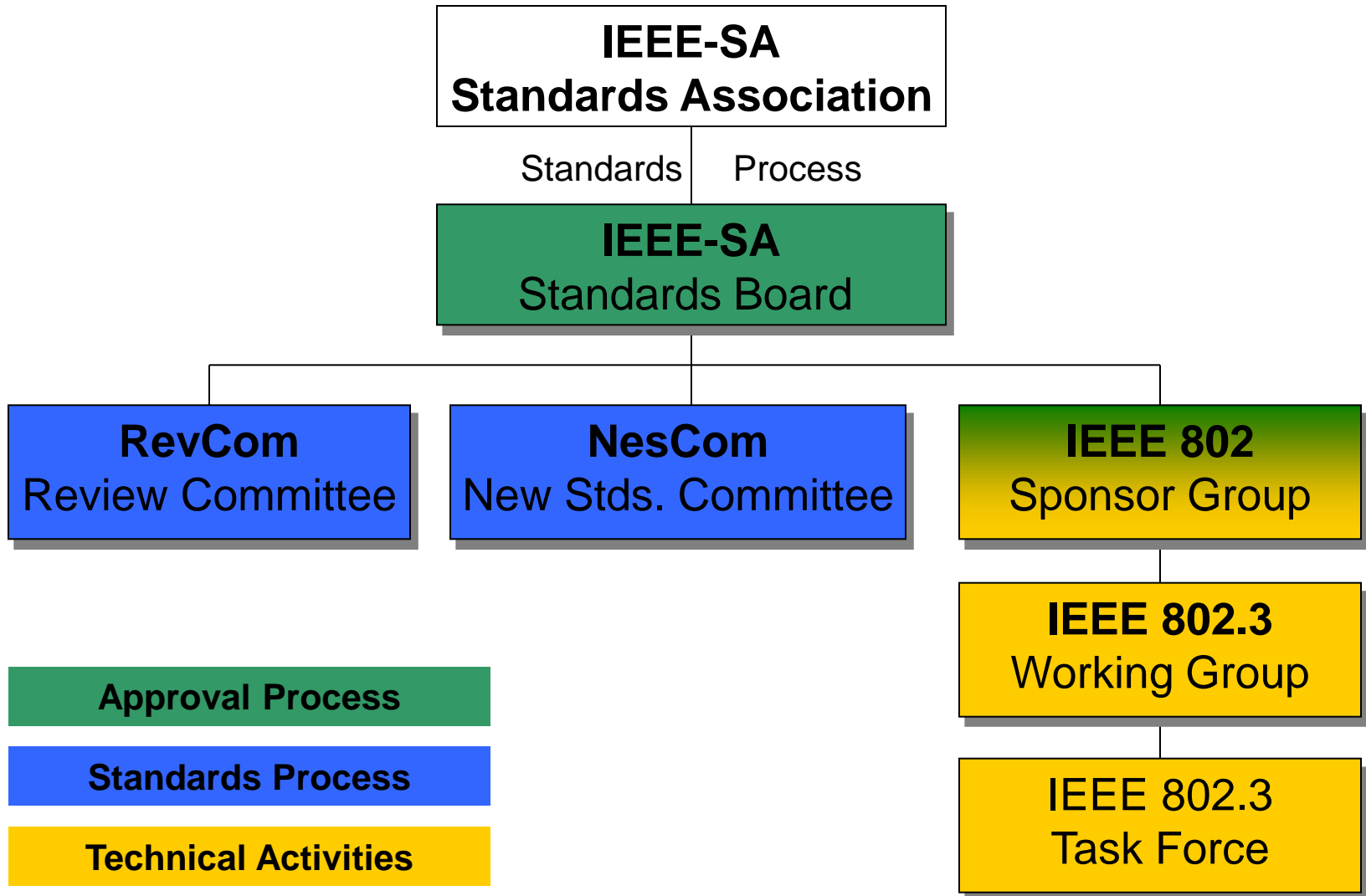- NO restrictive notices

Attendance

- Tutorial Material on attendance tool
  - http://ieee802.org/3/minutes/attendance_procedures.pdf

- Access details
  - URL: http://imat.ieee.org/
  - (For interim) No Password need on hosted interims.

IEEE Structure

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                    ┌─────────────────────────┐
                    │        IEEE-SA          │
                    │  Standards Association  │
                    └────────────┬────────────┘
                      Standards │ Process
                    ┌────────────┴────────────┐
                    │        IEEE-SA          │
                    │    Standards Board      │
                    └────────────┬────────────┘
        ┌────────────────────────┼────────────────────────┐
┌───────────────┐      ┌───────────────────┐      ┌──────────────┐
│    RevCom     │      │      NesCom       │      │   IEEE 802   │
│Review Committee│     │New Stds. Committee │      │Sponsor Group │
└───────────────┘      └───────────────────┘      └──────┬───────┘
                                                  ┌──────────────┐
                                                  │  IEEE 802.3  │
                                                  │Working Group │
                                                  └──────┬───────┘
                                                  ┌──────────────┐
                                                  │  IEEE 802.3  │
                                                  │  Task Force  │
                                                  └──────────────┘
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Approval Process

Standards Process

Technical Activities

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**
  http://standards.ieee.org/about/sasb/audcom/pnp/LMSC.pdf

- **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:**
  - The 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 the IEEE is not aware. Additionally, neither the 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.

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(Optional to be shown)

Participants, Patents, and Duty to Inform

All participants in this meeting have certain obligations under the IEEE-SA Patent Policy.

- **Participants [Note: Quoted text excerpted from IEEE-SA Standards Board Bylaws subclause 6.2]:**
    - **"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**
    - **"Should inform the IEEE (or cause the IEEE to be informed)" of the identity of "any other holders of potential Essential Patent Claims" (that is, third parties that are not affiliated with the participant, with the participant's employer, or with anyone else that the participant is from or otherwise represents)**
- **The above does not apply if the patent claim is already the subject of an Accepted Letter of Assurance that applies to the proposed standard(s) under consideration by this group**
- **Early identification of holders of potential Essential Patent Claims is strongly encouraged**
- **No duty to perform a patent search**

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Patent Related Links

All participants should be familiar with their obligations under the IEEE-SA Policies & Procedures for standards development.

Patent Policy is stated in these sources:

IEEE-SA Standards Boards 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 or visit http://standards.ieee.org/about/sasb/patcom/index.html

This slide set is available at https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.ppt

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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:
  - Either speak up now 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
 - Cause an LOA to be submitted

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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, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.

      - Technical considerations remain 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.**

See *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and "Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy" for more details.
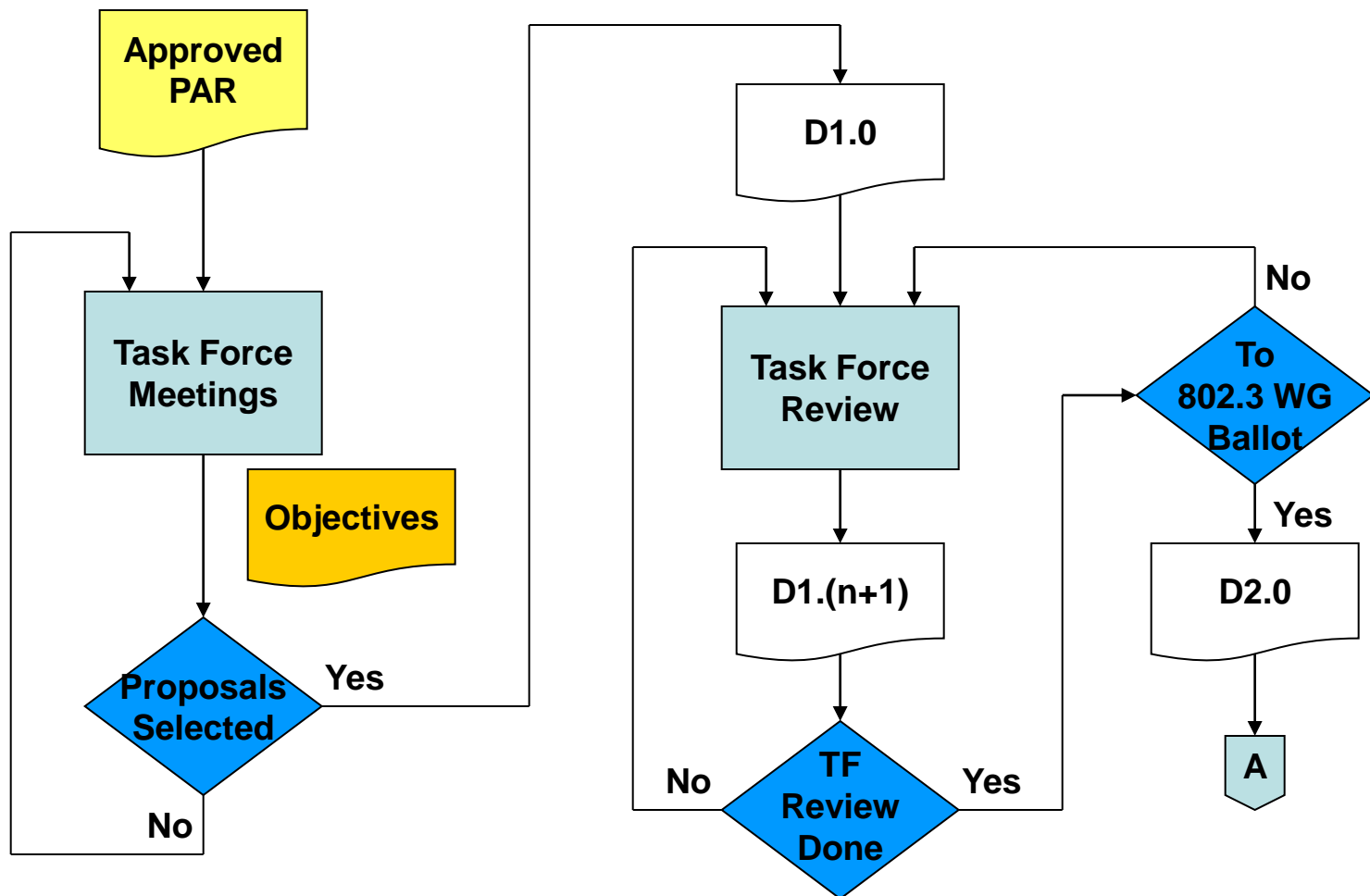
◆IEEE

Overview of IEEE 802.3 Standards Process (1/5)- Study Group Phase
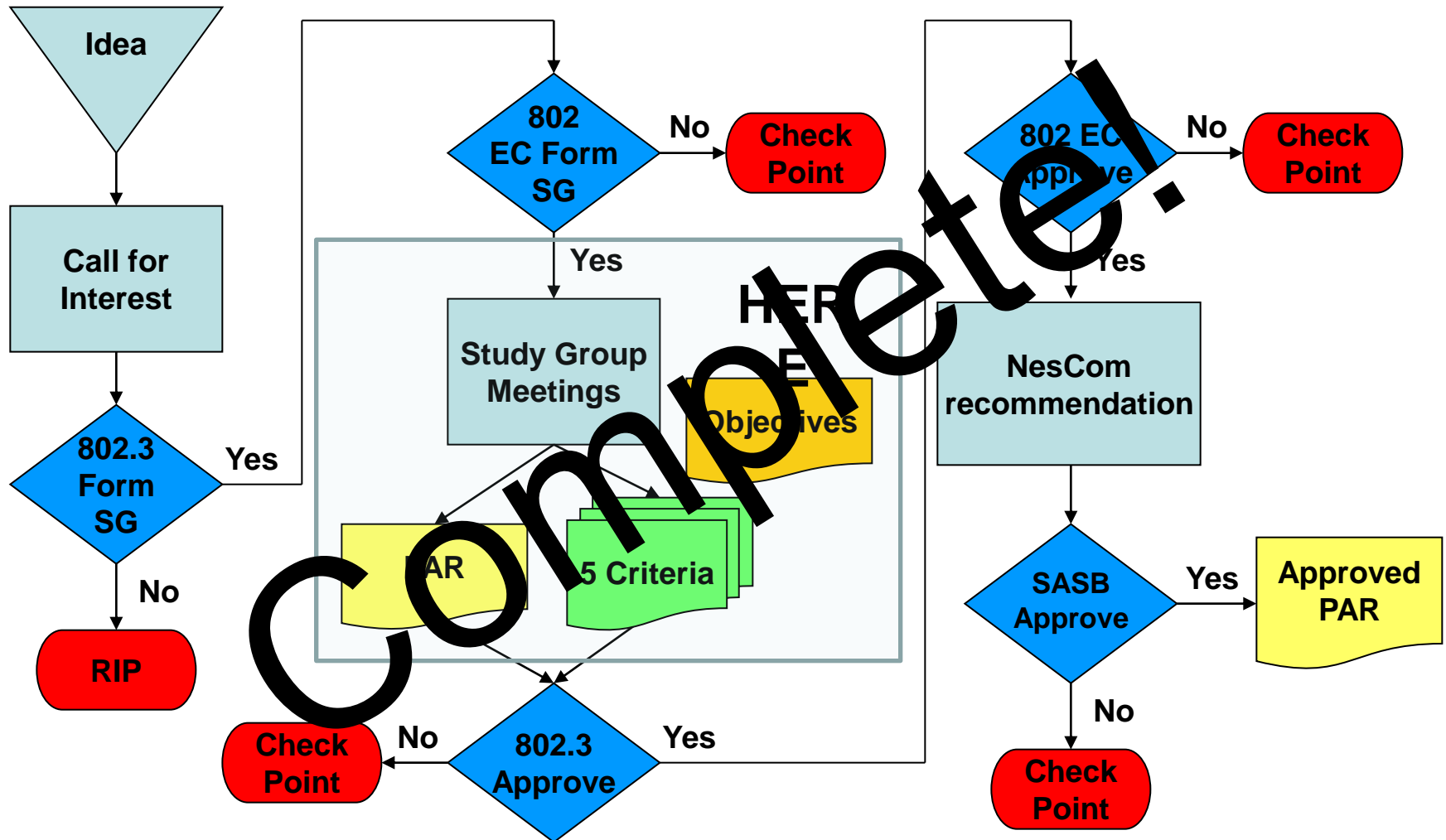
Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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

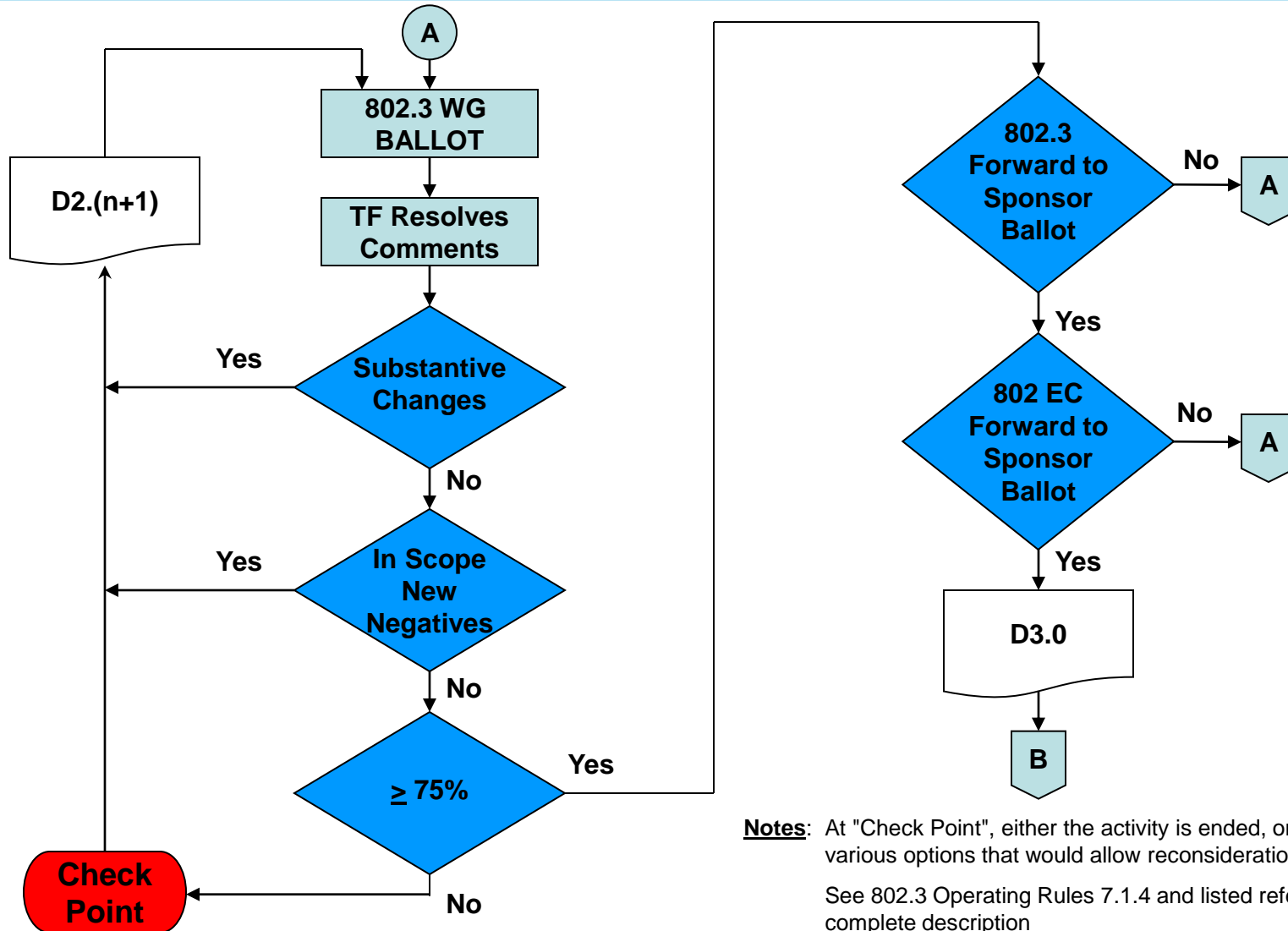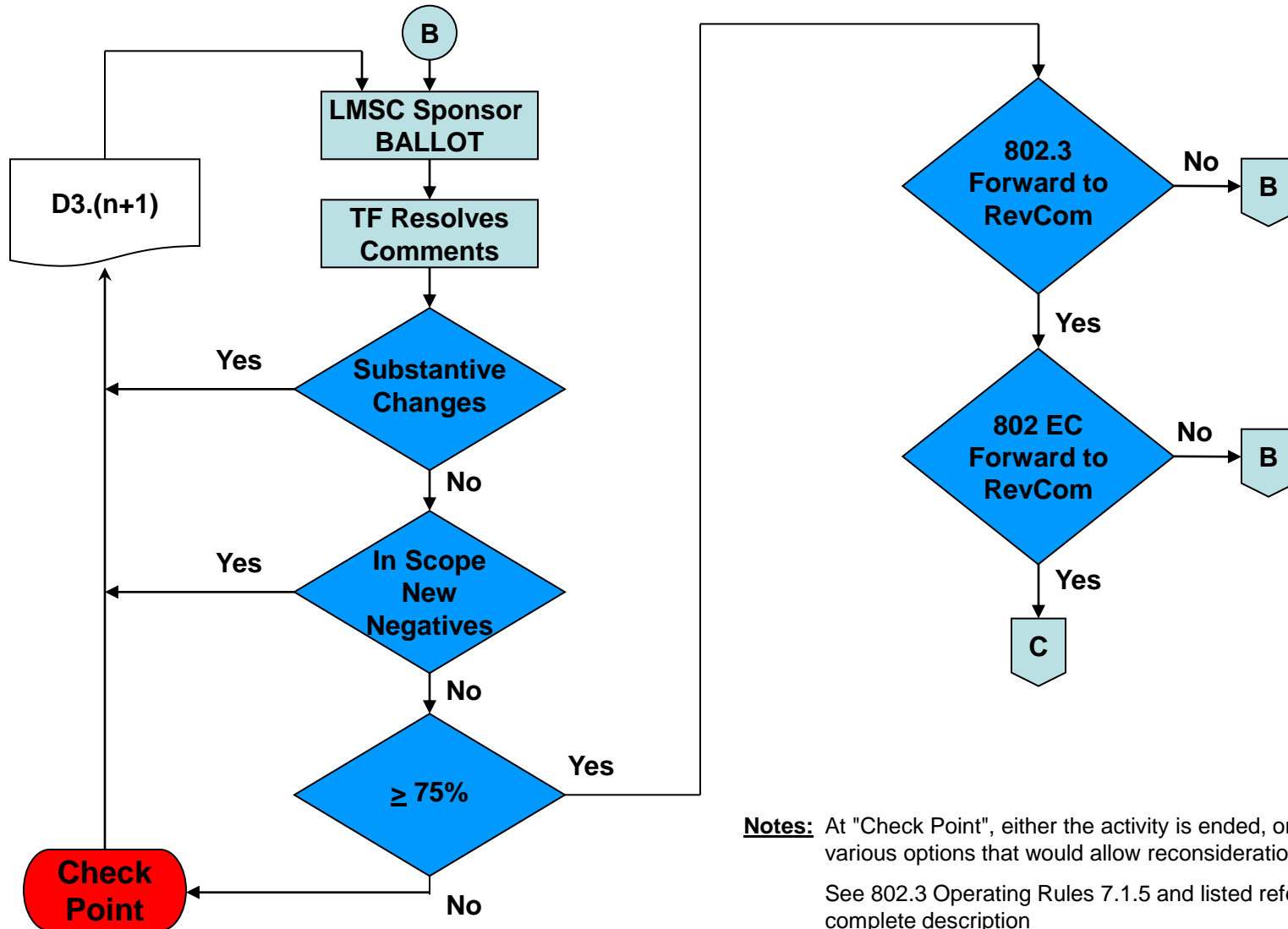**Notes:** At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

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
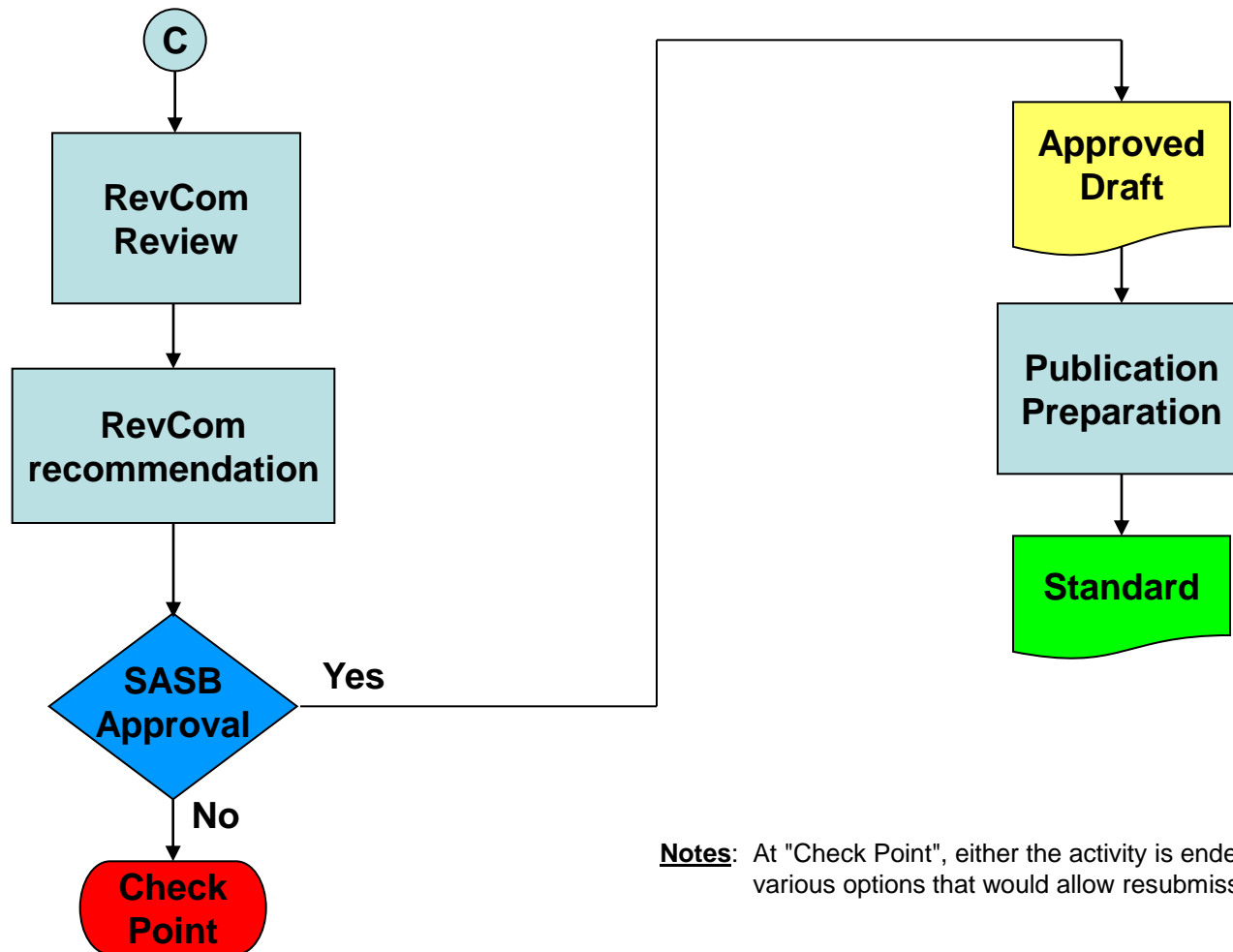
C

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.

Liaisons and Communications

Action Items

IEEE P802.3cb CU4HDD Approved Project Documents

- PAR

  - http://ieee802.org/3/CU4HDDSG/P802_3cb_PAR_280915.pdf

- CSD including 5 Criteria

  - https://mentor.ieee.org/802-ec/dcn/15/ec-15-0101-00-ACSD-802-3cb.pdf

- Objectives

  - <<TBD *Objectives URL*>> - see next slide

IEEE P802.3cb CU4HDD Objectives

- Support MAC data rates of 2.5 Gb/s and 5 Gb/s

- Support full duplex operation only

- Preserve the 802.3 Ethernet frame format utilizing the 802.3 MAC

- Preserve minimum and maximum Frame Size of current 802.3 standard

- Support Auto-Negotiation (Clause 73)

- Support optional Energy-Efficient Ethernet operation.

- Support a BER better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent)

- Define a PHY for 2.5 Gb/s operation over a printed circuit board backplane and/or twinaxial copper cable with total channel insertion loss of <= 11 dB at 1.5 GHz

- Define a PHY for 5 Gb/s operation over a printed circuit board backplane and/or twinaxial copper cable with total channel insertion loss of <= 15 dB at 3 GHz

2.5 Gb/s and 5 Gb/s Potential Timeline

FASTEST Possible Timeline – **and achievable –meaningful and timely contributions**

Study Group Formed

Task Force Approved

All Baseline Proposals Selected

WG Ballot

Sponsor Ballot

STD

Not an adopted timeline

2015			2016			2017			2018			2019			2020	

J U L | S E P | N O V | J A N | M A R | M A Y | J U L | S E P | N O V | J A N | M A R | M A Y | J U L | S E P | N O V | J A N | M A R | M A Y | J U L | S E P | N O V | J A N | M A R | M A Y | J U L | S E P | N O V | J A N | M A R | M A Y

Last Feature Added

Last Tech Change

Assumptions (minimum duration)

Study Group – one Plenary cycle

Task Force Draft – Two Plenary cycle to produce TF Draft, including more than one interim between plenaries. Baseline over one Plenary cycle.

WG Ballot – One plenary cycles, one re-circ

Sponsor Ballot – Two plenary cycles, one re-circ

2.5 Gb/s and 5 Gb/s "Nominal" Timeline

Nominal Timeline -- **reasonable contributions, reasonable consensus**

| Task Force Approved | | WG Ballot | | STD | |
| Study Group Formed | All Baseline Proposals Selected | | Sponsor Ballot | Not an adopted timeline | |

2015 | **2016** | **2017** | **2018** | **2019** | **2020**

JUL SEP NOV JAN MAR MAY JUL SEP NOV JAN MAR MAY JUL SEP NOV JAN MAR MAY JUL SEP NOV JAN MAR MAY JUL SEP NOV JAN MAR MAY

Last Feature Added

Last Tech Change

Assumptions (Nominal duration)

Study Group – one Plenary cycle

Task Force Draft – Two Plenary cycle to basline, one additional to produce TF Draft.

WG Ballot – Two plenary cycles, one (or two) re-circ

Sponsor Ballot – Two plenary cycles, one re-circ

Presentations

- http://www.ieee802.org/3/cb/public/jan16/

Note –Times listed are subject to change.

Future Meetings

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

- Architecture Ad Hoc meetings (mostly conference calls)

- 2016 March Plenary
  - Macao SAR, P.R. China
  - March 14~17, 2016

- 2016 May Interim
  - Whistler, British Columbia, Canada ← conflicts with 802.1 interim
  - May 23~27, 2016

- 2016 July Plenary
  - San Diego, CA, USA
  - July 25~28, 2016

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

Thank You!