## Agenda and General Information

IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Task Force

Chad Jones
Cisco Systems, Inc.
Teleconference, October 20, 2021

## Agenda

- Appointment of Recording Secretary
- Welcome and Introductions
- Approve Agenda
- Approve October 6, 2021 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
- Liaisons and Communications
- Comment resolution
- Timeline
- Work List review
- Motions and 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. (January 2020 IEEE-SA Standards Board Ops Manual 5.3.3.2)
- Press (i.e., anyone reporting publicly on this meeting) are to announce their presence (January 2020 IEEE-SA Standards Board Ops Manual 5.3.3.3)
- The conference tool in use for this meeting has a chat function. Public, and in some cases private
  chats, are available to the teleconference host after the meeting, and should be treated as a public
  statement that could appear in the minutes. The public chat function shall only be used for official
  business related to the meeting, as determined by the Chair.
- Cell phone ringers off
- Please observe proper decorum in meetings MUTE WHEN NOT TALKING

### **Affiliation**

- If you have not edited your Webex profile to show your employer and/or affiliation, please type it in the chat window so the secretary can add to the minutes.
- If you do not announce your affiliation, you will be removed from the meeting

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## Goals for the meeting

Presentations that lead to BASELINE

## Big ticket items

- BASELINE TEXT
- Resolving work items

### Reflector and Web

• To subscribe to the P802.3da reflector, send an email to:

ListServ@ieee.org

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

subscribe stds-802-3-SPMD <yourfirstname> <yourlastname> end

Send P802.3da reflector messages to:

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

Task Force web page URL:

http://www.ieee802.org/3/da/index.html

### Task Force Private Area

URL: https://www.ieee802.org/3/da/private/index.html

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.

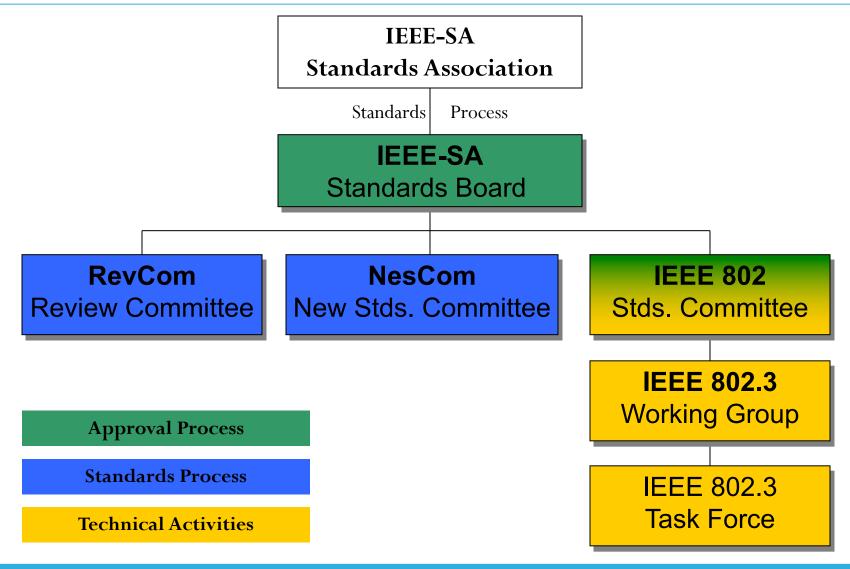
### Attendance

- Taken from the WebEx log
- Tutorial Material on attendance tool
  - http://ieee802.org/3/minutes/attendance\_procedures.pdf
- Access details
  - URL: <a href="http://imat.ieee.org/">http://imat.ieee.org/</a>
  - Password:

### **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

### 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 <a href="http://www.ieee802.org/devdocs.shtml">http://www.ieee802.org/devdocs.shtml</a>
- 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

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#### 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





#### 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 WORKING GROUP 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. Formally object to the discussion immediately.

For more details, see IEEE SA Standards Board Operations Manual, clause 5.3.10 and

IEEE SA STANDARDS 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 <a href="http://standards.ieee.org/about/sasb/patcom/materials.html">http://standards.ieee.org/about/sasb/patcom/materials.html</a>

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 <a href="https://standards.ieee.org/about/policies/opman/sect6.html">https://standards.ieee.org/about/policies/opman/sect6.html</a>
- IEEE SA Copyright Permission
- https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip
- IEEE SA Copyright FAQs
- <a href="http://standards.ieee.org/faqs/copyrights.html/">http://standards.ieee.org/faqs/copyrights.html/</a>
- 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 <a href="http://www.ieee.org/about/corporate/governance">http://www.ieee.org/about/corporate/governance</a>

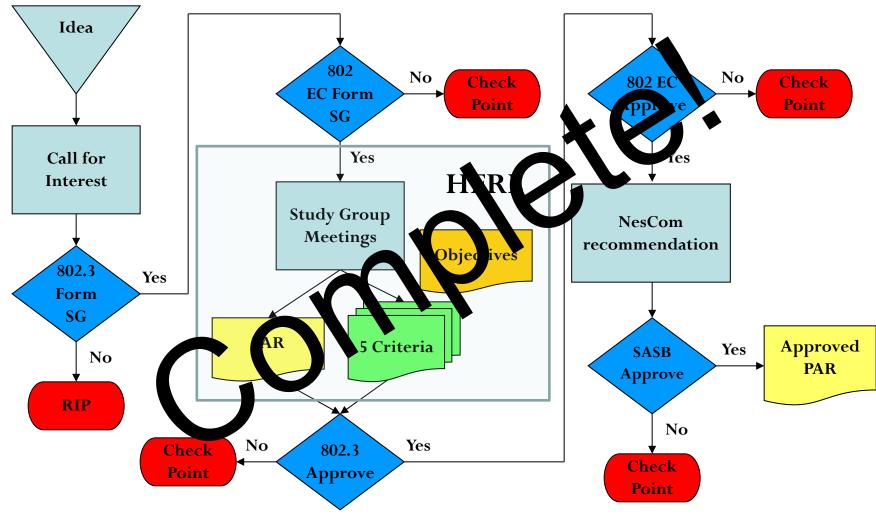
# Participants in the IEEE-SA "individual process" shall act independently of others, including employers

- The <u>IEEE-SA Standards Board Bylaws</u> 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

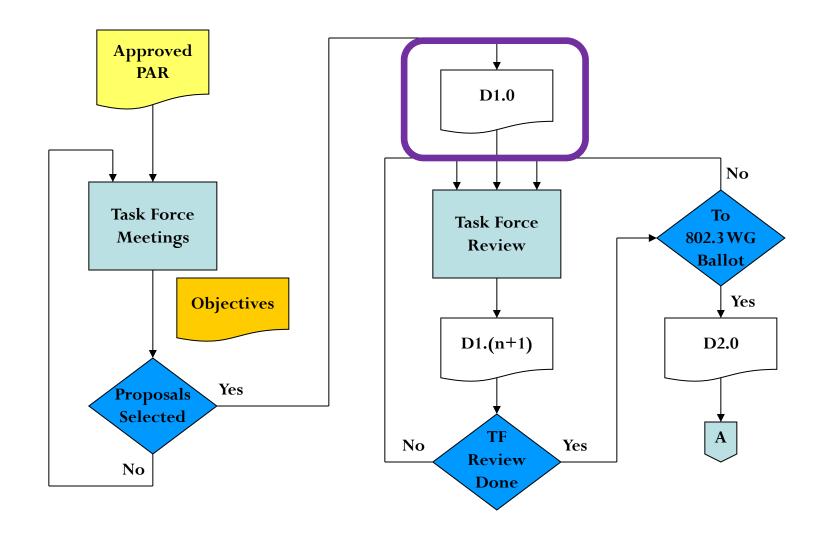
- The <u>IEEE-SA Standards Board Bylaws</u> (clause 5.2.1.3) specifies that "the standards development process shall not be dominated by any single interest category, individual, or organization"
  - This means no participant may exercise "authority, leadership, or influence by reason of superior leverage, 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

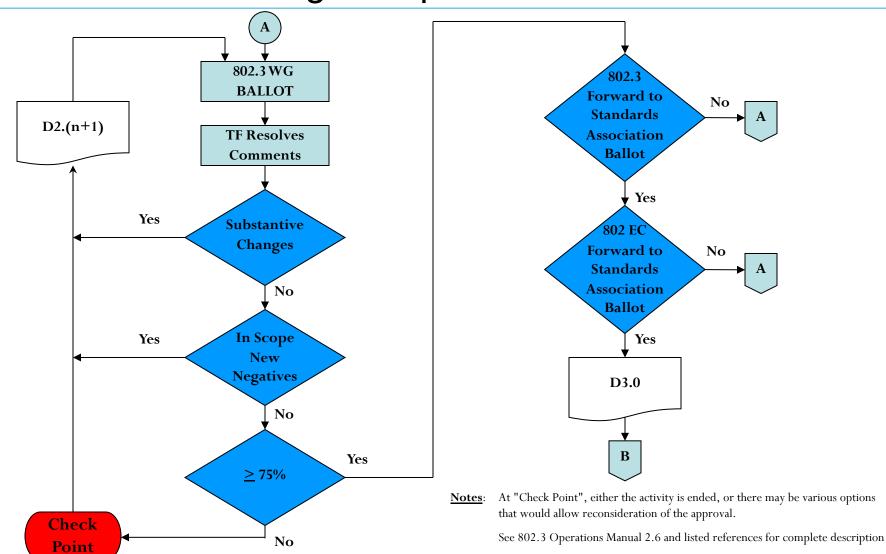


Note: At "Check Point", either the activity is ended, or there may be various options that would allow reconsideration of the approval.

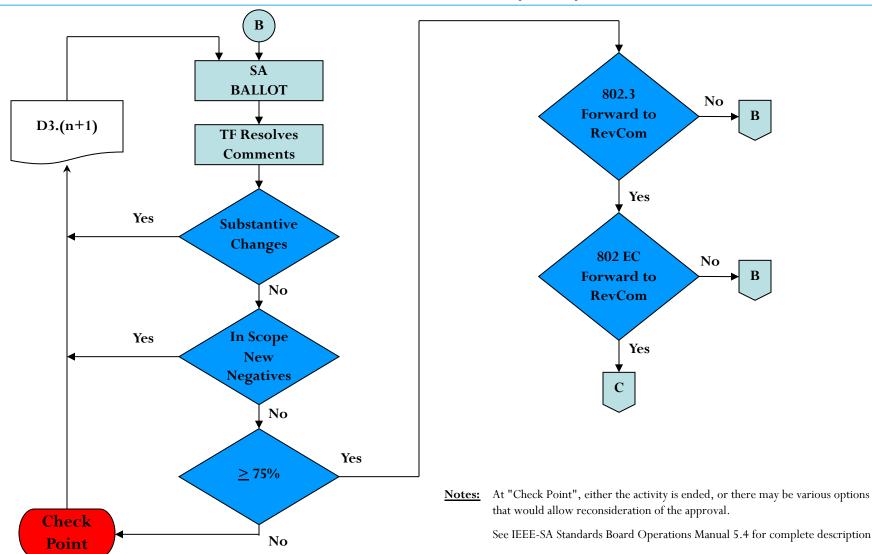
# Overview of IEEE 802.3 Standards Process (2/5) – Task Force Comment Phase



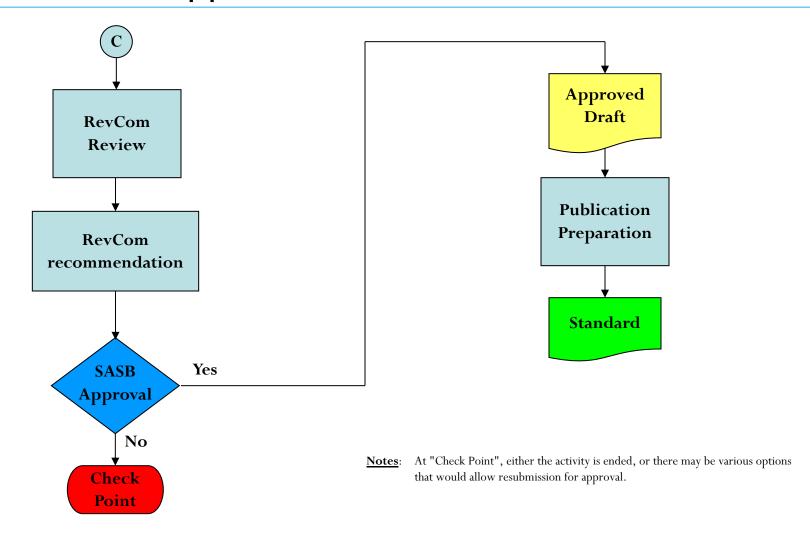
# Overview of IEEE 802.3 Standards Process (3/5) – Working Group Ballot Phase



# Overview of IEEE 802.3 Standards Process (4/5)-IEEE Standards Association (SA) Ballot Phase



# Overview of IEEE 802.3 Standards Process (5/5) – Final Approvals / Standard Release



## IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Approved Project Documents

- PAR
  - http://www.ieee802.org/3/da/P802d3da PAR.pdf
- 5 Criteria
  - https://mentor.ieee.org/802-ec/dcn/20/ec-20-0096-00-ACSDp802-3da.pdf
- Objectives
  - http://www.ieee802.org/3/da/802d3da\_objectives.pdf

## Presentations

| Title | Presenter |
|-------|-----------|
| TBD   | M. Paul   |
|       |           |
|       |           |
|       |           |

### Liaisons

- ISO/IEC JTC 1/SC 25/WG 3 to IEEE 802.3: Liaison on multi-drop cabling
- ISO/IEC JTC 1/SC 25/WG 3 to IEEE 802.3: Liaison on project IEC 60512-99-003
- Draft replies are posted in the 102021 public area

## November 2021 Virtual Plenary

Early Registration: Until Thursday 11:59 PM UTC October 21, 2021

\* \$US 50.00 for all attendees

**Standard Registration: Until Friday 11:59 PM UTC November 5, 2021** 

\* \$US 75.00 for all attendees

Late Registration: After 11:59 PM UTC Friday 11:59 PM UTC November 5, 2021

\* \$US 125.00 for all attendees

Registration Fees are Non-Transferable and Non-Refundable

**REGISTRATION WEBSITE:** <a href="https://cvent.me/4xn8Ql">https://cvent.me/4xn8Ql</a>

### Public Service Announcements

#### WG Ballot announcements:

https://grouper.ieee.org/groups/802/3/ballots/announce.html

| CURRENT IEEE 802.3 BALLOTS   |       |                                 |                               |  |                                   |  |  |  |  |  |  |  |
|--|-------|---------------------------------|-------------------------------|--|-----------------------------------|--|--|--|--|--|--|--|
| Project  | Draft | Ballot                          | Opening date                  | Closing date                             | Contact                           | Ballot notice                          |  |  |  |  |  |  |
| IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s<br>Short Reach Fiber              | D2.0  | Initial Working<br>Group ballot | Monday 4th October<br>2021    | Wednesday 3rd November<br>2021 23:59 AOE | Robert Lingle                     | IEEE P802.3db draft D2.0 ballot notice |  |  |  |  |  |  |
| IEEE P802.3cx Improved PTP Timestamping Accuracy                                 | D2.0  | Initial Working<br>Group ballot | Wednesday 6th<br>October 2021 | Friday 5th November 2021<br>23:59 AOE    | Steve Gorshe                      | IEEE P802.3cx draft D2.0 ballot notice |  |  |  |  |  |  |
| IEEE P802.3dd Power over Data Lines of Single<br>Pair Ethernet (Maintenance #17) | D2.0  | Initial Working<br>Group ballot | Saturday 9th October 2021     | Monday 8th November 2021<br>23:59 AOE    | <u>George</u><br><u>Zimmerman</u> | IEEE P802.3dd draft D2.0 ballot notice |  |  |  |  |  |  |

External PAR Review Ad Hoc 25 October 17h00 UTC – Bob Grow

https://www.ieee802.org/3/calendar.html

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### IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Timeline, Proposed V3

| year | month   | output | event           |
|------|---------|--------|-----------------|
| 2021 | jan     | D0.2   |                 |
|      | mar     |        |                 |
|      | may     | D0.3   | Quasi TF review |
|      | jul     | D0.4   | Quasi TF review |
|      | sep     | D1.0   | TF review       |
|      | nov     | D1.1   |                 |
| 2022 | jan     | D1.2   |                 |
|      | mar     | D1.3   |                 |
|      | may     | D2.0   | WG ballot       |
|      | jul     | D2.1   |                 |
|      | sep     | D2.2   |                 |
|      | nov     | D2.3   |                 |
| 2023 | jan     | D3.0   | SA Ballot       |
|      | mar     | D3.1   |                 |
|      | may     | D3.2   |                 |
|      | jul-sep |        | STD             |

## Work Items

|  | I                          |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
|--|----------------------------|-----|-----|-----|----|-----|----|-----|----|-----|----|----|-----|----|-----|----|-----|----|-----|--------|-----|-----|------|----|-----|----|-----|----|-----|----|
|  |                            | Nov |     | Dec |    | Jan |    | Feb |    | Mar |    |    | Apr |    | May |    | Jun |    | Jul |        | Aug |     | Sept |    | Oct |    | Nov |    | Dec |    |
|  |                            | 4   | 18  | 2   | 16 | 13  | 27 | 10  | 24 | 10  | 17 | 24 | 7   | 21 | 19  | 26 | 16  | 30 | 14  | 19     | 11  | 25  | 8    | 22 | 6   | 20 | 3   | 17 | 1   | 15 |
| Concensus Model                                  |                            |     |     |     |    |     |    |     |    |     |    | Х  |     | Χ  | Х   |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| Topology, allow Y connections? spur/stub         |                            |     |     |     |    |     |    |     | x  |     | х  | х  | x   | x  |     |    |     |    |     |        |     | x   |      |    |     |    |     |    |     |    |
| length?  | Bob Voss                   |     |     |     |    |     |    |     | ^  |     | ^  | ^  |     | ^  |     |    |     |    |     |        |     | _ ^ |      |    |     |    |     |    |     |    |
|  |                            |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
|  |                            |     |     |     |    |     |    |     |    | ×   | х  | x  |     |    |     |    |     |    | Χ   | Chris: |     | x   |      |    | x   |    |     |    |     |    |
| connection (inductance, capacitance, resistance) |                            |     |     |     |    |     |    |     |    | ^   | ^  | ^  |     |    |     |    |     |    | ^   | done   |     | ^   |      |    | ^   |    |     |    |     |    |
| MDI loading                                      | Chris Diminico             |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
|  | Chris Diminico, Michael    |     |     |     |    |     |    |     |    | ×   | х  |    |     |    |     |    |     |    |     |        |     | x   |      |    |     |    |     |    |     |    |
| Power Coupling Network definition                | Paul                       |     |     |     |    |     |    |     |    |     | ^  |    |     |    |     |    |     |    |     |        |     | _ ^ |      |    |     |    |     |    |     |    |
|  | Bob Voss, Peter Jones,     |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
|  | Jason Potterf, Heath       |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| Hot insertion, removal and ramifications         | Stewart                    |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| power specifications (max & min voltages /       |                            |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| power levels / max currents / loop resistances)  |                            |     |     | х   | х  |     | X  |     | х  |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| and what regulations set these limits            | Michael Paul               |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| specifications (IL, RL, mode conversion, etc.),  |                            |     | x   | ×   |    |     | х  |     |    |     | х  |    |     |    |     |    |     |    |     |        |     | x   |      |    |     |    |     |    |     |    |
| MDI specs (tighter than CG?)                     | Chris Diminico             |     | _ ^ | _^_ |    |     | ^  |     |    |     | ^  |    |     |    |     |    |     |    |     |        |     | ^   |      |    |     |    |     |    |     |    |
| Startup Sequence                                 | Michael Paul               |     |     |     |    |     |    |     |    |     |    |    |     |    | Х   | Х  |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| Reach extension / validation, interacts with     |                            |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| mixing segment spec (dependent)                  |                            |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| Backwards compatible noise immunity (e.g.,       |                            |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    | х   |    | Х   |        |     |     |      |    |     |    |     |    |     |    |
| FEC)   | Gergely Huszak             |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    | ^   |    | ^   |        |     |     |      |    |     |    |     |    |     |    |
| LLDP infrastructure                              | Jason Potterf, Peter Jones |     |     |     |    |     |    |     |    | х   |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| Sleep/standby/EEE/EEE signaling                  | George Zimmerman           |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     | Χ  |     |        |     |     |      |    |     |    |     |    |     |    |
| Failure modes and preferred behavior (potential  | Gergely Huszak, George     |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| to defer until after 1.0)                        | Zimmerman                  |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     |      |    |     |    |     |    |     |    |
| Definition of backward compatibility / review of |                            |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     | х    |    | х   |    |     |    |     |    |
| backward compatibility objective                 | Peter Jones, Jason Potterf |     |     |     |    |     |    |     |    |     |    |    |     |    |     |    |     |    |     |        |     |     | ^    |    | ^   |    |     |    |     |    |

## **Future Meetings**

- See: <a href="http://www.ieee802.org/3/interims/index.html">http://www.ieee802.org/3/interims/index.html</a>
- November 2021 Plenary
  - Date: Nov 5-19
  - Meetings 11-8 11a-1p ET, 11-17 10a-12p ET

802.3 Call and Meeting Calendar:

http://www.ieee802.org/3/calendar.html

- Interim series meetings
  - Every other Wednesday: 12/1, 12/15
- Anyone interested in hosting an interim meeting contact me or the IEEE 802.3 Executive Secretary <u>Steve Carlson</u>.

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# Thank You!