

# IEEE 802.3 Working Group Opening Plenary 8 November 2021

David Law  
Chair, IEEE 802.3 Working Group  
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Agenda, voter lists: <http://www.ieee802.org/3/minutes/nov21/index.html>

# IEEE 802.3 Officers, Subgroup Chairs and Vice-Chairs

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IEEE 802.3 Chair: David Law <dlaw@hpe.com>

IEEE 802.3 Vice Chair: Adam Healey <adam.healey@broadcom.com>

IEEE 802.3 Secretary: Jon Lewis <jon.lewis@dell.com>

IEEE 802.3 Executive Secretary: Steve Carlson <scarlson@ieee.org>

IEEE 802.3 Treasurer: Valerie Maguire <valerie\_maguire@siemon.com>

## **IEEE 802.3 Task Force chairs**

IEEE P802.3ck 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces: Elizabeth Kochuparambil <edonnay@cisco.com>

IEEE P802.3cs Increased-reach Ethernet optical subscriber access (Super-PON): Claudio DeSanti <cds@ieee.org>

IEEE P802.3cw 400 Gb/s over DWDM systems Task Force: John D'Ambrosia <jdambrosia@ieee.org>

IEEE P802.3cx Improved PTP Timestamping Accuracy: Steve Gorshe <steve.gorshe@microchip.com>

IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet: Steve Carlson <scarlson@ieee.org>

IEEE P802.3cz Multi-Gigabit Optical Automotive Ethernet: Bob Grow <bob.grow@ieee.org>

IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement: Chad Jones <cmjones@cisco.com>

IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber: Robert Lingle <rlingle@ofsoptics.com>

IEEE P802.3 (IEEE 802.3dc) Revision to IEEE Std 802.3-2018 (Maintenance #16): Adam Healey <adam.healey@broadcom.com>

IEEE P802.3dd Power over Data Lines of Single Pair Ethernet (Maintenance #17): George Zimmerman <george@cmephyconsulting.com>

IEEE P802.3de Time Synchronization for Point-to-Point Single Pair Ethernet: George Zimmerman <george@cmephyconsulting.com>

## **IEEE 802.3 Task Force vice-chairs**

IEEE P802.3ck 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces: Kent Lusted <kent.c.lusted@intel.com>

IEEE P802.3cw 400 Gb/s over DWDM systems: Tom Issenhuth <tissenhuth@outlook.com>

IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber: Mabud Choudhury <mchoudhury@ofsoptics.com>

## **IEEE 802.3 Study Group chair**

IEEE 802.3 Beyond 400 Gb/s Ethernet Study Group John D'Ambrosia <jdambrosia@ieee.org>

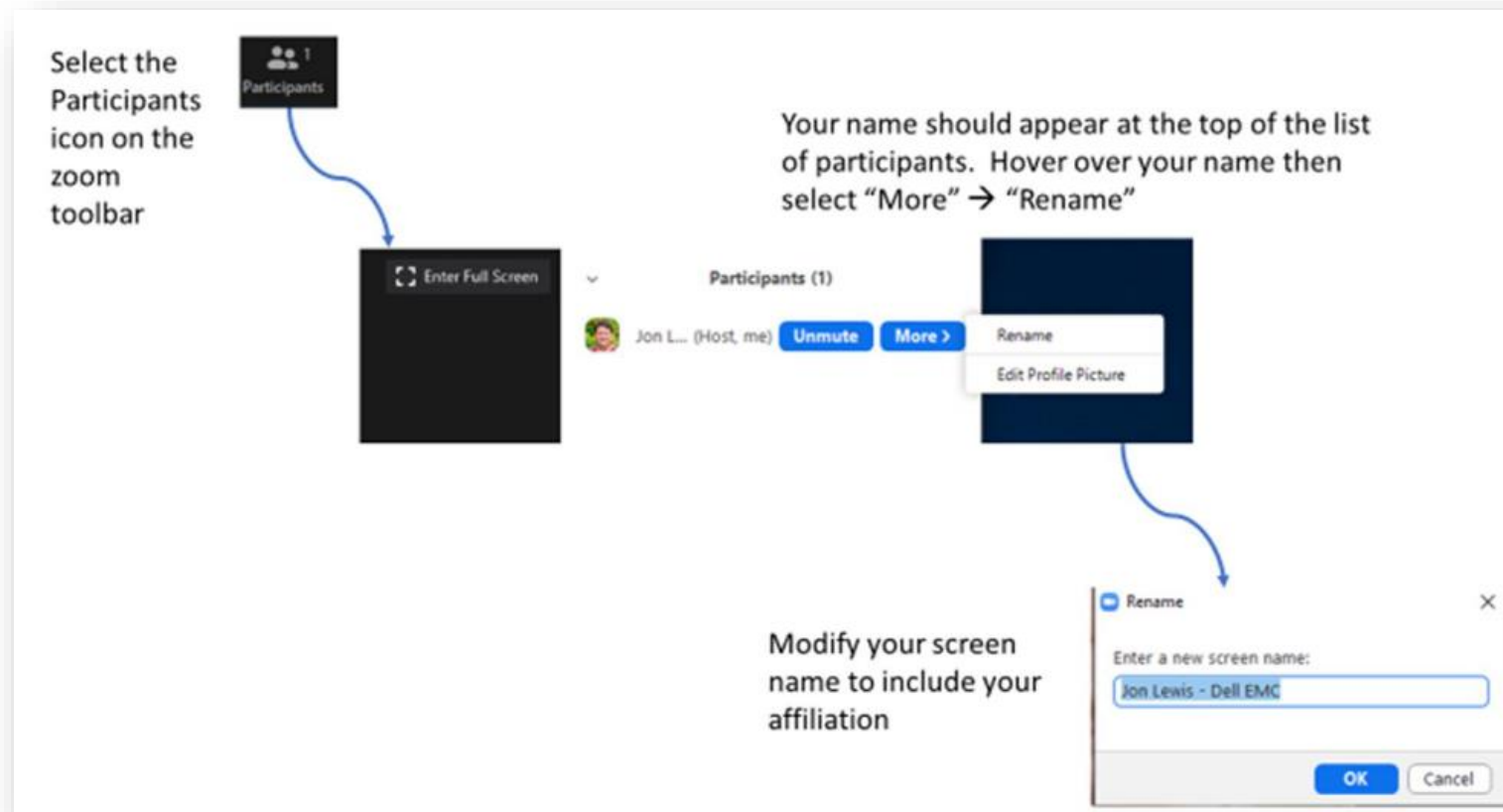
IEEE 802.3 Greater than 10 Mb/s Long-Reach Single Pair Ethernet: George Zimmerman <george@cmephyconsulting.com>

## **IEEE 802.3 Study Group vice-chair**

IEEE 802.3 Greater than 10 Mb/s Long-Reach Single Pair Ethernet: Steve Carlson <scarlson@ieee.org>

# Displaying your affiliation

- Please include your affiliations in your screen name



# Working Group Decorum

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- **Please MUTE if you are not speaking**
- 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 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 (December 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. Parallel discussions between participants using the public chat function can be a distraction from the meeting and the Chair or designee will ask participants to cease such discussions should they occur.
- Please observe proper decorum in meetings

# Meeting registration fee

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- The November plenary meeting is subject to registration fee
  - Anybody that attends any meeting held during this plenary session must pay fee
  - Single fee allows you to attend all 802 meetings during the plenary session
- The registration fee is now 125.00 USD
  - The standard registration deadline has now passed
- The registration web site can be accessed at <<https://cvent.me/4xn8QI>>
- You will not need any code or special sign-in to attend the teleconferences
  - Attendance records will be compared with the paid registration list

# Non-payment of registration fees

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- If an individual is in arrears for a previous meeting:
  - The individual is not permitted to register for any future IEEE 802 Plenary or IEEE 802 Subgroup Interim (if registration is required)
  - As a result of the above, the individual is not permitted to attend any portion of a technical meeting that is part of an IEEE 802 plenary session. They are also not permitted to attend any portion of a technical meeting that is part of an IEEE 802 Subgroup Interim if that IEEE 802 Subgroup Interim required registration
  - Other sanctions such as loss of all attendance credit. The individual will need to regain membership voting rights as though they had never previously attended

# Agenda and Minutes

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- Approve agenda
  - <http://www.ieee802.org/3/minutes/nov21/>
  - Any modifications, additions or deletions?
- Approve July 2021 plenary and September 2021 interim minutes
  - <http://www.ieee802.org/3/minutes/jul21/>
    - Revision 2 published 25 October 2021
  - <http://www.ieee802.org/3/minutes/sep21/>
    - Revision 1 published 24 October 2021
  - Any corrections, modifications, additions?

# **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.



## **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](mailto: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.

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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)

# **INSTRUCTIONS FOR CHAIRS OF STANDARDS DEVELOPMENT ACTIVITIES**

**At the beginning of each standards development meeting the chair or a designee is to:**

- Show the following slides (or provide them beforehand)
- Advise the standards development group participants that:
- IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
- Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy;
- Instruct the Secretary to record in the minutes of the relevant meeting:
- That the foregoing information was provided and that the copyright slides were shown (or provided beforehand).

## **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](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>

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## 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>



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## 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

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## 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

# Important Bylaws and Rules

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- IEEE-SA Operations Manual
  - <https://standards.ieee.org/about/policies/sa-opman/>
- IEEE-SA Standards Board Bylaws
  - <https://standards.ieee.org/about/policies/bylaws/>
- IEEE-SA Standards Board Operations Manual
  - <https://standards.ieee.org/about/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)

# Membership and attendance recording

## Membership requirements

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- Membership requirements (gaining and retaining)
  - 75% attendance at 2 of last 4 plenary sessions
    - A qualifying interim may be substituted for one plenary
  - Request to become member during potential voter agenda item at IEEE 802.3 opening or closing plenary
  - Participate in **two** out of the last **three** IEEE 802.3 Working Group ballots to retaining membership
  - Maintain valid contact information
  - Consistent declaration of affiliation

# Membership and attendance recording

## Meeting attendance tool procedures

Jon Lewis

IEEE 802.3 Working Group Secretary

[Jon.lewis@dell.com](mailto:Jon.lewis@dell.com)

# Membership and attendance recording

## Meeting attendance tool procedures

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- The IEEE-SA Meeting Attendance Tool will be the basis of the official attendance record for this meeting: <http://imat.ieee.org>
- You only need to login in one meeting per day to get credit for that day
  - You are certifying that you are attending a "substantial" portion of that meeting
  - Meeting day is defined using the UTC-4 time zone
- Check that your affiliation (slide 24) and employer (slide 25) are correct per presentation below
- Full details of how to record attendance are available at the URL below (this link was e-mailed to all registered participants prior to the meeting):

[https://ieee802.org/3/minutes/nov21/1121\\_imat.pdf](https://ieee802.org/3/minutes/nov21/1121_imat.pdf)

# Membership and attendance recording

## Review of membership

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- IEEE 802.3 voters
  - [http://www.ieee802.org/3/minutes/nov21/1121\\_voters.pdf](http://www.ieee802.org/3/minutes/nov21/1121_voters.pdf)
- IEEE 802.3 voters in peril
  - [http://www.ieee802.org/3/minutes/nov21/1121\\_peril.pdf](http://www.ieee802.org/3/minutes/nov21/1121_peril.pdf)
- IEEE 802.3 potential voters
  - [http://www.ieee802.org/3/minutes/nov21/1121\\_potential.pdf](http://www.ieee802.org/3/minutes/nov21/1121_potential.pdf)

# IEEE 802.3 Ethernet Working Group Treasury Report

Valerie Maguire, IEEE 802.3 Treasurer  
The Siemon Company  
Teleconference Update  
November 8, 2021



# IEEE 802.3 Ethernet Working Group

## Treasury Report

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- Transition to IEEE NextGen Banking phase 1 is complete
- NetSuite retired
- Additional IEEE NextGen Banking features to roll out
- Account balance
  - Opening Jul 2021 balance: \$12,061.57
  - Deposits: (0.00)
  - Interest paid: \$12.95
  - Debits: (0.00)
  - Closing Oct 2021 balance: \$12,074.52

Questions?

Thank you!

# IEEE 802 Executive Committee report

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- Restructuring Ad Hoc
  - IEEE 802 Next Gen Workshop
  - IEEE 802.1 Technical Plenary
    - Provide wider awareness for the need to revise IEEE Std 802
      - Provide an opportunity to discuss the content – notably should it be the same or should it add more architecture
      - Provide examples of the current 802 architecture (i.e., spread around in 802, .1Q, .1AC, .3, .11, .15.x, ...)
      - Identify gaps in the current architecture
    - Provide the opportunity to discuss technical points across all WGs, for example:
      - MAC service interface (and its support of 802 MAC/PHYs) 48 and 64 bit bridging
      - Protocol IDs and their encoding – Length/Type and LLC
- Future meetings
  - Meeting fees
- IEEE 802 Treasury
- IEEE Officer Elections in March 2022

# IEEE 802 Executive Committee report

## Cross-IEEE 802 topics and IEEE 802 meetings

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Wed 3 Nov 2021	20h00 to 21h30 UTC	IEEE 802 Next Gen Workshop
Fri 5 Nov 2021	14h00 to 15h30 UTC	IEEE 802 Orientation
Fri 5 Nov 2021	19h00 to 21h00 UTC	Opening Executive Committee meeting
Tue 9 Nov 2021	21h00 to 23h00 UTC	IEEE 802/JTC1/SC6 Standing Committee
Thu 11 Nov 2021	13h00 to 14h00 UTC	IEEE 802 Chair Open Office Hours
Tue 16 Nov 2021	18h00 to 19h00 UTC	IEEE 802 Restructuring ad hoc
Wed 17 Nov 2021	20h00 to 21h00 UTC	IEEE 802 Public Visibility Standing Committee
Wed 17 Nov 2021	21h00 to 22h00 UTC	IEEE 802 ITU Standing Committee
Wed 17 Nov 2021	20h00 to 21h00 UTC	IEEE 802 IETF Standing Committee
Fri 19 Nov 2021	18h00 to 22h00 UTC	Closing Executive Committee meeting

See <https://calendar.google.com/calendar/u/0/embed?src=b1i61797rqce8ks5fd9fi7k2nc@group.calendar.google.com&ctz=UTC>

# Other IEEE 802 PARs under consideration at this plenary session

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- Amendment project PAR
  - IEEE P802.1ASds Timing and Synchronization - Amendment: Support for IEEE 802.3 Clause 4 Media Access Control (MAC) operating in half-duplex
- PAR Modification request
  - IEEE P802.11bb Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications Amendment: Light Communications
- Revision PAR
  - IEEE P802.15.3ma Standard for High Data Rate Wireless Multi-Media Networks - Revision to IEEE Standard 802.15.3-2016

# Liaisons

# Liaison letters

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- External Liaison letters (old)
  - OIF: 400ZR IA Maintenance Project update liaison letter and attachment
    - IEEE P802.3cw 400 Gb/s over DWDM systems Task Force
  - OIF: 800G Coherent Project Status liaison letter and attachment
    - IEEE 802.3 Beyond 400 Gb/s Ethernet Study Group
  - ISO/IEC JTC1 SC25/WG 3: Multi-drop cabling liaison letter
    - IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Task Force
  - ISO/IEC JTC1 SC25/WG 3: Project IEC 60512-99-003 liaison letter
    - IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Task Force
  - ITU-T SG15 Q6 Reply to status of IEEE P802.3ct and IEEE P802.3cw project liaison letter
    - IEEE P802.3cw 400 Gb/s over DWDM systems Task Force

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Assigned group or individual to review letter and make a recommendation at the IEEE 802.3 closing plenary if there should be a reply, and if so, propose a draft reply

# Liaison letters (continued)

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- External Liaison letters (old, continued)
  - ITU-T SG15: Q11 Reply to status of IEEE P802.3ct and IEEE P802.3cw projects liaison letter
    - IEEE P802.3cw 400 Gb/s over DWDM systems Task Force
  - ITU-T SG15: OTN support of Ethernet clients beyond 400 Gb/s liaison letter
    - IEEE 802.3 Beyond 400 Gb/s Ethernet Study Group
- External Liaison letters (new)
  - TIA TR-42: Test method TIA-455-54 (FOTP 54) liaison letter
    - IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force

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Assigned group or individual to review letter and make a recommendation at the IEEE 802.3 closing plenary if there should be a reply, and if so, propose a draft reply



# Liaisons

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TIA TR-42 report

# Continuing Agenda ...