IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TGbn Nov 2024 to Jan 2025 teleconference agendas | | | | |
| Date: 2024-11-22 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Alfred Asterjadhi | Qualcomm Technologies Inc. | 5775 Morehouse Dr, San Diego, CA 92109 | +1-858-658-5302 | aasterja@qti.qualcomm.com |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This document contains the draft agenda for November 2024 to January 2025 TGbn teleconferences.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Includes some updates received. And changed CBF from PHY to Joint.
* Rev 2-3: Includes changes prior to second conf calls.
* Rev 4-6: Updated after the 2nd conf calls.
* Rev 7: Updated after the 3rd conf calls.
* Rev 8-9: Updated after the 4th conf calls.
* Rev 10-11: Updated after the 5th conf calls.
* Rev 12-13: Updated after the 6th conf call.

|  |  |  |  |
| --- | --- | --- | --- |
| **TG Chair:** Alfred Asterjadhi (Qualcomm Technologies, Inc.) | | | |
| **1st Vice Chair:** Laurent Cariou (Intel) | **2nd Vice Chair:** Jianhan Liu (Mediatek) | | **3rd Vice Chair:** Kiseon Ryu  (NXP) |
| **Secretary:** Yusuke Asai (NTT) | | **Technical Editor:** Ross Jian Yu (Huawei) | |
| **PHY Ad-Hoc Chair:**Dongguk Lim (LGE)  **PHY Ad-Hoc Chair:**Sigurd Schelstraete (MaxLinear)  **PHY Ad-Hoc Chair:**Tianyu Wu (Apple) | | **MAC Ad-Hoc Chair:**Srinivas Kandala (Samsung)  **MAC Ad-Hoc Chair:**Jeongki Kim (Ofinno)  **MAC Ad-Hoc Chair:**Xiaofei Wang (Interdigital) | |

## TGbn uses WebEx for its Telecons:

* Please identify yourself when Joining, by filling in your name and affiliation:
  + Also please precede your name and affiliation with your voting status:
    - (V=Voter, N= Non-Voter, P=Potential Voter, A=Aspirant Voter)
  + Format for overall participant’s detail: “[V] John/Jane Doe (Affiliation)”

## Teleconferences Overview

* **November 18-29 (Monday-Friday) – None Holiday**
* **December 02 (Monday) – Joint 19:00-21:00 ET**
* **December 05 (Thursday) – MAC/PHY 10:00-12:00 ET**
* **December 09 (Monday) – MAC/PHY 19:00-21:00 ET**
* **December 12 (Thursday) – MAC/PHY 10:00-12:00 ET**
* **December 16 (Monday) – MAC/PHY 19:00-21:00 ET**
* **December 19 (Thursday) – Joint (Motions)\* 10:00-12:00 ET**
* **Dec. 23-Jan. 03 (Monday-Friday) – None Holiday**
* **January 06 (Monday) – MAC/PHY 19:00-21:00 ET**
* **January 09 (Thursday) – MAC/PHY 10:00-12:00 ET**

\* TGbn joint session during which there can be motions, subject to WG chair approval and with 10-day advanced notice.

**We’ll use the following bridges:**

* Bridge for **JOINT and MAC: Webex meeting:** See *e-mail sent to reflector*
  + Meeting number: *Please refer to e-mail sent to reflector.*
  + Meeting password: wireless
* Bridge for **PHY:** **Webex meeting:** See *e-mail sent to reflector.*
  + Meeting number: *Please refer to e-mail sent to reflector.*
  + Meeting password: wireless

## Technical Submissions Queues

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **DCN** | **Title** | **Author/POC** | **Status** | **Topic** | **Session** |
| **Proposed Draft Texts (PDTs) – First Come First Serve (FCFS) Basis In Terms of Readiness– Three Processing Queues** | | | | | |
| [24/2030r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2030-00-00bn-pdt-mac-coordinated-beamforming.docx) | PDT-MAC-Coordinated-Beamforming | Jason Y. Guo | ETA:01/09 | CBF-MAC | Joint |
| [24/2028r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2028-00-00bn-pdt-joint-sounding-procedure.docx) | PDT-Joint-Sounding procedure | Youwei Chen | Presented | Sounding | Joint |
| [24/2010r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2010-00-00bn-pdt-phy-nominal-packet-padding-selection.docx) | PDT-PHY- Nominal Packet Padding Selection | Mengshi Hu | ETA:12/15  Pending 12/19 | Nominal packet padding selection | Joint |
| 24/2013r0 | PDT-Joint-PICS | Edward Au | ETA:01/13 | PICS (Annex B) | Joint |
| 24/2029r0 | PDT-Joint-MIB | Li Quan | ETA:01/06 | MAC and PHY MIB (Annex C) | Joint |
| 24/2133r0 | PDT Joint Trigger Frame | Alice Chen | ETA:01/09 | Trigger | Joint |
| [24/2026r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2026-00-00bn-pdt-joint-mlme-sap.docx) | PDT-Joint-MLME-SAP | Yan Li | Presented | MLME SAP (Clause 6) | Joint |
| [24/1881r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1881-00-00bn-pdt-mac-seamless-roaming.docx) | PDT-MAC-Seamless-Roaming | Duncan Ho | ETA:12/15  **Pending 01/06** | Roaming | MAC |
| [24/2016r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2016-00-00bn-pdt-mac-power-save.docx) | PDT MAC power save | Liwen Chu | Presented 12/12 | Power Save | MAC |
| [24/1762r](https://mentor.ieee.org/802.11/dcn/24/11-24-1762-05-00bn-pdt-mac-npca.docx)5 | PDT-MAC-NPCA | Matthew Fischer | Presented 12/05 | NPCA | MAC |
| [24/2022r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2022-00-00bn-pdt-mac-bsr-enhancement.docx) | PDT MAC BSR Enhancement | Frank Hsu | Presented 12/16 | Enhanced BSR | MAC |
| [24/2049r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2049-00-00bn-pdt-mac-m-ap-coordination-framework.docx) | PDT MAC M-AP Coordination Framework | Arik Klein | ETA:01/08  **Pending 01/09** | MAP Framework | MAC |
| [24/2031r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2031-00-00bn-pdt-mac-coordinated-spatial-reuse.docx) | PDT-MAC-Coordinated-Spatial-Reuse | Jason Yuchen Guo | ETA:01/09  **Pending 01/09** | C-SR | MAC |
| [24/1961r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1961-00-00bn-pdt-mac-c-tdma.docx) | PDT-MAC-C-TDMA | Sanket Kalamkar | Presented 12/16 | C-TDMA | MAC |
| [24/1966r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1966-00-00bn-pdt-mac-crtwt.docx) | PDT MAC CRTWT | Giovanni Chisci | Presented 12/12 | C-RTWT | MAC |
| [24/2040r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2040-00-00bn-pdt-mac-coexistence.docx) | PDT MAC Coexistence | Laurent Cariou | Presented 12/12 | Coexistence | MAC |
| [24/2056r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2056-00-00bn-pdt-mac-twt-sp-management.docx) | PDT-MAC-TWT SP Management | Muhammad K. Haider | ETA:12/09  **Pending 01/06** | TWT SP management | MAC |
| 24/2069r0 | PDT MAC UHR MAC Capabilities In UHR Caps IE | Ming Gan | ETA:01/09  **Pending 01/09** | UHR MAC Capabilities In UHR Caps IE | MAC |
| 24/2068r0 | PDT MAC UHR MAC Operation Element | Ming Gan | ETA:01/09  **Pending 01/09** | UHR Operation Element | MAC |
| 24/2067r0 | PDT MAC UHR BSS Operation | Ming Gan | ETA:01/06  **Pending 01/06** | UHR BSS Operation | MAC |
| [24/2020r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2020-00-00bn-pdt-for-uhr-mac-introduction-section.docx) | PDT for UHR MAC Introduction section | George Cherian | ETA:12/15  **Pending 01/06** | Introduction to UHR MAC | MAC |
| 24/2066r0 | PDT MAC Acknolwedgement Procedure | Ming Gan | ETA:01/06  **Pending 01/06** | Acknolwedgement Procedure | MAC |
| [24/2007r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2007-00-00bn-pdt-mac-p-edca.docx) | PDT-MAC-p-edca | Dmitry Akhmetov | Presented 12/05 | Prioritized EDCA | MAC |
| [*24/1981r3*](https://mentor.ieee.org/802.11/dcn/24/11-24-1981-03-00bn-pdt-elr.docx) | *PDT ELR* | *Lin Yang* | *Approved* | *ELR* | *PHY* |
| [24/2046r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2046-00-00bn-draft-text-on-dru.docx) | Draft Text on DRU | Jianhan Liu | Presented 12/16  **Pending Update+SP** | DRU | PHY |
| [24/1985r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1985-00-00bn-pdt-phy-unequal-modulation-ueqm-and-new-mcs.docx) | PDT PHY Unequal Modulation (UEQM) and New MCS | Rui Cao | ETA:12/09  Presented  **Pending Update+SP** | UEQM And New MCS | PHY |
| [24/1992r1](https://mentor.ieee.org/802.11/dcn/24/11-24-1992-01-00bn-pdt-phy-longer-ldpc-coding.docx) | PDT PHY Longer LDPC Coding | Rethna Pulikkoonattu | ETA:12/05  **Pending 01/06** | LDPC Enhancement | PHY |
| 24/2008r0 | PDT-PHY-Interference-Mitigation | Shimi Shilo | ETA:01/09  **Pending 01/09** | Interference Mitigation | PHY |
| 24/2006r0 | PDT-PHY-Capabilities-Element | Eugene Baik | ETA:01/09  **Pending 01/09** | UHR PHY Capabilities in UHR Caps IE | PHY |
| [24/2005r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2005-00-00bn-pdt-phy-introduction.docx) | PDT-PHY-Introduction | Bin Tian | **Pending 01/06** | Introduction to the UHR PHY | PHY |
| 24/2027r0 | pdt-phy-service-interface | Bo Sun | ETA:01/01  **Pending 01/09** | UHR PHY Service Interface | PHY |
| [24/2135r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2135-00-00bn-pdt-phy-null-subcarriers.docx) | PDT-PHY-Null Subcarriers | Bo Gong | ETA:12/16  **Pending 01/09** | Null Subcarriers | PHY |
| 24/2034r0 | PDT-PHY-Pilot Subcarriers | Chenchen Liu | ETA:12/16  **Pending 01/09** | Pilot Subcarriers | PHY |
| [24/2025r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2025-00-00bn-pdt-phy-ru-and-mru-restrictions-for-20-mhz-operation.docx) | PDT PHY RU and MRU restrictions for 20 MHz operation | Eunsung Park | Presented  Pending SP | RU/MRU Restrictions for 20MHz Operation | PHY |
| 24/2032r0 | PDT-PHY-UHR PPDU Format | Dongguk Lim | Presented | UHR PPDU Format | PHY |
| 24/2017r0 | PDT-PHY-Transmitter-Block-Diagram | Yusuke Asai | ETA:12/19  **Pending 01/09** | Transmit Block Diagram | PHY |
| [24/2023r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2023-00-00bn-pdt-phy-overview-of-the-ppdu-encoding-process.docx) | PDT-PHY Overview of the PPDU encoding process | Junghoon Suh | ETA: 12/16  **Pending 01/09** | Overview of the PPDU Encoding Process | PHY |
| [24/2011r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2011-00-00bn-pdt-phy-timing-related-parameters.docx) | PDT-PHY- Timing-Related Parameters | Mengshi Hu | ETA:12/15  **Pending 01/06** | Timing-Related Parameters | PHY |
| 24/2014r0 | PDT-PHY-Mathematical Description of Signals | Edward Au | ETA:01/13 | Mathematical Description of Signals | PHY |
| 24/2033r0 | PDT-PHY-Legacy preamble | Dongguk Lim | Presented | Legacy Preamble | PHY |
| [24/1977r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1977-00-00bn-pdt-phy-u-sig.docx) | PDT PHY U-SIG | Alice Chen | ETA:12/09  Presented  **Pending Update & SP 01/09** | U-SIG | PHY |
| [24/2009r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2009-00-00bn-pdt-phy-uhr-sig.docx) | PDT-PHY-UHR-SIG | Mengshi Hu | ETA:12/15  **Pending 01/06** | UHR-SIG | PHY |
| 24/2024r0 | PDT PHY UHR-STF | Eunsung Park | ETA:12/16  **Pending 01/09** | UHR-STF | PHY |
| 24/2035r0 | PDT-PHY-UHR-LTF | Chenchen Liu | ETA:12/16  **Pending 01/09** | UHR-LTF | PHY |
| 24/2036r0 | PDT-PHY-Data field | Chenchen Liu | ETA:12/16  **Pending 01/09** | Data field | PHY |
| [24/2012r1](https://mentor.ieee.org/802.11/dcn/24/11-24-2012-01-00bn-pdt-phy-packet-extension.docx) | PDT-PHY- Packet Extension | Mengshi Hu | ETA:12/15  **Pending 01/06** | Packet Extension | PHY |
| [24/2042r0](https://mentor.ieee.org/802.11/dcn/23/11-23-2042-02-0amp-further-discussion-on-amp-par.pptx) | PDT-PHY- Transmit requirements for PPDUs sent in response to a triggering frame | Juan Fang | ETA:12/15  **Pending 01/06** | TX requirements for PPDUs sent in response to a triggering frame | PHY |
| 24/2021r0 | PDT PHY Transmit Specification | Genadiy Tsodiz | ETA: 01/13 | Transmit Specification | PHY |
| 24/2043r0 | PDT-PHY- Receiver specification | Juan Fang | ETA:12/15  **Pending 01/09** | Receiver Specification | PHY |
|  |  | Xiaogang Chen |  | Transmit Procedure | PHY |
|  |  | Xiaogang Chen |  | Receive Procedure | PHY |
| [24/2015r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2015-00-00bn-pdt-phy-cobf.docx) | PDT-PHY-CoBF | Ron Porat | ETA:12/15  **Pending 01/06** | CBF-PHY | PHY |
| **Submissions (First Cut-Off)\*** | | | | | |
| ~~24/1241~~ | ~~Control Frames for 11bn~~ | ~~Rubayet Shafin~~ | ~~Deferred~~ | **~~Control~~** | ~~MAC~~ |
| ~~24/1251~~ | ~~Flexible Control Frames - Follow Up~~ | ~~Sherief Helwa~~ | ~~Deferred~~ | **~~Control~~** | ~~MAC~~ |
| [24/0743](https://mentor.ieee.org/802.11/dcn/24/11-24-0743-00-00bn-simulation-results-for-map-obss-twt-management.pptx) | Simulation results for MAP OBSS TWT management | Patrice NEZOU | Presented | **Cr-TWT** | MAC |
| ~~24/0825~~ | ~~Dynamic QoS~~ | ~~Rubayet Shafin~~ | ~~Deferred~~ | **~~QoS~~** | ~~MAC~~ |
| [24/0963](https://mentor.ieee.org/802.11/dcn/24/11-24-0963-01-00bn-enhancement-of-bsr-follow-up.pptx) | Enhancement of BSR follow-up | Frank Hsu | Presented | **Feedback** | MAC |
| ~~24/1309~~ | ~~IDC Operation Follow-Up~~ | ~~Jeongki Kim~~ | ~~Deferred~~ | ~~Coexistence~~ | ~~MAC~~ |
| ~~24/1401~~ | ~~Coordinated TDMA for Coordinated R-TWT~~ | ~~Jonghoe Koo~~ | ~~Deferred~~ | **~~Cr-TWT~~** | ~~MAC~~ |
| [~~24/1421~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1421-00-00bn-follow-up-on-peer-to-peer-twt-for-handling-co-ex.pptx) | ~~Follow-up on Peer-to-Peer TWT for Handling Co-Ex~~ | ~~Rubayet Shafin~~ | ~~Deferred~~ | ~~Coexistence~~ | ~~MAC~~ |
| [24/1453](https://mentor.ieee.org/802.11/dcn/24/11-24-1453-00-00bn-concurrent-messaging.pptx) | Concurrent Messaging | Yue Xu | Pending | Low Latency | MAC |
| [24/1464](https://mentor.ieee.org/802.11/dcn/24/11-24-1464-00-00bn-discussion-on-icf.pptx) | Discussion on ICF | Insun Jang | Presented | **Control** | MAC |
| [~~24/1508~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1508-00-00bn-channel-protection-in-elr-scenarios.pptx) | ~~Channel Protection In ELR Scenarios~~ | ~~Yunbo Li~~ | ~~Deferred~~ | **~~ELR~~** | ~~Joint~~ |
| [~~24/1512~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1512-00-00bn-high-capability-protection-in-dps.pptx) | ~~High-Capability Protection in DPS~~ | ~~Maolin Zhang~~ | ~~Deferred~~ | ~~Power Save~~ | ~~MAC~~ |
| [24/1516](https://mentor.ieee.org/802.11/dcn/24/11-24-1516-00-00bn-seamless-roaming-context-transfer.pptx) | Seamless Roaming Context Transfer | Yelin Yoon | Pending | **Roaming** | MAC |
| [24/1517](https://mentor.ieee.org/802.11/dcn/24/11-24-1517-00-00bn-seamless-roaming-data-transfer.pptx) | Seamless Roaming Data Transfer | Yelin Yoon | Pending | **Roaming** | MAC |
| [24/1528](https://mentor.ieee.org/802.11/dcn/24/11-24-1528-02-00bn-details-on-data-forwarding-for-seamless-roaming.pptx) | Details-on-data-forwarding-for-seamless-roaming | Ryuichi Hirata | Pending | **Roaming** | MAC |
| [~~24/1531~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1531-01-00bn-non-period-idc-signaling-enhancements.pptx) | ~~Non-period IDC signaling enhancements~~ | ~~Michail Koundourakis~~ | ~~Deferred~~ | ~~Coexistence~~ | ~~MAC~~ |
| 24/1545 | Providing Granular Transmit PSD Limits | Pelin Salem | Pending | Regulatory | MAC |
| [24/1583](https://mentor.ieee.org/802.11/dcn/24/11-24-1583-00-00bn-icr-transmission-follow-up.pptx) | ICR transmission-follow-up | Dibakar Das | Presented | **Control** | MAC |
| [24/1591](https://mentor.ieee.org/802.11/dcn/24/11-24-1591-00-00bn-thoughts-on-seamless-roaming-and-npca.pptx) | Thoughts on Seamless Roaming and NPCA | Ning Gao | Pending | **Roaming** | MAC |
| [23/1452](https://mentor.ieee.org/802.11/dcn/24/11-24-1452-00-00bn-coordinated-measurement-follow-up.pptx) | Coordinated Measurement Follow-up | Kosuke Aio | Pending (Deferred) | MAP | MAC |
| 24/0677 | TWT Information Sharing in MAP Operation | Rubayet Shafin | Pending (Deferred) | MAP | MAC |
| 24/0741 | QoS provisioning for 802.11bn | Pascal Viger | Presented | **QoS** | MAC |
| 24/0909 | R-TWT Announcement in Multi-BSS - Follow up | SunHee Baek | Pending | R-TWT | MAC |
| 24/1239 | MAP Framework--Follow-up | Rubayet Shafin | Pending (Deferred) | MAP | MAC |
| [24/1346](https://mentor.ieee.org/802.11/dcn/24/11-24-1346-02-00bn-considerations-for-multi-ap-sp-coordination.pptx) | Considerations for Multi-AP SP Coordination | Xiaofei Wang | Pending (Deferred) | MAP | MAC |
| 24/1358 | Enabling opportunistic relay operation via 11bn | Peshal Nayak | Pending (Deferred) | Relay | MAC |
| [24/1507](https://mentor.ieee.org/802.11/dcn/24/11-24-1507-00-00bn-uhr-trigger-frame-design.pptx) | UHR Trigger Frame Design | Mahmoud Hasabelnaby | Presented | **Trigger** | Joint |
| 24/1514 | Multi-AP framework for C-SR | GeonHwan Kim | Pending | CSR | MAC |
| [~~24/1611~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1611-00-00bn-power-save-capabilities.pptx) | ~~TGbn Power Save Capabilities~~ | ~~Manasi Ekkundi~~ | ~~Deferred~~ | ~~Power Save~~ | ~~MAC~~ |
| [24/1624](https://mentor.ieee.org/802.11/dcn/24/11-24-1624-00-00bn-sn-assignment-and-inter-ap-mld-interaction-for-seamless-roaming.pptx) | SN assignment and inter-AP MLD interaction for Seamless Roaming | Kyosuke Inoue | Pending | **Roaming** | MAC |
| [24/1646](https://mentor.ieee.org/802.11/dcn/24/11-24-1646-00-00bn-further-considerations-for-generalized-map-framework.pptx) | Further-Considerations-for-generalized-map-framework | Sawaira Ali | Pending | MAP | MAC |
| [24/1651](https://mentor.ieee.org/802.11/dcn/24/11-24-1651-00-00bn-coordinated-tdma-analysis-for-time-sensitive-traffic-follow-up.pptx) | Coordinated TDMA analysis for time-sensitive traffic - Follow Up | Iñaki Val Beitia | Pending | C-TDMA | MAC |
| 24/1655 | Considerations of Non-Primary Channel Access | Hanqing Lou | Pending | NPCA | MAC |
| [24/1661](https://mentor.ieee.org/802.11/dcn/24/11-24-1661-00-00bn-control-frame-protection-in-multiple-bssid.pptx) | Control frame protection in multiple BSSID | Yongho Seok | Pending | Security | MAC |
| [24/1688](https://mentor.ieee.org/802.11/dcn/24/11-24-1829-00-00bn-uhr-sig-signaling-for-cobf.pptx) | NPCA fairness for unsupported STA | Haorui Yang | Pending | NPCA | MAC |
| [24/1690](https://mentor.ieee.org/802.11/dcn/24/11-24-1690-00-00bn-discussion-on-ooo-delivery.pptx) | Discussion on OOO delivery | Liangxiao Xin | Presented | **QoS** | MAC |
| [24/1692](https://mentor.ieee.org/802.11/dcn/24/11-24-1692-00-00bn-usage-of-expiration-time-for-ll-traffic.pptx) | Usage of Expiration Time for LL Traffic | Liangxiao Xin | Pending | Low Latency | MAC |
| [24/1693](https://mentor.ieee.org/802.11/dcn/24/11-24-1693-00-00bn-the-mapc-security-framework.pptx) | The MAPC security framework | Jay Yang | Pending | MAP | MAC |
| [24/1694](https://mentor.ieee.org/802.11/dcn/24/11-24-1694-02-00bn-the-trust-model-between-sta-and-obss-ap-in-mapc-scheme.pptx) | The trust model between STA and OBSS AP in MAPC scheme | Jay Yang | Pending | CBF | MAC |
| [24/1696](https://mentor.ieee.org/802.11/dcn/24/11-24-1696-00-00bn-positive-ackonwlegement-to-the-reception-of-correct-phy-header.pptx) | Positive-ackonwlegement-to-the-reception-of-correct-phy-header | Yanchao Xu | Pending | Acknowledgment | MAC |
| [24/1699](https://mentor.ieee.org/802.11/dcn/24/11-24-1699-00-00bn-considerations-on-npca.pptx) | Considerations on NPCA | Hirohiko Inohiza | Pending | NPCA | MAC |
| [24/1701](https://mentor.ieee.org/802.11/dcn/24/11-24-1701-00-00bn-nav-protection-for-c-tdma-follow-up.pptx) | NAV protection for C-TDMA follow up | Si-Chan Noh | Pending | C-TDMA | MAC |
| [24/1702](https://mentor.ieee.org/802.11/dcn/24/11-24-1702-00-00bn-consideration-on-the-signalling-method-of-intermediate-fcs.pptx) | Consideration-on-the-signalling-method-of-intermediate-fcs | Yanchao Xu | Presented | **Control** | MAC |
| [24/1706](https://mentor.ieee.org/802.11/dcn/24/11-24-1706-00-00bn-multi-user-edca-parameter-management-in-npca-operation.pptx) | Multi-user EDCA Parameter Management in NPCA Operation | Juseong Moon | Pending | NPCA | MAC |
| [24/1713](https://mentor.ieee.org/802.11/dcn/24/11-24-1713-00-00bn-further-considerations-for-generalized-map-framework-follow-up.pptx) | Further Considerations For Generalized MAP Framework-follow up | Salim Yahya | Pending | MAP | MAC |
| [24/1733](https://mentor.ieee.org/802.11/dcn/24/11-24-1733-00-00bn-txop-sharing-for-multi-ap-scenarios.pptx) | TXOP Sharing for multi-AP Scenarios | Dana Ciochina | Pending | TXOP sharing | MAC |
| [24/1740](https://mentor.ieee.org/802.11/dcn/24/11-24-1740-00-00bn-ul-data-transmission-for-seamless-roaming.pptx) | UL Data Transmission for Seamless Roaming | Kyosuke Inoue | Pending | **Roaming** | MAC |
| [~~24/1744~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1744-01-00bn-discussion-on-dru-indication-follow-up.pptx) | ~~Discussion on DRU Indication Follow-up~~ | ~~Mengshi Hu~~ | ~~Withdrawn~~ | **~~DRU-Misc~~** | ~~PHY~~ |
| [24/1745](https://mentor.ieee.org/802.11/dcn/24/11-24-1745-00-00bn-discussion-on-frequency-domain-ueqm.pptx) | Discussion on Frequency Domain UEQM | Mengshi Hu | Pending | **UEQM** | PHY |
| [24/1746](https://mentor.ieee.org/802.11/dcn/24/11-24-1746-00-00bn-comparision-between-enhanced-fast-bss-transition-and-smd.pptx) | Comparison Between Enhanced FT and Distributed SMD | Guogang Huang | Pending | **Roaming** | MAC |
| [24/1747](https://mentor.ieee.org/802.11/dcn/24/11-24-1747-00-00bn-discussion-on-signalling-of-additional-pilots-for-interference-mitigation.pptx) | Discussion on Signalling of Additional Pilots for Interference Mitigation | Ke Zhong | Pending | **IM** | PHY |
| [24/1748](https://mentor.ieee.org/802.11/dcn/24/11-24-1748-01-00bn-discussion-on-transmission-of-elr-sig.pptx) | Discussion on Transmission of ELR-SIG | Ke Zhong | Pending | **ELR** | PHY |
| 24/1750 | Managed on-channel P2P communication and simulations - Follow up | Iñaki Val | Pending | P2P | MAC |
| 24/1752 | Dynamic QoS Profiles follow up | Binita Gupta | Presented | **QoS** | MAC |
| [24/1753](https://mentor.ieee.org/802.11/dcn/24/11-24-1753-00-00bn-signaling-for-dru-in-trigger-frame-follow-up.pptx) | Signaling-for-dru-in-trigger-frame-follow-up | Eunsung Park | Presented | **DRU-Misc** | PHY |
| 24/1761 | Aspects of M-AP Coordination agreement | Arik Klein | Pending | MAP | MAC |
| [24/1764](https://mentor.ieee.org/802.11/dcn/24/11-24-1764-00-00bn-elr-ppdu-follow-up.pptx) | ELR PPDU follow up | Dongguk Lim | Pending | **ELR** | PHY |
| [24/1765](https://mentor.ieee.org/802.11/dcn/24/11-24-1765-00-00bn-consideration-on-11bn-trigger-frame-for-phy-signailng.pptx) | Consideration on 11bn Trigger frame for PHY Signaling | Dongguk Lim | Presented | **Trigger** | Joint |
| [24/1766](https://mentor.ieee.org/802.11/dcn/24/11-24-1766-00-00bn-pilot-value-design-for-elr-ppdu.pptx) | Pilot Value Design for ELR PPDU | Bo Gong | Pending | **ELR** | PHY |
| [24/1768](https://mentor.ieee.org/802.11/dcn/24/11-24-1768-00-00bn-ul-dl-indication-for-elr-ppdu.pptx) | UL/DL Indication for ELR PPDU | Bo Gong | Pending | **ELR** | PHY |
| [24/1777](https://mentor.ieee.org/802.11/dcn/24/11-24-1777-00-00bn-in-device-coexistence-use-cases-follow-up.pptx) | In-device-coexistence use cases follow-up | Hongwon Lee | Pending | Coexistence | MAC |
| [24/1778](https://mentor.ieee.org/802.11/dcn/24/11-24-1778-00-00bn-distributed-ru-distortion-beamforming-power-control.pptx) | Distributed RU Distortion, Beamforming, Power Control | Rainer Strobel | Pending | **DRU-Misc** | PHY |
| [24/1783](https://mentor.ieee.org/802.11/dcn/24/11-24-1783-00-00bn-npca-listening-channel.pptx) | NPCA Listening Channel | Shawn Kim | Pending | NPCA | MAC |
| [24/1785](https://mentor.ieee.org/802.11/dcn/24/11-24-1785-00-00bn-interference-mitigation-pilots-definitions.pptx) | Interference Mitigation Pilots – Definitions | Shimi Shilo | Pending | **IM** | PHY |
| [~~24/1789~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1789-00-00bn-cobf-partial-nulling-feedback-types.pptx) | ~~CoBF: Partial Nulling Feedback Types~~ | ~~Rani Keren~~ | ~~Withdrawn~~ | **~~CBF~~** | ~~Joint~~ |
| 24/1800 | On The Switching Criteria​For Non-Primary Channel Access | Salvatore Talarico | Pending | NPCA | MAC |
| [24/1807](https://mentor.ieee.org/802.11/dcn/24/11-24-1807-00-00bn-follow-up-on-ueqm-stream-parser.pptx) | Follow Up on UEQM Stream Parser | Ying Wang | Pending | **UEQM** | PHY |
| [24/1809](https://mentor.ieee.org/802.11/dcn/24/11-24-1809-00-00bn-evaluation-of-c-sr-types.pptx) | Evaluation of C-SR Types | Jun Minotani | Presented  Pending Q&A | **CSR** | Joint |
| 24/1812 | Seamless roaming through a target AP follow up | Binita Gupta | Pending | **Roaming** | MAC |
| [24/1817](https://mentor.ieee.org/802.11/dcn/24/11-24-1817-00-00bn-providing-priority-when-addressingidc-issues.pptx) | Providing Priority When Addressing IDC Issues | Brian Hart | Pending | Coexistence | MAC |
| 24/1818 | AP Identification in Multi-AP | GeonHwan Kim | Pending | MAP | MAC |
| [24/1820](https://mentor.ieee.org/802.11/dcn/24/11-24-1820-00-00bn-ul-data-continuity-improvement-for-seamless-roaming.pptx) | UL Data Continuity Improvement for Seamless Roaming | Yudai Morikawa | Pending | **Roaming** | MAC |
| [24/1824](https://mentor.ieee.org/802.11/dcn/24/11-24-1824-00-00bn-discussion-on-context-transfer-in-seamless-roaming.pptx) | Discussion on Context Transfer in Seamless Roaming | Javier Perez-Ramirez | Pending | **Roaming** | MAC |
| [24/1827](https://mentor.ieee.org/802.11/dcn/24/11-24-1827-00-00bn-on-ofdma-mu-mimo.pptx) | On OFDMA + MU-MIMO | Ron Porat | Pending | **MU-MIMO** | PHY |
| [24/1831](https://mentor.ieee.org/802.11/dcn/24/11-24-1831-00-00bn-uhr-u-sig-and-uhr-sig-common-field-general-design.pptx) | UHR U-SIG and UHR-SIG common field general design | Juan Fang | Presented  2SP: No objection | **Preamble** | PHY |
| [24/1832](https://mentor.ieee.org/802.11/dcn/24/11-24-1832-01-00bn-stream-parser-for-unequal-modulation.pptx) | Stream Parser for Unequal Modulation | Qinghua Li | Pending | **UEQM** | PHY |
| [24/1833](https://mentor.ieee.org/802.11/dcn/24/11-24-1833-00-00bn-trigger-frame-design-for-uhr.pptx) | Trigger Frame Design for UHR | Alice Chen | Presented | **Trigger** | Joint |
| [24/1834](https://mentor.ieee.org/802.11/dcn/24/11-24-1834-00-00bn-11bn-non-elr-signaling-design-for-new-features.pptx) | 11bn Non-ELR Signaling Design for New Features | Alice Chen | Presented  5SP: No objection | **Preamble** | PHY |
| [24/1836](https://mentor.ieee.org/802.11/dcn/24/11-24-1836-01-00bn-on-cobf-capabilities.pptx) | On CoBF Capabilities | Aiguo Yan | Pending | **CBF** | PHY |
| [24/1838](https://mentor.ieee.org/802.11/dcn/24/11-24-1838-00-00bn-considerations-on-coordinated-npca.pptx) | Considerations on Coordinated NPCA | Mahmoud Hasabelnaby | Pending | NPCA | MAC |
| [24/1840](https://mentor.ieee.org/802.11/dcn/24/11-24-1840-00-00bn-uhr-mu-ppdu-user-info-field-signaling.pptx) | UHR MU PPDU user info field signaling | Rui Cao | Presented  SP4: No objection | **Preamble** | PHY |
| [24/1841](https://mentor.ieee.org/802.11/dcn/24/11-24-1841-00-00bn-uhr-elr-design-open-topics.pptx) | UHR ELR design open topics | Rui Cao | Pending | **ELR** | PHY |
| [24/1842](https://mentor.ieee.org/802.11/dcn/24/11-24-1842-01-00bn-consideration-on-cascading-channel-switching-for-npca.pptx) | Consideration on cascading channel switching for NPCA | Si-Chan Noh | Pending | NPCA | MAC |
| 24/1847 | ICF/ICR frame exchange on Dynamic Sub-band Operation | Sung Hank | Pending | DSO | MAC |
| [24/1848](https://mentor.ieee.org/802.11/dcn/24/11-24-1848-00-00bn-frame-exchange-sequences-for-in-device-coexistence.pptx) | Frame Exchange Sequences for In-Device Coexistence | Shawn Kim | Pending | Coexistence | MAC |
| [24/1849](https://mentor.ieee.org/802.11/dcn/24/11-24-1849-00-00bn-management-of-the-established-multi-ap-coordination.pptx) | Management of the Established Multi-AP Coordination | Shawn Kim | Pending | MAP | MAC |
| [24/1850](https://mentor.ieee.org/802.11/dcn/24/11-24-1850-00-00bn-mid-range-support-for-elr-ppdu.pptx) | Mid-Range Support for ELR PPDU | Junghoon Suh | Pending | **ELR** | PHY |
| [24/1851](https://mentor.ieee.org/802.11/dcn/24/11-24-1851-00-00bn-context-transfer-per-tid-for-seamless-roaming.pptx) | Context transfer per TID for seamless roaming | Thomas Handte | Pending | **Roaming** | MAC |
| 24/1852 | Some Details on NPCA Operation | Serhat Erkucuk | Pending | NPCA | MAC |
| 24/1853 | Channel Access for NPCA Operation | Serhat Erkucuk | Pending | NPCA | MAC |
| 24/1857 | Enhancements for Roaming Process | Tuncer Baykas | Pending | **Roaming** | MAC |
| 24/1860 | Discussion on Aspects of ELR Transmission | Leonardo Lanante | Pending | **ELR** | PHY |
| 24/1861 | Discussion on Spatial Reuse and ELR Transmission | Leonardo Lanante | Pending | **ELR** | PHY |
| [24/1862](https://mentor.ieee.org/802.11/dcn/24/11-24-1862-00-00bn-control-frames-and-mapc-for-colocated-bssid-set.pptx) | Control Frames And MAPC For Colocated BSSID Set | Brian Hart | Pending | MAP | MAC |
| [24/1863](https://mentor.ieee.org/802.11/dcn/24/11-24-1863-00-00bn-performance-benefits-of-dso.pptx) | Performance Benefits of DSO | Kerstin Johnsson | Pending | DSO | MAC |
| [24/1864](https://mentor.ieee.org/802.11/dcn/24/11-24-1864-00-00bn-map-ppdu-consideration-and-harmonized-u-sig-signaling.pptx) | MAP PPDU Consideration and Harmonized U-SIG Signaling | You-Wei Chen | Presented | **Preamble** | PHY |
| 24/1866 | Dynamic Power Save with Traffic Awareness | Jiayi Zhang | Pending | PS | MAC |
| 24/1867 | Further Consideration for NPCA Operation | Jeongki Kim | Pending | NPCA | MAC |
| [24/1870](https://mentor.ieee.org/802.11/dcn/24/11-24-1870-00-00bn-on-the-scalability-and-overhead-of-utilizing-polling-for-soliciting-sta-s-needs-for-uplink-low-latency-transmission.pptx) | On the Scalability and Overhead of Utilizing Polling for Soliciting STA's Needs for Uplink Low-Latency Transmission | Behnam Dezfouli | Pending | Low Latency | MAC |
| [24/1871](https://mentor.ieee.org/802.11/dcn/24/11-24-1871-01-00bn-erd-enhanced-reverse-direction-protocol-to-support-txop-sharing-and-low-latency-traffic-exchange.pptx) | ERD: Enhanced Reverse Direction Protocol to Support TXOP Sharing and Low-Latency Traffic Exchange | Behnam Dezfouli | Pending | Low Latency | MAC |
| [24/1872](https://mentor.ieee.org/802.11/dcn/24/11-24-1872-00-00bn-opportunistic-channel-access-mechanism-for-buffer-reporting.pptx) | Opportunistic Channel Access Mechanism for Buffer Reporting | Behnam Dezfouli | Pending | Channel Access | MAC |
| 24/1874 | Further Details on Improving Roaming between MLDs | Huang, Po-kai | Pending | Roaming | MAC |
| [24/1875](https://mentor.ieee.org/802.11/dcn/24/11-24-1875-00-00bn-mlmd-architecture.pptx) | MLMD Architecture | Jarkko Kneckt | Pending | Roaming | MAC |
| 24/1877 | M-AP Coordination-AP Identifier | Kaiying Lu | Pending | MAP | MAC |
| [24/1878](https://mentor.ieee.org/802.11/dcn/24/11-24-1878-00-00bn-obss-bandwidth-ambiguity-in-npca.pptx) | OBSS bandwidth ambiguity in NPCA | Gaurang Naik | Pending | NPCA | MAC |
| 24/1879 | Proposals for Expeditious Discovery of APs for Initial Association and Roaming | Neel Krishnan | Pending | Roaming | MAC |
| 24/1880 | Solutions for Beacon Bloating | Reza Hedayat | Pending | Miscellaneous | MAC |
| [24/1882](https://mentor.ieee.org/802.11/dcn/24/11-24-1882-00-00bn-link-setup-for-seamless-roaming.pptx) | Link Setup for Seamless Roaming | Chittabrata Ghosh | Pending | Roaming | MAC |
| [24/1883](https://mentor.ieee.org/802.11/dcn/24/11-24-1883-00-00bn-seamless-roaming.pptx) | Seamless-Roaming | Giovanni Chisci | Pending | Roaming | MAC |
| 24/1884 | Signaling considerations for seamless roaming | Abhishek Patil | Pending | Roaming | MAC |
| [24/1885](https://mentor.ieee.org/802.11/dcn/24/11-24-1885-01-00bn-npca-hidden-node-problem.pptx) | NPCA Hidden Node Problem | Abhishek Patil | Pending | NPCA | MAC |
| [24/1885](https://mentor.ieee.org/802.11/dcn/24/11-24-1885-01-00bn-npca-hidden-node-problem.pptx) | NPCA Hidden Node Problem | Gwangho Lee | Pending | NPCA | MAC |
| [24/1886](https://mentor.ieee.org/802.11/dcn/24/11-24-1886-00-00bn-npca-with-emlsr-dps-coex-mode.pptx) | NPCA with eMLSR, DPS and coex mode | Laurent Cariou | Pending | NPCA | MAC |
| [24/1887](https://mentor.ieee.org/802.11/dcn/24/11-24-1887-00-00bn-bsrp-tf-response-rules-changes-for-m-ba.pptx) | BSRP TF response rules changes for M-BA | Laurent Cariou | Presented | **Control** | MAC |
| 24/1888 | light beacon consideration | Liwen Chu | Pending | Miscellaneous | MAC |
| 24/1889 | seamless roaming follow up 1 | Liwen Chu | Pending | Roaming | MAC |
| 24/1890 | seamless roaming follow up 2’ | Liwen Chu | Pending | Roaming | MAC |
| 24/1891 | NPCA follow up | Liwen Chu | Pending | NPCA | MAC |
| 24/1892 | low capability mode follow up | Liwen Chu | Pending | Power Save | MAC |
| [24/1893](https://mentor.ieee.org/802.11/dcn/24/11-24-1893-00-00bn-icf-follow-up.pptx) | ICF follow up | Liwen Chu | Presented | **Control** | MAC |
| [24/1895](https://mentor.ieee.org/802.11/dcn/24/11-24-1895-00-00bn-power-save-operation-and-ap-behaviour-for-coex-unavailability.pptx) | Power Save Operation and AP Behaviour for Coex Unavailability | Qi Wang | Pending | Coexistence | MAC |
| [24/1897](https://mentor.ieee.org/802.11/dcn/24/11-24-1897-00-00bn-control-frame-protection-keys.pptx) | Control frame protection keys | Thomas Derham | Pending | Security | MAC |
| [24/1898](https://mentor.ieee.org/802.11/dcn/24/11-24-1898-00-00bn-low-latency-roaming-flow.pptx) | Low Latency Roaming Flow | Pooya Monajemi | Pending | Roaming | MAC |
| [24/1899](https://mentor.ieee.org/802.11/dcn/24/11-24-1899-00-00bn-uhr-scs-enhancements.pptx) | UHR SCS Enhancements | Abdel Karim Ajami | Pending | SCS | MAC |
|  |  |  |  |  |  |
| \*This queue is a merge of two previous queues, while maintianign the DCN orders, and also some deferred DCNs had moved from one queue to another. | | | | | |
| **Submissions (Second Cut-Off)** | | | | | |
| 24/0414 | Improving acknowledgment mechanisms | Alfred Asterjadhi | Pending (Deferred) | Acknowledgment | MAC |
| 24/0656 | Seamless roaming signaling details | Binita Gupta | Pending | Roaming | MAC |
| [24/1095](https://mentor.ieee.org/802.11/dcn/24/11-24-1095-01-00bn-practical-mapc-scenarios.pptx) | Practical MAPC Scenarios | Malcolm Smith | Pending | MAP | MAC |
| 24/1894 | SMD architecture | Binita Gupta | Pending | Roaming | MAC |
| 24/1907 | Trigger Frame Protection Signaling | Po-Kai Huang | Pending | Security | MAC |
| 24/1914 | Further Considerations on NPCA | DongJu Cha | Pending | NPCA | MAC |
| 24/1990 | On Protected Trigger Frame | Yanjun Sun | Pending | Security | MAC |
| [24/2050](https://mentor.ieee.org/802.11/dcn/24/11-24-2050-01-00bn-uhr-txop-power-save-for-the-sta-low-power.pptx) | UHR TxOP Power Save for the STA low power | Yanchao Xu | Pending | Power Save | MAC |
| [24/2051](https://mentor.ieee.org/802.11/dcn/24/11-24-2051-01-00bn-negotiable-ampdu-operations-for-the-sta-power-save.pptx) | Negotiable AMPDU operations for the STA power save | Yanchao Xu | Pending | Power Save | MAC |
| 24/2047 | Multi-AP Coordination for Low Latency Traffic Transmission - Follow up | Jerome Gu | Pending | MAP | MAC |
| 24/2048 | TXOP Bandwidth Expansion - Follow up | Jerome Gu | Pending | Bandwidth Expansion | MAC |
| 24/2072 | NC MLO SMD Architecture | Mike Montemurro | Pending | Roaming | MAC |
| 24/1732 | TXOP sharing in contention style | Junbin Chen | Pending | TXOP sharing | MAC |
| 24/2089 | NPCA Primary Channel Selection | Yuxin Lu | Pending | NPCA | MAC |
| 24/2088 | NPCA Primary Channel Access | Yuxin Lu | Pending | NPCA | MAC |
| 24/2086 | ICF in Co-TDMA | Sanket Kalamkar | Pending | C-TDMA | MAC |
| 24/2110 | Impact of hidden nodes on NPCA performance | Iñaki Val Beitia | Pending | NPCA | MAC |
| 24/2060 | CSR/COBF Protocol Design | Kosuke Aio | Pending | MAP | MAC |
| 24/2059 | Discussion on Initial Frame Exchange in CSR/COB | Kosuke Aio | Pending | MAP | MAC |
| 24/2129 | AID assignment for Seamless Roaming | Kyosuke Inoue | Pending | Roaming | MAC |
| 24/2120 | Roaming Configuration to Reduce Ping-Pong | Pei Zhou | Pending | Roaming | MAC |
| 24/2142r0 | Multi-AP Sounding Analysis | Rainer Strobel | Pending | C-BF | PHY |
|  |  |  |  |  |  |
|  | | | | | |
| **Pending SPs (work in progress)** | | | | | |
| e-mail 11/14 | 24/1772 | Ross Jian Yu | SP1: No objection | UEQM | PHY |
| e-mail 11/14 | 24/1695 | You-Wei Chen | SP1&2: No objection | Preamble | PHY |
| e-mail 11/16 | 24/1144 | Dmitry Akhmetov | SP1: 36Y, 52N, 36A | Channel Access | MAC |
| ~~e-mail 11/25~~ | ~~24/0838r1, 24/0480r0~~ | ~~Kosuke Aio~~ | ~~Deferred 2SP~~ | ~~MAP~~ | ~~MAC~~ |
| ~~e-mail 11/28~~ | ~~24/1388~~ | ~~Haorui Yang~~ | ~~Deferred 1SP~~ | ~~Roaming~~ | ~~MAC~~ |
| e-mail 12/02 | 24/1833r3, 24/1765r1 | Alice Chen, Dongguk Lim | SP1: 89Y, 21N, 43A  SP2-3: No objection | Trigger | Joint |
| e-mail 12/02 | 24/1427r2 | Dongguk Lim | 2SP: No objection. | Preamble | PHY |
| e-mail 12/02 | 24/1826 | Ron Porat | SP1: No objection  SP2: Deferred | Preamble | PHY |
| e-mail 12/05 | 24/1602r1 | Kumail Haider | SP: 29Y, 40N, 44A | Power Save | MAC |
| e-mail 12/05 | 11-22/1528r1, 11-23/294r1, 11-23/1424r0, 11-23/1929r0, 11-24/392r2, 11-24/393r3, 11-24/0403r2 | Rubayet Shafin | SP: No objection | P2P | MAC |
| e-mail 12/05 | 24/1123r1 | Brian Hart | SP: 40Y, 20N, 55A | Feedback | MAC |
| e-mail 12/05 | 24/1595r1, 24/0838r1 | Brian Hart | SP: 66Y, 13N, 40A | MAP | MAC |
| e-mail 12/06 | 24/742r1, 24/538r1, 24/1259r2, 24/1435r0 | Pascal VIGER | SP: 53Y, 28N, 40A | C-RTWT | MAC |
| e-mail 12/06 | 24/1122 | Brian Hart | SP: 9Y, 18N, 25A | Vendor Specific | PHY |
| e-mail 12/06 | 4/1822r4 | Sameer Vermani | SP1: 28Y, 17N, 8A  SP2/3: No objection | CBF | PHY |
| ~~e-mail 12/07~~ | ~~24/0398, 24/1812, 24/0052, 23/1884, 23/1937, 23/1996, 24/830, 24/0083, 24/0101, 24/0396, 24/0412, 23/2157, 24/0655, 24/679, 24/1425, 24/1883, 24/1086~~ | ~~Binita Gupta~~ | ~~Deferred 2SP~~ | ~~Roaming~~ | ~~MAC~~ |
| e-mail 12/06 | 11-24/1822r4, 11-24/1835r3, 11-24/1865r3 | Sameer Vermani, Qinghua Li, You Wei Chen | 3SP: No objection  Deferred 1SP | Sounding | PHY |
| ~~e-mail 12/07~~ | ~~23/2157, 24/0396, 24/0052, 23/1884, 23/1937, 23/1996, 24/830, 24/0083~~ | ~~Binita Gupta~~ | ~~Deferred 1SP~~ | ~~Roaming~~ | ~~MAC~~ |
| e-mail 12/07 | 24/088, 24/815 | Binita Gupta | 1SP: 28Y, 34N, 47A | Bandwidth Expansion | MAC |
| e-mail 12/07 | 24/0660, 24/1752 | Binita Gupta | SP1: 30Y, 25N, 45A  SP2: Deferred | QoS | MAC |
| e-mail 12/06 | 11-24/1829r1, 11-24/1822r4 | Shengquan Hu | SP1: No objection  SP2: Deferred  SP3: No objection | CBF | PHY |
| ~~e-mail 12/12~~ | ~~11-24/1834r4, 11-24/1831r3, 11-24/1864r1~~ | ~~Alice Chen, Juan Fang, You-Wei Chen~~ | ~~Deferred 1SP~~ | ~~U-SIG~~ | ~~PHY~~ |
| e-mail 12/17 | [*24/1457r0*](https://mentor.ieee.org/802.11/dcn/24/11-24-1457-00-00bn-r-twt-sharing.pptx)*,*[*23/2212r1*](https://mentor.ieee.org/802.11/dcn/23/11-23-2212-01-00bn-r-twt-protection-in-11bn.pptx) | Gaius Y. H. Wee | Pending 1SP | Cr-TWT | MAC |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| End Of Queue | | | | | |
| Notes:  Not Uploaded – Document was not present in the server 24 hours prior to the scheduled conference call/session and no request was received for re-scheduling/postponing. | | | | | |

## Teleconference Agendas

### 1st Conf. Call: December 02 (19:00–21:00 ET)–Joint

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Yusuke Asai (yusuke.asai@ntt.com) and Alfred Asterjadhi (asterjadhi@gmail.com)
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
  + We have motions scheduled during the Joint telco of December 19th, 2024.
    - We need to get WG chair approval and send a 10-day advanced notice for the motions that we plan to run during that session.
    - To meet this requirement and align with our MO, I need by Dec 7th, 2024:
      * Members that have SPs with “super majority” positive opinion (75+%) to send me the text of that SP so that I can add to the motion list
      * Members that have SPs that are queued to be ran before/during December 19th, 2024, to send me the text of that SP so that I can add to the motion list
        + If the SP shows “super majority” (75+%) positive opinion prior to the scheduled motion, then we keep the corresponding motion and update the note below the motion with the SP result
        + If the SP does not show “super majority” positive opinion prior to the scheduled motion or is not ran, then we will remove the corresponding motion from the motion list.
      * Note: Text changes to the motion text during this 10-day period is fine as long as it does not lead to major technical changes to the motion.
    - Per procedure, other motions are allowed to be requested as well provided that they are sent by Dec 7th, 2024, and they are approved by the WG chair.
* TGbn D0.1 Status/Plan:
  + [24/1989](https://mentor.ieee.org/802.11/dcn/24/11-24-1989-00-00bn-a-guide-for-tgbn-specification-drafting.ppt) A Guide for TGbn Specification drafting Ross J. Yu
  + [24/1993r1](https://mentor.ieee.org/802.11/dcn/24/11-24-1993-01-00bn-tgbn-d0-1-spec-skeleton.docx) TGbn D0.1 Spec Skeleton Ross J. Yu
  + Reminder regarding TGbn Guidelines: see [11-24/1682r3](https://mentor.ieee.org/802.11/dcn/24/11-24-1682-03-00bn-tgbn-guidelines.docx), and in particular:
    - Prepare **main skeleton (and spec text for the topic)** of the subclauses pertaining to that topic and upload the base document to the mentor website,
      * For ease of identification, all draft text documents to begin with **"PDT-"** for "Proposed Draft Text, and the topic classification (**MAC/PHY/JOINT**)" (**e.g. 11-24-9999-00bn-PDT-MAC-This-Feature**).
    - Start a **thread in the TGbn reflector** for that topic, which is the point of reference for having discussions and exchanging feedback with other members.
      * Again, for ease of identification, the thread should start with [**PDT-MAC/PHY/JOINT**]
  + Status/Updates/Deadlines on PDTs
    - Deadline for PDT submission requests in the queue: December 02, 2024.
    - Actual submission of the document whenever the POC indicates as ETA.
* PDT Submissions: None.
* Straw Polls: None.
* Technical Submissions-Trigger + ELR + CSR:
  + [24/1507](https://mentor.ieee.org/802.11/dcn/24/11-24-1507-00-00bn-uhr-trigger-frame-design.pptx) UHR Trigger Frame Design Mahmoud Hasabelnaby
  + [24/1765](https://mentor.ieee.org/802.11/dcn/24/11-24-1765-00-00bn-consideration-on-11bn-trigger-frame-for-phy-signailng.pptx) Consideration on 11bn Trigger frame 4 PHY Signaling Dongguk Lim
  + [24/1833](https://mentor.ieee.org/802.11/dcn/24/11-24-1833-00-00bn-trigger-frame-design-for-uhr.pptx) Trigger Frame Design for UHR Alice Chen
  + [~~24/1508~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1508-00-00bn-channel-protection-in-elr-scenarios.pptx) ~~Channel Protection In ELR Scenarios Yunbo Li~~
  + [24/1809](https://mentor.ieee.org/802.11/dcn/24/11-24-1809-00-00bn-evaluation-of-c-sr-types.pptx) Evaluation of C-SR Types Jun Minotani
* AoB:
* Adjourn

### 2nd Conf. Call: December 05 (10:00–12:00 ET)–MAC

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Xiaofei Wang ([xiaofei.wang@interdigital.com](mailto:xiaofei.wang@interdigital.coma)), Srinivas Kandala ([srini.k1@samsung.com](mailto:srini.k1@samsung.com)), and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (30 mins):
  + [24/2007r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2007-00-00bn-pdt-mac-p-edca.docx) PDT-MAC-p-edca Dmitry Akhmetov
  + [24/1762r5](https://mentor.ieee.org/802.11/dcn/24/11-24-1762-05-00bn-pdt-mac-npca.docx) PDT-MAC-NPCA Matthew Fischer
* Pending SPs – Channel Access + MAP (30 mins):

**SP1 – Dmitry Akhmetov – Channel Access**

Do you agree to define HIP EDCA in UHR where a STA with Low Latency traffic may be allowed, based on TBD conditions, to send a Defer Signal (e.g. CTS frame or RTS) to start a protected short contention for pending LL data

* + Conditions to be allowed to send a Defer Signal is TBD
  + STA in HiP EDCA always use RTS/CTS as initial frame exchange and retry.
  + Duration of protected short contention is TBD.
  + Access parameters (AIFSN, CW and the expansion rules) used to transmit the Defer Signal are TBD. The retry count where the Defer Signal is allowed to be sent is TBD
  + Contention parameters for the protected short contention are TBD. The STAs that transmitted a Defer Signal but did not win the protected short contention will initiate a new retry.
  + Low Latency traffic is treated as AC\_VO traffic. Other cases are TBD.
  + The solution would provide control on the degree of collisions that may occur while using it and, allows for autonomous randomness or/and controlled by the AP
  + No new synchronization requirement on STA side

*Supporting documents: [24/1144]*

Result: 36Y, 52N, 36A

**SP2 – Kosuke Aio – MAP**

Do you agree that 11bn supports the information exchange between AP MLDs in both wireless backhaul and wired backhaul?

*Supporting documents: [24/0838r1, 24/0480r0]*

Result: Deferred

**SP3 – Kosuke Aio – MAP**

Do you agree that 11bn defines a new Payload Type for Ethertype 89-0d frame body so that Ether LAN can carry the newly defined frames in 802.11bn for exchanging information between multiple AP MLDs?

*Supporting documents: [24/0838r1, 24/0480r0]*

Result: Deferred

* Technical Submissions–Control:
  + [24/1464](https://mentor.ieee.org/802.11/dcn/24/11-24-1464-00-00bn-discussion-on-icf.pptx) Discussion on ICF Insun Jang
  + [24/1702](https://mentor.ieee.org/802.11/dcn/24/11-24-1702-00-00bn-consideration-on-the-signalling-method-of-intermediate-fcs.pptx) Consideration-on-the-signalling-method-of-intermediate-fcs Yanchao Xu
  + [24/1887](https://mentor.ieee.org/802.11/dcn/24/11-24-1887-00-00bn-bsrp-tf-response-rules-changes-for-m-ba.pptx) BSRP TF response rules changes for M-BA Laurent Cariou
  + [24/1583](https://mentor.ieee.org/802.11/dcn/24/11-24-1583-00-00bn-icr-transmission-follow-up.pptx) ICR transmission-follow-up Dibakar Das
* AoB:
* Adjourn

### 2nd Conf. Call: December 05 (10:00–12:00 ET)–PHY

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Sigurd Schelstraete ([sschelstraete@maxlinear.com](mailto:sschelstraete@maxlinear.com)), Tianyu Wu ([tianyu@apple.com](mailto:tianyu@apple.com)), and Dongguk Lim ([dongguk.lim@lge.com](mailto:dongguk.lim@lge.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (15 mins):
  + [24/1981r1](https://mentor.ieee.org/802.11/dcn/24/11-24-1981-01-00bn-pdt-elr.docx) PDT ELR Lin Yang
* Pending SPs – Topic (30 mins):

**SP1 – Ross J. Yu – UEQM**

Do you agree to include the following into the 11bn SFD?

* The UEQM patterns indication for NSS=2, 3 and 4 are as follows:
* NSS=2

|  |  |  |
| --- | --- | --- |
| Index | 1st ss | 2nd SS |
| 0 | M | M-1 |
| 1 | M | M-2 |
| 2-3 | Reserved | |

* NSS=3

|  |  |  |  |
| --- | --- | --- | --- |
| Index | 1st ss | 2nd SS | 3rd SS |
| 0 | M | M | M-1 |
| 1 | M | M | M-2 |
| 2 | M | M-1 | M-2 |
| 3 | Reserved | | |

* NSS=4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Index | 1st ss | 2nd SS | 3rd SS | 4th SS |
| 0 | M | M | M | M-1 |
| 1 | M | M | M | M-2 |
| 2 | M | M | M-1 | M-2 |
| 3 | M | M-1 | M-1 | M-2 |

* Note: reserved entries will be further categorized as Validate or Disregard, following principles in 11be

*Supporting documents: [24/1772]*

Result: No objection.

**SP2 – You-Wei Chen – Preamble**

Do you support the following signaling design for MU MIMO user info field?

* When Coding field indicates LDPC, then 2XLDPC indication:
  + Bit22 set to 1: TX encode LDPC using code size as 2x1944
  + Bit22 set to 0: TX encode LDPC using code size of 648, 1296, or 1944.



*Supporting documents: [24/1695r1]*

Result: No objection.

**SP3 – You-Wei Chen – Preamble**

Do you support the following signaling design for non-MU MIMO user info field?

* UEQM indication
  + Bit19 set to 1: UEQM is applied, B20-21 are redefined to indicate UEQM patterns.
  + Bit19 set to 0: EQM is applied. (B20 and B21 are Bfed and Coding bits)
* When Coding field indicates LDPC, then 2XLDPC indication:
  + Bit22 set to 1: TX encode LDPC using code size as 2x1944
  + Bit22 set to 0: TX encode LDPC using code size of 648, 1296, or 194

A rectangular object with numbers

Description automatically generated

*Supporting documents: [24/1695r1]*

Result: No objection.

* Technical Submissions–Preamble Part 2 + DRU Misc.:
  + [24/1831](https://mentor.ieee.org/802.11/dcn/24/11-24-1831-00-00bn-uhr-u-sig-and-uhr-sig-common-field-general-design.pptx) UHR U-SIG and UHR-SIG common field general design Juan Fang
    - Ran 2 SPs: SP2 and SP5, both with no objection.
  + [24/1834](https://mentor.ieee.org/802.11/dcn/24/11-24-1834-00-00bn-11bn-non-elr-signaling-design-for-new-features.pptx) 11bn Non-ELR Signaling Design for New Features Alice Chen
    - To be continued.
  + [24/1840](https://mentor.ieee.org/802.11/dcn/24/11-24-1840-00-00bn-uhr-mu-ppdu-user-info-field-signaling.pptx) UHR MU PPDU user info field signaling Rui Cao
  + [24/1864](https://mentor.ieee.org/802.11/dcn/24/11-24-1864-00-00bn-map-ppdu-consideration-and-harmonized-u-sig-signaling.pptx) MAP PPDU Consideration and Harmonized U-SIG Signaling You-Wei Chen
  + [24/1753](https://mentor.ieee.org/802.11/dcn/24/11-24-1753-00-00bn-signaling-for-dru-in-trigger-frame-follow-up.pptx) Signaling-for-dru-in-trigger-frame-follow-up Eunsung Park
  + [24/1778](https://mentor.ieee.org/802.11/dcn/24/11-24-1778-00-00bn-distributed-ru-distortion-beamforming-power-control.pptx) Distributed RU Distortion, Beamforming, Power Control Rainer Strobel
* AoB:
* Adjourn

### 3rd Conf. Call: December 09 (19:00–21:00 ET)–MAC

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Xiaofei Wang ([xiaofei.wang@interdigital.com](mailto:xiaofei.wang@interdigital.coma)), Srinivas Kandala ([srini.k1@samsung.com](mailto:srini.k1@samsung.com)), and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (15 mins):
  + [~~24/2040r0~~](https://mentor.ieee.org/802.11/dcn/24/11-24-2040-00-00bn-pdt-mac-coexistence.docx) ~~PDT MAC Coexistence Laurent Cariou\*~~
  + [24/1966r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1966-00-00bn-pdt-mac-crtwt.docx) PDT MAC CRTWT Giovanni Chisci
* Pending SPs – Topic (30 mins):

**SP1 – Haorui Yang – Roaming**

Do you agree to define a mechanism in 802.11bn to guarantee that the selected target AP MLD connects to the same operator network with the source AP MLD if the AP MLDs communicate using the over-the-DS interface.

* + The detailed mechanism is TBD.

*Supporting documents: [24/1388]*

Result: Deferred.

**SP2 – Kumail Haider – Power Save**

Do you agree add the following text to TGbn SFD:

* TGbn defines a mechanism that enables a STA to request guaranteed availability from AP/Mobile AP during certain time periods

NOTE 1 – The exact signaling mechanism is TBD

NOTE 2 – It is AP’s discretion to accept the request or not

*Supporting doc: [24/1602r1]*

Result: 29Y, 40N, 44A

**SP3 – Rubayet Shafin – P2P**

Do you agree to enhance existing mechanism(s) in 11bn to improve latency for a non-AP STA communication with another non-AP STA on the base channel and off-channel, respectively, by

* enhancing mechanism(s) to allow an AP to share a TXOP with multiple peer-to-peer (p2p) non-AP STAs(s)
* enhancing the baseline Channel Usage procedure to provide better recommendation on channel selection for P2P by enabling coordination between APs that do not belong to the same ESS so that the channels recommended for P2P operation sent by those APs are the same.

Note: the coordinated channel recommendation is an optional feature. Also, the responding AP has an option to reject the request for such coordination.

Note:

- Base channel is the channel where the AP associated with the non-AP STA is operating.

- A channel outside its associated AP’s operating BW is an off-channel for the non-AP STA.

*Supporting docs: [11-22/1528r1, 11-23/294r1, 11-23/1424r0, 11-23/1929r0, 11-24/392r2, 11-24/393r3, 11-24/0403r2]*

Result: No objection.

**SP4 – Brian Hart – Feedback**

* + Do you agree to add the following text to the 11bn SFD?
    - Define a mechanism in 11bn that enables an AP to solicit, and/or for a non-AP STA to respond with, the non-AP STA’s rating of the quality of experience that the STA receives from the ESS of the AP.

*Supporting documents: [24/1123r1]*

Result: 40Y, 20N, 55A.

* Technical Submissions–Control part 2 + C-RTWT+QoS:
  + [24/1893](https://mentor.ieee.org/802.11/dcn/24/11-24-1893-00-00bn-icf-follow-up.pptx) ICF follow up Liwen Chu
  + [24/1583](https://mentor.ieee.org/802.11/dcn/24/11-24-1583-00-00bn-icr-transmission-follow-up.pptx) ICR transmission-follow-up Dibakar Das
  + [24/0743](https://mentor.ieee.org/802.11/dcn/24/11-24-0743-00-00bn-simulation-results-for-map-obss-twt-management.pptx) Simulation results for MAP OBSS TWT management Patrice NEZOU
  + ~~24/1401 Coordinated TDMA for Coordinated R-TWT Jonghoe Koo~~
  + ~~24/0825 Dynamic QoS Rubayet Shafin~~
  + [~~24/0741~~](https://mentor.ieee.org/802.11/dcn/24/11-24-0741-00-00bn-qos-provisioning-for-802-11bn.pptx) ~~QoS provisioning for 802.11bn Pascal Viger~~
  + [24/1690](https://mentor.ieee.org/802.11/dcn/24/11-24-1690-00-00bn-discussion-on-ooo-delivery.pptx) Discussion on OOO delivery Liangxiao Xin
* AoB:
* Adjourn

*\*Moving to next slot per author’s request.*

### 3rd Conf. Call: December 09 (19:00–21:00 ET)–PHY

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Sigurd Schelstraete ([sschelstraete@maxlinear.com](mailto:sschelstraete@maxlinear.com)), Tianyu Wu ([tianyu@apple.com](mailto:tianyu@apple.com)), and Dongguk Lim ([dongguk.lim@lge.com](mailto:dongguk.lim@lge.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (45 mins):
  + [~~24/1992r1~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1992-01-00bn-pdt-phy-longer-ldpc-coding.docx) ~~PDT PHY Longer LDPC Coding Rethna Pulikkoonattu~~
  + [24/1985r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1985-00-00bn-pdt-phy-unequal-modulation-ueqm-and-new-mcs.docx) PDT PHY UEQM and New MCS Rui Cao
  + [24/1977r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1977-00-00bn-pdt-phy-u-sig.docx) PDT PHY U-SIG Alice Chen
* Pending SPs – Topic (30 mins):

**SP1 – Dongguk Lim – Preamble**

Do you agree to change the assigned bits for NSS field and Spatial configuration field by considering the maximum NSS is 8 in 11bn?

* For non-MU-MIMO allocation of the UHR SIG field
  + NSS field consists of 3 bits in the user field
* For MU-MIMO allocation of the UHR SIG field
  + Spatial configuration field consists of 4 bits in the user field.

*Supporting documents: [24/1427r2]*

Result: No objection.

**SP2 – Dongguk Lim – Preamble**

Do you agree to include the following text to the 11bn SFD?

* The MCS field in the user field of UHR-SIG field consists of 5 bits.
  + The B11 ~ B15 of the UHR-SIG field is assigned for the MCS field
  + The configuration of MCS field is TBD.

*Supporting documents: [24/1427r2]*

Result: No objection.

**SP3 – Ron Porat – Preamble**

Do you agree to add to the 11bn SFD?

* The first 16 entries of the 5 bit MCS table (MCS0 to MCS15) are identical to 11be

*Supporting documents: [24/1826r1]*

Result: No objection.

**SP4 – Ron Porat – Preamble**

Do you agree to add to the 11bn SFD?

* In the 5bit MCS table
  + MCS17 signals QPSK rate 2/3
  + MCS19 signals 16QAM rate 2/3
  + MCS20 signals 16QAM rate 5/6
  + MCS23 signals 256QAM rate 2/3

*Supporting documents: [24/1826r1]*

Result: Re-schedule Dec 16.

* Technical Submissions–Preamble Part 3 + DRU Misc.:
  + [24/1834](https://mentor.ieee.org/802.11/dcn/24/11-24-1834-03-00bn-11bn-non-elr-signaling-design-for-new-features.pptx) 11bn Non-ELR Signaling Design for New Features Alice Chen

SP1  Do you agree to include the following to the 11bn SFD?

·         Add a 1-bit 2x LDPC subfield in the UHR variant user info field in Trigger Frame, MU-MIMO and non-MU-MIMO user field formats in UHR-SIG

·         The 2x LDPC subfield is set to 1 to indicate 2x LDPC (nominal codeword size of 3888) is used, or set to 0 to indicate it’s not used, if the coding scheme is LDPC

·         In the MU-MIMO or non-MU-MIMO user field formats, the 2x LDPC subfield is set to 1 and treat as Validate if Coding is BCC (0)

·         In the UHR variant user info field in Trigger Frame, the 2x LDPC subfield is set to 1 and reserved if UL FEC Coding Type is BCC (0)

·         Supporting doc: 11-24/1833r3, 11-24/1834r4

§  Result: No objection

·         SP2  Do you agree to include the following to the 11bn SFD?

·         The UHR TB PPDU, and UHR MU PPDU with DL OFDMA transmission, SU transmission, and DL non-OFDMA MU-MIMO use same combinations of the UL/DL subfield and PPDU Type And Compression Mode subfield values for indication as in EHT

§  Result: No objection

·         SP3  Do you agree to include the following to the 11bn SFD?

·         Reuse the U-SIG field structure in EHT TB PPDUs for the U-SIG in UHR TB PPDUs

·         PHY Version Identifier is set to 0 or 1 to differentiate EHT & UHR

·         How to set Disregard and Validate bits is TBD

§  Result: No objection

·         SP4 Do you agree to include the following to the 11bn SFD?

·         Use B13 in the common field of UHR-SIG in non-OFDMA to indicate Interference Mitigation (IM) ON/OFF

·         Value 0 indicates IM enabled

·         Value 1 indicates IM disabled (because B13 was originally 'set to 1 and Disregard at RX’)

§  Result: No objection

·         SP5 Do you agree to include the following to the 11bn SFD?

·         Keep all the fields in U-SIG for UHR MU PPDU to be the same as that in U-SIG for EHT MU PPDU as following, and PHY version is set to 1 for UHR, UHR-SIG MCS and Number of UHR-SIG Symbols subfields replace the EHT-SIG MCS and Number of EHT-SIG Symbols subfields

·         Note- The disregard and validate bits may be updated for new features

·         Supporting doc: 11-24/1834r4, 11-24/1831r3

§  Result: No objection

* + [24/1840](https://mentor.ieee.org/802.11/dcn/24/11-24-1840-00-00bn-uhr-mu-ppdu-user-info-field-signaling.pptx) UHR MU PPDU user info field signaling Rui Cao  
    Do you support to include the following to the 11bn SFD?
  + • The four new MCSs are defined for both BCC and LDPC for UHR
  + • The four new MCSs are QPSK-2/3, 16QAM-2/3, 16QAM-5/6, 256QAM-2/3
  + Result: No objection
  + [24/1864](https://mentor.ieee.org/802.11/dcn/24/11-24-1864-00-00bn-map-ppdu-consideration-and-harmonized-u-sig-signaling.pptx) MAP PPDU Consideration and Harmonized U-SIG Signaling You-Wei Chen
  + [24/1753](https://mentor.ieee.org/802.11/dcn/24/11-24-1753-00-00bn-signaling-for-dru-in-trigger-frame-follow-up.pptx) Signaling-for-dru-in-trigger-frame-follow-up Eunsung Park
  + [24/1778](https://mentor.ieee.org/802.11/dcn/24/11-24-1778-00-00bn-distributed-ru-distortion-beamforming-power-control.pptx) Distributed RU Distortion, Beamforming, Power Control Rainer Strobel
* Technical Submissions–UEQM + IM:
  + [24/1745](https://mentor.ieee.org/802.11/dcn/24/11-24-1745-00-00bn-discussion-on-frequency-domain-ueqm.pptx) Discussion on Frequency Domain UEQM Mengshi Hu
  + [24/1807](https://mentor.ieee.org/802.11/dcn/24/11-24-1807-00-00bn-follow-up-on-ueqm-stream-parser.pptx) Follow Up on UEQM Stream Parser Ying Wang
  + [24/1832](https://mentor.ieee.org/802.11/dcn/24/11-24-1832-01-00bn-stream-parser-for-unequal-modulation.pptx) Stream Parser for Unequal Modulation Qinghua Li
  + [24/1747](https://mentor.ieee.org/802.11/dcn/24/11-24-1747-00-00bn-discussion-on-signalling-of-additional-pilots-for-interference-mitigation.pptx) Discussion on Signalling of Additional Pilots for IM Ke Zhong
  + [24/1785](https://mentor.ieee.org/802.11/dcn/24/11-24-1785-00-00bn-interference-mitigation-pilots-definitions.pptx) Interference Mitigation Pilots – Definitions Shimi Shilo
* AoB:
* Adjourn

### 4th Conf. Call: December 12 (10:00–12:00 ET)–MAC

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Xiaofei Wang ([xiaofei.wang@interdigital.com](mailto:xiaofei.wang@interdigital.coma)), Srinivas Kandala ([srini.k1@samsung.com](mailto:srini.k1@samsung.com)), and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (45 mins):
  + [24/2040r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2040-00-00bn-pdt-mac-coexistence.docx) PDT MAC Coexistence Laurent Cariou\*
  + [24/2016r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2016-00-00bn-pdt-mac-power-save.docx) PDT MAC power save Liwen Chu
* Pending SPs – Topic (30 mins):

**SP1 – Brian Hart –MAP**

Do you agree to add the following text to the 11bn SFD:

* Define a mechanism in 11bn that defines:
  + AP-to-AP frame formats to enable interoperable MAPC across APs and including MLME primitive(s) so that a pair of AP’s SMEs can orchestrate the over-the-air transmission and reception of these frames
  + MLME primitive(s) so that a pair of AP’s SMEs may send the content of such non-time critical AP-to-AP frames over-the-DS between peer AP-MLMEs (rather than over-the-air via peer AP MACs)

*Supporting documents: [24/1595r1, 24/0838r1]*

Result: 66Y, 13N, 40A

**SP2 – Pascal Viger –C-RTWT**

Do you agree to add the following text to the 11bn SFD:

* + Define mechanisms that enable a CR-TWT (coordinated R-TWT) Coordinated AP to modify its UHR CR-TWT non-AP STAs’ medium access policy during CR-TWT schedule(s)
    - with the objective of not interfering with the CR-TWT Coordinating AP during the scheduled period(s);
    - detailed mechanisms are TBD

*Supporting documents: [24/742r1, 24/538r1, 24/1259r2, 24/1435r0]*

Result: 53Y, 28N, 40A

**SP3 – Binita Gupta –Roaming**

Do you agree to add the following text to 11bn SFD?

* 11bn defines that as part of seamless roaming procedure a non-AP MLD in state 4 can perform roaming transition through a target AP MLD.

*Supporting list: 24/0398, 24/1812, 24/0052, 23/1884, 23/1937, 23/1996, 24/830, 24/0083, 24/0101, 24/0396, 24/0412, 23/2157, 24/0655, 24/679, 24/1425, 24/1883, 24/1086*

Result: Defer

**SP4 – Binita Gupta –Roaming**

Do you agree to add the following text to 11bn SFD?

* 11bn defines that as part of seamless roaming procedure, a non-AP MLD in state 4 can send a protected request frame over-the-air to a target AP MLD:
* The request frame initiates context transfer from the current AP MLD to the target AP MLD or the context can be negotiated with the target AP MLD
* The request frame initiates necessary changes of the DS mapping from the current AP MLD to the target AP MLD
* Define a response frame sent by the target AP MLD to the non-AP MLD to indicate the readiness for the non-AP MLD to send class 3 frames to the target AP MLD
* NOTE: Details on what context can be transferred or negotiated is TBD

*Supporting list: 24/0398, 24/1812, 24/0052, 23/1884, 23/1937, 23/1996, 24/830, 24/0083, 24/0101, 24/0396, 24/0412, 23/2157, 24/0655, 24/679, 24/1425, 24/1883, 24/1086*

Result: Defer

* Technical Submissions–QoS + Feedback:
  + [24/1887](https://mentor.ieee.org/802.11/dcn/24/11-24-1887-00-00bn-bsrp-tf-response-rules-changes-for-m-ba.pptx) BSRP TF response rules changes for M-BA Laurent Cariou\*
    - SP Result: ??
  + [24/0741](https://mentor.ieee.org/802.11/dcn/24/11-24-0741-00-00bn-qos-provisioning-for-802-11bn.pptx) QoS provisioning for 802.11bn Pascal Viger
  + [24/1752](https://mentor.ieee.org/802.11/dcn/24/11-24-1752-00-00bn-dynamic-qos-profiles-follow-up.pptx) Dynamic QoS Profiles follow up Binita Gupta
  + [24/0963](https://mentor.ieee.org/802.11/dcn/24/11-24-0963-01-00bn-enhancement-of-bsr-follow-up.pptx) Enhancement of BSR follow-up Frank Hsu
* AoB:
* Adjourn

*\*Re-schedule per author’s request.*

### 4th Conf. Call: December 12 (10:00–12:00 ET)–PHY

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Sigurd Schelstraete ([sschelstraete@maxlinear.com](mailto:sschelstraete@maxlinear.com)), Tianyu Wu ([tianyu@apple.com](mailto:tianyu@apple.com)), and Dongguk Lim ([dongguk.lim@lge.com](mailto:dongguk.lim@lge.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (45 mins):
  + [24/2025r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2025-00-00bn-pdt-phy-ru-and-mru-restrictions-for-20-mhz-operation.docx) PDT PHY RU and MRU restrictions for 20 MHz operation Eunsung Park
  + 24/2032r0 PDT-PHY-UHR PPDU Format Dongguk Lim
  + 24/2033r0 PDT-PHY-Legacy preamble Dongguk Lim
* Pending SPs – Topic (30 mins): 7 mins per SP; target 4 SPs. Rest if time permits.

**SP1 – Lin Yang – PDT-ELR**

Do you support to include the spec text of 11-24/1981r3 PDT PHY ELR to the TGbn D0.1?

*Supporting documents: [24/1981r3]*

Result: No objection.

**SP2 – Brian Hart – Vendor Specific**

Do you agree to add the following text to the 11bn SFD:

* Define a mechanism in 11bn to enable PHY-level vendor specific extensions that are safe:
  + Not ambiguous to an intended recipient
  + Use of any PHY signaling resources by the mechanism does not introduce interoperability issues if the resources were to be unreserved / redefined in 11bn or a future amendment

*Supporting documents: [24/1122]*

Result: 9Y/ 18N / 25A.

**SP3 – Sameer Vermani - Sounding**

Do you agree to include the following to the 11bn SFD?

* There is no UHR sounding sequence for SU TxBF or DL MU-MIMO.  UHR SU TxBF and UHR DL MU-MIMO uses EHT sounding sequence.

*Supporting doc: [11-24/1822r4]*

Result: No objection.

**SP4 – Sameer Vermani, Qinghua Li, You Wei Chen - Sounding**

Do you agree to include the following to the 11bn SFD?

* UHR sounding sequence uses EHT NDP.  I.e., there is no UHR NDP.
  + UHR COBF sounding sequence is the only UHR sounding sequence

*Supporting doc: [11-24/1822r4, 11-24/1835r3, 11-24/1865r3]*

Result: No objection.

**SP5 – Sameer Vermani, Qinghua Li, You Wei Chen - Sounding**

Do you agree to include the following to the 11bn SFD?

* NDPA Announcement Variant subfield shall be set to 3 for COBF NDPA in UHR.

*Supporting doc: 11-24/1822r4, 11-24/1835r3, 11-24/1865r3*

Result:

**SP6 – Sameer Vermani, Qinghua Li, You Wei Chen - Sounding**

Do you agree to include the following to the 11bn SFD?

* When the initiating AP requests the responding AP to join the CoBF sounding, the red subfields in the first and second User Info fields of the NDPA shall be set as follows.
  + NDPA Version Identifier is set to 0 for CoBF sounding in UHR
  + Number of LTF symbols is set to 0 and 1 for 4 and 8 symbols, respectively
  + Starting Spatial Stream is set to 0 and 1 for the 1 st and 5 th streams, respectively
  + Number of spatial streams is set to 0 and 1 for the 4 and 8 streams, respectively
  + LTF+GI is set to 0 and 1 for 2x LTF+0.8us GI and 2x LTF+1.6us GI, respectively

A black background with red text

Description automatically generated

*Supporting doc: 11-24/1822r4, 11-24/1835r3, 11-24/1865r3*

Result:

* Technical Submissions–Preamble Part 3 + DRU Misc.:
  + [24/1864](https://mentor.ieee.org/802.11/dcn/24/11-24-1864-00-00bn-map-ppdu-consideration-and-harmonized-u-sig-signaling.pptx) MAP PPDU Consideration and Harmonized U-SIG Signaling You-Wei Chen
  + [24/1753](https://mentor.ieee.org/802.11/dcn/24/11-24-1753-00-00bn-signaling-for-dru-in-trigger-frame-follow-up.pptx) Signaling-for-dru-in-trigger-frame-follow-up Eunsung Park
  + [24/1778](https://mentor.ieee.org/802.11/dcn/24/11-24-1778-00-00bn-distributed-ru-distortion-beamforming-power-control.pptx) Distributed RU Distortion, Beamforming, Power Control Rainer Strobel
* Technical Submissions–UEQM + IM:
  + [24/1745](https://mentor.ieee.org/802.11/dcn/24/11-24-1745-00-00bn-discussion-on-frequency-domain-ueqm.pptx) Discussion on Frequency Domain UEQM Mengshi Hu
  + [24/1807](https://mentor.ieee.org/802.11/dcn/24/11-24-1807-00-00bn-follow-up-on-ueqm-stream-parser.pptx) Follow Up on UEQM Stream Parser Ying Wang
  + [24/1832](https://mentor.ieee.org/802.11/dcn/24/11-24-1832-01-00bn-stream-parser-for-unequal-modulation.pptx) Stream Parser for Unequal Modulation Qinghua Li
  + [24/1747](https://mentor.ieee.org/802.11/dcn/24/11-24-1747-00-00bn-discussion-on-signalling-of-additional-pilots-for-interference-mitigation.pptx) Discussion on Signalling of Additional Pilots for IM Ke Zhong
  + [24/1785](https://mentor.ieee.org/802.11/dcn/24/11-24-1785-00-00bn-interference-mitigation-pilots-definitions.pptx) Interference Mitigation Pilots – Definitions Shimi Shilo
* AoB:
* Adjourn

### 5th Conf. Call: December 16 (19:00–21:00 ET)–MAC

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Xiaofei Wang ([xiaofei.wang@interdigital.com](mailto:xiaofei.wang@interdigital.coma)), Srinivas Kandala ([srini.k1@samsung.com](mailto:srini.k1@samsung.com)), and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (30 mins):
  + [24/2022r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2022-00-00bn-pdt-mac-bsr-enhancement.docx) PDT MAC BSR Enhancement Frank Hsu
  + [24/1961r](https://mentor.ieee.org/802.11/dcn/24/11-24-1961-03-00bn-pdt-mac-c-tdma.docx)3 PDT-MAC-C-TDMA Sanket Kalamkar
* Pending SPs – Topic (30 mins):

**SP1 – Binita Gupta –Roaming**

Do you agree to add the following text to 11bn SFD?

* + 11bn defines that when a non-AP MLD is not in the process of roaming transition, it can exchange class 3 frames with only one AP MLD

*Supporting list: 23/2157, 24/0396, 24/0052, 23/1884, 23/1937, 23/1996, 24/830, 24/0083*

Result: Deferred.

**SP2 – Binita Gupta –Bandwidth Expansion**

Do you agree to add the following text to 11bn SFD?

* + Define in 11bn a mechanism for dynamic bandwidth selection (DBS) that enables an AP to expand its operating UHR BSS bandwidth for UHR STAs that support the DBS operation.
  + TBD whether a time duration is indicated for expanded UHR BSS bandwidth

*Supporting list: 24/088, 24/815*

Result: 28Y, 34N, 47A

**SP3 – Binita Gupta –QoS**

Do you agree to add the following text to 11bn SFD?

* + Define a mechanism in 11bn that enables:
    - A non-AP MLD to provide multiple QoS profiles in the SCS Request for an SCS stream, each indicating a different set of QoS characteristics parameters for the SCS stream, and
    - The non-AP MLD indicates which QoS profile is currently active, and
    - AP can accept or reject individual QoS profiles for the SCS stream

*Supporting list: 24/0660, 24/1752*

Result: 30Y, 25N, 45A

**SP4 – Binita Gupta –QoS**

Do you agree to add the following text to 11bn SFD?

* + Define a mechanism in 11bn that enables a non-AP MLD to dynamically update the active QoS profile for an SCS stream by signaling a different QoS profile to the AP in an A-Control field, where the QoS profile is selected from one of the previously accepted QoS profiles for that SCS stream.

*Supporting list: 24/0660, 24/1752*

Result: Deferred

* Technical Submissions–QoS + BSR part 2
  + [24/1752](https://mentor.ieee.org/802.11/dcn/24/11-24-1752-00-00bn-dynamic-qos-profiles-follow-up.pptx) Dynamic QoS Profiles follow up Binita Gupta
  + [24/0963](https://mentor.ieee.org/802.11/dcn/24/11-24-0963-01-00bn-enhancement-of-bsr-follow-up.pptx) Enhancement of BSR follow-up Frank Hsu
* Technical Submissions–Roaming Part 1
  + [24/1516](https://mentor.ieee.org/802.11/dcn/24/11-24-1516-00-00bn-seamless-roaming-context-transfer.pptx) Seamless Roaming Context Transfer Yelin Yoon
  + [24/1517](https://mentor.ieee.org/802.11/dcn/24/11-24-1517-00-00bn-seamless-roaming-data-transfer.pptx) Seamless Roaming Data Transfer Yelin Yoon
  + [24/1528](https://mentor.ieee.org/802.11/dcn/24/11-24-1528-02-00bn-details-on-data-forwarding-for-seamless-roaming.pptx) Details-on-data-forwarding-for-seamless-roaming Ryuichi Hirata
  + [24/1591](https://mentor.ieee.org/802.11/dcn/24/11-24-1591-00-00bn-thoughts-on-seamless-roaming-and-npca.pptx) Thoughts on Seamless Roaming and NPCA Ning Gao
* AoB:
* Adjourn

### 5th Conf. Call: December 16 (19:00–21:00 ET)–PHY

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Sigurd Schelstraete ([sschelstraete@maxlinear.com](mailto:sschelstraete@maxlinear.com)), Tianyu Wu ([tianyu@apple.com](mailto:tianyu@apple.com)), and Dongguk Lim ([dongguk.lim@lge.com](mailto:dongguk.lim@lge.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (45 mins):
  + [24/2046r1](https://mentor.ieee.org/802.11/dcn/24/11-24-2046-01-00bn-draft-text-on-dru.docx) Draft Text on DRU Jianhan Liu
  + [~~24/2011r0~~](https://mentor.ieee.org/802.11/dcn/24/11-24-2011-00-00bn-pdt-phy-timing-related-parameters.docx) ~~PDT-PHY- Timing-Related Parameters Mengshi Hu~~
  + [~~24/2009r0~~](https://mentor.ieee.org/802.11/dcn/24/11-24-2009-00-00bn-pdt-phy-uhr-sig.docx) ~~PDT-PHY-UHR-SIG Mengshi Hu~~
* Pending SPs – Topic (45 mins): 7 mins per SP; target 6 SPs. Rest if time permits.

**SP1 – Sameer Vermani – CBF**

Do you agree to add the following to the 11bn SFD:

* + For the COBF case, the information in the NDPA for the responding AP has a unified design for joint-NDP based sounding as well as cross-BSS section of sequential sounding.

*Supporting documents: [24/1822r4]*

Result: 28Y, 17N, 8A

**SP2 – Sameer Vermani – CBF**

Do you agree to add the following to the 11bn SFD:

* + The spatial config field in the user-SIG field of COBF PPDUs in UHR will re-use the same design as in UHR DL MU-MIMO.
    - Encoding table will be same as 11ax

*Supporting documents: [24/1822r4]*

Result: No objection

**SP3 – Sameer Vermani** – **CBF**

Do you agree to add the following to the 11bn SFD:

* + For a COBF PPDU, all the user-fields in UHR-SIG belonging to an AP and the corresponding spatial streams are contiguous.
    - The user fields of one AP are together followed by the ones of the other AP and the same holds for spatial streams

*Supporting documents: [24/1822r4]*

Result: No objection

**SP4 – Shengquan Hu – CBF**

Do you agree to include the following text to the 11bn SFD?

* LDPC is the only coding mode for COBF.

*Supporting doc: [11-24/1829r1]*

Result: No objection

**SP5 – Shengquan Hu – CBF**

Do you agree to include the following text to the 11bn SFD?

* 1-bit indication in the per-user SIG field to resolve the BSS color for COBF transmissions.
  + The coding bit is re-purposed for this indication

*Supporting doc: [11-24/1829r1, 11-24/1822r4]*

Result: Deferred

**SP5-1 – Shengquan Hu – CBF**

Do you agree to include the following text to the 11bn SFD?

* 11bn defines an indication to identify the BSS color for COBF transmissions.

*Supporting doc: [11-24/1829r1, 11-24/1822r4]*

Result: No objection.

**~~SP6 – Alice Chen, Juan Fang, You-Wei Chen – U-SIG~~**

~~Do you agree to include the following to the 11bn SFD?~~

* ~~When the initiating AP requests the responding AP to join the CoBF sounding, the red subfields in the first and second User Info fields of the NDPA shall be set as follows.~~
  + ~~NDPA Version Identifier is set to 0 for CoBF sounding in UHR~~
  + ~~Number of LTF symbols is set to 0 and 1 for 4 and 8 symbols, respectively~~
  + ~~Starting Spatial Stream is set to 0 and 1 for the 1 st and 5 th streams, respectively~~
  + ~~Number of spatial streams is set to 0 and 1 for the 4 and 8 streams, respectively~~
  + ~~LTF+GI is set to 0 and 1 for 2x LTF+0.8us GI and 2x LTF+1.6us GI, respectively~~

~~A black background with red text

Description automatically generated~~

*~~Supporting doc: 11-24/1822r4, 11-24/1835r3, 11-24/1865r3~~*

~~Result:~~

**SP7 – Ron Porat – Preamble**

Do you agree to add to the 11bn SFD?

* In the 5bit MCS table
  + MCS17 signals QPSK rate 2/3
  + MCS19 signals 16QAM rate 2/3
  + MCS20 signals 16QAM rate 5/6
  + MCS23 signals 256QAM rate 2/3

*Supporting documents: [24/1826r1]*

Result: Deferred

**SP8 – Sameer Vermani, Qinghua Li, You Wei Chen - Sounding**

Do you agree to include the following to the 11bn SFD?

* NDPA Announcement Variant subfield shall be set to 3 for COBF NDPA in UHR.

*Supporting doc: 11-24/1822r4, 11-24/1835r3, 11-24/1865r3*

Result: Deferred.

**SP9 – Sameer Vermani, Qinghua Li, You Wei Chen - Sounding**

Do you agree to include the following to the 11bn SFD?

* When the initiating AP requests the responding AP to join the CoBF sounding, the red subfields in the first and second User Info fields of the NDPA shall be set as follows.
* NDPA Version Identifier is set to 0 for CoBF sounding in UHR
* Number of LTF symbols is set to 0 and 1 for 4 and 8 symbols, respectively
* Starting Spatial Stream is set to 0 and 1 for the 1 st and 5 th streams, respectively
* Number of spatial streams is set to 0 and 1 for the 4 and 8 streams, respectively
* LTF+GI is set to 0 and 1 for 2x LTF+0.8us GI and 2x LTF+1.6us GI, respectively

A black background with red text

Description automatically generated

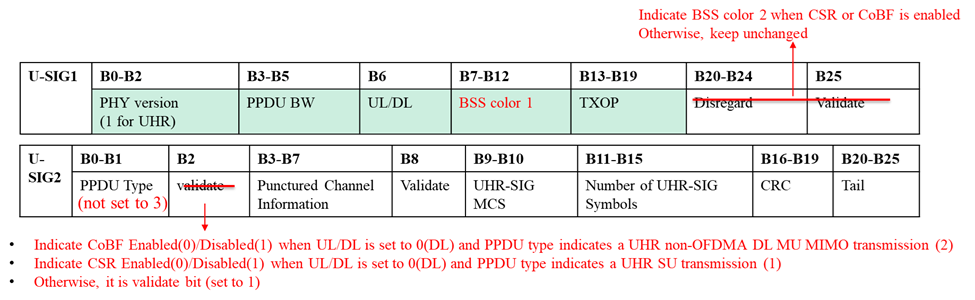
*Supporting doc: 11-24/1822r4, 11-24/1835r3, 11-24/1865r3*

Result: Deferred

**SP10 – Alice Chen, Juan Fang, You-Wei Chen – U-SIG**

Do you agree to include the following to the 11bn SFD?

* CoBF is only applied in DL non-OFDMA MU MIMO transmission
* C-SR is only applied in UHR DL SU transmission in each BSS
* The entire U-SIG format in a UHR MU PPDU is as in the following figure



*Supporting doc: 11-24/1834r4, 11-24/1831r3, 11-24/1864r1*

Result: Deferred.

* Technical Submissions–DRU Misc. + UEQM + IM:
  + [24/1807](https://mentor.ieee.org/802.11/dcn/24/11-24-1807-00-00bn-follow-up-on-ueqm-stream-parser.pptx) Follow Up on UEQM Stream Parser Ying Wang
  + [24/1745](https://mentor.ieee.org/802.11/dcn/24/11-24-1745-00-00bn-discussion-on-frequency-domain-ueqm.pptx) Discussion on Frequency Domain UEQM Mengshi Hu
  + [24/1832](https://mentor.ieee.org/802.11/dcn/24/11-24-1832-01-00bn-stream-parser-for-unequal-modulation.pptx) Stream Parser for Unequal Modulation Qinghua Li
  + [24/1747](https://mentor.ieee.org/802.11/dcn/24/11-24-1747-00-00bn-discussion-on-signalling-of-additional-pilots-for-interference-mitigation.pptx) Discussion on Signalling of Additional Pilots for IM Ke Zhong
  + [24/1785](https://mentor.ieee.org/802.11/dcn/24/11-24-1785-00-00bn-interference-mitigation-pilots-definitions.pptx) Interference Mitigation Pilots – Definitions Shimi Shilo
* AoB:
* Adjourn

### 6th Conf. Call: December 19 (10:00–12:00 ET)–Joint

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Yusuke Asai (yusuke.asai@ntt.com) and Alfred Asterjadhi (asterjadhi@gmail.com)
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (30”):
  + [24/2028r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2028-00-00bn-pdt-joint-sounding-procedure.docx) PDT-Joint-Sounding procedure Youwei Chen
  + [24/2026r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2026-00-00bn-pdt-joint-mlme-sap.docx) PDT-Joint-MLME-SAP Yan Li
* Straw Polls (40”):

**SP1 – Alice Chen – Trigger**

Do you agree to include the following to the 11bn SFD?

* TGbn defines the UHR variant of Trigger Frame.
  + Reuse the EHT variant of Trigger Frame format for the UHR variant of Trigger Frame, with one Special User info field immediately after the Common Info field
* Differentiate EHT and UHR variant by the value of the PHY Version Identifier in the Special User Info field being 0 or 1
* Reuse the EHT variant Common Info field and Special User Info field for UHR
  + B60-B62 in the UHR variant common info field are “UHR Reserved”
* Reserved bits in the UHR variant Common Info field and Special User Info field may be used for other UHR features
* The UHR variant of Trigger frame includes the UHR variant User Info field.
  + It has the same length as the EHT variant User Info field

*Supporting doc: [11-24/1833r4, 11-24/1765r0, 11-24/1507r3]*

Result: 89Y, 21N, 43A

**SP2 – Dongguk Lim – Trigger**

Do you agree to include the following to the 11bn SFD?

* For a UHR TB PPDU transmission, there exists a 5-bit UL UHR MCS in a User Info field for UHR variant of Trigger frame

*Supporting doc: [11-24/1765r0]*

Result: No objection.

**SP3 – Alice Chen – Trigger**

Do you agree to include the following to the 11bn SFD?

* Use the following UHR variant User Info field design

A white rectangular box with red text

Description automatically generated

* The SS Allocation subfield design depends on RRU or DRU
  + Repurpose 1 bit in the SS Allocation subfield in the UHR variant User Info field to indicate Nss (1ss or 2ss) in the case of DRU

A white sheet with red text

Description automatically generated

*Supporting doc: [11-24/1833r4]*

Result: No objection.

**SP4 – Sameer Vermani, Qinghua Li, You Wei Chen - Sounding**

Do you agree to include the following to the 11bn SFD?

* NDP Announcement Variant subfield shall be set to 3 for COBF NDPA in UHR.

*Supporting doc: 11-24/1822r4, 11-24/1835r3, 11-24/1865r3*

Result: No objection.

**SP5 – Sameer Vermani, Qinghua Li, You Wei Chen - Sounding**

Do you agree to include the following to the 11bn SFD?

* When the initiating AP requests the responding AP to join the CoBF sounding, the red subfields in the first and second User Info fields of the NDPA shall be set as follows.
* NDPA Version Identifier is set to 0 for CoBF sounding in UHR
* Number of LTF symbols is set to 0 and 1 for 4 and 8 symbols, respectively
* Starting Spatial Stream is set to 0 and 1 for the 1st and 5th streams, respectively
* Number of spatial streams is set to 0 and 1 for the 4 and 8 streams, respectively
* LTF+GI is set to 0 and 1 for 2x LTF+0.8us GI and 2x LTF+1.6us GI, respectively

A black background with red text

Description automatically generated

*Supporting doc: 11-24/1822r4, 11-24/1835r3, 11-24/1865r3*

Result: Defer.

**SP6 – Alice Chen, Juan Fang, You-Wei Chen – U-SIG**

Do you agree to include the following to the 11bn SFD?

* CoBF is only applied in DL non-OFDMA MU MIMO transmission
* C-SR is only applied in UHR DL SU transmission in each BSS
* The entire U-SIG format in a UHR MU PPDU is as in the following figure

A screenshot of a computer

Description automatically generated

*Supporting doc: [11-24/1834r4, 11-24/1831r3, 11-24/1864r1]*

Result: Defer.

* Motions: [11-24/171r24](https://mentor.ieee.org/802.11/dcn/24/11-24-0171-24-00bn-tgbn-motions-list-part-1.pptx) (starting at 11:20am, ET)
* Technical Submissions-CBF:
  + [24/1809](https://mentor.ieee.org/802.11/dcn/24/11-24-1809-02-00bn-evaluation-of-c-sr-types.pptx) Evaluation of C-SR Types Jun Minotani Q&A
  + [24/1836](https://mentor.ieee.org/802.11/dcn/24/11-24-1836-01-00bn-on-cobf-capabilities.pptx) On CoBF Capabilities Aiguo Yan
* AoB:
  + Can we cancel Jan 9 telco? Eval and get back.
  + Move 24/1836 to PHY.
* Adjourn

### 7th Conf. Call: January 06 (19:00–21:00 ET)–MAC

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Xiaofei Wang ([xiaofei.wang@interdigital.com](mailto:xiaofei.wang@interdigital.coma)), Srinivas Kandala ([srini.k1@samsung.com](mailto:srini.k1@samsung.com)), and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (60 mins):
  + [24/2056r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2056-00-00bn-pdt-mac-twt-sp-management.docx) PDT-MAC-TWT SP Management Kumail Haider\*
  + [24/1881r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1881-00-00bn-pdt-mac-seamless-roaming.docx) PDT-MAC-Seamless-Roaming Duncan Ho
  + [24/2020r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2020-00-00bn-pdt-for-uhr-mac-introduction-section.docx) PDT for UHR MAC Introduction section George Cherian
  + [24/2030r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2030-00-00bn-pdt-mac-coordinated-beamforming.docx) PDT-MAC-Coordinated-Beamforming Jason Y. Guo
  + 24/2067r0 PDT MAC UHR BSS Operation Ming Gan
  + 24/2066r0 PDT MAC Acknolwedgement Procedure Ming Gan

\*Member requested to present first due to scheduling constraints.

* Pending SPs – Topic (30 mins):

**SP1 – Gaius Y. H. Wee – C-RTWT**

Do you support allowing an AP to request a neighbour AP to share a portion of its TXOP obtained during an R-TWT SP?

* The request is based on sending a TWT request, which contains the TWT element
* The portion of TXOP is shared by sending an MU-RTS TXS Trigger frame

*Supporting docs:*[*24/1457r0*](https://mentor.ieee.org/802.11/dcn/24/11-24-1457-00-00bn-r-twt-sharing.pptx)*,*[*23/2212r1*](https://mentor.ieee.org/802.11/dcn/23/11-23-2212-01-00bn-r-twt-protection-in-11bn.pptx)

Result:

**SP2 – Giovanni Chisci – PDT – C-RTWT**

Do you support to incorporate the text of [11-24/1966r2](https://mentor.ieee.org/802.11/dcn/24/11-24-1966-02-00bn-pdt-mac-crtwt.docx) into the TGbn D0.1?

*Supporting documents: [24/1966r2]*

Result:

* Technical Submissions–Roaming Part 1
  + [24/1516](https://mentor.ieee.org/802.11/dcn/24/11-24-1516-00-00bn-seamless-roaming-context-transfer.pptx) Seamless Roaming Context Transfer Yelin Yoon
  + [24/1517](https://mentor.ieee.org/802.11/dcn/24/11-24-1517-00-00bn-seamless-roaming-data-transfer.pptx) Seamless Roaming Data Transfer Yelin Yoon
  + [24/1528](https://mentor.ieee.org/802.11/dcn/24/11-24-1528-02-00bn-details-on-data-forwarding-for-seamless-roaming.pptx) Details-on-data-forwarding-for-seamless-roaming Ryuichi Hirata
  + [24/1591](https://mentor.ieee.org/802.11/dcn/24/11-24-1591-00-00bn-thoughts-on-seamless-roaming-and-npca.pptx) Thoughts on Seamless Roaming and NPCA Ning Gao
* AoB:
* Adjourn

### 7th Conf. Call: January 06 (19:00–21:00 ET)–PHY

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Sigurd Schelstraete ([sschelstraete@maxlinear.com](mailto:sschelstraete@maxlinear.com)), Tianyu Wu ([tianyu@apple.com](mailto:tianyu@apple.com)), and Dongguk Lim ([dongguk.lim@lge.com](mailto:dongguk.lim@lge.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements:
* PDT Submissions (90 mins):
  + [24/2009r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2009-00-00bn-pdt-phy-uhr-sig.docx) PDT-PHY-UHR-SIG Mengshi Hu
  + [24/1992r3](https://mentor.ieee.org/802.11/dcn/24/11-24-1992-03-00bn-pdt-phy-longer-ldpc-coding.docx) PDT PHY Longer LDPC Coding Rethna Pulikkoonattu
  + [24/2005r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2005-00-00bn-pdt-phy-introduction.docx) PDT-PHY-Introduction Bin Tian
  + [24/2015r3](https://mentor.ieee.org/802.11/dcn/24/11-24-2015-03-00bn-pdt-phy-cobf.docx) PDT-PHY-CoBF Ron Porat
  + [24/2025r1](https://mentor.ieee.org/802.11/dcn/24/11-24-2025-01-00bn-pdt-phy-ru-and-mru-restrictions-for-20-mhz-operation.docx) PDT PHY RU & MRU restr. for 20 MHz op. Eunsung Park [update+SP]
  + [24/1977r4](https://mentor.ieee.org/802.11/dcn/24/11-24-1977-04-00bn-pdt-phy-u-sig.docx) PDT PHY U-SIG Alice Chen [update+SP]
  + [24/2046r2](https://mentor.ieee.org/802.11/dcn/24/11-24-2046-02-00bn-draft-text-on-dru.docx) Draft Text on DRU Jianhan Liu [update+SP]
  + [24/1985r2](https://mentor.ieee.org/802.11/dcn/24/11-24-1985-02-00bn-pdt-phy-unequal-modulation-ueqm-and-new-mcs.docx) PDT PHY UEQM and New MCS Rui Cao [update+SP]
  + [24/2012r1](https://mentor.ieee.org/802.11/dcn/24/11-24-2012-01-00bn-pdt-phy-packet-extension.docx) PDT-PHY- Packet Extension Mengshi Hu
  + [24/2042r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2042-00-00bn-pdt-phy-transmit-requirements-for-ppdus-sent-in-response-to-a-triggering-frame.docx) PDT-PHY- Transmit requirements for PPDUs sent in response to a triggering frame Juan Fang
  + [24/2011r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2011-00-00bn-pdt-phy-timing-related-parameters.docx) PDT-PHY- Timing-Related Parameters Mengshi Hu
  + [24/2023r](https://mentor.ieee.org/802.11/dcn/24/11-24-2023-01-00bn-pdt-phy-overview-of-the-ppdu-encoding-process.docx)1 PDT-PHY Overview of the PPDU encoding process Junghoon Suh
* Pending SPs – Topic (*0 mins-SPs are listed above with updates, record results below*):

**SP1 – Eunsung Park – PDT - RU/MUR for 20 Mhz**

Do you support to incorporate the text of [11-24/2025r1](https://mentor.ieee.org/802.11/dcn/24/11-24-2025-01-00bn-pdt-phy-ru-and-mru-restrictions-for-20-mhz-operation.docx) into the TGbn D0.1?

*Supporting documents: [24/2025r1]*

Result:

**SP2 – Alice Chen – PDT - U-SIG (see above)**

Do you support to incorporate the text of [11-24/1977r4](https://mentor.ieee.org/802.11/dcn/24/11-24-1977-04-00bn-pdt-phy-u-sig.docx) into the TGbn D0.1?

*Supporting documents: [24/1977r4]*

Result:

**SP3 – Jianhan Liu – PDT – D-RU (see above)**

Do you support to incorporate the text of [11-24/2046r2](https://mentor.ieee.org/802.11/dcn/24/11-24-2046-02-00bn-draft-text-on-dru.docx) into the TGbn D0.1?

*Supporting documents: [24/2046r2]*

Result:

**SP4 – Rui Cao – PDT – UEQM and New MCS (see above)**

Do you support to incorporate the text of [11-24/1985r2](https://mentor.ieee.org/802.11/dcn/24/11-24-1985-02-00bn-pdt-phy-unequal-modulation-ueqm-and-new-mcs.docx) into the TGbn D0.1?

*Supporting documents: [24/1985r2]*

Result:

* Technical Submissions – UEQM + IM (if time permits):
  + [24/1807](https://mentor.ieee.org/802.11/dcn/24/11-24-1807-00-00bn-follow-up-on-ueqm-stream-parser.pptx) Follow Up on UEQM Stream Parser Ying Wang [Q&A]
  + [24/1745](https://mentor.ieee.org/802.11/dcn/24/11-24-1745-00-00bn-discussion-on-frequency-domain-ueqm.pptx) Discussion on Frequency Domain UEQM Mengshi Hu
  + [24/1832](https://mentor.ieee.org/802.11/dcn/24/11-24-1832-01-00bn-stream-parser-for-unequal-modulation.pptx) Stream Parser for Unequal Modulation Qinghua Li
  + [24/1747](https://mentor.ieee.org/802.11/dcn/24/11-24-1747-00-00bn-discussion-on-signalling-of-additional-pilots-for-interference-mitigation.pptx) Discussion on Signalling of Additional Pilots for IM Ke Zhong
  + [24/1785](https://mentor.ieee.org/802.11/dcn/24/11-24-1785-00-00bn-interference-mitigation-pilots-definitions.pptx) Interference Mitigation Pilots – Definitions Shimi Shilo
* AoB:
* Adjourn

### 8th Conf. Call: January 09 (10:00–12:00 ET)–MAC

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Xiaofei Wang ([xiaofei.wang@interdigital.com](mailto:xiaofei.wang@interdigital.coma)), Srinivas Kandala ([srini.k1@samsung.com](mailto:srini.k1@samsung.com)), and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements: No SPs planned during this teleconference call.
* PDT Submissions:
  + [24/2049r](https://mentor.ieee.org/802.11/dcn/24/11-24-2049-01-00bn-pdt-mac-m-ap-coordination-framework.docx)1 PDT MAC M-AP Coordination Framework Arik Klein
  + [24/2031r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2031-00-00bn-pdt-mac-coordinated-spatial-reuse.docx) PDT-MAC-Coordinated-Spatial-Reuse Jason Y. Guo
  + 24/2069r0 PDT MAC UHR MAC Capabilities In UHR Caps IE Ming Gan
  + 24/2068r0 PDT MAC UHR MAC Operation Element Ming Gan
  + …
* AoB:
* Adjourn

### 8th Conf. Call: January 09 (10:00–12:00 ET)–PHY

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **Patent Policy: 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

* + **Copyright Policy: Participants are advised that**
    - IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) 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
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
  + Please record your attendance during the conference call by using the IMAT system:
    - 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
  + If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Sigurd Schelstraete ([sschelstraete@maxlinear.com](mailto:sschelstraete@maxlinear.com)), Tianyu Wu ([tianyu@apple.com](mailto:tianyu@apple.com)), and Dongguk Lim ([dongguk.lim@lge.com](mailto:dongguk.lim@lge.com)).
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"
* Announcements: No SPs planned during this teleconference call.
* PDT Submissions:
  + 24/2043r0 PDT-PHY- Receiver specification Juan Fang
  + [24/2135r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2135-00-00bn-pdt-phy-null-subcarriers.docx) PDT-PHY-Null Subcarriers Bo Gong
  + 24/2034r0 PDT-PHY-Pilot Subcarriers Chenchen Liu
  + 24/2035r0 PDT-PHY-UHR-LTF Chenchen Liu
  + 24/2036r0 PDT-PHY-Data field Chenchen Liu
  + 24/2024r0 PDT PHY UHR-STF Eunsung Park
  + 24/2017r0 PDT-PHY-Transmitter-Block-Diagram Yusuke Asai
  + 24/2027r0 PCT-phy-service-interface Bo Sun
  + 24/2008r0 PDT-PHY-Interference-Mitigation Shimi Shilo
  + 24/2006r0 PDT-PHY-Capabilities-Element Eugene Baik
* AoB:
* Adjourn

===========================================================================

## Patent And Procedures

### 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

All participation in IEEE 802 Working Group meetings 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.pdfsection 5.2.1](https://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdfsection%205.2.1))
* 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> 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> and Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-03-00EC-ieee-802-participation-slide.ppt>)

### 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 March 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>

### 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.

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](https://standards.ieee.org/about/policies/bylaws/sect6-7.html)  
   Clause 6.1 of the IEEE SA Standards Board Operations Manual  
   <https://standards.ieee.org/about/policies/opman/sect6.html>

IEEE SA Copyright Permission

* [http:/standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip](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:/s**[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>

==================================================

Teleconferences (and ad-hocs) are subject to applicable policies and procedures, see below.

**IEEE Code of Ethics**

<http://www.ieee.org/about/corporate/governance/p7-8.html>

**IEEE Standards Association (IEEE-SA) Affiliation FAQ**

<http://standards.ieee.org/faqs/affiliation.html>

**Antitrust and Competition Policy**

<http://standards.ieee.org/resources/antitrust-guidelines.pdf>

**Letter of Assurance Form**

[http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#loa](http://standards.ieee.org/develop/policies/bylaws/sect6-7.html)

[https://development.standards.ieee.org/myproject/Public//mytools/mob/loa.pdf](http://standards.ieee.org/board/pat/pat-slideset.ppt)

**IEEE-SA Patent Committee FAQ & Patent slides**

<http://standards.ieee.org/board/pat/faq.pdf> and <http://standards.ieee.org/board/pat/pat-slideset.ppt>

**The current version of the IEEE-SA Standards Board Bylaws is available at:**

<http://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdf> (PDF version)

**The current version of the IEEE-SA Standards Board Operations Manual is available at:**

<http://standards.ieee.org/develop/policies/opman/sb_om.pdf> (PDF version)

**IEEE 802 Policies & Procedures (Approved June 2014)**

<http://standards.ieee.org/board/aud/LMSC.pdf>

**IEEE 802 Operations Manual (Approved 13 July 2018)**

<https://mentor.ieee.org/802-ec/dcn/17/ec-17-0090-22-0PNP-ieee-802-lmsc-operations-manual.pdf>

**IEEE 802 Working Group Policies & Procedures (29 July 2016)**

<http://www.ieee802.org/PNP/approved/IEEE_802_WG_PandP_v19.pdf>

**IEEE 802 LMSC Chair's Guidelines (Approved 13 July 2018)**

<https://mentor.ieee.org/802-ec/dcn/17/ec-17-0120-27-0PNP-ieee-802-lmsc-chairs-guidelines.pdf>

**Participation in IEEE 802 Meetings**

<https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>

**IEEE 802.11 WG Operations Manual (Approved 13 July 2018):**

<https://mentor.ieee.org/802.11/dcn/14/11-14-0629-22-0000-802-11-operations-manual.docx>