IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TGbn May June July 2025 Teleconferences Minutes | | | | |
| Date: 2025-07-24 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Yusuke Asai | NTT |  |  | yusuke.asai@ntt.com |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This document contains the minutes for TGbn May 2025 to July 2025 teleconferences.

Revision history:

* Rev0: First version of the document.

Abbreviations:

* C: Comment.
* A: Answer.

# 1st Conf. Call: May 29th, Thursday (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.

Nobody spoke/wrote up.

* + 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 the agenda document([11-25/0986r0](https://mentor.ieee.org/802.11/dcn/25/11-25-0986-00-00bn-may-july-tgbn-teleconference-agenda.docx)).

Copyright Policy was presented.

* 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 Wireless Interim/Plenary Session” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn 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](mailto:yusuke.asai@ntt.com)) & Alfred Asterjadhi ([aasterja@qti.qualcomm.com](mailto:aasterja@qti.qualcomm.com))
  + Please ensure that the following information is listed correctly when joining the call:
  + "[voter status] First Name Last Name (Affiliation)"
* Announcements
  + POCs/Authors are requested to check/provide the total number of CIDs and explicit TBDs that are being addressed in each existing PDT/CR contribution in the queue (same applies for new PDT/CR contribution requests).
  + SPs for MAC will be allocated once every two conf calls (of the same pattern).
  + Requested SPs for CR/PDTs from conf calls with no SPs will be moved to subsequent conf calls during which SPs can be run.
  + TBD
  + Discussion:

C: What does TBD address?

A: In general, that is going to be in the group’s discussion. Bit in my interpretation is going to be to resolve that explicitly.

C: But there were a bunch of TBDs which were just deleted in the previous meeting.

A: If the draft change is moved and approved, that is a fine resolution of that TBD as well. From a procedural perspective, I expect the draft has no explicit TBDs.

C: It’s a bit handwavy how document prioritization can be done ... some CRs may not resolve any TBDs but may be more critical for the spec completion than some other TBDs in the spec.

A: It is tricky part that my reliance in terms of prioritization is going to be in the number of TBDs and the number of CIDs that is correct. I will not exercise the prioritization of documents from any technical insights perspective. If members believe that something is very important, please mention to the chair.

(Chair requested the authors to provide the actual links of the presentation queues by the end of next week. Otherwise, the presentation queue will be deleted.)

* Agenda
  + Chair reviews proposed agenda found in [11-25/0986r0](https://mentor.ieee.org/802.11/dcn/25/11-25-0986-00-00bn-may-july-tgbn-teleconference-agenda.docx).
  + Discussion:

C: I asked to assign [11-25/0657r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0657-02-00bn-cr-for-clause-3-2-part-2.doc) to the second presentation due to the time limit of the presenter.

C: I asked [11-25/0087r0](https://mentor.ieee.org/802.11/dcn/25/11-25-0087-00-00bn-co-triggering-frame-design-for-cobf.pptx) to remove the presentation list.

* + The modified agenda approved with unanimous consent.
* PDT/CR Submissions (1 hour):
  + [11-25/0636r5](https://mentor.ieee.org/802.11/dcn/25/11-25-0636-05-00bn-joint-pdt-cr-trigger-frame-format-part-5.docx): Joint PDT CR Trigger Frame Format Part 5

Alice Chen (Qualcomm Inc.) [15C SP]

C: Why do you think saying “not absent” is better than “present”?

A: Originally, it is called the present flag. And then the value zero means present and the value one means not present.

C: Last time we had a lot of discussion on using the User Info field on I-FCS. There were a lot of concerns about using two and certain fields. Could you please defer the SP for more offline discussion?

A: We waited for two weeks. But there was no request on this part. People mainly asked questions on some other things. But I’m OK to defer if there is strong interest in it.

C: We call it a location indication field. I think of some ranging or location in purpose. S, would it be called the could that be called I-FCS location?

A: If you can provide more offline discussion, that would be good.

C: Is there a CID that is specific to two FCS versus one FCS stuff?

A: There are only CIDS that ask to complete this part of design. There is no specific CID that mentions one user input.

* + [11-25/0657r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0657-02-00bn-cr-for-clause-3-2-part-2.doc) CR for Clause 3.2-part 2 Xiaofei WANG (InterDigital) [18C]

C: Co-BF etc. should be CBF etc.

C: Co-BF is still being used because some people mentioned the CBF may be misinterpreted as the compressed beamforming report.

C: I’m suggesting just follow-up with the POC of CRTWT on this, too.

C: We define OBSS and AP, but I’m not sure the combination is defined. What does it mean to be an OBSS AP?

A: I think in that case, I think we have kind of changed so the new definition in which APs operate, they are things on the same primary channel. Would this be OK?

C: OK.

C: Regarding the definition of DUO, I think the phrasing is a little bit awkward. I suggest moving the “to its associated AP” after the “Control frame.”

A: OK. I can do that.

C: In the NPCA definition, you have this one needs to remove, right?

A: Exactly.

* + [11-25/0633r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0633-01-00bn-joint-pdt-cr-trigger-frame-format-part-2.docx): Joint PDT CR Trigger Frame Format Part 3 Alice Chen [93C SP]

C: This addition, “which is always present”, seem not to be normative.

A: OK. I can accommodate that.

C: You seem to be changing the behavior of an EHT AP, but that is not correct. I think you are changing the behavior of a UHR AP but not of an EHT AP.

A: My understanding is UHR includes both EHT and UHR an future AP.

C: That is confusing. If you want to do it this way, you should say a non-UHR EHT AP and then keep the existing wording.

C: The commenter is correct. We keep the wording for EHT AP and then specify that except for a UHR AP that set bit 60 as defined.

A: A UHR AP still sets bit 60 to one. And then we added one new sentence.

C: The next question is why do we need this? What are we trying to say through this note?

A: The note gives the default values for those reserved fields.

C: We have normative text that already gives the value for those fiends. Why do we need this note?

A: We can move the sentences to the normative text to describe the values of those fields.

C: When we did for the EHT variant, somebody asked for clarification to say that these are set to one in the EHT variant Common Info field.

C: Some other points, you had the expression of “is not be set”. I don’t know what that means.

A: We probably have been revising this sentence back and forth.

C: I am confused about IFCS absent bit. Does this only appear in UHR variant or it cannot also be used by EHT, so that would add the new functionality to EHT?

not?

A: We add basically added it to both HE and EHT variants, so that now is present in all variants.

C: But the last line on p.19 says, “A non-UHR STA ignores the value of B60 in the Common Info field.” That seems to be a bit of a contradiction.

A: It was added to the Common Info field, but it’s only to serve the UHR non-AP STAs because non-UHR STAs don’t know how to interpret this.

C: But if it is added to the EHT variant, ultimately it is going to be a part of a common standard. An EHT STA that is upgraded to that version can also use it. Isn’t that correct?

A: The intention is as follows. For example, a UHR AP that sends an EHT variant trigger frame to one EHT STA and one UHR STA. And for the UHR STA, it includes the intermediate FCS. And for the purpose of EHT STA, that means nothing. The only difference is that the UHR STA will see this intermediate FCS in the frame.

* + **SP:** on [11-25/0657r3](https://mentor.ieee.org/802.11/dcn/25/11-25-0657-03-00bn-cr-for-clause-3-2-part-2.doc)

Do you agree to incorporate the CRs proposed for the following CIDs as contained [11-25/0657r3](https://mentor.ieee.org/802.11/dcn/25/11-25-0657-03-00bn-cr-for-clause-3-2-part-2.doc) into the next 11bn draft:

* + - 870 1453 1454 1456 1457 1492 1744 2655 2658 2659 2812 2813 2830 2839 2840 3157 3613 3817

**Result: No objection.**

* Technical Submissions – CBF (15 mins each):
  + [11-24/2060r1](https://mentor.ieee.org/802.11/dcn/24/11-24-2060-01-00bn-csr-cobf-protocol-design.pptx): CSR/COBF Protocol Design Kosuke Aio (Sony)

C: Do you agree the trigger frame should also be included in case of coordinated beamforming, it should also an instruction by the sharing AP to the shared AP about the allowed bandwidth and the number of spatial streams that the shared AP can use in the downlink PPDU?

A: I agree with that the sharing AP can indicate some parameters. But I need to check the current discussion.

C: In slide 3, your idea is that we may need to a new trigger frame type in order to have this Co-BF or Co-SR trigger frame proceeding that only if you can use. I mean whether we can reuse some of the already existing trigger frame types or trigger frame variants or reuse some of the reserved bit.

A: My motivation is to achieve some flexibility. I think we can use the current design to utilize some reserved bits in some field and to indicate new information for spatial reuse. However, these two explain a new concept. We need to discuss more about this point.

* + [11-24/2124r1](https://mentor.ieee.org/802.11/dcn/24/11-24-2124-01-00bn-frame-sequence-for-csr-and-cbf.pptx): Frame-Sequence-for-CSR-and-CBF Jason Yuchen Guo (Huawei)

C: Regarding your option 2 (p.13), the AP2 does not hear ICF1 and ICR1. Then the alternative is to signify the duration and then it can after the duration has passed, then it will transmit ICF2. But if AP2 does not hear ICF1/ICR1, then other stations in BSS2 do not hear. So, the medium might be busy at the AP2, and it will not be able to transmit ICF2 on time.

A: The ICF1 should be OK because it is transmitted by AP1. The AP2 should be able to listen to AP1. But for the STA1, it may be hidden to the station AP2 sometimes.

C: There is also a risk. And there is also a risk during ICR1 that some stations in the BSS of the AP2 will try to transmit something to AP2, and then the AP2 will become occupied and unavailable to transmit ICF2.

A: This can be avoided by the NAV in the CBF response.

C: In p.6, regarding the Issue 1, 2, and 4, that is basically are almost identical. The AP1 might not be able to decode the frames sent by the station of the other AP, and assuming that, we have reached the transmission sequence, this means that the sounding sequence has already been done. The sounding sequence inherently assumes that t a mixed this assumption basically that each AP is collecting the CSI from the other AP’s station. Issue four is just similar. Each AP is going to parse frames from the other AP station. We already have the spec text in D0.2. In Issue 3, even if one of the stations is missing or doesn’t respond with ICR, it can still be included. And the other AP is thinking that it's there and it will, you know, do the nulling with respect to the station without any harm in that, you know, in that, like in the rest of the Co-BF operation. Issue number five, as we discussed for issue one, two and four, based on the assumption, you can always assume that the sharing AP can still have some level of control and can recover the medium. I don't see any strong need for this kind of, like explicit grant. Issue six is not like a big deal, and we can just get over this.

A: For Issues 1, 2 and 4, in the sounding, the AP is required to over here the STA is feedback from the other AP. But it doesn't mean that it's always successful even in that sounding sequence increases the successful probability to overhear. So, I think there is the same problem in the transmission phase. If we still rely on overhearing, we should also provide some scheme to increase the successful rate. Option 2 will provide some duration, which can just enhance the reliability a little bit based on the overhearing assumption. And regarding the Issue 3, even if you do nulling to a station that does not exist in the Co-BF transmission, there's no harm. If you do nulling to something that does not exist, it will just make your transmission not optimized. That will bring some negative effect to the performing algorithm. And for Issue 5, it's a kind of robustness reliability.

C: Regarding option 1, we are adding so much overhead based on TXOP sharing which is not really needed. Only in that case, this TXOP sharing framework makes more sense. But just to have like the ICF/ICR frame exchange and that shared, AP, it doesn't really justify all of the overhead that we are adding here. Also, changing the order of the ICF/ICR frame exchanges, it's basically a little bit problematic. The DPS stations have to be instructed to stay away using an extended timeout period. With this proposal, the sequence necessitates that these stations are going to stay on this awake state for much longer.

A: Regarding the overhead, I think the frames are more or less the same. If you remove the CTS, remove this ACK, basically you can remove to if you want to optimize, then the number of frames is exactly the same. And for the time you stay awake, that's not a very long time.

C: In Slide 13, is your main concern that the ICR1 might not be decodable by the AP2 and therefore the AP2 doesn’t know when to start the transmission?

A: Yes.

C: In the ICF1, we have uplink length field. If we assume the AP2 can hear the AP1, we can roughly estimate how long ICR1 will be. That approach will require the AP2 to overhear AP1, the ICR1 all the time. That is why I want to clarify you want to move the signal explicitly between the first two frames. Is it really making the decoding easier?

A: Yes.

C: On the Co-SR sequence, where after the trigger, you have two ICFs. I want to clarify these two ICF1/ICF2. Are those still non-HT transmission and not the trigger-based frames?

A: Yes.

C: I agree with the issues. In slide 8, do you consider ICF/ICR exchange should be mandatory for both coordinated APs?

A: I think it is not mandatory, based on whether the STA is EMLSR or not.

C: In the slide 19, 1st bullet, you proposed invite/response frames whether ICF/ICR in needed for the AP1 and AP2. Do you consider similar information should be notified in this coordinated beamforming invite/response frames?

A: It is also needed for Co-BF.

* + [11-25/0413r0](https://mentor.ieee.org/802.11/dcn/25/11-25-0413-00-00bn-support-for-emlsr-during-cbf.pptx): EMLSR-support-during-CBF Dibakar Das (Intel)

(No Q+A)

* + [11-25/0574r5](https://mentor.ieee.org/802.11/dcn/25/11-25-0574-05-00bn-cobf-sequence-optimization.pptx): CoBF Sequence Optimization Avner Epstein (MaxLinear)

C: You assume 20ms on every before every data PPDU. Do you have any justification for that?

A: From theoretical calculations of bandwidth coherence, approximately after 20ms, the channel is changed in a way that the nulling actually fails without a fresh sounding.

C: I recall many people consider the coherence time as 50ms or more. It is better to have some research based on actual Doppler.

(Q+A was carried over the next joint session.)

* Adjourned at 12:00.

# 2nd Conf. Call: June 2nd, Monday (19:00-21:00 ET) - MAC

* <https://mentor.ieee.org/802.11/dcn/25/11-25-1012-01-00bn-802-11bn-mac-ad-hoc-may-july-minutes.doc>

# 3rd Conf. Call: June 5th, Thursday (10:00-12:00 ET) - MAC

* <https://mentor.ieee.org/802.11/dcn/25/11-25-1012-01-00bn-802-11bn-mac-ad-hoc-may-july-minutes.doc>

# 4th Conf. Call: June 9th, Monday (19:00-21:00 ET) - MAC

* <https://mentor.ieee.org/802.11/dcn/25/11-25-1012-01-00bn-802-11bn-mac-ad-hoc-may-july-minutes.doc>

# 5th Conf. Call: June 12th, Thursday (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.

Nobody spoke/wrote up.

* + 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 the agenda document([11-25/0986r8](https://mentor.ieee.org/802.11/dcn/25/11-25-0986-08-00bn-may-july-tgbn-teleconference-agenda.docx)).

Copyright Policy was presented.

* 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 Wireless Interim/Plenary Session” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn 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](mailto:yusuke.asai@ntt.com)) & Alfred Asterjadhi ([aasterja@qti.qualcomm.com](mailto:aasterja@qti.qualcomm.com))
  + Please ensure that the following information is listed correctly when joining the call:
  + "[voter status] First Name Last Name (Affiliation)"
* Announcements
  + Chair updated the submission queue based on the reconfirmation.
  + PDT/CR submissions are prioritized.
  + Chair requested a presenter to send confirmation e-mail.
* Agenda
  + Chair reviews proposed agenda found in [11-25/0986r8](https://mentor.ieee.org/802.11/dcn/25/11-25-0986-00-00bn-may-july-tgbn-teleconference-agenda.docx).
  + Discussion: None.
  + The modified agenda was approved.
* TGbn Editor’s Reports and POC Status report
  + [11-25/0296r24](https://mentor.ieee.org/802.11/dcn/25/11-25-0296-24-00bn-ieee-802-11bn-cc50-comments-on-d0-1.xlsx): TGbn Editor Report and spreadsheet Ross J. Yu (Huawei)
    - The editor asked to check the current status of the comment resolution.
    - The editor explained the update of the spreadsheet from [r23](https://mentor.ieee.org/802.11/dcn/25/11-25-0296-23-00bn-ieee-802-11bn-cc50-comments-on-d0-1.xlsx) to [r24](https://mentor.ieee.org/802.11/dcn/25/11-25-0296-24-00bn-ieee-802-11bn-cc50-comments-on-d0-1.xlsx) and some reminder information.
    - 199 CIDs for PHY and 2057 CIDs for MAC were not resolved yet.
    - The editor reminds PoC people to resolve 155 TBDs.

C: Some of the resolutions were missed.

(Chair reminded the POC people to inform the DCN that will resolve TBDs.)

* PDT/CR Submissions (1 hour):
  + [11-25/0633r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0633-02-00bn-joint-pdt-cr-trigger-frame-format-part-2.docx): Joint PDT CR Trigger Frame Format Part 2

Alice Chen (Qualcomm) [93C SP]

(No Q+A)

**SP:** Do you agree incorporate the CRs proposed for the

11, 12, 13, 14, 15, 59, 60, 112, 281, 282, 365, 366, 367, 407, 552, 553, 554, 555, 556, 614, 815, 1196, 1197, 1198, 1199, 1268, 1317, 1569, 1606, 1607, 1608, 1729, 1986, 2085, 2086, 2087, 2088, 2089, 2090, 2341, 2343, 2663, 2664, 2808, 2881, 2882, 2883, 2884, 2885, 2886, 2887, 2888, 2889, 2890, 2891, 2892, 2893, 2895, 2896, 2897, 2898, 2899, 2900, 2901, 2902, 2903, 3162, 3163, 3206, 3272, 3285, 3286, 3287, 3475, 3476, 3477, 3632, 3634, 3636, 3637, 3638, 3639, 3640, 3641, 3642, 3724, 3836 in 11-25/0633r2 [87 CIDs]

* + - Discussion: None.

**No objection.**

(Chair announced that the SPs from MAC ad-hoc are put in Joint call streamlined manner.)

* + [11-25/0905r3](https://mentor.ieee.org/802.11/dcn/25/11-25-0905-03-00bn-cc50-cr-for-subclause-37-12.docx): CC50 CR for subclause 37.12 Kumail Haider (Meta) [5C SP]

Deferred. (The author was not present.)

* + [11-25/0707r6](https://mentor.ieee.org/802.11/dcn/25/11-25-0707-06-00bn-cc50-cr-for-clause-6-part-2.docx): CC50 CR for clause 6 part 2 Yan Li (ZTE) [11C]

C: Is the figure for Over the DS for multi-AP?

A: Yes.

C: My understanding of the DS is specifically defined for the APs in the same ESS. But for multi-AP, I don’t think you limited things to just in the same ESS. What do you intend to do? I don’t think that is defined for the AP for different ESSs, but I think for multi-AP.

A: I don’t have strong opinion on same ESS and different ESS. This idea is just from the commenter.

C: I think this is a step in the right direction, but out of band will be better than over the DS.

C: In the page 6, I think this part is still under some discussion about beacon optimization. Could you please leave this part TBD?

A: I think we don’t get any agreement on the beacon frame should carry it.

C: Please leave this TBD and resolve by July F2F.

C: What are the relevant CIDs?

A: CIDs 142 and 143.

A: I guess another person is working on another subclause. Please make sure that there is no conflicts between the resolutions.

**SP:** Do you agree to incorporate the CRs proposed for the following CIDs as conducted in [11-25/0707r7](https://mentor.ieee.org/802.11/dcn/25/11-25-0707-07-00bn-cc50-cr-for-clause-6-part-2.docx) into the next 11bn draft?

* + - 1383, 2854, 2855, 2856, 2857, 2858, 2847, 2849, 2851

Note: Author will remove the figure and bring it back as part of a separate contribution.

* + - Discussion: None.

**Result: No objection.**

* + [11-25/0852r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0852-02-00bn-cc50-cr-for-mib.docx): CC50 CR for MIB Yan Li (ZTE) [12C]

(No Q+A)

**SP:** Do you agree to incorporate the CRs proposed for the following CIDs as conducted in [11-25/0852r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0852-02-00bn-cc50-cr-for-mib.docx) into the next 11bn draft?

* + - 362, 363, 396, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019
    - Discussion: None.

**Result: No objection.**

* + [11-25/0766r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0766-01-00bn-pdt-mac-and-cr-coordinated-spatial-reuse-protocol.docx): PDT MAC and CR Coordinated SR Protocol Jason Guo (Huawei) [13C]

C: I commented on this proposal but still have some concerns. Please postpone the SP.

A: OK.

C: Regarding the Co-SR negotiation, you should include one MAPC scheme request field and which includes the following information. Now I wonder, do you want to define, maybe in the container? We provision two containers, one is MAPC scheme parameter set. That would include the parameters of the AP and then the MAPC request parameter set, which rather includes the parameters for the agreement. So, I suggest that maybe you determine whether these parameters fall into the first or the second category and basically add the format for that container in the Co-SR profile.

C: We are still in discussion and please defer the SP.

C: This minimum power requirement is better to be reported in a dynamic way. Because it will change depending on the requirements of the scheduled station. You can just update it dynamically during that like the initial endpoint response frames. Having this same information reported in two different at two different times is a little bit confusing to me. We have a motion mentioning this, but also to my understanding that this motion was crafted when we didn't have the limitation that we only have one coordinated AP. After having a single coordinated AP, I don't see a strict requirement for that. We can just use an individual addressed trigger frame for the Co-SR trigger frame. We need some time to discuss this to find the best way.

A: Let’s discuss it offline.

C: The AID 12 field is assigned by the coordinated special reuse coordinating AP during the MAPC agreement established procedure. Do you assume that we already have the coordinating AP during this negotiation part, or you only have MAPC requesting and responding?

A: During the negotiation, we only have requesting and responding. There was a precondition that the two APs already established the Co-SR agreement. During the setup phase, either of them could be the requesting AP or responding AP. But we don’t know which one is the requesting AP.

C: When you establish the agreement, you already have sone APs as coordinating AP, another as coordinating AP. Is this correct?

A: No. The AP that obtains TXOP is the coordinating AP.

* + [11-25/0781r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0781-01-00bn-cc50-editorial-comments-part-3.docx): CC50 editorial comments part 3 Ross Jian Yu (Huawei Technologies) [6C]

(No Q+A)

**SP:** Do you agree to incorporate the CRs proposed for these CIDs contained in [11-25/781r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0781-01-00bn-cc50-editorial-comments-part-3.docx) into the next 11bn draft?

* + - 184, 399, 1329, 2860, 2923, 3544
    - Discussion: None.

**Result: No objection.**

(Chair proposed to add [11-25/0905r3](https://mentor.ieee.org/802.11/dcn/25/11-25-0905-03-00bn-cc50-cr-for-subclause-37-12.docx) to the agenda again because of the appearance of the presenter. There was no objection.)

* + [11-25/0905r3](https://mentor.ieee.org/802.11/dcn/25/11-25-0905-03-00bn-cc50-cr-for-subclause-37-12.docx): CC50 CR for subclause 37.12 Kumail Haider [5C SP]

(No Q+A)

**SP:** Do you agree to incorporate the CRs proposed for these CIDs contained in [11-25/905r3](https://mentor.ieee.org/802.11/dcn/25/11-25-0905-03-00bn-cc50-cr-for-subclause-37-12.docx) into the next 11bn draft?

* + - 2169, 2170, 2171
    - Discussion: None.

**Result: No objection.**

* Technical Submissions – CBF (15 mins each):
  + [11-25/0574r5](https://mentor.ieee.org/802.11/dcn/25/11-25-0574-05-00bn-cobf-sequence-optimization.pptx): CoBF Sequence Optimization Avner Epstein (cont.)

C: In slide 19, according to motion 309, I understand that joint sounding feedback cannot be used for UL MU-MIMO. If the number of sounded STAs more than one, do you need to consider this to make your proposal?

A: As far as my understanding, joint sounding is mandatory when we require partial nulling. In case there are stations with the two antennas, the total of four spatial streams then we would need joint sounding. I made a comparison of all the options. In some cases, a joint sounding is not allowed or not applicable, or maybe sequential is not applicable because of the number of antennas, then it shall not be used. I'm just trying to highlight the fact that with the current sequence definition, when each sounding is doubled, then we the overhead is so large, then we have no gain.

C: In the slide 15, I understand a STA needs to overhear the ICF from the OBSS AP. How does the AP2 feedback the STA2 to overhear the ICF from AP1?

A: The idea is that when AP2 signs a MAPC agreement with AP1 for coordination, then it should instruct its stations to receive and to respond broadcast trigger frame or control frame. When the AP2 stations receive the ICF, it’s a broadcast control frame. So, they recognize the MAC address of the AP1 and they understand that they should respond.

C: That means AP2 needs to overhear the broadcast frames from OBSS APs and based on the BSSs and to determine if the ICF should decode?

A: Yes.

* + [11-25/0655r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0655-01-00bn-user-selection-for-co-bf-co-sr-based-on-obss-rssi-measurements.pptx): User Selection for Co-BF/Co-SR based on OBSS RSSI Measurements

Yongsen Ma (Samsung)

C: IEEE 802.11 standard already has a measurement feature, which an AP requests stations to measure OBSS signal and report, such as RSSI, noise floor, beacon SSID and so on. What do you think about the change from the current spec?

A: The slide 6 summarize it. AP can send a beacon request to the AP stations, then the AP station may report the OBSS RSSI measurements element. But it is not very efficient because AP does not know the prior information about which stations have a higher or lower OBSS RSSI. But if the non-AP can passively monitor the beacon from OBSS AP, then the non-AP has more information about the OBSSs and the AP can initiate this report not waiting.

C: In slide 7, do you intend to allow the STA to do either of the two options?

A: Our main focus is option 1. Option 2 is still open to discussions. If during the sounding phase or during transmission , certain AP feels that it is not good to continue to participate, the NAV can reject.

C: This is a good direction. When the client can send data, obviously it still needs to be in a session with the AP. The AP sends a beacon request with some reporting condition that can be tuned, as per your discussion for this use case.

* + [11-25/0694r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0694-01-00bn-uhr-ofdma-sounding-limitations.pptx): UHR OFDMA Sounding Limitations Avner Epstein (MaxLinear)

C: If I send the full channel, then I just use the whatever 20 MHz, what is the problem?

A: If we have dynamic puncturing, we already are aware that this channel is punctured. But this is like a dynamic interference, a busy CCA, and if we want to transmit partial bandwidth and MU-MIMO, then sounding must be included within the same TXOP because of the coherence time of MU-MIMO sounding.

C: If you just don't use the CSI feedback in the punctured, then everything works.

A: No, the problem is in the NDP.

C: My point is sound extra. You always sound extra for you to use a subset.

A: You cannot because you cannot use this subchannel. Because it has a busy CCA. If you transmit a downlink OFDMA, then there's no problem puncturing it. But NDP is not a non-OFDMA PPDU. So, you cannot transmit such NDP with, with this sub channel punctured.

C: The group already determined for UHR to reuse the EHT based sounding process, especially for this SU/MU, this kind of traditional optional mode. I don’t think it is a good idea at this stage to try to introduce another style of the NDP.

* + [11-25/0745r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0745-01-00bn-csi-open-issues-in-cbf.pptx): CSI open issues in CBF Okan Mutgan (Nokia)

(Presentation was conducted. Q+A session was scheduled for the next joint conference call.):

* AoB: None.
* Adjourned at 11:59.

# 6th Conf. Call: June 16th, Monday (19:00-21:00 ET) - MAC

* <https://mentor.ieee.org/802.11/dcn/25/11-25-1012-01-00bn-802-11bn-mac-ad-hoc-may-july-minutes.doc>

# 7th Conf. Call: June 19th, Thursday (10:00-12:00 ET) - MAC

* <https://mentor.ieee.org/802.11/dcn/25/11-25-1012-01-00bn-802-11bn-mac-ad-hoc-may-july-minutes.doc>

# 8th Conf. Call: June 23rd, Monday (19:00-21:00 ET) - MAC

* <https://mentor.ieee.org/802.11/dcn/25/11-25-1012-01-00bn-802-11bn-mac-ad-hoc-may-july-minutes.doc>

# 9th Conf. Call: June 26th, Thursday (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.

Nobody spoke/wrote up.

* + 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 the agenda document([11-25/0986r14](https://mentor.ieee.org/802.11/dcn/25/11-25-0986-14-00bn-may-july-tgbn-teleconference-agenda.docx)).

Copyright Policy was presented.

* 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 Wireless Interim/Plenary Session” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn 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](mailto:yusuke.asai@ntt.com)) & Alfred Asterjadhi ([aasterja@qti.qualcomm.com](mailto:aasterja@qti.qualcomm.com))
  + Please ensure that the following information is listed correctly when joining the call:
  + "[voter status] First Name Last Name (Affiliation)"
* Announcements: None.
* Agenda
  + Chair reviews proposed agenda found in [11-25/0986r14](https://mentor.ieee.org/802.11/dcn/25/11-25-0986-14-00bn-may-july-tgbn-teleconference-agenda.docx).
  + Discussion:

C: [11-25/0379r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0379-01-00bn-considerations-on-uhr-sounding-operation.pptx) is at the bottom of the agenda. It is related to Co-BF. I think it would be better to have before the SPs for Co-BF.

A: Let’s try to do that. In general, please make sure when you send me a request and the chair edits to the queues that the chair sends an acknowledgement in the next revision of the agenda to verify where it's located.

C: Can you just assure us that we are going to have enough time to run straw polls? Many of these are queued for almost four months now.

A: We'll make the best of our efforts to allocate the agenda time as appropriate.

* + The agenda was approved.
* PDT/CR Submissions – part 1:
  + [11-25/0768r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0768-01-00bn-pdt-mac-and-cr-coordinated-beamforming-protocol.docx): PDT MAC and CR Coordinated Beamforming Protocol Jason Guo (Huawei Technologies) [7C]

C: I think we should have a similar MAP variable for the station as well. Whether the student supports this new PPDU type, EMLSR station also needs to support other features, like the extended time out, etc. At this stage, unless you have agreed in the group already, we should probably keep it safe and just implement a variable for the station. I think we should keep it general and then see which features should be mandatory or optional.

A: OK.

C: In 37.8.2.1.1, on the third line, you have the other APs recipients STAs. Does this mean STAs associated with the other AP or something special?

A: It is the STAs associated with the other AP and they are the intended receiver of the Co-BF transmission.

C: I think you need to say that to make it clear. In the second paragraph, you refer to a Co-BF PPDU. What is that defined?

A: It should be Co-BF transmission. I deleted all the Co-BF PPDUs, but some of them were missing.

C: In the second paragraph, what is a Co-BF profile? Is that an element or field?

A: It’s defined in the MAPC general framework.

C: I understand the part of the element defines a profile. In 7.8.2.1.3, is the information about the Co-BF already in Clause 9? What are you adding here?

A: We have not finalized the frame format.

C: You must define that in Clause 9 and should not stick it in this clause. If the Co-BF coordinated AP accepts the Co-BF invite, then you include the following information. What happens if it doesn’t accept?

A: This is still TBD. There is no motion for that.

C: What does extra LTF mean?

A: The coordinate AP will tell the coordinating AP whether it can indicate more LTF in the Co-BF transmission.

C: The sentence would be something like whether the coordinated AP allows the coordinating AP to use extra LTF or something like that. Because just talking about other extra LTF isn't clear. And the MCS and the two times LDPC, they seem to be in the response frame, but not in the other frame? Why not?

A: This was decided in the PHY group. Could someone in the PHY explain why these two parameters, MCS and 2xLDPC, are only needed in the response frame, not needed in invite fame?

(Chair asked the presenter to take notes on the questions and double check with PHY members and send that response to the reflector.)

C: There is a duplication of clause 9, so it should not be here. “The order is aligned with that of Co-BF invite frame”, I am not sure what aligned means. Do you man that the order is the same as in Co-BF invite frame?

A: Yes, the same.

C: I am not sure what precorrection means.

A: I think “the order is the same” is clear rather than “aligned.”

C: “Precorrection” in the last paragraph is not clear.

A: I think adjustment is better.

* Technical Submissions and SPs CBF:
  + [11-25/0745r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0745-01-00bn-csi-open-issues-in-cbf.pptx): CSI open issues in CBF Okan Mutgan (Nokia)

(Continued with Q&A)

C: Do you have a preference between options 1 and 2?

A: Option 1 is the preferred, but this requires defining a new frame probably.

C: For option 2, how does the AP know where AP1 knows whether to wait for the ACK or not?

A: That is an open point. We must explicitly state that AP1 wats for an ACK after SIFS plus the CSI or something like that. We should put a requirement to the AP1 when to receive this ACK.

* + [11-25/0879r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx): CoBF Signaling Details Sherief Helwa (Qualcomm Inc.)

C: Regarding single versus multiple TXOP, in the slide 5, I see two TXOP on the left and right sides. Do you think this can be the first TXOP can be divided into two TXOPs?

A: Yes. but that is out of scope question. If you split it into two different TXOP, then you are saying that the in-BSS CSI collection is going to be done in a separate TXOPs. This is nothing other than legacy sounding. We are focusing on all variants for sounding.

C: In the slide 7, how can the shared AP know the time of ACK transmission? Do you assume that the shared AP can receive the ICF or ICR from the STA1 always?

A: There are two ways to achieve this goal. First, the ICR itself can be heard and decoded by the other AP. This is a valid assumption because in CoBF, we already assume that both APs can hear each other. Second, each AP can decode the ICF and decode the uplink length field in that ICF in order to understand how long the ICR will be and when exactly to send the other ICF or the Co-BF trigger right after that ICR.

C: Regarding the second point, is the ICF Is it broadcasted or individually addressed?

A: This is a new frame sequence. We are open to the expectation that the AP is going to have slightly different behavior, so it might monitor something that is not directly addressed just because the two APs understand very well that they are Co-BF operation.

C: [11-24/2124r2](https://mentor.ieee.org/802.11/dcn/24/11-24-2124-02-00bn-frame-sequence-for-csr-and-cbf.pptx) pointed out a lot of issues regarding the Co-BF transmission sequence. In slide 9, you define the silent period as the extra duration. Do you mean that it includes the exact duration for each of the ICF?

A: It requests for the stations to stay awake before it triggers a switch back to low capability mode for DPS or listen mode for EMLSR.

C: Why don’t you have one maximum value for all the ICF exchanges?

A: Because you want it to be dynamic as much as possible. Using the maximum all the time causes overhead.

* + [11-25/0379r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0379-01-00bn-considerations-on-uhr-sounding-operation.pptx): Considerations on UHR Sounding Operation Leonardo Lanante (Ofinno)

C: In slide 8, the AP2 receives CSI report after CSI reception report. How can the AP2 know the timing of the end of the compressed beamforming/CQI frame?

A: AP2 receives the BFRP trigger frame, and it knows the duration of this compressed beamforming/CQI. If that duration is terminated and there is no more transmission from the AP1, it can transmit this CSI reception error in its own TXOP.

C: When the AP2 can receives compressed beamforming successfully, is this frame skipped or sent every time?

A: If you don’t define a timeout, probably the AP2 should send this report even for successful receptions.

C: In SP1, what do you mean by the truncate?

A: What I mean here is that, before OBSS transmission can happen, the AP1 and the AP2 should initiate their own sounding sequences. If the AP1 accomplished sounding, and the AP2 cannot do the same within some duration, the sounding sequence may be no longer valid.

C: I think as a current data already allows that case.

A: I am not sure if it is already allowed but if it is allowed, we don’t have.

* Straw Polls on CBF
  + **SP1:** (Kaying):

Do you support that Co-BF and Co-SR transmission TXOP shall follow the same frame exchange sequence framework?

Co-SR does not need to support EHT eMLSR non-AP STA

Supporting document: ??

(There was a request to defer the SP.)

**Result: Deferred.**

* + **SP2:** (Sherief):

Do you agree to use the following CoBF transmission sequence to support STAs requiring ICF/ICR before data frame exchanges, wherein the frame sequence consists of:

* + - A CoBF Invite/CoBF Response frame exchange between the sharing and shared APs.
    - Follows ICF/ICR frame exchanges between the APs and their associated STAs happening sequentially across the two APs; sharing AP then shared AP.
    - The presence of the ICF/ICR frame exchange from each AP is conditional on the CoBF PPDU being addressed to one or more eMLSR/DPS STA(s).
    - The presence of the ICF/ICR frame exchange from each AP is indicated in the CoBF Invite/Response frames.
    - ICF1-ICR1 are exchanged between the sharing AP and its STAs (if needed)
    - ICF2-ICR2 are exchanged between the shared AP and its STAs (if needed)
    - Finally, a CoBF Trigger frame preceding the data PPDUs sent by the two APs simultaneously.
    - Frame sequence for Ack information polling for COBF transmissions is TBD.

Whether the CBF-invite and ICF1 can be merged and/or CBF-response and ICF2 can be merged as below is TBD.

Whether the duration of the ICF/ICR frame exchange (if needed) from each AP is indicated in the CoBF Invite/Response frames is TBD.ダイアグラム が含まれている画像

AI 生成コンテンツは誤りを含む可能性があります。

Supporting document: [25/412, 25/879]

* + - Discussion:

C: I have some concerns. Many details are still missing, which may impact its suitability. The concept of overhearing, it is not reliable all the time. We still have some problems related to this overhearing in the sounding. And we don’t want these problems to be exist again during the transmission phase. That is why we prefer to have some explicit timing indication.

A: This SP is very friendly to the amendment that you are supposed that you are proposing here. I get the sense that what you are just saying is we can add an amendment in the future to this to indicate how the timing information can be indicated. I'm fully open to this discussion. Obviously, this is the very first SP. It's just the foundational SP on top of which we can build in the future.

C: For the presence of ICF/ICR, there is a condition under PPDU being addressed to one or more STAs. But you mentioned it depends on whether eMLSR and DPS is supported by this recipient. It makes more sense if they explicitly say this depends on the eMLSR and DPS supporting.

A: You are right. That is most likely a typo. It should be addressed to one or more eMLSR/DPS STA.

C: I think many people mentioned the issue that each AP may have some risk not to decode the ICR form the other AP successfully. I strongly recommend that you add some signaling in the invite response.

A: This is a friendly amendment to the SP, just having something to start with the foundation to build on top of it. I am not fully opposed to the idea of having these signaling.

C: Here is a frame sequence for ACK information policy TBD. Is that for the Co-BF PPDU, the ACK for the Co-BF PPDU?

A: This is going to be the next SP.

C: Can you clarify that after some information following for Co-BF for PPDU is TBD?

A: I am not going to discuss this. the exact sequence for the ACK. The SP3 addresses that.

C: If we support the STA does not need to the ICF/ICR. Do we define the new procedure? In addition, why do we consider the original CPF invite and ICF one?

A: I personally agree with this opinion. But there was also some offline discussion suggesting that for better efficiency, the ICF can be on the sharing AP can be combined with the invites.

C: You are proposing is targeting the required IF/ICR, if the STA does not need other ICF/ICR, we need to define the new procedure.

( “if needed” was added to the third and fourth sub-bullet based on the suggestion.)

C: I agree with the order of the frames. But regarding the timing recovery, I think we need to discuss more about these points.

A: As the last note added to the original SP says, the duration of ICR/ICF to be indicated or not is TBD.

C: How can the shared AP know without implication of to the duration of ICF/ICR?

C: I echo the previous comment, when one of the ICR solicited stations whether by the sharing AP or by the shared AP does not respond, how does this sequence overcome about this issue? Our past submission does not have any issue.

A: The suggestion was to have the same signaling with the same exact wording. What I am saying is that your concerns or comments were not discussed. There was some discussion offline about this. So, we are adding it as TBD.

A: Even if this suggestion is going to be agreed, it can just build on top of this SP.

C: I am speaking in favor of this SP. This is the most basic SP that requires transferring any amount of data using Co-BF. It is a sequence, not frame contents. There are many pieces of information that are needed. To everybody else who has those concerns, please agree to this basic SP and then move forward.

(A recording SP was requested.)

**Recorded Result: 65Y, 42N, 35A.**

(Chair asked double check with the members that express this preference of duration of ICF, ICR, and see if there can be some progress on that part.)

* + **SP3** (Sherief):

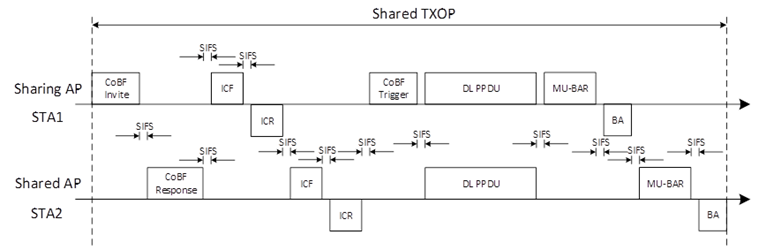
Do you agree to use the following sequence for acknowledgement information polling from STAs scheduled in a CoBF transmission sequence?

* + - (MU-)BAR/BA frame exchanges are used by each AP separately, i.e., sequentially.

NOTE1: The first MU-BAR frame (transmitted by the sharing AP) can be replaced with a basic trigger that is aggregated with the DL PPDU as in baseline.

NOTE2: The frame sequence for eliciting simultaneous ACKs from clients of both sharing and shared APs if agreed in PHY is TBD.

NOTE: TBD who sends the first BAR.



NOTE – This SP only covers the acknowledgment sequence.

Supporting document: [[25/412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [25/879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx), [25/0690](https://mentor.ieee.org/802.11/dcn/25/11-25-0690-00-00bn-thoughts-on-ack-policy-in-map-co-transmission.pptx)]

* + - Discussion:

C: We need explicit indication for the duration of the MU-BAR and the BA to be explicitly indicated in the sync frame to allow the shared AP to know when it can start its MU BAR.

(Chair confirmed that this SP is only for the ACK sequence, not the contents of anything else. The presenter agreed on that. Chair added the note “NOTE – This SP only covers the acknowledgment sequence.” to the original SP text.)

C: Here in the transmitted after the trigger is usually SU PPDU or considering the MU PPDU. Why do we use the MU-BAR instead of BAR?

A: It can be BAR or MU-BAR. I just didn’t want to add two figures covering it.

C: Do you think it is possible that the shared AP transmits a BAR first and the sharing AP transmits a MU-BAR?

A: It makes sense for the sharing AP to go first. It is the owner and the controller of the TXOP. What is the motivation for the shared AP to go first?

C: Maybe the shared AP has some low-latency traffic.

A: I think low-latency traffic is kind of like out of the scope of this. Low-latency traffic has other mechanisms to be addressed.

C: Why does the sharing AP need to send MU-BAR? I think it is OK for the sharing AP to set immediate ACK only to avoid collisions.

A: I think Note 1 covers your question.

C: Please add [11-25/0690](https://mentor.ieee.org/802.11/dcn/25/11-25-0690-00-00bn-thoughts-on-ack-policy-in-map-co-transmission.pptx) to the supporting documents.

C: This is still under discussion that we have not decided. Can you defer the SP?

A: Note2 covers, I think.

C: I also request a recorded SP.

(Chair suggested to defer the SP.)

**Result: Deferred.**

* + **SP4** (Sherief):

If an eMLSR non-AP MLD that receives an ICF addressed to one of its affiliated STAs during CoBF sequences and if the affiliated STA responds with an ICR, then the eMLSR non-AP MLD shall follow the eMLSR procedure defined in 35.3.17, except that the STA shall use an extended time-out period prior to switching back upon inactivity:

* + - The duration of the extended time-out period shall be sufficient to cover any inactivity period within the COBF sequence, e.g. (but not limited to), from the end of the ICR to the beginning of the data PPDU, or from the DL PPDU until the beginning of the MU-BAR frame from the shared AP for STAs associated with the shared AP
    - The duration of the extended timeout period is explicitly indicated to the STA in the ICF frame sent by its associated AP.
    - Once the eMLSR STA(s) switch back to listen mode, they start using the default time-out period (aSIFSTime + aSlotTime + aRxPHYStartDelay) in future TXOPs unless otherwise indicated in the ICF.
    - This is applicable to CoBF transmission sequence.

Supporting document: [[25/412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [25/879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)]

* + - Discussion

C: Do we really need the duration of extended timeout period to be indicated in the ICF? Because the non-AP STAs can calculate the maximum duration during the period so they can wait.

A: The AP only understands this information about the other AP, what is exactly going to do, whether it is going to send ICF/ICR or not. The AP is only entity to make that estimate. So, it has to calculate.

C: In your original contribution, the maximum time could be calculated.

A: But this ICF/ICR that overlaps with the silent period, which identifies, defines the duration is not always there. Because it is optional. Only the other AP tells the sharing AP whether it is going to send ICF/ICR, so that the sharing AP knows exactly the duration of that silent period.

C: Is this applicable to Co-SR?

A: That covers SP1. I would prefer to just focus on Co-BF. Once the SP1 get consensus, it immediately applies to this one.

**Result: No objection.**

* + **SP5** (Sherief):

For DPS non-AP STA(s) scheduled with CoBF in high capability mode, the same switch-back behavior as for eMLSR with extended time-out period is used

* + - The RTS frame shall not be used as an ICF for DPS in the CoBF Transmission sequence even when the DPS STA does not have any DPS padding required

NOTE: The RTS frame cannot be modified to include the extended timeout period usage and the extended timeout period duration indications.

Supporting document: [[25/412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [25/879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)]

* + - Discussion: None.

**Result: No objection.**

* + **SP6** (Sherief):

Do you agree that an AP shall use the BSRP NTB Trigger frame variant for the Sounding Invite frame

* + - The Sounding Response frame shall be M-BA
    - TBD whether there’s another frame variant allowed for the Sounding Invite/Response frame

Supporting document: [[25/412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [25/879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)]

* + - Discussion

C: Why do we have TBD?

A: We had some other proposals.

C: The SP5 and SP6 are very similar. The SP5 is for sounding and the SP6 is for the transmission phase. Is that correct?

A: Yes.

**Result: No objection.**

* + **SP7** (Sherief):

Do you agree that an AP shall use the BSRP NTB Trigger frame variant for the CoBF Invite frame

* + - The CoBF Response frame shall be M-BA
    - TBD whether there’s another frame variant allowed for the CoBF Invite/Response frame

NOTE: The RTS frame cannot be modified to include the extended timeout period usage and the extended timeout period duration indications.

Supporting document: [[25/412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [25/879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)]

* + - Discussion: None.

**Result: No objection.**

* + **SP8** (Sherief):

Do you support that if a CoBF sounding sequence within a TxOP includes Cross-BSS and In-BSS sounding, then the Cross-BSS sounding portion shall come first?

* + - If In-BSS sounding fails, it can be redone using legacy sounding without any involvement of the other AP

Supporting document: [[25/412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [25/879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)]

* + - Discussion: None.

**Result: Withdrawn (already in PDT).**

* + **SP9** (Sherief):

Do you agree that an AP MLD that receives an ICR from a STA affiliated with an EMLSR non-AP MLD during CBF data frame exchange does not attempt to transmit to the eMLSR non-AP MLD on another link during the extended time-out periods, per baseline behavior.

Supporting document: [[25/412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [25/879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)]

* + - Discussion: None.

**Result: No objection.**

* + **SP10** (Sherief):

Do you support that any CoBF sounding sequence that includes Cross-BSS CSI collection shall be initiated by a two-way handshake between the two APs participating in the sequence

* + - The two-way handshake exchange consists of a Sounding Invite frame and a Sounding Response frame.
    - The Sounding Invite/Response frame exchange is used to:
    - Confirm the availability of both APs for CSI collection.
    - TBD for indication whether each AP will include ICF/ICR exchanges with its client or not.
    - Further information to be exchanged is TBD.

Supporting document: [[25/412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [25/879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx), [25/0492](https://mentor.ieee.org/802.11/dcn/25/11-25-0492-00-00bn-cbf-sounding-sequence-mac-aspects.pptx)]

* + - Discussion:

C: Can you explain briefly what “Confirm the availability of both APs for CSI collection.” means?

A: It is basically sending the invite and getting a response where the response confirms that the AP2 is got tr the responding AP is going to be available and willing to participate in the sound sequence.

C: Please add a supporting doc of [25/0492](https://mentor.ieee.org/802.11/dcn/25/11-25-0492-00-00bn-cbf-sounding-sequence-mac-aspects.pptx).

**Result: No objection.**

* + **SP11** (Sherief):

Do you support that in CBF transmission phase, the Feedback User Info field in the BSRP/MU-RTS Trigger addressed to EMLSR/DPS STA carries the extended timeout period duration?

* + - A new feedback type value is defined for CoBF.
    - An “Extended Timeout Duration” field with a TBD length is included in the Feedback user Info field
    - The duration value is reported with granularity of 4 us.
    - A value 0 of the “Extended Timeout Duration” field is an indication to the STA to follow the default eMLSR/DPS switch back behavior, i.e., do not use an extended timeout period.
    - Whether the field indicates maximum value or actual value is TBD.

Supporting document: [[25/412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [25/879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)]

* + - Discussion:

C: Why shouldn’t we define this field to include the maximum timeout duration? Because this will say for the station what is the maximum duration that intends to wait?

A: For the shared AP, there is another silent period that is taking place after the downlink PPDU. Also, in some cases there could be a chance one AP or the shared the sharing AP might choose to have a second round of downlink PPDUs transmission.

(Chair suggested to add “Whether the field indicates maximum value or actual value is TBD.” and the presenter agreed on that.)

**Result: No objection.**

* + **SP12** (Dibakar):

Do you support to allow non-AP STA to enable/disable CoBF/CoSR operation for the non-AP STA by using 11bn’s feature enabling/disabling procedure (by using Link Reconfiguration Request/Notify frame)

* + - There are restrictions on how often CoBF/CoSR enablement/disablement requests by the non-AP STA can be sent, those restrictions are TBD

Supporting document: [[24/413](https://mentor.ieee.org/802.11/dcn/24/11-24-0413-00-00bn-seamless-roaming-recommendation.pptx)]

*(\* Secretary’s note: The correct DCN seemed to be* [*11-25/0413r0*](https://mentor.ieee.org/802.11/dcn/25/11-25-0413-00-00bn-support-for-emlsr-during-cbf.pptx)*.)*

* + - Discussion: None.

**Result: No objection.**

* + **SP13** (Kosuke):

A Co-BF coordinating AP may indicate an Ack policy of a Co-BF coordinated AP in the Co-BF Trigger frame to avoid Ack collisions.

* + - As well as Co-SR case.

Supporting document: [[24/2060](https://mentor.ieee.org/802.11/dcn/24/11-24-2060-02-00bn-csr-cobf-protocol-design.pptx)]

* + - Discussion: None.

**Result: No objection.**

* AoB: None.
* Adjourned at 12:01.

# 10th Conf. Call: June 30th, Monday (19:00-21:00 ET)

* Split MAC and PHY teleconferences.
  + MAC: <https://mentor.ieee.org/802.11/dcn/25/11-25-1012-01-00bn-802-11bn-mac-ad-hoc-may-july-minutes.doc>
  + PHY: <https://mentor.ieee.org/802.11/dcn/25/11-25-1109-01-00bn-802-11-bn-phy-teleconferences-ad-hoc-minutes-may-july.docx>

# 11th Conf. Call: July 3rd, Thursday (10:00-12:00 ET) - MAC

* <https://mentor.ieee.org/802.11/dcn/25/11-25-1012-01-00bn-802-11bn-mac-ad-hoc-may-july-minutes.doc>

# 12th Conf. Call: July 7th, Monday (19:00-21:00 ET)

* Split MAC and PHY teleconferences.
  + MAC: <https://mentor.ieee.org/802.11/dcn/25/11-25-1012-01-00bn-802-11bn-mac-ad-hoc-may-july-minutes.doc>
  + PHY: <https://mentor.ieee.org/802.11/dcn/25/11-25-1109-01-00bn-802-11-bn-phy-teleconferences-ad-hoc-minutes-may-july.docx>

# 13th Conf. Call: July 10th, Thursday (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.

Nobody spoke/wrote up.

* + 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 the agenda document([11-25/0986r19](https://mentor.ieee.org/802.11/dcn/25/11-25-0986-19-00bn-may-july-tgbn-teleconference-agenda.docx)).

Copyright Policy was presented.

* 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 Wireless Interim/Plenary Session” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn 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](mailto:yusuke.asai@ntt.com)) & Alfred Asterjadhi ([aasterja@qti.qualcomm.com](mailto:aasterja@qti.qualcomm.com))
  + Please ensure that the following information is listed correctly when joining the call:
  + "[voter status] First Name Last Name (Affiliation)"
* Agenda
  + Chair reviews proposed agenda found in [11-25/0986r19](https://mentor.ieee.org/802.11/dcn/25/11-25-0986-19-00bn-may-july-tgbn-teleconference-agenda.docx).
  + Discussion: None.
  + The agenda was approved by unanimous consent.
* Announcement
  + In preparation for the PHY/MAC (hybrid) ad-hoc, 23-25 July, 2025, in Finland
    - Deadline for sending in-person attendance registration requests is today, **July 10th, 2025.**
    - Please sent submissions requests (PDTs, and CRs) by July 17th, 2025.
      * Priority will be given to PDTs, and CRs.
    - Technical submission requests can follow the usual procedure
      * At will and added in corresponding locations in the queues.
      * Lesser priority compared to PDTs and CRs.
    - SP requests (that aid in reaching consensus on items related to PDT/CRs)
      * Outcome of these should be actual proposed changes to the draft in the form of PDTs/CRs
    - SP requests (for inclusion of concepts to the TGbn SFD)
      * While still possible please be mindful that we are in draft phase
    - POCs: Please ensure that all explicit TBDs in the draft are being resolved (refer to [Tracking of TBDs in TGbn D0.3](https://mentor.ieee.org/802.11/dcn/25/11-25-0986-20-00bn-may-july-tgbn-teleconference-agenda.docx).) and provide updates to those entries (if any).
* PDT/CR Submissions – part 1:
  + [11-25/0942r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0942-01-00bn-mac-pdt-37-8-2-1-cobf.docx): MAC-PDT-CR-37\_8\_2\_1-CoBF Sherief Helwa (Qualcomm) [7C]

C: In 9.4.2.aa3, the CoBF prifile, the field indicates whether the AP supports the use of two times, LTF and something Gi. We don't say what the settings of the field are. You need to define what zero and one mean.

A: The data PPDU transmitted within the transmission sequence between each AP.

C: What is the data PPDU?

A: Any two PPDUs.

C: In the second paragraph of 37.8.2.1.3, Co-BF, transmission phase, the ICF/ICR frame exchanges may be done sequentially. Does this tell that they may be done sequentially or they may be done in parallel?

A: This is a little bit of loose language. Once we finalize and conclude the offline discussions, I will use some stricter language.

C: Please put TBD, because “may” has a very specific meaning. If you say “may”, it means optional behavior.

C: At the top of 9.4.2aa, you refer to a MAPC scheme type field. But I cannot see MAPC scheme. It might be better where the field is defined.

A: It is already included in 9.42.1. There is one value defined already for Co-BF.

C: It might be better to give a reference where it is defined.

A: OK. I will add the table number (9.3.4.9) and the subclause number.

C: What does the report with a granularity of 4 us means?

A: The report is in units of 4 us.

C: On this Co-BF profile section, 2xLTF + 0.8 us, I think it needs to be followed by for this Co-BF pair.

A: In the Co-BF, the AP that is operating Co-BF can enable this or support this for one Co-BF agreement. This is the PHY parameter.

C: Is the concept of Co-BF pair defined somewhere, what is the Co-BF pair?

A: We can double check if it is clearly defined in the MAPC agreement establishment subclause or not.

C: General comment: the instruction to the editor is not that clear. The tracked mode seems to be the changes between r1 and r0, but not changes based on D0.3. The whole paragraph should be a newly added paragraph.

C: When I look at Co-BF PDT document, it contains also some text related to the setting rules of operation field of each frame of Co-BF sounding, invite frame and response frame. But I don’t see any rules in this document. Do you consider it in this document or prepare that another document?

A: Obviously, specifying how the duration fields are set is important. This PDT is based on the agreements on the duration. When we have a solid conclusion, I will add more details on that.

C: We already had the subclause for feedback info in case of Co-TDMA. I suggest the change that is based on D0.3. And I see the BSRP trigger frame, but it should be the BSRP

A: We are not talking about the Co-BF invite that is exchanged between the AP1 and the AP2. We are talking about the ICF frame between the CoBF either co or coordinated AP and its own stations. To think of it, that is similar to the ICF of eMLSR or DPS. It’s just included within the Co-BF Transmission.

C: In the multi-STA BlockACK frame format, you’ve added the entry for the Co-BF of feedback, but you have not added the contents for the Co-BF feedback in the multi-STA block ACK.

A: This is also still under discussion.

C: In 37.8.2.1.3, in the second and last paragraphs are not reached agreement in straw polls. So, it is better not to include in the PDT at this stage.

A: After the SP will be passed, I will add the additional PDT text.

C: I am also preparing for a PDT of the Co-BF. My PDT will also have this subclause.

A: I am open to discussion.

C: On the top of Page 10, regarding the extended time period in the ICF, in your previous answer, this time out is only included when the AP talks to the STA, it is not in the ICF/ICR between the APs, right?

A: Basically, ICF/ICR exchanges between the coordinating and coordinated APs and their associated non-AP STA. But maybe I can add some clarification.

C: In the page 8, (9.3.1.22.7), it says AID12 on the table, but in the text, it says AID11. I’m not sure which one is right.

A: AID12 is correct.

C: In the bottom of page 10, when an AP transmit ICF, the ICF should not be an RTS/CTS. Is this taken from a SP text that was passed?

A: Yes. The intention is to forbid the usage of RTS. Because RTS cannot support the required information.

C: In the p.10, DPS is done even just AP intended to use HC mode.

A: In that case, does the AP doesn’t even need to send ICF, right?

C: Yes.

A: Maybe it would be good to add another clarification.

C: Raised some comments last night in email about clarifying AP only includes those STAs in CBF transmission the STAs which support CBF feature and enabled the feature. In addition, we need to capture the link reconfig request/response SP to the text.

C: I think the extended timeout duration seems not like feedback information.

A: The name is a bit tricky here. The intention is general feedback or control information. It is not feedback from the station to the AP or feedback from the AP to the STA.

C: In p.3, the SP1 failed twice. Why is it included here?

A: Explicit objection on this SP was to add the SP. This SP 2 and all the included text does not have any objection. The only suggestion was to add on top of it.

C: The agreement is that the PDT will include only SP that has agreed upon and, on this SP, this is you interpretation, but there was no agreement.

C: ‘unsolicited unavailability feedback’ should be change to ‘unavailability feedback’, to match doc [11-25/0437r17](https://mentor.ieee.org/802.11/dcn/25/11-25-0437-17-00bn-cc-d0-1-subclause-37-11.docx).

C: Should “OBSS sounding reports” be “cross-BSS sounding reports”?

C: Please make sure that you do not have TBDs in the spec text.

* + [11-25/1105r0](https://mentor.ieee.org/802.11/dcn/25/11-25-1105-00-00bn-cc50-cr-for-clause-6-part-3.docx): CC50 CR for clause 6 part 3 Yan Li (ZTE) [2C]

C: Please clarify the change of Figure 6-7a.

A: The MLME-XXX. request means that a special MAPC scheme, for example, Co-TDMA, and the behavior before this primitive means that if the STA and the peer STA can communicate with each other over the DS and then they use the DS to establish the Co-TDMA agreement. Once the agreement is established, and both the SME of the STAs and peer STA will transmit with general rate in such a primitive request. This is a new figure.

C: It does not say over the DS anymore.

A: Because the MAPC is not limited to the same BSS. This means that the multi-AP coordination can be operated across the BSS. So, we don’t use the over the DS.

C: Is XXX terminology that we are using 802.11?

A: It is basically a placeholder for the MLME primitive.

C: Are these only addressing the primitive changes?

A: Yes. The comment is related to Clause 6. I just make the relevant changes to solve the comment.

C: You need to make clear that those changes are also something that you want to include in the draft. You must give clear instruction to the editor somewhere and pleas add the tag of CID.

C: Please add the reference document on the resolution.

**SP:**

Do you support resolving the following CIDs as shown in [11-25/1105r1](https://mentor.ieee.org/802.11/dcn/25/11-25-1105-01-00bn-cc50-cr-for-clause-6-part-3.docx)?

Discussion: None.

**Result: No objection.**

* Motions: [11-25/0014r28](https://mentor.ieee.org/802.11/dcn/25/11-25-0014-28-00bn-tgbn-motions-list-part-2.pptx)
  + **Motion 435 (Joint)**

Move to approve resolutions to the CIDs (18C):

* + - 870, 1453, 1454, 1456, 1457, 1492, 1744, 2655, 2658, 2659, 2812, 2813, 2830, 2839, 2840, 3157, 3613, 3817 in [11-25/657r6](https://mentor.ieee.org/802.11/dcn/25/11-25-0657-06-00bn-cr-for-clause-3-2-part-2.doc) [18 CIDs]

and incorporate the text changes into the latest TGbn draft.

Move: Xiaofei Wang Second: Jay Yang

Discussion: None.

**Result: Approved with unanimous consent.**

*Note: These are comment resolution documents that obtained ≥ 75% support during the straw poll phase of the Joint teleconference call of May 29, 2025.*

* + **Motion 436 (PHY)**

Move to add to the TGbn SFD the following:

* + - The Number of UHR-SIG Symbols in CoBF transmission is equal to the minimum number of UHR-SIG symbols needed to accommodate the UHR-SIG information
      * No extra UHR-SIG symbols will be allowed

Move: Alice Chen Second: Ross J. Yu

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[*11-25/0842r1*](https://mentor.ieee.org/802.11/dcn/25/11-25-0842-01-00bn-information-exchange-in-the-cobf-transmission-phase-follow-up.pptx)*]. SP result: No objection.*

* + **Motion 437 (PHY)**

Move to add to the TGbn SFD the following:

* + - Use fixed value for the following field in the CoBF transmission
      * Interference Mitigation is fixed to ‘Disable’

Move: Alice Chen Second: Ross J. Yu

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[*11-25/0842r1*](https://mentor.ieee.org/802.11/dcn/25/11-25-0842-01-00bn-information-exchange-in-the-cobf-transmission-phase-follow-up.pptx)*,* [*11-25/389r2*](https://mentor.ieee.org/802.11/dcn/25/11-25-0389-02-00bn-information-exchange-in-the-cobf-transmission-phase.pptx)*,* [*11-25/399r1*](https://mentor.ieee.org/802.11/dcn/25/11-25-0399-01-00bn-cobf-cosr-design-follow-up.pptx)*,* [*11-25/401r0*](https://mentor.ieee.org/802.11/dcn/25/11-25-0401-00-00bn-cobf-phy-design-consideration.pptx)*]. SP result: No objection.*

* + **Motion 438 (PHY)**

Move to add to the TGbn SFD the following:

* + - The Bandwidth and Punctured Channel Information indication in the CoBF Invite and Sync frames are the same with the following rules:
      * When the static puncturing patterns of the two APs are the same, the puncturing information in the invite and sync frames corresponds to that
      * If the static puncturing patterns of the two APs are not the same, the sharing AP will need to reduce to a smaller BW in which the two APs have the same puncturing pattern, and the information in the invite and sync frames will correspond to that reduced BW configuration
      * Note: Indication format is TBD

Move: Alice Chen Second: Stephen McCann

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[*11-25/0842r1*](https://mentor.ieee.org/802.11/dcn/25/11-25-0842-01-00bn-information-exchange-in-the-cobf-transmission-phase-follow-up.pptx)*]. SP result: No objection.*

* + **Motion 439 (PHY)**

Move to add to the TGbn SFD the following:

* + - The indicated GI+LTF Size (for the COBF transmission) in the CoBF Invite and Sync frames is the same
      * GI+LTF size indication format is TBD

Move: Alice Chen Second: Juan Fang

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[*11-25/0842r1*](https://mentor.ieee.org/802.11/dcn/25/11-25-0842-01-00bn-information-exchange-in-the-cobf-transmission-phase-follow-up.pptx)*]. SP result: 190Y/26N/82A.*

* + **Motion 440 (Miscellaneous)**

Move to approve resolutions to the CIDs:

* + - 2697 in [11-25/0757r8](https://mentor.ieee.org/802.11/dcn/25/11-25-0757-08-00bn-cc50-cr-for-cid-2697-spatial-reuse-for-npca-capable-stas.docx) *[1 CID]1*
      * *Instructions to be executed based on 11-25/0757r8 (not r0)*
    - 34 in [11-25/0679r3](https://mentor.ieee.org/802.11/dcn/25/11-25-0679-03-00bn-cr-cc50-subclause-38-3-15-9-3.docx) *[1 CID]2*
    - 919 in [11-25/0681r11](https://mentor.ieee.org/802.11/dcn/25/11-25-0681-11-00bn-pdt-crs-joint-sounding-procedure.docx) *[1 CID]3*

and incorporate the text changes into the latest TGbn draft.

Move: Kiseon Ryu Second: Ross J. Yu

Discussion: None.

**Result: Approved with unanimous consent.**

*Note 1: Motioned earlier but the instructions to editor incorrectly pointed to r0 as opposed to r8.*

*Note 2: Motioned earlier but the CID has a typo (was 324 instead of the actual 34).*

*Note 3: Motioned earlier but the resolution was deleted by accident in r6. Resolution is “accepted”, there is no additional text change from r10.*

* + **Motion 441 (MAC)**

Move to approve resolutions to the CIDs:

* + - *1550 in* [*11-25/571r6*](https://mentor.ieee.org/802.11/dcn/25/11-25-0571-06-00bn-cr-mac-cc50-cids-1550-1551-and-1553.docx) *[1 CID]*

and incorporate the text changes into the latest TGbn draft.

Move: Yanjun Cheng Second: Ross J. Yu

Discussion: None.

**Result: Approved with unanimous consent.**

*Note: These are comment resolution documents that obtained ≥ 75% support during the straw poll phase of the MAC ad-hoc teleconference of June 2, 2025.*

* + **Motion 442 (Joint)**

Move to approve resolutions to the CIDs (117C):

* + - 11, 12, 13, 14, 15, 59, 60, 112, 281, 282, 365, 366, 367, 407, 552, 553, 554, 555, 556, 614, 815, 1196, 1197, 1198, 1199, 1268, 1317, 1569, 1606, 1607, 1608, 1729, 1986, 2085, 2086, 2087, 2088, 2089, 2090, 2341, 2343, 2663, 2664, 2808, 2881, 2882, 2883, 2884, 2885, 2886, 2887, 2888, 2889, 2890, 2891, 2892, 2893, 2895, 2896, 2897, 2898, 2899, 2900, 2901, 2902, 2903, 3162, 3163, 3206, 3272, 3285, 3286, 3287, 3475, 3476, 3477, 3632, 3634, 3636, 3637, 3638, 3639, 3640, 3641, 3642, 3724, 3836 in [11-25/633r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0633-02-00bn-joint-pdt-cr-trigger-frame-format-part-2.docx) *[87 CIDs]*
    - 1383, 2854, 2855, 2856, 2857, 2858, 2847, 2849, 2851 in [11-25/0707r7](https://mentor.ieee.org/802.11/dcn/25/11-25-0707-07-00bn-cc50-cr-for-clause-6-part-2.docx) [9 CIDs]
    - 362, 363, 396, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019 in [11-25/0852r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0852-02-00bn-cc50-cr-for-mib.docx) *[12 CIDs]*
    - 184, 399, 1329, 2860, 2923, 3544 in [11-25/0781r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0781-01-00bn-cc50-editorial-comments-part-3.docx) *[6 CIDs]*
    - 2169, 2170, 2171 in [11-25/0905r3](https://mentor.ieee.org/802.11/dcn/25/11-25-0905-03-00bn-cc50-cr-for-subclause-37-12.docx) *[3 CIDs]*

and incorporate the text changes into the latest TGbn draft.

Move: Stephen McCann Second: Alice Chen

Discussion: None.

**Result: Approved with unanimous consent.**

*Note: These are comment resolution documents that obtained ≥ 75% support during the straw poll phase of the Joint teleconference of June 12, 2025.*

* + **Motion 443 (Withdrawal)**

Move to approve “Rejected” resolutions to the CIDs (2C):

* + - *1451 and 1452 [2 CIDs]*

With the following rejection reason: “The commenter has withdrawn the comment”.

Move: Ross J. Yu Second: Bin Tian

Discussion: None.

**Result: Approved with unanimous consent.**

* + **Motion 444 (MAC)**

Move to approve resolutions to the CIDs (17C):

* + - 743, 744, 745, 1696, 1989, 1425, 1990, 1991, 2570, 2656, 2842, 2843, 3815, 3900, 2653, 3194, 758 in 11-25/0638r7  *[2 CIDs]*

and incorporate the text changes into the latest TGbn draft.

Move: Chun Huan Second: Stephen McCann

Discussion: None.

**Result: Approved with unanimous consent.**

*Note: These are comment resolution documents that obtained ≥ 75% support during the straw poll phase of the MAC ad-hoc teleconference of June 16, 2025.*

* + **Motion 445 (Joint)**

Move to add to the TGbn SFD the following:

* + - If an eMLSR non-AP MLD that receives an ICF addressed to one of its affiliated STAs during CoBF sequences and if the affiliated STA responds with an ICR, then the eMLSR non-AP MLD shall follow the eMLSR procedure defined in 35.3.17, except that the STA shall use an extended time-out period prior to switching back upon inactivity:
      * The duration of the extended time-out period shall be sufficient to cover any inactivity period within the COBF sequence, e.g. (but not limited to), from the end of the ICR to the beginning of the data PPDU, or from the DL PPDU until the beginning of the MU-BAR frame from the shared AP for STAs associated with the shared AP
      * The duration of the extended timeout period is explicitly indicated to the STA in the ICF frame sent by its associated AP.
      * Once the eMLSR STA(s) switch back to listen mode, they start using the default time-out period (aSIFSTime + aSlotTime + aRxPHYStartDelay) in future TXOPs unless otherwise indicated in the ICF.
      * This is applicable to CoBF transmission sequence

Move: Sherief Helwa Second: George Cherian

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[*11-25/0412*](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx)*,* [*11-25/0879*](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)*]. SP result: No objection.*

* + **Motion 446 (Joint)**

Move to add to the TGbn SFD the following:

* + - For DPS non-AP STA(s) scheduled with CoBF in high capability mode, the same switch-back behavior as for eMLSR with extended time-out period is used
      * The RTS frame shall not be used as an ICF for DPS in the CoBF Transmission sequence even when the DPS STA does not have any DPS padding required

NOTE: The RTS frame cannot be modified to include the extended timeout period usage and the extended timeout period duration indications.

Move: Sherief Helwa Second: Maolin Zhang

* + - Discussion:

C: If extended timeout period set to zero, how does it mean?

A: There is no need for the extended timeout period. In that case, there is no need to send ICF.

**Result: Approved with unanimous consent.**

*Reference docs:[*[11-25/0412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [11-25/0879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx), [11-24/1512](https://mentor.ieee.org/802.11/dcn/24/11-24-1512-00-00bn-high-capability-protection-in-dps.pptx), [11-24/2080](https://mentor.ieee.org/802.11/dcn/24/11-24-2080-01-00bn-high-capability-protection-in-dps-follow-up.pptx)*]. SP result: No objection*.

* + **Motion 447 (Joint)**

Move to add to the TGbn SFD the following:

* + - An AP shall use the BSRP NTB Trigger frame variant for the Sounding Invite frame
      * The Sounding Response frame shall be M-BA
      * TBD whether there’s another frame variant allowed for the Sounding Invite/Response frame

Move: Sherief Helwa Second: Yusuke Asai

* + - Discussion

C: The second bullet needs to be deleted. It just says that there is going to be further discussion. I don’t think the editor can apply this to the draft.

C: I think the intent with the TBD was to say there’s still some open aspects there.

C: I am OK. It’s not a big deal. But again, I think the editor will have hard time included in a draft action.

C: Because this is in the SFD, members use it as a reference to prepare for the PDTs. I think it is fine from that perspective.

**Result: Approved with unanimous consent.**

*Reference docs:[*[11-25/0412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [11-25/0879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)*]. SP result: No objection*.

* + **Motion 448 (Joint)**

Move to add to the TGbn SFD the following:

* + - An AP shall use the BSRP NTB Trigger frame variant for the CoBF Invite frame
      * The CoBF Response frame shall be M-BA
      * TBD whether there’s another frame variant allowed for the CoBF Invite/Response frame

Move: Sherief Helwa Second: Alice Chen

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[11-25/0412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [11-25/0879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)*]. SP result: No objection*.

* + **Motion 449 (Joint)**

Move to add to the TGbn SFD the following:

* + - An AP MLD that receives an ICR from a STA affiliated with an EMLSR non-AP MLD during CBF data frame exchange does not attempt to transmit to the eMLSR non-AP MLD on another link during the extended time-out periods, per baseline behavior.

Move: Sherief Helwa Second: Dibakar Das

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[11-25/0412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [11-25/0879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)*]. SP result: No objection*.

* + **Motion 450 (Joint)**

Move to add to the TGbn SFD the following:

* + - Any CoBF sounding sequence that includes Cross-BSS CSI collection shall be initiated by a two-way handshake between the two APs participating in the sequence
      * The two-way handshake exchange consists of a Sounding Invite frame and a Sounding Response frame.
      * The Sounding Invite/Response frame exchange is used to:
      * Confirm the availability of both APs for CSI collection.
      * TBD for indication whether each AP will include ICF/ICR exchanges with its client or not.
      * Further information to be exchanged is TBD.

Move: Sherief Helwa Second: Dibakar Das

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[11-25/0412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [11-25/0879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx), [11-25/492](https://mentor.ieee.org/802.11/dcn/25/11-25-0492-00-00bn-cbf-sounding-sequence-mac-aspects.pptx), [11-25/0553](https://mentor.ieee.org/802.11/dcn/25/11-25-0553-00-00bn-cross-bss-csi-feedback-for-co-bf.pptx)*]. SP result: No objection*.

* + **Motion 451 (Joint)**

Move to add to the TGbn SFD the following:

* + - In CBF transmission phase, the Feedback User Info field in the BSRP/MU-RTS Trigger addressed to EMLSR/DPS STA carries the extended timeout period duration?
      * A new feedback type value is defined for CoBF.
      * An “Extended Timeout Duration” field with a TBD length is included in the Feedback user Info field
      * The duration value is reported with granularity of 4 us.
      * A value 0 of the “Extended Timeout Duration” field is an indication to the STA to follow the default eMLSR/DPS switch back behavior, i.e., do not use an extended timeout period.
      * Whether the field indicates maximum value or actual value is TBD

Move: Sherief Helwa Second: George Chrian

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[11-25/0412](https://mentor.ieee.org/802.11/dcn/25/11-25-0412-03-00bn-cobf-frame-sequences-and-signaling-details.pptx), [11-25/0879](https://mentor.ieee.org/802.11/dcn/25/11-25-0879-02-00bn-cobf-signaling-details.pptx)*]. SP result: No objection*.

* + **Motion 452 (Joint)**

Move to add to the TGbn SFD the following:

* + - A non-AP STA is allowed to enable/disable CoBF/CoSR operation for the non-AP STA by using 11bn’s feature enabling/disabling procedure (by using Link Reconfiguration Request/Notify frame)
      * There are restrictions on how often CoBF/CoSR enablement/disablement requests by the non-AP STA can be sent, those restrictions are TBD

Move: Dibakar Das Second: Sherief Helwa

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[11-25/0413](https://mentor.ieee.org/802.11/dcn/25/11-25-0413-00-00bn-support-for-emlsr-during-cbf.pptx)*]. SP result: No objection*.

* + **Motion 453 (MAC)**

Move to approve resolutions to the CIDs *[68C]*:

* + - 148, 152, 153, 160, 161, 181, 669, 775, 876, 1318, 1319, 1320, 1324, 1395, 1398, 1399, 1428, 1491, 1494, 1739, 1788, 1789, 2466, 3254, 3438, 3606, 3779, 3780, 3781 in [11-25/0599r16](https://mentor.ieee.org/802.11/dcn/25/11-25-0599-16-00bn-pdt-mac-mapc-signaling-and-protocol-aspects.docx) *[29 CIDs]*
    - 480, 611, 612, 613, 772, 859, 861, 1681, 1682, 1683, 2106, 2107, 2669, 2670, 2968, 2969, 2970, 2971, 2972, 3164, 3867 in [11-25/0909r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0909-01-00bn-cc50-cr-for-clause-37-3.docx) *[21 CIDs]*
    - 91, 92, 1969, 2108, 2671, 2973, 2974 in [11-25/0910r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0910-01-00bn-cc50-cr-for-clause-37-4.docx) *[7 CIDs]*
    - 1925, 2105, 2376, 2377, 2963, 2964 in [11-25/0838r9](https://mentor.ieee.org/802.11/dcn/25/11-25-0838-09-00bn-cc50-cr-for-a-mpdu-9-7-3-related-to-the-feedback-information.docx) *[6 CIDs]*
    - 3824, 3861, 3862, 3863 in [11-25/0937r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0937-02-00bn-cc50-cr-for-cids-3824-3861-3862-and-3863.docx) and 2165 in [11-25/946r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0946-02-00bn-cc50-pdt-cr-mac-on-receiving-icf-with-ifcs.docx) *[5 CIDs]*

Move: Xiaofei Wang Second: Kiseon Ryu

Discussion: None.

**Result: Approved with unanimous consent.**

*Note: These are comment resolution documents that obtained ≥ 75% support during the straw poll phase of the MAC ad-hoc teleconference of June 30, 2025.*

* + **Motion 454 (PHY)**

Move to approve resolutions to the CIDs [26C]:

* + - 415, 3573, 3574 in [11-25/0735r6](https://mentor.ieee.org/802.11/dcn/25/11-25-0735-06-00bn-cc50-cr-for-cids-on-overhearing-obss-csi.docx) & 2557 in [11-25/0950r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0950-01-00bn-pdt-and-cr-for-stream-parser.docx) & 372, 374 in [11-25/0823r4](https://mentor.ieee.org/802.11/dcn/25/11-25-0823-04-00bn-cc50-cr-on-ueqm-cid-372-374.doc) [6 CIDs]
    - 37, 38, 39, 40, 1092, 1168, 1353, 1354, 2292, 2293, 2294, 2786, 3507, 3508 in 11-25/0964r1 [14 CIDs]
    - 207, 1117, 1745, 1754, 573 in [11-25/0965r2](https://mentor.ieee.org/802.11/dcn/25/11-25-0965-02-00bn-cc50-cr-for-60mhz-dbw.docx) [5 CIDs]
    - 3570 as “Revised - TGbn editor: D0.3 already incorporated the changes to resolve this comment based on motion 1 to motion 4 in [11-25/687r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0687-01-00bn-spatial-reuse-discussion-in-802-11bn.pptx). No further changes are needed.”

and incorporate the text changes into the latest TGbn draft.

Move: Yurong Qian Second: Dongguk Lim

Discussion: None.

**Result: Approved with unanimous consent.**

*Note: These are comment resolution documents that obtained ≥ 75% support during the straw poll phase of the MAC ad-hoc teleconference of June 30, 2025.*

* + **Motion 455 (PHY)**

Move to add to the TGbn SFD the following:

* + - During Co-SR invite and Co-SR response exchange, sharing AP indicates single intended PHY version for its own PPDU in the upcoming Co-SR transmission. Shared AP responds with single intended PHY version for its own PPDU in the upcoming Co-SR transmission, if it accepts the invitation.

Move: Ross J. Yu Second: Alice Chen

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[*11-25/0851r0*](https://mentor.ieee.org/802.11/dcn/25/11-25-0851-00-00bn-phy-version-indications-in-co-sr-transmissions.pptx)*]. SP result: No objection.*

* + **Motion 456 (PHY)**

Move to add to the TGbn SFD the following:

* + - In Co-SR Trigger frame, the PHY version of PPDU 1 and the PHY version of PPDU 2 are indicated.
      * How to signal is TBD

Move: Ross J. Yu Second: Alice Chen

Discussion: None.

**Result: Approved with unanimous consent.**

*Reference docs:[*[*11-25/0851r0*](https://mentor.ieee.org/802.11/dcn/25/11-25-0851-00-00bn-phy-version-indications-in-co-sr-transmissions.pptx)*]. SP result: No objection.*

* Straw Polls:
  + **SP1:** (Kosuke)

A Co-BF coordinating AP may indicate an Ack policy of a Co-BF coordinated AP in the Co-BF Trigger frame to avoid Ack collisions.

* + - As well as Co-SR case.

Supporting doc: [[24/2060](https://mentor.ieee.org/802.11/dcn/24/11-24-2060-02-00bn-csr-cobf-protocol-design.pptx)]

* + - Discussion

C: What do these two indicate for the policy?

A: The policy field in the QoS control field and coordinated beamforming PPDU. For the coordinated AP, to avoid the immediate ACK, the coordinated beamforming AP needs to indicate such as no ACK in the ACK policy in the QoS control field.

C: From a sequence perspective, you have the sync frame, the trigger that is acting as sync, and then the other two beamformed PPDU sent by the sharing and shared AP. So, what this SP is saying that the sharing AP, the coordinating AP, is indicating the ACK policy of the subsequent coordinated beamformed PPDU. It indicates ACK policy in the Co-BF trigger frame itself.

C: We have not agreed on anything so can we defer the SP?

C: We can schedule this in the first joint call of the F2F.

A: Let’s discuss during F2F.

**Result: deferred.**

* Technical Submissions (1 hour):
  + [11-25/0277r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0277-01-00bn-follow-up-on-drus.pptx): DRU follow up Brian Hart (Cisco Systems)

C: Just for the solution, I think the limitation previously we defined for the downlink and uplink, right? So, you are trying to apply similar restriction to the TB PPDU when we send the DRU at least have multi user.

A: If you want to solicit a DRU 52 over 80 MHz, something that is really spectrally inefficient. You should not be doing that unless you have multiple clients, or you don’t use the DRU 52 use something like I guess a 106 as well, or something larger, 242.

C: I agree with the problem in slide 7. Your example of a 52-tone DRU in a 80 MHz PPDU is not efficient. Can the AP just use 106-tone DRU and just follow this minimum RU allocation requirement? It will make the PPDU shorter.

A: I do see that as very helpful. If instead of using a DRU 52, we are using a DRU 160 or 242, it is indeed making the PPDU sorter exactly as you say, which means that overlapping PPDU can get on the air earlier and deliver their data. Less medium time is wasted.

* + [11-25/0375r1](https://mentor.ieee.org/802.11/dcn/25/11-25-0375-01-00bn-txvector-parameters-for-multi-ap-coordination.pptx): TXVECTOR Parameters for Multi-AP Coordination

Leonardo Lanante (Ofinno)

(No Q+A)

* AoB: None.
* Adjourned: 11:58.
* Appendix
  + The record of the SP2 (Sherief) for the 9th teleconference

|  |  |
| --- | --- |
| Participant Name | Voting Record |
| [A] Safi Hoque, Ofinno | NO |
| [NV]Pavan Mangipudi | ABSTAIN |
| [V] Leonardo Lanante Ofinno | NO |
| [V] Charlie Pettersson, | NO |
| [V] Kiseon Ryu | ABSTAIN |
| [V] Jeongki Kim, Ofinno | NO |
| [V] Li-Hsiang Sun, MediaTek | YES |
| [V] Mrugen Deshmukh, Ofinno | NO |
| Minyoung Park | YES |
| Ethan Zimmer | YES |
| Chitto Ghosh | YES |
| [V] Rui Yang, InterDigital | ABSTAIN |
| [V] Stephen McCann, Huawei | NO |
| [V] Serhat Erkucuk, Ofinno | NO |
| Kain, Carl | ABSTAIN |
| Yanjun Sun | YES |
| Kanke Wu | YES |
| [V] Xiaofei Wang, InterDigital | ABSTAIN |
| [V] Javier Perez-Ramirez, Ofinno | NO |
| [V]Hanqing Lou, InterDigital | ABSTAIN |
| Roya Doostnejad [V] | ABSTAIN |
| Wook Bong Lee | YES |
| [V] Rishabh Roy, Samsung Electronics | ABSTAIN |
| [V] Lin Yang | YES |
| Yonggang Fang | YES |
| Samat Shabdanov | YES |
| [v] Sean Coffey | ABSTAIN |
| [V] Sherief Helwa, Qualcomm Technologies, Inc | YES |
| [V] Jiyang Bai, TCL | NO |
| [V] Duncan Ho | YES |
| Brian Hart | YES |
| [V] Sigurd Schelstraete | NO |
| [V] Sanket Kalamkar | YES |
| [V] Mike Montemurro | NO |
| [V] Junbin Chen, TP-Link | ABSTAIN |
| Mohamed Abouelseoud | YES |
| [V] George Cherian | YES |
| [V] Bin Tian | YES |
| [V] You-Wei Chen, Mediatek | YES |
| [V], Liwen Chu, NXP | YES |
| [V] Mark RISON | ABSTAIN |
| [A] Tristan HALNA du FRETAY | ABSTAIN |
| [V] Patrice NEZOU | NO |
| [V] Juan Fang, intel | YES |
| [V] Romain GUIGNARD Canon | ABSTAIN |
| [V] Yaoshen Cui, TP-Link | YES |
| [V] Inaki Val | NO |
| [V] Yuxin Lu | NO |
| [V] Gaurang Naik, Qualcomm | YES |
| [PV] Qian Ding, TP-Link | YES |
| [V] Rui Cao, NXP | YES |
| [V] Gaius Wee, Panasonic | YES |
| [V]Zigui Yang, Samsung | YES |
| [V] Bo Li | NO |
| Yongsen Ma | NO |
| Ron Porat | YES |
| [V] Junghoon Suh, Huawei | NO |
| [V] Azin Neishaboori, GM | ABSTAIN |
| James Yee | YES |
| [V] Sixian Luo, Sharp | NO |
| [V] Insun Jang | YES |
| [V] Dongguk Lim | YES |
| [V] Hongwon Lee | YES |
| Yunbo Li | NO |
| [V] Eunsung Park LGE | YES |
| [V] Jinsoo Choi, LGE | YES |
| Nan Cheng，XiDian University | NO |
| [V] Suhwook Kim, Samsung | ABSTAIN |
| [V] Jungjun Kim, Samsung Electronics | NO |
| Jegan Manoharan | YES |
| [V] Sungjin Park, Senscomm | ABSTAIN |
| [V] Jonghoe Koo, Samsung | ABSTAIN |
| [V] John Juhyung Son, WILUS | ABSTAIN |
| [V] GaborB, Mediatek | YES |
| [V] WIlliam Li, Spreadtrum | YES |
| [V] Shawn(Sanghyun) Kim, WILUS Inc. | YES |
| [V] Hank Hyeonjun Sung, WILUS | ABSTAIN |
| [V] Dana Ciochina-Kar Sony | YES |
| [V] Anton Tretiakov | ABSTAIN |
| [V] Taeyoung Ha, Samsung Electronics | ABSTAIN |
| [NV] Kaidong Wang | NO |
| [V] BIAN Tong, Panasonic | YES |
| [V] Eunsung Jeon, Samsung | NO |
| [V] Kosuke Aio, Sony | YES |
| [V] Subir Das [Peraton Labs] | ABSTAIN |
| [V] Akira Kishida, NTT | ABSTAIN |
| [V] Manasi Ekkundi,Samsung Electronics | ABSTAIN |
| [V] Sindhu Verma, Broadcom | YES |
| [V] Po-Kai Huang | YES |
| [V] Okan Mutgan, Nokia | YES |
| [V] Dibakar Das, Intel | YES |
| [V] Kazuto Yano | ABSTAIN |
| [V] Jun Minotani | YES |
| [V] Yusuke Asai | YES |
| [V] Yoshio Urabe | YES |
| [V] Ke Zhong, Ruijie Networks | NO |
| [V] Hiroyuki Motozuka | YES |
| Mao Yang | NO |
| [V] Laurent Cariou, Intel | YES |
| [NV]Jingxuan Yang, Panasonic | ABSTAIN |
| [V] Xuwen Zhao, TCL | NO |
| [V] Seongho Byeon, Samsung Electronics | ABSTAIN |
| [V] Shubhodeep Adhikari Broadcom | YES |
| [V] Hui Che, Ruijie | NO |
| [V] Yingqiao Quan, Spreadtrum | NO |
| Osama Aboul-Magd, Huawei | NO |
| [V] Zhenpeng Shi, Huawei | NO |
| [V] Tong Xiao, Xiaomi | ABSTAIN |
| [V] Insik Jung, LGE | YES |
| [V] Pei Zhou, TCL | NO |
| [V] Oded Redlich | NO |
| [V] Genadiy Tsodik Huawei | NO |
| [V] Shimi Shilo | NO |
| [V] Mahmoud Hasabelnaby, Huawei | NO |
| [V] Yan Xin, Huawei | NO |
| [V] George Chih-Chun Kuo | YES |
| [V]Phoebe Shumin Cheng, Mediatek | YES |
| [V] Hank ChiHan Huang | YES |
| [V] BO SUN, Sanechips | ABSTAIN |
| Yong Liu | YES |
| [V] Naveen Kakani | YES |
| [V] Anton Karamyshev, NRU HSE | ABSTAIN |
| [V] Shuang Fan, Sanechips | ABSTAIN |
| [P] Abdalla Hussein, Huawei | NO |
| [V] Dong Wei | ABSTAIN |
| [V] Prabodh Varshney | YES |
| [V] Jaheon Gu, Samsung Electronics | ABSTAIN |
| [V] Abhishek Patil (Qualcomm Technologies, Inc) | YES |
| [PV] Xu CHEN, Xiaomi | ABSTAIN |
| [V] Dmitry Bankov, NRU HSE | YES |
| [V] Ezer Melzer, Huawei | NO |
| [A] Rony Ross, Huawei | NO |
| Yan (ATG) Zhang | YES |
| Yongho Seok | YES |
| [V] Giovanni Chisci, Qualcomm | YES |
| [V] Bruce HaoHua Kang | YES |
| [V] Ilya Levitsky, NRU HSE | ABSTAIN |
| [V] Aiguo Yan; Samsung | NO |
| (V) Klaus Doppler, Nokia | YES |
| [V] Lan Peng Huawei | NO |
| [V] Ali Raissinia, Qualcomm Incorporated | YES |
| [V] Srinivas Kandala | NO |

* + Attendance record for the 1st teleconference

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbn | 05/29/2025 | Deshmukh, Mrugen | InterDigital |
| TGbn | 05/29/2025 | Sun, Bo | Sanechips Technology Co., Ltd. |
| TGbn | 05/29/2025 | Sung, Hyeonjun | WILUS Inc. |
| TGbn | 05/29/2025 | Tsodik, Genadiy | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | Tsujimaru, Yuki | Canon |
| TGbn | 05/29/2025 | Urabe, Yoshio | Panasonic Holdings Corporation |
| TGbn | 05/29/2025 | Wang, Qi | Apple Inc. |
| TGbn | 05/29/2025 | Wang, Kaidong | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | Wang, Lei | Futurewei Technologies/Huawei Technologies |
| TGbn | 05/29/2025 | Son, Ju-Hyung | WILUS Inc. |
| TGbn | 05/29/2025 | Wang, Xiaofei | InterDigital, Inc. |
| TGbn | 05/29/2025 | Val, Inaki | MaxLinear, Inc. |
| TGbn | 05/29/2025 | Singh, Aditi | Charter Communications |
| TGbn | 05/29/2025 | Shafin, Rubayet | Samsung Electronics |
| TGbn | 05/29/2025 | Shi, Zhenpeng | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | shi, shuyu | TP-Link Systems Inc. |
| TGbn | 05/29/2025 | Wang, Ying | InterDigital, Inc. |
| TGbn | 05/29/2025 | Shabdanov, Samat | Mediatek |
| TGbn | 05/29/2025 | Schelstraete, Sigurd | MaxLinear |
| TGbn | 05/29/2025 | Sakamoto, Ryunosuke | SHARP CORPORATION |
| TGbn | 05/29/2025 | Ryu, Kiseon | WILUS Inc. |
| TGbn | 05/29/2025 | Roy, Rishabh | SAMSUNG ELECTRONICS |
| TGbn | 05/29/2025 | Ross, Rony | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbn | 05/29/2025 | RISON, Mark | Samsung Cambridge Solution Centre |
| TGbn | 05/29/2025 | Silverman, Matt | Cisco Systems, Inc. |
| TGbn | 05/29/2025 | Wee, Gaius | Panasonic Holdings Corporation |
| TGbn | 05/29/2025 | Xu, Yanchao | Amlogic |
| TGbn | 05/29/2025 | Xia, Qing | Sony Corporation |
| TGbn | 05/29/2025 | Aio, Kosuke | Sony Corporation |
| TGbn | 05/29/2025 | Asai, Yusuke | NTT |
| TGbn | 05/29/2025 | Baykas, Tuncer | Self |
| TGbn | 05/29/2025 | Bims, Harry | Bims Laboratories, Inc. |
| TGbn | 05/29/2025 | Carney, William | Sony Group Corporation |
| TGbn | 05/29/2025 | Carty, Clark | Juniper Networks, Inc. |
| TGbn | 05/29/2025 | Cha, Dongju | LG ELECTRONICS |
| TGbn | 05/29/2025 | Chen, Junbin | TP-Link Systems Inc. |
| TGbn | 05/29/2025 | Chen, Xu | Xiaomi Communications Co., Ltd. |
| TGbn | 05/29/2025 | Chen, You-Wei | MediaTek Inc. |
| TGbn | 05/29/2025 | CHENG, yajun | Xiaomi Communications Co., Ltd. |
| TGbn | 05/29/2025 | Cho, Hangyu | LG ELECTRONICS |
| TGbn | 05/29/2025 | Zimmer, Ethan | Cisco Systems, Inc. |
| TGbn | 05/29/2025 | Zhou, LeiNew | H3C Technologies Co., Limited |
| TGbn | 05/29/2025 | Zhao, Xuwen | TCL |
| TGbn | 05/29/2025 | Zhang, Lyutianyang | Huawei Technologies Co., Ltd. |
| TGbn | 05/29/2025 | Yoon, Yelin | LG ELECTRONICS |
| TGbn | 05/29/2025 | Yee, James | MediaTek Inc. |
| TGbn | 05/29/2025 | Yano, Kazuto | Advanced Telecommunications Research Institute... |
| TGbn | 05/29/2025 | Yang, Jimmy | Moxa Inc. |
| TGbn | 05/29/2025 | Yang, Jay | ZTE Corporation |
| TGbn | 05/29/2025 | Yang, Hang | Ruijie Networks Co., Ltd. |
| TGbn | 05/29/2025 | Yan, Zhongjiang | Northwestern Polytechnical University |
| TGbn | 05/29/2025 | Ratnam, Vishnu | SAMSUNG ELECTRONICS |
| TGbn | 05/29/2025 | Xiao, Tong | Xiaomi Communications Co., Ltd. |
| TGbn | 05/29/2025 | Wu, Kanke | Apple Inc. |
| TGbn | 05/29/2025 | Raissinia, Alireza | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 05/29/2025 | Petrick, Albert | Jones-Petrick and Associates |
| TGbn | 05/29/2025 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbn | 05/29/2025 | Jia, Boqi | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | Jee, Anand | SAMSUNG ELECTRONICS |
| TGbn | 05/29/2025 | Jang, Insun | LG ELECTRONICS |
| TGbn | 05/29/2025 | Hussein, Abdalla | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 05/29/2025 | Huang, Po-Kai | Intel Corporation |
| TGbn | 05/29/2025 | huang, kaikai | Nokia |
| TGbn | 05/29/2025 | Hervieu, Lili | CableLabs |
| TGbn | 05/29/2025 | Hedayat, Ahmadreza | Apple Inc. |
| TGbn | 05/29/2025 | Hasabelnaby, Mahmoud | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 05/29/2025 | Hart, Brian | Cisco Systems, Inc. |
| TGbn | 05/29/2025 | Ha, Taeyoung | Samsung Electronics Co., Ltd. |
| TGbn | 05/29/2025 | Gupta, Binita | Cisco Systems, Inc. |
| TGbn | 05/29/2025 | Gu, Xiangxin | Spreadtrum Communications (Shanghai) Co., Ltd. |
| TGbn | 05/29/2025 | Kakani, Naveen | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 05/29/2025 | Gu, Jaheon | Samsung Electronics Co., Ltd. |
| TGbn | 05/29/2025 | Georgiev, Zahari | Cisco Systems, Inc. |
| TGbn | 05/29/2025 | feng, Shulin | gMediaTek Inc. |
| TGbn | 05/29/2025 | Fang, Yonggang | MediaTek Inc. |
| TGbn | 05/29/2025 | Fang, Juan | Intel Corporation |
| TGbn | 05/29/2025 | Fan, Shuang | Sanechips Technology Co., Ltd. |
| TGbn | 05/29/2025 | Erkucuk, Serhat | Ofinno |
| TGbn | 05/29/2025 | Epstein, Avner | MaxLinear |
| TGbn | 05/29/2025 | Ekkundi, Manasi | SAMSUNG ELECTRONICS |
| TGbn | 05/29/2025 | Doppler, Klaus | Nokia |
| TGbn | 05/29/2025 | Doostnejad, Roya | ofinno |
| TGbn | 05/29/2025 | Dong, Xiandong | Xiaomi Communications Co., Ltd. |
| TGbn | 05/29/2025 | Ding, Qian | TP-Link Systems Inc. |
| TGbn | 05/29/2025 | Dezfouli, Behnam | Nokia |
| TGbn | 05/29/2025 | Ghosh, Chittabrata | Apple Inc. |
| TGbn | 05/29/2025 | Kamel, Mahmoud | Interdigital Inc. |
| TGbn | 05/29/2025 | Kandala, Srinivas | Samsung |
| TGbn | 05/29/2025 | Kang, HaoHua | MediaTek Inc. |
| TGbn | 05/29/2025 | Park, Minyoung | Apple Inc. |
| TGbn | 05/29/2025 | Park, Eunsung | LG ELECTRONICS |
| TGbn | 05/29/2025 | Pan, Ju Yan | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | Noh, Si-Chan | Newracom Inc. |
| TGbn | 05/29/2025 | Ng, Boon Loong | Samsung Electronics |
| TGbn | 05/29/2025 | Neishaboori, Azin | General Motors Company |
| TGbn | 05/29/2025 | Mutgan, Okan | Nokia |
| TGbn | 05/29/2025 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | Minotani, Jun | Panasonic Holdings Corporation |
| TGbn | 05/29/2025 | Choi, Jinsoo | LG ELECTRONICS |
| TGbn | 05/29/2025 | Ma, Yunsi | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | Ma, Yongsen | SAMSUNG ELECTRONICS |
| TGbn | 05/29/2025 | LU, Yuxin | TCL Industries |
| TGbn | 05/29/2025 | Lu, LiumingGuangdong | OPPO Mobile Telecommunications Corp.... |
| TGbn | 05/29/2025 | Lovison, Federico | Cisco Systems, Inc. |
| TGbn | 05/29/2025 | Lou, Hanqing | InterDigital, Inc. |
| TGbn | 05/29/2025 | LIU, QINGLAI | Panasonic Holdings Corporation |
| TGbn | 05/29/2025 | Lim, Dong Guk | LG ELECTRONICS |
| TGbn | 05/29/2025 | Li, Weiyi | Spreadtrum Communication USA, Inc |
| TGbn | 05/29/2025 | Li, Jialing | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 05/29/2025 | Lee, Wookbong | Apple Inc. |
| TGbn | 05/29/2025 | LEE, JOONSOO | Newracom Inc. |
| TGbn | 05/29/2025 | Koundourakis, Michail | Samsung Cambridge Solution Center |
| TGbn | 05/29/2025 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | Kim, Youhan | Qualcomm Technologies, Inc. |
| TGbn | 05/29/2025 | Kim, Sang Gook | LG ELECTRONICS |
| TGbn | 05/29/2025 | Kim, Jeongki | Ofinno |
| TGbn | 05/29/2025 | Kim, Geon Hwan | LG ELECTRONICS |
| TGbn | 05/29/2025 | Kedem, Oren | Maxlinear |
| TGbn | 05/29/2025 | Cui, Yaoshen | TP-Link Systems Inc. |
| TGbn | 05/29/2025 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbn | 05/29/2025 | Asterjadhi, Alfred | Qualcomm Technologies, Inc. |

* + Attendance record for the 5th teleconference

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbn | 12/06/2025 | Haider, Muhammad Kumail | Meta Platforms, Inc. |
| TGbn | 12/06/2025 | Fu, Qingwei | TP-Link Systems Inc. |
| TGbn | 12/06/2025 | Helwa, Sherief | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 12/06/2025 | Fang, Juan | Intel Corporation |
| TGbn | 12/06/2025 | B, Hari Ram | NXP Semiconductors |
| TGbn | 12/06/2025 | Yang, Jay | ZTE Corporation |
| TGbn | 12/06/2025 | Manoharan, Jegan | Cisco Systems, Inc. |
| TGbn | 12/06/2025 | Choi, JinHo | SAMSUNG ELECTRONICS |
| TGbn | 12/06/2025 | Fischer, Matthew | Broadcom Corporation |
| TGbn | 12/06/2025 | Zhong, Ke | Ruijie Networks Co., Ltd. |
| TGbn | 12/06/2025 | Park, Eunsung | LG ELECTRONICS |
| TGbn | 12/06/2025 | Karthik, S. G. | SAMSUNG ELECTRONICS |
| TGbn | 12/06/2025 | Epstein, Avner | MaxLinear |
| TGbn | 12/06/2025 | Erkucuk, Serhat | Ofinno |
| TGbn | 12/06/2025 | Chu, Liwen | NXP Semiconductors |
| TGbn | 12/06/2025 | VIGER, Pascal | Canon Research Centre France |
| TGbn | 12/06/2025 | Chen, You-Wei | MediaTek Inc. |
| TGbn | 12/06/2025 | Kuo, Chih-Chun | MediaTek Inc. |
| TGbn | 12/06/2025 | Asai, Yusuke | NTT |
| TGbn | 12/06/2025 | Doppler, Klaus | Nokia |
| TGbn | 12/06/2025 | Zhao, Xuwen | TCL |
| TGbn | 12/06/2025 | Yan, Zhongjiang | Northwestern Polytechnical University |
| TGbn | 12/06/2025 | Wang, Kaidong | Huawei Technologies Co., Ltd |
| TGbn | 12/06/2025 | Wei, Dong | Guangdong OPPO Mobile Telecommunications Corp.... |
| TGbn | 12/06/2025 | Shi, Zhenpeng | Huawei Technologies Co., Ltd |
| TGbn | 12/06/2025 | Strobel, Rainer | Maxlinear |
| TGbn | 12/06/2025 | Bahn, Christy | IEEE STAFF |
| TGbn | 12/06/2025 | Zhou, Pei | TCL |
| TGbn | 12/06/2025 | Ma, Yongsen | SAMSUNG ELECTRONICS |
| TGbn | 12/06/2025 | Inohiza, Hirohiko | Canon |
| TGbn | 12/06/2025 | Petrick, Albert | Jones-Petrick and Associates |
| TGbn | 12/06/2025 | Yoon, Yelin | LG ELECTRONICS |
| TGbn | 12/06/2025 | Ekkundi, Manasi | SAMSUNG ELECTRONICS |
| TGbn | 12/06/2025 | Lee, Hong Won | LG ELECTRONICS |
| TGbn | 12/06/2025 | Ross, Rony | Huawei Technologies Co., Ltd |
| TGbn | 12/06/2025 | Perez, Javier | Ofinno |
| TGbn | 12/06/2025 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbn | 12/06/2025 | Pereira da Costa, Mario | Nokia |
| TGbn | 12/06/2025 | Park, Minyoung | Apple Inc. |
| TGbn | 12/06/2025 | Jeon, Eunsung | SAMSUNG ELECTRONICS |
| TGbn | 12/06/2025 | Chen, Junbin | TP-Link Systems Inc. |
| TGbn | 12/06/2025 | Park, Sungjin | Senscomm |
| TGbn | 12/06/2025 | Inoue, Kyosuke | SHARP CORPORATION |
| TGbn | 12/06/2025 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbn | 12/06/2025 | Kim, Geon Hwan | LG ELECTRONICS |
| TGbn | 12/06/2025 | Kim, Jungjun | Samsung Electronics |
| TGbn | 12/06/2025 | Das, Subir | Peraton Labs |
| TGbn | 12/06/2025 | Yang, Haorui | China Mobile (Hangzhou) Information Technology... |
| TGbn | 12/06/2025 | Di Taranto, Rocco | Ericsson AB |
| TGbn | 12/06/2025 | Chaturvedi, Abhishek | Samsung Electronics |
| TGbn | 12/06/2025 | Li, Weiyi | Spreadtrum Communication USA, Inc |
| TGbn | 12/06/2025 | Hussein, Abdalla | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 12/06/2025 | Chung, Chulho | SAMSUNG |
| TGbn | 12/06/2025 | Yano, Kazuto | Advanced Telecommunications Research Institute... |
| TGbn | 12/06/2025 | li, yan | ZTE Corporation |
| TGbn | 12/06/2025 | Ratnam, Vishnu | SAMSUNG ELECTRONICS |
| TGbn | 12/06/2025 | Minotani, Jun | Panasonic Holdings Corporation |
| TGbn | 12/06/2025 | Wang, Qi | Apple Inc. |
| TGbn | 12/06/2025 | Li, Jialing | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 12/06/2025 | Lou, Hanqing | InterDigital, Inc. |
| TGbn | 12/06/2025 | Sun, Bo | Sanechips Technology Co., Ltd. |
| TGbn | 12/06/2025 | Tsujimaru, Yuki | Canon |
| TGbn | 12/06/2025 | Fan, Shuang | Sanechips Technology Co., Ltd. |
| TGbn | 12/06/2025 | CHENG, yajun | Xiaomi Communications Co., Ltd. |
| TGbn | 12/06/2025 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbn | 12/06/2025 | Ryu, Kiseon | WILUS Inc. |
| TGbn | 12/06/2025 | Kim, Sanghyun | WILUS Inc. |
| TGbn | 12/06/2025 | Patil, Abhishek | Qualcomm Incorporated |
| TGbn | 12/06/2025 | Sung, Hyeonjun | WILUS Inc. |
| TGbn | 12/06/2025 | Tanaka, Yusuke | Sony Corporation |
| TGbn | 12/06/2025 | Xu, Yanchao | Amlogic |
| TGbn | 12/06/2025 | jc, ma | TP-Link Systems Inc. |
| TGbn | 12/06/2025 | Koundourakis, Michail | Samsung Cambridge Solution Center |
| TGbn | 12/06/2025 | Zhou, Renlong | Sanechips Technology Co., Ltd. |
| TGbn | 12/06/2025 | Xia, Qing | Nokia |
| TGbn | 12/06/2025 | huang, kaikai | Nokia |
| TGbn | 12/06/2025 | Lee, Wookbong | Apple Inc. |
| TGbn | 12/06/2025 | Lu, Liuming | uangdong OPPO Mobile Telecommunications Corp.... |
| TGbn | 12/06/2025 | Son, Ju-Hyung | WILUS Inc. |
| TGbn | 12/06/2025 | Mangipudi, Pavan Kumar | InterDigital, Inc. |
| TGbn | 12/06/2025 | cheng, phoebe | MediaTek Inc. |
| TGbn | 12/06/2025 | Bredewoud, Albert | Broadcom Corporation |
| TGbn | 12/06/2025 | LEE, JOONSOO | Newracom Inc. |
| TGbn | 12/06/2025 | Hervieu, Lili | CableLabs |
| TGbn | 12/06/2025 | Ghosh, Chittabrata | Apple Inc. |
| TGbn | 12/06/2025 | Byeon, Seongho | SAMSUNG ELECTRONICS |
| TGbn | 12/06/2025 | Jee, Anand | SAMSUNG ELECTRONICS |
| TGbn | 12/06/2025 | Zhou, Lei | New H3C Technologies Co., Limited |
| TGbn | 12/06/2025 | Quan, Yingqiao | Spreadtrum Communications (Shanghai) Co., Ltd.... |
| TGbn | 12/06/2025 | Hoque, Safi Shams Muhtasimul | Ofinno |
| TGbn | 12/06/2025 | Dezfouli, Behnam | Nokia |
| TGbn | 12/06/2025 | Gu, Xiangxin | Spreadtrum Communications (Shanghai) Co., Ltd. |
| TGbn | 12/06/2025 | Zhou, Huixuan | Guangdong OPPO Mobile Telecommunications Corp.... |
| TGbn | 12/06/2025 | Yang, Hang | Ruijie Networks Co., Ltd. |
| TGbn | 12/06/2025 | LU, Yuxin | TCL Industries |
| TGbn | 12/06/2025 | feng, Shuling | MediaTek Inc. |
| TGbn | 12/06/2025 | Huang, Po-Kai | Intel Corporation |
| TGbn | 12/06/2025 | Chen, Xu | Xiaomi Communications Co., Ltd. |
| TGbn | 12/06/2025 | Kakani, Naveen | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 12/06/2025 | Mutgan, Okan | Nokia |
| TGbn | 12/06/2025 | Bai, Jiyang | TCL |
| TGbn | 12/06/2025 | Motozuka, Hiroyuki | Panasonic Holdings Corporation; Panasonic Oper... |
| TGbn | 12/06/2025 | Xin, Yan | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 12/06/2025 | Choi, Jinsoo | LG ELECTRONICS |
| TGbn | 12/06/2025 | Aio, Kosuke | Sony Corporation |
| TGbn | 12/06/2025 | Jang, Insun | LG ELECTRONICS |
| TGbn | 12/06/2025 | Kishida, Akira | NTT |
| TGbn | 12/06/2025 | Singh, Aditi | Charter Communications |
| TGbn | 12/06/2025 | Kim, Jeongki | Ofinno |
| TGbn | 12/06/2025 | Deshmukh, Mrugen | Ofinno |
| TGbn | 12/06/2025 | Roy, Rishabh | SAMSUNG ELECTRONICS |
| TGbn | 12/06/2025 | Lim, Dong Guk | LG ELECTRONICS |
| TGbn | 12/06/2025 | Cho, Hangyu | LG ELECTRONICS |
| TGbn | 12/06/2025 | Wu, Kanke | Apple Inc. |
| TGbn | 12/06/2025 | Wang, Ying | InterDigital, Inc. |
| TGbn | 12/06/2025 | Hasabelnaby, Mahmoud | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 12/06/2025 | Cha, Dongju | LG ELECTRONICS |
| TGbn | 12/06/2025 | SUH, JUNG HOON | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 12/06/2025 | Baykas, Tuncer | Self |
| TGbn | 12/06/2025 | Genc, Eda | Nokia |
| TGbn | 12/06/2025 | Asterjadhi, Alfred | Qualcomm Technologies, Inc. |

* + Attendance record for the 9th teleconference

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbn | 06/26/2025 | Zhou, Huixuan | Guangdong OPPO Mobile Telecommunications Corp.... |
| TGbn | 06/26/2025 | Sun, Bo | Sanechips Technology Co., Ltd. |
| TGbn | 06/26/2025 | Nezou, Patrice | Canon Research Centre France |
| TGbn | 06/26/2025 | Xin, Yan | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 06/26/2025 | Xu, Yanchao | Amlogic |
| TGbn | 06/26/2025 | Ding, Qian | TP-Link Systems Inc. |
| TGbn | 06/26/2025 | Keren, Rani | Huawei |
| TGbn | 06/26/2025 | Bankov, Dmitry | NRU HSE |
| TGbn | 06/26/2025 | Kim, Sang Gook | LG ELECTRONICS |
| TGbn | 06/26/2025 | Asai, Yusuke | NTT |
| TGbn | 06/26/2025 | Redlich, Oded | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | REICH, MOR | HUAWEI |
| TGbn | 06/26/2025 | siaud, isabelle | Orange |
| TGbn | 06/26/2025 | Ha, Taeyoung | Samsung Electronics Co., Ltd. |
| TGbn | 06/26/2025 | Doppler, Klaus | Nokia |
| TGbn | 06/26/2025 | GUIGNARD, Romain | Canon Research Centre France |
| TGbn | 06/26/2025 | Roy, Rishabh | SAMSUNG ELECTRONICS |
| TGbn | 06/26/2025 | Huang, Po-Kai | Intel Corporation |
| TGbn | 06/26/2025 | Wei, Dong | Guangdong OPPO Mobile Telecommunications Corp.... |
| TGbn | 06/26/2025 | Sahyoun, Walaa | Canon Research Centre France |
| TGbn | 06/26/2025 | Yang, Jay | ZTE Corporation |
| TGbn | 06/26/2025 | Hedayat, Ahmadreza | Apple Inc. |
| TGbn | 06/26/2025 | Lee, Wookbong | Apple Inc. |
| TGbn | 06/26/2025 | Singh, Aditi | Charter Communications |
| TGbn | 06/26/2025 | Kim, Youhan | Qualcomm Technologies, Inc. |
| TGbn | 06/26/2025 | Zhou, Renlong | Sanechips Technology Co., Ltd. |
| TGbn | 06/26/2025 | Wang, Qi | Apple Inc. |
| TGbn | 06/26/2025 | Ekkundi, Manasi | SAMSUNG ELECTRONICS |
| TGbn | 06/26/2025 | Coffey, John | Realtek Semiconductor Corp. |
| TGbn | 06/26/2025 | Zhou, Lei | New H3C Technologies Co., Limited |
| TGbn | 06/26/2025 | Genc, Eda | Nokia |
| TGbn | 06/26/2025 | Urabe, Yoshio | Panasonic Holdings Corporation |
| TGbn | 06/26/2025 | Wang, Chu-Meng | ZTE Corporation |
| TGbn | 06/26/2025 | Fu, Qingwei | TP-Link Systems Inc. |
| TGbn | 06/26/2025 | Val, Inaki | MaxLinear, Inc. |
| TGbn | 06/26/2025 | YANG, RUI | InterDigital, Inc. |
| TGbn | 06/26/2025 | Halna du Fretay, Tristan | Canon Research Centre France |
| TGbn | 06/26/2025 | Doostnejad, Roya | ofinno |
| TGbn | 06/26/2025 | Jeon, Eunsung | SAMSUNG ELECTRONICS |
| TGbn | 06/26/2025 | Bai, Jiyang | TCL |
| TGbn | 06/26/2025 | Pettersson, Charlie | Ericsson AB |
| TGbn | 06/26/2025 | Chen, Xu | Xiaomi Communications Co., Ltd. |
| TGbn | 06/26/2025 | Levitsky, Ilya | NRU HSE |
| TGbn | 06/26/2025 | Kim, Jeongki | Ofinno |
| TGbn | 06/26/2025 | Raissinia, Alireza | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 06/26/2025 | Verma, Sindhu | Broadcom |
| TGbn | 06/26/2025 | feng, Shuling | MediaTek Inc. |
| TGbn | 06/26/2025 | Zhang, Jiayi | Ofinno |
| TGbn | 06/26/2025 | Chen, Wei-Han | MediaTek Inc. |
| TGbn | 06/26/2025 | Taori, Rakesh | Infineon Technologies |
| TGbn | 06/26/2025 | Quan, Yingqiao | Spreadtrum Communications (Shanghai) Co., Ltd.... |
| TGbn | 06/26/2025 | cheng, phoebe | MediaTek Inc. |
| TGbn | 06/26/2025 | Yan, Zhongjiang | Northwestern Polytechnical University |
| TGbn | 06/26/2025 | Chen, You-Wei | MediaTek Inc. |
| TGbn | 06/26/2025 | Kain, Carl | Noblis, Inc.; USDoT |
| TGbn | 06/26/2025 | Wang, Ying | InterDigital, Inc. |
| TGbn | 06/26/2025 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.... |
| TGbn | 06/26/2025 | Gupta, Binita | Cisco Systems, Inc. |
| TGbn | 06/26/2025 | baron, stephane | Canon Research Centre France |
| TGbn | 06/26/2025 | Wu, Kanke | Apple Inc. |
| TGbn | 06/26/2025 | Yang, Haorui | China Mobile (Hangzhou) Information Technology... |
| TGbn | 06/26/2025 | Shabdanov, Samat | Mediatek |
| TGbn | 06/26/2025 | Yee, James | MediaTek Inc. |
| TGbn | 06/26/2025 | Di Taranto, Rocco | Ericsson AB |
| TGbn | 06/26/2025 | Kalamkar, Sanket | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 06/26/2025 | Hart, Brian | Cisco Systems, Inc. |
| TGbn | 06/26/2025 | Neishaboori, Azin | General Motors Company |
| TGbn | 06/26/2025 | Manoharan, Jegan | Cisco Systems, Inc. |
| TGbn | 06/26/2025 | Jang, Insun | LG ELECTRONICS |
| TGbn | 06/26/2025 | Kuo, Chih-Chun | MediaTek Inc. |
| TGbn | 06/26/2025 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbn | 06/26/2025 | Gu, Jaheon | Samsung Electronics Co., Ltd. |
| TGbn | 06/26/2025 | Choi, JinHo | SAMSUNG ELECTRONICS |
| TGbn | 06/26/2025 | Zhang, Maolin | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | Wee, Gaius | Panasonic Holdings Corporation |
| TGbn | 06/26/2025 | Deshmukh, Mrugen | Ofinno |
| TGbn | 06/26/2025 | Dezfouli, Behnam | Nokia |
| TGbn | 06/26/2025 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbn | 06/26/2025 | Byeon, Seongho | SAMSUNG ELECTRONICS |
| TGbn | 06/26/2025 | Ma, Yongsen | SAMSUNG ELECTRONICS |
| TGbn | 06/26/2025 | Kang, HaoHua | MediaTek Inc. |
| TGbn | 06/26/2025 | Yano, Kazuto | Advanced Telecommunications Research Institute... |
| TGbn | 06/26/2025 | SUH, JUNG HOON | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 06/26/2025 | Zhong, Ke | Ruijie Networks Co., Ltd. |
| TGbn | 06/26/2025 | RISON, Mark | Samsung Cambridge Solution Centre |
| TGbn | 06/26/2025 | Wang, Kaidong | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | Kim, Jungjun | Samsung Electronics |
| TGbn | 06/26/2025 | Yang, Jingxuan | Panasonic Holdings Corporation |
| TGbn | 06/26/2025 | Fan, Shuang | Sanechips Technology Co., Ltd. |
| TGbn | 06/26/2025 | Cheng, Nan | Xidian University,China |
| TGbn | 06/26/2025 | Park, Sungjin | Senscomm |
| TGbn | 06/26/2025 | Sung, Hyeonjun | WILUS Inc. |
| TGbn | 06/26/2025 | Das, Subir | Peraton Labs |
| TGbn | 06/26/2025 | Erkucuk, Serhat | Ofinno |
| TGbn | 06/26/2025 | Lee, Hong Won | LG ELECTRONICS |
| TGbn | 06/26/2025 | Zhou, Pei | TCL |
| TGbn | 06/26/2025 | Chung, Chulho | SAMSUNG |
| TGbn | 06/26/2025 | Ryu, Kiseon | WILUS Inc. |
| TGbn | 06/26/2025 | Cha, Dongju | LG ELECTRONICS |
| TGbn | 06/26/2025 | Hasabelnaby, Mahmoud | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 06/26/2025 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | Yan, Aiguo | SAMSUNG ELECTRONICS |
| TGbn | 06/26/2025 | Shilo, Shimi | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | Tsodik, Genadiy | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | Cui, Yaoshen | TP-Link Systems Inc. |
| TGbn | 06/26/2025 | Ratnam, Vishnu | SAMSUNG ELECTRONICS |
| TGbn | 06/26/2025 | Li, Weiyi | Spreadtrum Communication USA, Inc |
| TGbn | 06/26/2025 | Minotani, Jun | Panasonic Holdings Corporation |
| TGbn | 06/26/2025 | Kandala, Srinivas | Samsung |
| TGbn | 06/26/2025 | Patil, Abhishek | Qualcomm Incorporated |
| TGbn | 06/26/2025 | Handte, Thomas | Sony Group Corporation |
| TGbn | 06/26/2025 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | Fang, Yonggang | MediaTek Inc. |
| TGbn | 06/26/2025 | Zhao, Xuwen | TCL |
| TGbn | 06/26/2025 | Kakani, Naveen | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 06/26/2025 | MELZER, Ezer | Toga Networks, a Huawei company |
| TGbn | 06/26/2025 | Mutgan, Okan | Nokia |
| TGbn | 06/26/2025 | Kishida, Akira | NTT |
| TGbn | 06/26/2025 | Perez, Javier | Ofinno |
| TGbn | 06/26/2025 | Jung, Insik | LG ELECTRONICS |
| TGbn | 06/26/2025 | Motozuka, Hiroyuki | Panasonic Holdings Corporation; Panasonic Oper... |
| TGbn | 06/26/2025 | huang, kaikai | Nokia |
| TGbn | 06/26/2025 | Chen, Junbin | TP-Link Systems Inc. |
| TGbn | 06/26/2025 | Kim, Sanghyun | WILUS Inc. |
| TGbn | 06/26/2025 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | Regev, Dror | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 06/26/2025 | Zimmer, Ethan | Cisco Systems, Inc. |
| TGbn | 06/26/2025 | Lou, Hanqing | InterDigital, Inc. |
| TGbn | 06/26/2025 | Karthik, S. G. | SAMSUNG ELECTRONICS |
| TGbn | 06/26/2025 | LEE, JOONSOO | Newracom Inc. |
| TGbn | 06/26/2025 | Wang, Lei | Futurewei Technologies/Huawei Technologies |
| TGbn | 06/26/2025 | HUANG, CHIHAN | MediaTek Inc. |
| TGbn | 06/26/2025 | Shi, Zhenpeng | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | Hervieu, Lili | CableLabs |
| TGbn | 06/26/2025 | Karamyshev, Anton | NRU HSE |
| TGbn | 06/26/2025 | Ross, Rony | Huawei Technologies Co., Ltd |
| TGbn | 06/26/2025 | Choi, Jinsoo | LG ELECTRONICS |
| TGbn | 06/26/2025 | Hussein, Abdalla | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 06/26/2025 | Luo, Sixian | SHARP CORPORATION |
| TGbn | 06/26/2025 | Lim, Dong Guk | LG ELECTRONICS |
| TGbn | 06/26/2025 | LU, Yuxin | TCL Industries |
| TGbn | 06/26/2025 | Aio, Kosuke | Sony Corporation |
| TGbn | 06/26/2025 | Silverman, Matt | Cisco Systems, Inc. |
| TGbn | 06/26/2025 | Gu, Xiangxin | Spreadtrum Communications (Shanghai) Co., Ltd. |
| TGbn | 06/26/2025 | Asterjadhi, Alfred | Qualcomm Technologies, Inc. |

* + Attendance record for the 13th teleconference

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbn | 10/07/2025 | Kim, Jungjun | Samsung Electronics |
| TGbn | 10/07/2025 | Yee, James | MediaTek Inc. |
| TGbn | 10/07/2025 | Urabe, Yoshio | Panasonic Holdings Corporation |
| TGbn | 10/07/2025 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbn | 10/07/2025 | Redlich, Oded | Huawei Technologies Co., Ltd |
| TGbn | 10/07/2025 | jc, ma | TP-Link Systems Inc. |
| TGbn | 10/07/2025 | Erkucuk, Serhat | Ofinno |
| TGbn | 10/07/2025 | Hart, Brian | Cisco Systems, Inc. |
| TGbn | 10/07/2025 | Inohiza, Hirohiko | Canon |
| TGbn | 10/07/2025 | Zhao, Xuwen | TCL |
| TGbn | 10/07/2025 | cheng, phoebe | MediaTek Inc. |
| TGbn | 10/07/2025 | Rodriguez, Stephen | Cisco Systems, Inc. |
| TGbn | 10/07/2025 | Chen, Xu | Xiaomi Communications Co., Ltd. |
| TGbn | 10/07/2025 | Choi, Jinsoo | LG ELECTRONICS |
| TGbn | 10/07/2025 | huang, kaikai | Nokia |
| TGbn | 10/07/2025 | Zhang, Maolin | Huawei Technologies Co., Ltd |
| TGbn | 10/07/2025 | Karthik, S. G. | SAMSUNG ELECTRONICS |
| TGbn | 10/07/2025 | El Ferkouss, Omar | Hewlett Packard Enterprise |
| TGbn | 10/07/2025 | Chaplin, Clint | Samsung |
| TGbn | 10/07/2025 | Roy, Rishabh | SAMSUNG ELECTRONICS |
| TGbn | 10/07/2025 | Yang, Jimmy | Moxa Inc. |
| TGbn | 10/07/2025 | Asai, Yusuke | NTT |
| TGbn | 10/07/2025 | Chaturvedi, Abhishek | Samsung Electronics |
| TGbn | 10/07/2025 | Wang, Zhongyi | ZTE Corporation |
| TGbn | 10/07/2025 | Ekkundi, Manasi | SAMSUNG ELECTRONICS |
| TGbn | 10/07/2025 | LU, Yuxin | TCL Industries |
| TGbn | 10/07/2025 | Yano, Kazuto | Advanced Telecommunications Research Institute... |
| TGbn | 10/07/2025 | Mutgan, Okan | Nokia |
| TGbn | 10/07/2025 | Carney, William | Sony Group Corporation |
| TGbn | 10/07/2025 | Koo, Jonghoe | SAMSUNG ELECTRONICS |
| TGbn | 10/07/2025 | Byeon, Seongho | SAMSUNG ELECTRONICS |
| TGbn | 10/07/2025 | Kang, HaoHua | MediaTek Inc. |
| TGbn | 10/07/2025 | Manoharan, Jegan | Cisco Systems, Inc. |
| TGbn | 10/07/2025 | Tsodik, Genadiy | Huawei Technologies Co., Ltd |
| TGbn | 10/07/2025 | Chen, Junbin | TP-Link Systems Inc. |
| TGbn | 10/07/2025 | Ganu, Sachin | Hewlett Packard Enterprise |
| TGbn | 10/07/2025 | Taori, Rakesh | Infineon Technologies |
| TGbn | 10/07/2025 | Liubogoshchev, Mikhail | Nokia |
| TGbn | 10/07/2025 | Kim, Youhan | Qualcomm Technologies, Inc. |
| TGbn | 10/07/2025 | Namvar, Nima | Charter Communications |
| TGbn | 10/07/2025 | Quan, Yingqiao | Spreadtrum Communications (Shanghai) Co., Ltd.... |
| TGbn | 10/07/2025 | Cao, Bo | ZTE Corporation |
| TGbn | 10/07/2025 | Kakani, Naveen | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 10/07/2025 | Lee, Wookbong | Apple Inc. |
| TGbn | 10/07/2025 | Bredewoud, Albert | Broadcom Corporation |
| TGbn | 10/07/2025 | Gupta, Binita | Cisco Systems, Inc. |
| TGbn | 10/07/2025 | Hoque, Safi Shams Muhtasimul | Ofinno |
| TGbn | 10/07/2025 | Coffey, John | Realtek Semiconductor Corp. |
| TGbn | 10/07/2025 | Huang, Qisheng | ZTE Corporation |
| TGbn | 10/07/2025 | Zhang, Jiayi | Ofinno |
| TGbn | 10/07/2025 | Zhou, Renlong | Sanechips Technology Co., Ltd. |
| TGbn | 10/07/2025 | Perez, Javier | Ofinno |
| TGbn | 10/07/2025 | Wei, Dong | Guangdong OPPO Mobile Telecommunications Corp.... |
| TGbn | 10/07/2025 | Wang, Chu-Meng | ZTE Corporation |
| TGbn | 10/07/2025 | Doostnejad, Roya | ofinno |
| TGbn | 10/07/2025 | Dezfouli, Behnam | Nokia |
| TGbn | 10/07/2025 | Cho, Hangyu | LG ELECTRONICS |
| TGbn | 10/07/2025 | Val, Inaki | MaxLinear, Inc. |
| TGbn | 10/07/2025 | Kalamkar, Sanket | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 10/07/2025 | Liu, Yong | Apple Inc. |
| TGbn | 10/07/2025 | Handte, Thomas | Sony Group Corporation |
| TGbn | 10/07/2025 | Beaudin, Andre | Hewlett Packard Enterprise |
| TGbn | 10/07/2025 | Yan, Aiguo | SAMSUNG ELECTRONICS |
| TGbn | 10/07/2025 | Kandala, Srinivas | Samsung |
| TGbn | 10/07/2025 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.... |
| TGbn | 10/07/2025 | Patil, Abhishek | Qualcomm Incorporated |
| TGbn | 10/07/2025 | Silverman, Matt | Cisco Systems, Inc. |
| TGbn | 10/07/2025 | Zhou, Huixuan | Guangdong OPPO Mobile Telecommunications Corp.... |
| TGbn | 10/07/2025 | Yoon, Yelin | LG ELECTRONICS |
| TGbn | 10/07/2025 | Chen, You-Wei | MediaTek Inc. |
| TGbn | 10/07/2025 | Park, Sungjin | Senscomm |
| TGbn | 10/07/2025 | Wang, Kaidong | Huawei Technologies Co., Ltd |
| TGbn | 10/07/2025 | Ha, Taeyoung | Samsung Electronics Co., Ltd. |
| TGbn | 10/07/2025 | Hu, Jizhu | TCL |
| TGbn | 10/07/2025 | Ma, Yongsen | SAMSUNG ELECTRONICS |
| TGbn | 10/07/2025 | Aio, Kosuke | Sony Corporation |
| TGbn | 10/07/2025 | Kim, Geon Hwan | LG ELECTRONICS |
| TGbn | 10/07/2025 | Wang, Lei | Futurewei Technologies/Huawei Technologies |
| TGbn | 10/07/2025 | Sun, Bo | Sanechips Technology Co., Ltd. |
| TGbn | 10/07/2025 | Lou, Hanqing | InterDigital, Inc. |
| TGbn | 10/07/2025 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbn | 10/07/2025 | Yang, Jingxuan | Panasonic Holdings Corporation |
| TGbn | 10/07/2025 | Fang, Yonggang | MediaTek Inc. |
| TGbn | 10/07/2025 | Minotani, Jun | Panasonic Holdings Corporation |
| TGbn | 10/07/2025 | Wang, Xiaofei | InterDigital, Inc. |
| TGbn | 10/07/2025 | Shi, Zhenpeng | Huawei Technologies Co., Ltd |
| TGbn | 10/07/2025 | Sung, Hyeonjun | WILUS Inc. |
| TGbn | 10/07/2025 | Zhong, Ke | Ruijie Networks Co., Ltd. |
| TGbn | 10/07/2025 | Halna du Fretay, Tristan | Canon Research Centre France |
| TGbn | 10/07/2025 | Wee, Gaius | Panasonic Holdings Corporation |
| TGbn | 10/07/2025 | Zhou, Lei | New H3C Technologies Co., Limited |
| TGbn | 10/07/2025 | Li, Weiyi | Spreadtrum Communication USA, Inc |
| TGbn | 10/07/2025 | Fan, Shuang | Sanechips Technology Co., Ltd. |
| TGbn | 10/07/2025 | Nogami, Toshizo | SHARP CORPORATION |
| TGbn | 10/07/2025 | Lee, Hong Won | LG ELECTRONICS |
| TGbn | 10/07/2025 | Lim, Dong Guk | LG ELECTRONICS |
| TGbn | 10/07/2025 | Huang, Chun | ZTE Corporation |
| TGbn | 10/07/2025 | Li, Jialing | Qualcomm Incorporated; Qualcomm Technologies, Inc |
| TGbn | 10/07/2025 | Hasabelnaby, Mahmoud | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 10/07/2025 | Varshney, Prabodh | Nokia |
| TGbn | 10/07/2025 | Choi, JinHo | SAMSUNG ELECTRONICS |
| TGbn | 10/07/2025 | Son, Ju-Hyung | WILUS Inc. |
| TGbn | 10/07/2025 | Motozuka, Hiroyuki | Panasonic Holdings Corporation; Panasonic Oper... |
| TGbn | 10/07/2025 | Kim, Sanghyun | WILUS Inc. |
| TGbn | 10/07/2025 | Noh, Si-Chan | Newracom Inc. |
| TGbn | 10/07/2025 | Hervieu, Lili | CableLabs |
| TGbn | 10/07/2025 | Wang, Qi | Apple Inc. |
| TGbn | 10/07/2025 | SUH, JUNG HOON | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 10/07/2025 | Procyk, Ian | Cisco Systems |
| TGbn | 10/07/2025 | Epstein, Avner | MaxLinear |
| TGbn | 10/07/2025 | Hussein, Abdalla | Huawei Technologies Canada; Huawei Technologie... |
| TGbn | 10/07/2025 | Yang, Jay | ZTE Corporation |
| TGbn | 10/07/2025 | Yang, Haorui | China Mobile (Hangzhou) Information Technology... |
| TGbn | 10/07/2025 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbn | 10/07/2025 | Kamel, Mahmoud | Interdigital Inc. |
| TGbn | 10/07/2025 | CHENG, yajun | Xiaomi Communications Co., Ltd. |
| TGbn | 10/07/2025 | LEE, JOONSOO | Newracom Inc. |
| TGbn | 10/07/2025 | feng, Shuling | MediaTek Inc. |
| TGbn | 10/07/2025 | Tanaka, Yusuke | Sony Corporation |
| TGbn | 10/07/2025 | Kishida, Akira | NTT |
| TGbn | 10/07/2025 | Sakamoto, Ryunosuke | SHARP CORPORATION |
| TGbn | 10/07/2025 | Park, Minyoung | Apple Inc. |
| TGbn | 10/07/2025 | Deshmukh, Mrugen | Ofinno |
| TGbn | 10/07/2025 | Gu, Xiangxin | Spreadtrum Communications (Shanghai) Co., Ltd. |
| TGbn | 10/07/2025 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbn | 10/07/2025 | Ryu, Kiseon | WILUS Inc. |
| TGbn | 10/07/2025 | Doppler, Klaus | Nokia |
| TGbn | 10/07/2025 | li, yan | ZTE Corporation |
| TGbn | 10/07/2025 | Dong, Xiandong | Xiaomi Communications Co., Ltd. |
| TGbn | 10/07/2025 | Fang, Juan | Intel Corporation |
| TGbn | 10/07/2025 | Asterjadhi, Alfred | Qualcomm Technologies, Inc. |