IEEE P802.11
Wireless LANs

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| Minutes for TGbn MAC Ad-Hoc Teleconferences in November 2024 to January 2025 |
| Date: 2024-12-05 |
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Abstract

This document contains the minutes for the TGbn MAC ad hoc teleconferences in November 2024 to January 2025.

Revisions:

* Rev0: Added the minute from the MAC ad hoc teleconference held on Dec 5 and 9.

**Dec 5, 2024 (TGbn MAC ad hoc teleconference)**

Chairman: Srinivas Kandala (Samsung)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex.

**Introduction**

1. The Chair (Srinivas Kandala, Samsung) calls the meeting to order at 10:00am ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
	1. **Copyright Policy: Participants are advised that**
		1. IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html%22%20%5Cl%20%227) 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;
		2. 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
4. The Chair recommends using IMAT for recording the attendance.
	1. Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbn <MAC/PHY/Joint> conference call that you are attending.
	2. If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Srinivas Kandala (srini.k1@samsung.com), Jeongki Kim (jeongki.kim.ieee@gmail.com), and Xiaofei Wang (xiaofei.wang@interdigital.com)
5. The Chair asked whether there is comment about agenda in 11-24/1988r3.

Kosuke requested to defer his SPs.

 **Submissions**

1. [24/2007r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2007-00-00bn-pdt-mac-p-edca.docx) PDT-MAC-p-edca Dmitry Akhmetov

C:Should is not proper in the sepc. You can delete it.

C: What does the balance mean? Balance is fuzzy.

C: We need more discussion on fair channel access of legacy STA on this. RTS frame has collision problem.

C: should is changed to is expected to. Instead of device, use STA.

C: Details TBD, access category is TBD? Or others TBD? Details of mechansim?

C: the sentece is not proper.

C: fairness is better in the last sentence. I don’t want to remove it. Just rephrase it.

1. [24/1762r5](https://mentor.ieee.org/802.11/dcn/24/11-24-1762-05-00bn-pdt-mac-npca.docx) PDT-MAC-NPCA Matthew Fischer

C:new field , 9-x1 already exists.

C: clarification on texts of 40MHz or TBD.. some editorial comments.

C: the most recently received texts are related to only non-AP STA. If NPCA STA is non-AP STA or AP, then we need to clarify the text like the most recently received or transmitted.

C: plus the TXOP duration may not be considered in case of TXOP\_DURATION set to UNSPECIFIED value.

1. Pending SPs – Channel Access + MAP (30 mins):

SP1 **SP1 – Dmitry Akhmetov – Channel Access**

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

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

*Supporting documents: [24/1144]*

Result:

C: defer signal is going to be existing MAC frame or PHY signal?

A: This is frame. CTS frame.

C: We don’t have HiP. Can you add ancronym?

C: Do you mean that LL traffic is treated as AC\_VO traffic?

C: what’s the primary use of initial frame? You mention the Defer Signal.

C: HiP EDCA is distributed mechanism. Enabling/disabling condition is missing. That should be the first condition.

C: e.g., CTS frame or RTS. We have to choose one or both are possible. What’s the difference?

C: If Defer signal is CTS then what is the intention of the SP?

C: Other LL STA contend the channel during the period? Or STA transmitting Defer Signal accesses the channel?

C: Is this operation performing after Defer signal? We don’t need to mandate RTS/CTS after Defer signal in a few STA cases.

C: How can STA know that traffic is low latency traffic?

C: AP should enable this operation.

C: synchronization issue should be discussed.

C: In seven bullet, controlled by AP meaning?

36 Y, 52N, 36A

* [24/1464](https://mentor.ieee.org/802.11/dcn/24/11-24-1464-00-00bn-discussion-on-icf.pptx) Discussion on ICF Insun Jang

C: Why do you add this information at the end of fields?

A: This is current design defined in the current spec.

C: In this case, some STA may stop before reading this.

C: In slide 5, do you need length field?

C: Padding, if we go with this way, some other contribution mentions that MIC and PN can be carried in padding. Some STA may not understand this control information. How do I skip? This may not be easy.

C: option 1, hanqing, information should be provided early. You don’t need the length necessarily. Intermidate FCS or MIC should be considered in Padding.

A: We may have multiple control feedbacks.

C: User info already fixed.

C: User Info size is fixed. 4 octects

* [24/1702](https://mentor.ieee.org/802.11/dcn/24/11-24-1702-00-00bn-consideration-on-the-signalling-method-of-intermediate-fcs.pptx) Consideration-on-the-signalling-method-of-intermediate-fcs Yanchao Xu

C: Regarding the miss detection due to error, error can happen to other part.

A: Recipient can do early determination of Trigger frame.

C: I agree with this direction. If the STA know the location, the STA can terminate parsing early.

The teleconference was adjourned at 12:00.

**Dec 9, 2024 (TGbn MAC ad hoc teleconference)**

Chairman: Xiaofei Wang (Interdigital)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex.

**Introduction**

1. The Chair (Xiaofei Wang, Interdigital) calls the meeting to order at 19:00 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
	1. **Copyright Policy: Participants are advised that**
		1. IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html%22%20%5Cl%20%227) 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;
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	2. If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Srinivas Kandala (srini.k1@samsung.com), Jeongki Kim (jeongki.kim.ieee@gmail.com), and Xiaofei Wang (xiaofei.wang@interdigital.com)
5. The Chair asked whether there is comment about agenda in 11-24/1988r6.
* 825 and 741 were deleted from agenda.

PDT **Submissions**

* [24/1966r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1966-00-00bn-pdt-mac-crtwt.docx) PDT MAC CRTWT Giovanni Chisci

C: Do you have any reason to change CR-TWT to Co-RTWT?

A: This is aligned with Ross’s document.

The author requested to SP.

TGbn Chair recommended having more time to review the document.

The author is ok with it.

Pending SPs – Topic (30 mins):

**SP1 – Haorui Yang – Roaming**

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

* + The detailed mechanism is TBD.

*Supporting documents: [24/1388]*

Result:

C:We have seamless roaming mechanism. Which mechanism are you referring to here?

A: Right now I don’t have the detailed mechanism. This can be one of mechanisms.

C: What is the same operator network? Not need this now. Defer this SP.

C: We are discussing seamless roaming in the same ESS. But, the same operator network is more open.

A: Mobility domain may not be enough.

C: What is the intention of SP? What is the infrastructure network that you want to define?

A: I can defer.

C: the same operator network is unclear.

**SP2 – Kumail Haider – Power Save**

Do you agree add the following text to TGbn SFD:

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

NOTE 1 – The exact signaling mechanism is TBD

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

*Supporting doc: [24/1602r1]*

Result:

C: Today, TWT request/response can be used to request to AP that can accept it or not. Do you want to define another mechanism on top of the existing mechanism?

A: We may change the current TWT mechanism for this.

C: There is already a existing TWT mechanism and SCS mechanism to meet the requirements. I don’t see the gap.

A: AP and mobile AP shall be available within those SP.

Recorded.

C: Is it AP’s capability of guaranteed availability?

A: It’s for AP to be available for the period.

Result: 29Y/40N/44A

**SP3 – Rubayet Shafin – P2P**

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

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

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

Note:

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

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

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

Result:

No objection

**SP4 – Brian Hart – Feedback**

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

*Supporting documents: [24/1123r1]*

Result:

C: How do you envision the rating to be provided to that AP? … what kind of parameters are?

A: we discussed a couple of variants. This is just a high level.

C: What’s the difference between quality of experience and the current preference value?

C: how does that work ? This works with the QoS characteristics. Does it require some change to the QoS characteristics field?

A: This is just a sort of a high level, generalized report on the client’s experience for the network.

40Y, 20N, 55A

* Technical Submissions–Control part 2 + C-RTWT+QoS:
	+ [24/1893](https://mentor.ieee.org/802.11/dcn/24/11-24-1893-00-00bn-icf-follow-up.pptx) ICF follow up Liwen Chu

C: slide 4, option 1 is preferred than option 4. If Control information bits is exceeding 28 bits, how can you handle it?

A: I assume it does not happen now. If more than 28 bits, we can use two user info fields. We can have a control ID. In the future, we can figure out.

C: ICF is for unsolicited unavailability report?

A: It is initial control frame.

C: this Trigger frame is not related to the BSRP Trigger frame.

A: we want to use BSRP Trigger frame.

C: Is this tried to aside from control information that the feedback from the AP will be expected to be also BSRP related information or just purely for the control information.

C: We can ICF/ICR for several variant (DPS, coex, multi AP. We should consider the variant to identify at least what.

A: we only figure out that this available information will be need to be carried for this dynamic power save. We don’t need to carry such the information in the special user info field.

* + [24/1583](https://mentor.ieee.org/802.11/dcn/24/11-24-1583-00-00bn-icr-transmission-follow-up.pptx) ICR transmission-follow-up Dibakar Das

C: What is the unavailability information that OBSS STA report to AP?

A: avaiable for receiving any DL data.

C: Between AP and STA obvisus AP , there are the frame exchange. There are RTS/CTS/

C: why the collision decrease by the unavailabiltiy information? I would assume it should increase because you send this unavailability information. Interfere with your transmission?

* + [24/0743](https://mentor.ieee.org/802.11/dcn/24/11-24-0743-00-00bn-simulation-results-for-map-obss-twt-management.pptx) Simulation results for MAP OBSS TWT management Patrice NEZOU

C: slide 5 how would this case occur in your view? It would be that case two A practically never occurs. I’m not aware of.

C: the case c is more fair operational scenarios that’s ok I protect RTWT, you protect mine.

C: RTWT is periodic low latency traffic. Why do you set the CBR traffic in scenarios? Not suitable.

A: I agree with you that to measure the latency we have to choose.

C: Mixed traffic scenarios may be suitable.

C: slide 6, the length of the SP should be adapted.. what do you mean strong medium access rule?

* + [24/1690](https://mentor.ieee.org/802.11/dcn/24/11-24-1690-00-00bn-discussion-on-ooo-delivery.pptx) Discussion on OOO delivery Liangxiao Xin

C: Inorder delivery is to the upper layer from MAC? Have you look into that? Is there a concern with that? Upper layer in order delivery.

A: It’s better to provide inorder delivery in the whole network.

C: You’re assuming SCS flow is set up for. What if SCS flow stream is not setup?

A: Out of delivery is enabled for SCS traffic. If there is no SCStraffic stream, there is no out of order delivery.

C: Tclass process. This is a lot of implemenation that would prefer to avoid.

A: we will have this issue we need to solve this. I think increase TID numbers from eight to fifteen.

The teleconference was adjourned at 21:00.