IEEE P802.11  
Wireless LANs

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| Minutes for TGbn MAC Ad-Hoc sessions in September 2024 | | | | |
| Date: 2024-09-09 | | | | |
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Abstract

This document contains the meeting minutes for the TGbn MAC ad hoc sessions in September 2024.

Revisions:

* Rev0: Added the minutes from the MAC ad hoc sessions held on September 9 (PM2), 10 (AM2, PM1, and PM2), 11 (AM1 and AM2) and 12 (AM1 and AM2).

**September 9, 2024, PM2 (TGbn MAC ad hoc session)**

Chairman: Srinivas Kandala (Samsung)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex and in Hawaii (in-person).

**Introduction**

1. The Chair (Srinivas Kandala, Samsung) calls the meeting to order at 16:00. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair reminded the members that they need to register for the plenary in order to attend the meeting.
3. The Chair recommends using IMAT for recording the attendance.
   * 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 Plenary Session” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click the “TGbn (MAC)”” meeting 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 Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com)), Xiaofei Wang ([xiaofei.wang@interdigital.com](mailto:xiaofei.wang@interdigital.com)), and Srinivas Kandala ([srini.k1@samsung.com](mailto:srini.k1@samsung.com))
4. 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.
5. The Chair goes through the IEEE copyright policy.
6. The Chair asked whether there is comment about agenda in 11-24/1364r3.
   1. [24/0544](https://mentor.ieee.org/802.11/dcn/24/11-24-0544-00-00bn-power-save-protocols-for-uhr-follow-up.pptx) Power Save Protocols for UHR - follow up Sherief Helwa
   2. [24/0737](https://mentor.ieee.org/802.11/dcn/24/11-24-0737-01-00bn-cross-link-wake-up-to-go-deeper-in-power-save.pptx) Cross-link Wake-up to Go Deeper in Power Save Yuxin Lu
   3. [24/0782](https://mentor.ieee.org/802.11/dcn/24/11-24-0782-01-00bn-ap-power-saving.pptx) AP power saving Chaoming Luo
   4. [24/0844](https://mentor.ieee.org/802.11/dcn/24/11-24-0844-00-00bn-padding-time-in-dynamic-power-save.pptx) Padding Time in Dynamic Power Save Maolin Zhang
   5. [24/1129](https://mentor.ieee.org/802.11/dcn/24/11-24-1129-00-00bn-discussion-on-intermediate-fcs-signaling.pptx) Discussion on Intermediate FCS Signaling SunHee Baek
   6. [24/1146](https://mentor.ieee.org/802.11/dcn/24/11-24-1146-00-00bn-considerations-on-ap-power-save-mode.pptx) Considerations on AP Power Save Mode Jerome Gu
   7. The agenda was approved.

**Submissions**

1. [24/0544](https://mentor.ieee.org/802.11/dcn/24/11-24-0544-00-00bn-power-save-protocols-for-uhr-follow-up.pptx) Power Save Protocols for UHR - follow up Sherief Helwa

C:, slide 4, what is the size of intermediate FCS?

A: I expect it’s legacy FCS.

C: you will use the 32 bits. The size of user info field must be consistent with each other.

C:, option 1 is same as previous. option 2, do you foresee no backward compatibility as long as the first two architects are set to ones?

C: Legacy STA anticipates all ones for padding.

A: Legacy STAs just calculates the FCS using all bits including padding.. Not discard due to the different value.

C: slide 6, why did you choose 256us?

A: It’s based on discussions with implementation teams and other members.

C: Do you consider Trigger frame for ICF? How about UL case?

A: Yes, Trigger frame can be used for uplink case.

C: slide 4, this are for AP and non-AP STA?

A: Yes, it’s applicable in the UL and DL.

C: Ok, we can have more discusison for that.

C: slide 5, first bullet is similar to vishnu. Option 2 may have some issues especially for multi-user cases? It might be dangerouse design if you change the padding value.

A: The legacy STA should not discard it due to padding value. Just calculate FCS.

C: It depends on implemenation. I-FCS may match the legacy STA AID.

C: why padding is variable?

A: FCS to two users to two special user info fields, two fields are going to be greater than the 32 bits.

C: Legacy padding may be variable but padding in user info field should be fixed.

C:, option 2, current padding is all 1s. Interoperability issue.

C: You need to scan the remaining user info fields but for current one, it just stop its own user info field and the.

1. [24/0737](https://mentor.ieee.org/802.11/dcn/24/11-24-0737-01-00bn-cross-link-wake-up-to-go-deeper-in-power-save.pptx) Cross-link Wake-up to Go Deeper in Power Save Yuxin Lu

C: slide 12, example 3, wake up frame indicates STA 22. And STA 12 obtains TXOP? Switch time may be maximum time.

A: Such transmtion time can be indicated in the previous frame.

C: switching time can be NAV sync time. STA 22 should know previous PPDU.

C: there is trade off between power saving and QoS.

C: I think DPS is a single link. It’s good option to creat a kind of multi-link version of DPS.

1. [24/0782](https://mentor.ieee.org/802.11/dcn/24/11-24-0782-01-00bn-ap-power-saving.pptx) AP power saving Chaoming Luo

C: slide 8, do assume the STA 3 is UHR STA or legacy STA?

A: the STA 3 is any STA.

C: OBSS impact is very low impact. SR is in wi-fi 6. Not mandatory.

C: AP still use EDCA parameter and baseline to gain the channel access.

C: Is it bring power consumption benefits if I have to transmit something proactively every TXOP?

C: why do you want to specify the AC\_BK and BE for channel access parameters?

A: If you use AC VI or VO to contend chanel that means you have less data to transmission.

C: that channel can be occupied by the specific STA by CTS-to-self. OBSS STAs may not contend the channel.

1. [24/0844](https://mentor.ieee.org/802.11/dcn/24/11-24-0844-00-00bn-padding-time-in-dynamic-power-save.pptx) Padding Time in Dynamic Power Save Maolin Zhang

C: padding two values are for STA specific value?

A: It depends on STA capability.

C: D1 and D2 are going to be different from one STA to another Sta. How is each Sta going to report this to each STA so that it adds enough padding in the Icf? Is it the same or constant across all possible STAs?

1. [24/1129](https://mentor.ieee.org/802.11/dcn/24/11-24-1129-00-00bn-discussion-on-intermediate-fcs-signaling.pptx) Discussion on Intermediate FCS Signaling SunHee Baek

C: option 3 as sherif.. current padding is all 1s.

A: we can consider the legacy STA issue further.

C: Option 2 is we need more detailed disucssion.

C: SP, do you want to limit this initial control frame for power saving or for any other purpose?

A: I did not limit for the DPS.

C: If we define new control frame, we may not need this one. This is MU-RTS?

C: What is the legacy issue for padding?

A: If I-FCS is added, then padding may not be all 1s.

C: which spec text from the standard, this legacy STAs think that a behaior is not.

A: The current spec clearly says the Padding is all 1s.

C: Spec does not say legacy has problem. Is is implementation or standard perspective.? It’s the TX perspective. Where is it for the RX perspective?

C: I can provide. There is no restriction for RX side. It think it’s all ones for padding.

C: It can be implementation issue. Not standard issue.

The session was recessed at 18:00.

**September 10, 2024, AM2 (TGbn MAC ad hoc session)**

Chairman: Srinivas Kandala (Samsung)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex and in Hawaii (in-person).

**Introduction**

1. The Chair (Srinivas Kandala, Samsung) calls the meeting to order at 10:30. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair reminded the members that they need to register for the plenary in order to attend the meeting.
3. The Chair recommends using IMAT for recording the attendance.
   * 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 Plenary Session” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click the “TGbn (MAC)”” meeting 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 Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com)), Xiaofei Wang ([xiaofei.wang@interdigital.com](mailto:xiaofei.wang@interdigital.com)), and Srinivas Kandala ([srini.k1@samsung.com](mailto:srini.k1@samsung.com))
4. 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.
5. The Chair goes through the IEEE copyright policy.
6. The Chair asked whether there is comment about agenda in 11-24/1364r5.
   1. The agenda was approved.

**Submissions**

1. [24/1146](https://mentor.ieee.org/802.11/dcn/24/11-24-1146-00-00bn-considerations-on-ap-power-save-mode.pptx) Considerations on AP Power Save Mode Jerome Gu

C: slide 4, do you see in this, configuration means , old one and new one are low capabilities? That’s the different one from previous one. There is power saving mode which is different capability. 40MHz or 80MHz. If the 80MHz is full bandwidth, in this case, 20MHz and 40MHz are different low capabilities. Why?

C: What is the value of changes of AP capabilities mode configuration every second? What kind of technology?

A: regarding the power saving interval, that can be configuration. Traffic patterns.

C: if you’re talking about every ten ms, maybe this mechanism isn’t optimized for that because you’re relying on beacon transmission. Your transmission time is longer than you’d like to.

C: the dynamics of this mechanism is at least several activities.

1. [24/1166](https://mentor.ieee.org/802.11/dcn/24/11-24-1166-00-00bn-twt-based-power-save-with-enhanced-flexibility.pptx) TWT-based Power Save with Enhanced Flexibility Qing Xia

C: slide 7, suspend and resume TWT for cross-link signal is already supported in 11be.

C: doublecheck it allows the information frame to send on a different link but I’s not used to suspend the ongoing TWT?

C: all the members get the information when the next TWT is going to be.

C: slide 9, AP will go to doze state when TWT SP is asking or suspend.

C: when the TWT negotiated the responder PM bit set to 1?

A: Inside SP, STA can send QoS null frame to AP to indicate that I’m awake with the carrying the PM mode. And get the ack.

C: AP power saving perspective, you mentionedboth individual TWT and broadcast TWT? It’s probably better to use broadcast TWT in that case.

C: If the AP goes to doze state, all the STA need to know. It’s not different schedule for a specific individual STA? That was the point I was saying.

1. [24/1167](https://mentor.ieee.org/802.11/dcn/24/11-24-1167-00-00bn-eml-sr-mr-based-dynamic-power-save-design.pptx) EML(SR/MR) Based Dynamic Power Save Design Qing Xia

C: 11be already defined NSTR mobile AP, why we need to define EMLSR ML AP mode what’s the benefit to compared with the current one?

C: EMLRSR AP MLD, do we need? What’s the benefit compared to NSTR mobile AP MLD?

1. [24/1246](https://mentor.ieee.org/802.11/dcn/24/11-24-1246-00-00bn-low-power-listening-mode-for-clients-follow-up.pptx) Low-power-listening-mode-for-clients-follow up Ming Gan

C: slide 6, disambiguation bit?

C: Legacy STA does not understand the indication in common user info field.

C: The first field is extra FCS part one and then you add that this ambiguation bit which I was expecting to come at the beginning to set the value of the AP as greater than 2007.

C: You use one bit for disambiguation. First 11 bit, just a random cause this FCS part one can be.

C: You have to do optimization for this so that we can limit use the reserved values .

C: Disambiguation bit is only for legacy device whether they are going to be confused because it’s a reserved value.

C: ICF has padding? How would you achieve the intermediate FCS and padding in a data frame in non-HT PPDU?

A: This data is for UHR STA. It can be achieved fast.

C: You have to change the payload architecture in MPDU. We can discuss it.

1. [24/1227](https://mentor.ieee.org/802.11/dcn/24/11-24-1227-00-00bn-some-usage-of-intermediate-fcs.pptx) Some usage of intermediate FCS Cariou, Laurent

C: the last sentence, we don’t have any control frame protection, we can remove it.

C: is there many contributions. Can you combine? One for eMLSR, DPS, DSO, to save time.

1. [24/1256](https://mentor.ieee.org/802.11/dcn/24/11-24-1256-00-00bn-the-padding-after-intermediate-fcs.pptx) The padding after intermediate FCS Yunbo Li

Presented

The session was recessed at 12:30.

**September 10, 2024, PM1 (TGbn MAC ad hoc session)**

Chairman: Srinivas Kandala (Samsung)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex and in Hawaii (in-person).

**Introduction**

1. The Chair (Srinivas Kandala, Samsung) calls the meeting to order at 13:30. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair reminded the members that they need to register for the plenary in order to attend the meeting.
3. The Chair recommends using IMAT for recording the attendance.
   * 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 Plenary Session” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click the “TGbn (MAC)”” meeting 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 Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com)), Xiaofei Wang ([xiaofei.wang@interdigital.com](mailto:xiaofei.wang@interdigital.com)), and Srinivas Kandala ([srini.k1@samsung.com](mailto:srini.k1@samsung.com))
4. 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.
5. The Chair goes through the IEEE copyright policy.
6. The Chair asked whether there is comment about agenda in 11-24/1364r6.
   1. The agenda was approved.

**Submissions**

1. [24/1256](https://mentor.ieee.org/802.11/dcn/24/11-24-1256-00-00bn-the-padding-after-intermediate-fcs.pptx) The padding after intermediate FCS Yunbo Li [Q&A]

C: do you think the station with the least transition delay will always be a kind of less.

A: This mechanism is for dynamic power saving.

C: slide 8, we can reduce the about 6 user info field

A: It could save 6 user info.

C: we can save 40us?

A: Yes

C: you have different padding requirements for different bandwidths what is the use case?

C: One sta has only one paddding delay? But for different STA have different requirements.

C: slide 8, 8 STAs concureently to switch to a large bandwidth? Use cases?

A: AP schedules the eight STA in one frame. After initial control frame exchanges all STA switches to a large bandwidth.

A: how to organize this group is a decision he may consider multple of facts. How big this group should be?

C: it’s really complicated by AP implement side. Is it optional or mandatory?

A: It should be optional. You choose it.

1. [24/1205](https://mentor.ieee.org/802.11/dcn/24/11-24-1205-01-00bn-analysis-and-simulations-on-coordinated-spatial-reuse.pptx) Analysis and Simulations on Coordinated Spatial Reuse Jason Y. Guo

C: what is a short AP ID? Is it association ID?

A: AP 1 can assign to AP 2 AID. AP 2 can assign the AID to AP 1.

C: AP is going to check ED level on the medium and we wil find that another shared AP that is too close is already starting a transmission so it will defer and stay. I’m not going to be able to do a transmission.

C: We should define a common trigger frame not specified the CSR trigger frame, so it will be easier for the implementation in there if you can seee a TBD trigger frame work.

C: SP 1, This is based on slide 3 diagram. The text is not supporting EMLSR STA. We need more discussion for supporting EMLSR STAs.

A: I did not exclude it in SP.

C: In SP, we can call the trigger frame just. Not specific trigger frame.

C: Regarding AP ID, two options can be applied or choose one of both? I think option 2 is more general.

A: If we support option 1, we don’t do anything.

C: delay, in method 2, it’s hard to control. It might cause the problem. Which option do you prefer?

A: I prefer method 1.

C: In SP a general trigger frame is better.

1. [24/0678](https://mentor.ieee.org/802.11/dcn/24/11-24-0678-00-00bn-coordinated-r-twt-follow-up.pptx) Coordinated R-TWT--Follow-Up Rubayet Shafin

C: Intra-BSS negotiation, update negotiation between AP and clients? Is is UHR client?

A: This can be transparent to UHR vs non-UHR.

C: Flexibility of cross BSS subscription, just wanted to ask you what kind of use cases you have in mind a clinet want to subscribe to another?

A: Clients should not worry about what is going on on the higher layer.

C: we should keep simple.

A: What do you mean?

C: you can get the information from beacon.

C: I would say like possibility of a memebership in OBSS schedule.

C: slide 7, how to decide this mode by AP? Can you elaborate?

A: if you’re AP, it’s based on the OBSS conditions. AP knows the OBSS conditions.

C: AP and STA can control transmit power.

A: You’re stepping into CSR discussion if you want to discuss CSR it’s different discussion.

C: over protection may happen. R-TWT member may not affect in the TXOP.

C: slide 11, is it overlapping R-TWT SPs?

A: initiating AP indicates QoS ...

C: we already have AP can annouce R-TWT SP of virtual Aps and other AP’s schedules. We don’t need these negotiation.

C: Three different option. Do you need mode 3? Negotition based already not overlap

C: What frame do you consider as multiple annoucement? Management,

A: It should be a management frame. Next level to discuss the exact frame format.

1. [24/0742](https://mentor.ieee.org/802.11/dcn/24/11-24-0742-00-00bn-obss-twt-management-for-map.pptx) OBSS TWT management for MAP VIGER Pascal

C: slide 5, option 3, how this temporary operationg channel can be determined?

A: It could be negotiated between both Aps.

C: slide 5, option 2, this is protecting time? you can hear all of the STAs and the other BSS. You can hear the AP but what if you can’t hear all the other STA? I think option 2 is conflicting. Other options is good.

C: Intra-BSS SP, STA does stop TXOP. Why do you apply this for OBSS SP?

C: If STA see two R-TWT SPs one is intra, the other is OBSS. The STA just stop for intra-R-TWT while the STA waiting a delay for OBSS R-TWT.

C: Option 3, OBSS TWT element indicates which channel is used for OBSS R-TWT SP.

The session was recessed at 15:20.

**September 10, 2024, PM2 (TGbn MAC ad hoc session)**

Chairman: Srinivas Kandala (Samsung)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex and in Hawaii (in-person).

**Introduction**

1. The Chair (Srinivas Kandala, Samsung) calls the meeting to order at 16:00.

**Submissions**

1. [24/1196](https://mentor.ieee.org/802.11/dcn/24/11-24-1196-01-00bn-issues-on-obss-r-twt-protection.pptx) Issues on OBSS R-TWT Protection Gwangho Lee

C: slide 6, what about P2P transition? AP and STA may not know their OBSS transmission?

C: AP broadcasts OBSS R-TWT. It can solve this issue. AP may abouse or in the other consider to use this method. That’s bigger difference.

A: if there is OBSS R-TWT before the beacon frame, …

A: This is a supplementary possible approach.

C:

1. [24/0817](https://mentor.ieee.org/802.11/dcn/24/11-24-0817-01-00bn-opportunistic-transmission-in-c-tdma.pptx) Opportunistic Transmission in C-TDMA Taeyoung Ha

C: what is there in CTDMA like what is the CTDMA aspect.. what is the problem in CTDMA aspect?

C: slide 9, RTS/CTS or ICF/ICR are used for hidden node problem. Already used in existing. AP 3 may use the shared TXOP to other STAs. This is a little risky.

C: slide 6, do you consider the CTDMA exchange step within a single TXOP?

C: slide 10, how to give an opportunity to know AP? STA may not reply to OT AP.

C: if you see problem in sharing AP, it can be issue. But in network perspectives, it can reduce the thoughput.

C: I’m struggling with not allowing the return of the TXOP

C: rate selection is harder.

1. [24/0866](https://mentor.ieee.org/802.11/dcn/24/11-24-0866-00-00bn-preemption-for-c-tdma.pptx) Preemption for C-TDMA Jiayi Zhang

C: slide 6, what’s the nav setting while shared AP transmits data? This is very corner use cases and maybe have very small value compared to the complexities.

C: slide 6, after transmitting CTS, the shared AP marks preemption of AP 1 in the data frame.

C: after end of preemption, how to set the ack policy in the data frame? How does the STA 2 know whether the STA 2 transmits BA?

C: if the data allows the preemption, how to solicit BA? It should be delayed BA. Is it support the implicit BA?

C: slide 6, if shared AP has low latency and it’s requested the preemption, how does AP 2 do?

C: how the preemption of AP 1 is ensured? Any other STA can jump in the preemption?

A: AP 1 requests only AP 1 preemption. So, other STA cannot preempt it.

C: We can have more simple procedure. In C-TDMA, AP should firstly consider its own transmission and then, the AP shares the TXOP to other AP.

1. [24/0842](https://mentor.ieee.org/802.11/dcn/24/11-24-0842-00-00bn-multi-ap-set-configuration-for-c-tdma.pptx) Multi-AP set configuration for C-TDMA GeonHwan Kim

C: slide 5, for negotiation, do you assume the negotiation is performed by only one STA or it can be announced to multiple Aps? Coordination announcement can be used for multiple STAs.

A: I think P2P negotitaiton is better than broadcast method.

C: do you assume that only one MAP ID is negotiation or is it possible for multiple MAP group?

A: It is not limited to only one scheme.

C: In this corrdiation announcement, are you assuming that putting some multi AP ID inside some of trigger frame to identify to which mAP group is applied.

C: slide 9, each MAP has its own MAP set? You want to authenticate this AP one by one?

A: Yes.

C: each AP has multiple MAP coordination setup. Do we need that all Aps to coordinate together to ensure that we will not have any overlapping in the AP ID assignment?

1. [24/0843](https://mentor.ieee.org/802.11/dcn/24/11-24-0843-00-00bn-some-details-on-txop-sharing-in-c-tdma.pptx) Some details on TXOP sharing in C-TDMA GeonHwan Kim

C: slide 8, option 1 is very limited. I prefer option 2.

C: slide 5, why do we need third bullet? Can you elaborate which MAP scheme should be indicated?

A: It is the purpose of triggering.

C: slide 6, what is the behaviour of sharing AP once it receives action frame or MU-RTS TXS TF?

C: slide 5, some of them are conflicted, RA field and AID 12 field in User info field.

C: slide 3, I don’t think we should just stop the class 1 frame.

The session was recessed at 18:00.

**September 11, 2024, AM1 (TGbn MAC ad hoc session)**

Chairman: Srinivas Kandala (Samsung)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex and in Hawaii (in-person).

**Introduction**

1. The Chair calls the meeting to order at 08:00.

**Straw Polls**

**SP1:** Do you agree to define mechanism(s) that enable APs to assign priority channel access to EPCS

*Supporting list: [24/984] SP requested by: Subir*

C: 11be already define EPCS. What do you want to add here? It could be clear to add the additional text related to association.

SP1: Do you agree to define mechanism(s) that enable APs to assign priority channel access to EPCS, during preassociation

C: It’s not clear. Is it happening at the association time or during preassociation?

C: is it prior to association? During association procedure is clear.

C: during the association phase..

**SP1: Do you agree to define mechanism(s) that enable APs to assign priority channel access to EPCS non-AP STA(s), during the association process?**

C: are you assigning EPCS authorizing STA or EPCS capable STA?

C: what is the behavior of STA today? What’s the baseline here?

C: Is it just exchanging association request and response? Or covering discovery procedure?

SP is deferred

**Result:**

**SP2:** Do you agree to define mechanism(s) that enable APs to preempt STAs to better support EPCS authorized STAs?

Note: Preempted STAs could include non-EPCS and lower priority EPCS STAs

*Supporting list: [24/984] SP requested by: Subir*

**Result:**

C: You can get feedback via reflector.

SP is deferred

**SP3:** Do you agree to define mechanisms that enable APs operating on the same channel to coordinate their respective rTWT schedules and/or to ensure that one AP extends the protection of the rTWT schedule of the other AP.

NOTE – TBD mechanisms including negotiation between 2 APs and advertisement.

*Supporting list: [23/0250, 23/1887, 23/1916, 23/1952, 23/1962, 23/2022, 23/2084, 24/0160, 24/0161, 24/0388, 24/0407, 24/827] SP requested by: Giovanni*

**Result:**

C: Author requested to defer this to next session.

SP is deferred

**SP4:** Do you agree the AP ID in TBD field of a TBD Trigger frame is used to identify each participator AP for coordination transmission?

*Supporting list: [23/1837r2, 24/1389r0, 24/1217r2,24/842r0,24/843r0] SP requested by: Jay*

**Result:**

C: add note nate AP name can be changed.

**C: we may add some text like coordination procedure or TXS procedure.**

**A: This is for when AP transmits the Trigger frame. Do you want to add for the coordination transmission?**

**C: You can add it at the part of the coordination transmission?**

**C: AP ID is also added in TB PPDU. We can handle together. This is not complete.**

**C:Note looks like focusing on C-TDMA scheme. Do you want it for only CTDMA or other scheme?**

**C: Ok I will defer the SP.**

**SP4, Do you agree as part of the coordinated transmission, that a sharing AP identifies a shared AP via an AP ID carried in the AID12 field of the User Info field of the sharing AP’s Trigger frame?**

NOTE: An AP that obtains the TXOP is referred to as a sharing AP (name TBD) and the AP with whom the sharing AP shares portion of the TXOP is referred to as the shared AP (name TBD).

Supporting list: 23/1837r2, 24/1389r0,**24/1217r2,24/842r0,24/843r0**

SP is deferred

**SP5: Do you support the following:**

* + Define a request frame sent by a non-AP MLD in state 4 to initiate the roaming procedure
  + The roaming procedure performs context transfer to the target AP MLD and changes the DS mapping from the current AP MLD to the target AP MLD
  + Define a response frame sent to the non-AP MLD to indicate readiness for the non-AP MLD to send class 3 frames to the target AP MLD
  + TBD on data transmission from non-AP MLD to current AP MLD during the request/response frame exchange
  + NOTE - What context is transferred is TBD.

*Supporting list: [11-24/830r1] SP requested by: Po-Kai*

**Result:**

**•SP5: Do you support the following:**

* + - **Define a request frame sent by a non-AP MLD in state 4 to initiate the roaming procedure**
    - **The roaming procedure performs context transfer to the target AP MLD and changes the DS mapping from the current AP MLD to the target AP MLD**
    - **Define a response frame sent to the non-AP MLD to indicate readiness for the non-AP MLD to send class 3 frames to the target AP MLD**
    - **TBD on data transmission from non-AP MLD to current AP MLD during the request/response frame exchange**
    - **NOTE - What context is transferred is TBD.**
    - **NOTE – TBD on which request/response frame to use**
* **Supporting list: 23/1971, 23/1996, 24/0052, 24/0083, 24/0101, 24/0396, 24/0412, 24/0679 , 23/1884, 24/830**

C: The SP text is not clear to me. I think it’s right direction to enhance the current FT protocol. If we use FT, we don’t need this protocol.

A: I add that TBD address your concern.

C: I’m in favor of this SP. We already have motion that we define a new procedure for seamless roaming in 11 bn. So. This is just the following consequence of that decision.

C: the second bullet point define a response frame sent to the non AP MLD.

C: I generally support this direction. Context transfer can happen in a preparation phase rather than note.

**Result: 77Y, 19N, 42A**

C:We will account for the votes in the chat only if the votes are placed in the prior to you calling the votes is closed. We should only accept votes from Slido.

**SP6: Do you support the following:**

* + At the time the response frame to initiate the roaming procedure is sent, the following shall be complete
  + The non-AP MLD context that is required for resuming operation with the target AP MLD shall be transferred to the target AP MLD
  + After this request/response frame exchange to initiate the roaming procedure,
  + If DS is not already notified about the update of the destination mapping for the non-AP MLD, DS is notified about the update of the destination mapping for the non-AP MLD
  + After DS is notified about the update of the destination mapping for the non-AP MLD, the current AP MLD shall not pass up any user data in the received reorder buffer to the next MAC process.
  + NOTE - What context is transferred is TBD.

*Supporting list: [11-24/830r1] SP requested by: Po-Kai*

**Result:**

•SP6: **Do you support the following:**

* + - At the time the response frame to initiate the roaming procedure is sent, the following shall be complete
      * The transfer of the non-AP MLD context that is not renegotiated to the target AP MLD that is required for resuming operation with the target AP MLD
      * NOTE – TBD on what contexts is required for resuming operations
    - After the request/response frame exchange to initiate the roaming procedure,
      * If DS is not already notified about the update of the destination mapping for the non-AP MLD, DS is notified about the update of the destination mapping for the non-AP MLD
    - After DS is notified about the update of the destination mapping for the non-AP MLD, the current AP MLD shall not pass up any user data in the received reorder buffer to the next MAC process
      * NOTE – TBD on whether the current AP MLD can be notified to stop pass up any user data in the received reorder buffer to the next MAC process.
* **Supporting list: 23/1971, 23/1996, 24/0052, 24/0083, 24/0101, 24/0396, 24/0412, 24/0679 , 23/1884, 24/830**

C: Text is so confused to me. Which is supported that context can be transferred or renegotiated.

C: Which context you want to transfer? Context needed to be renegotiated. I don’t see any it would be helpful to run this SP.

**Result: 78Y, 60N, 46A**

**Submissions – C-TDMA Part 2 + QoS + Relay**

1. [24/1016](https://mentor.ieee.org/802.11/dcn/24/11-24-1016-00-00bn-c-tdma-follow-up-additional-details-on-framing-sequence.pptx) C-TDMA follow-up: Additional details on framing sequence Sanket Kalamkar

C: slide 2, you want to put this as TXOP level. AP does not know not sure whether he’s going to share this TXOP or not why not we do this after this ap complete it on.

C: slide 6, What is the behavior of allocation? AP 1 will only allocate to one of AP2 or AP 4. Is this already capture in the polling announcement frame or is it going to be know to AP 2 and AP when the TXS frame comes?

C: announcement frame, this frame is now more to me not announcement but a polling frame. When you do the polling, you don’t do the announcement.

A: We can discuss the details of which parameters should be included in announcement /polling frame.

C: For polling multiple Aps, do you also assume sharing AP can polling the TB PPDU?

1. [24/1225](https://mentor.ieee.org/802.11/dcn/24/11-24-1225-00-00bn-initial-control-frames-in-c-tdma.pptx) Initial Control Frames in C-TDMA Sanket Kalamkar

C: how do you support knowing the details of the resource requirement for that AP? If your’re using MU-RTS trigger frame, CTS cannot provide that details.

C: for TB PPDU for AP, SIFS time is quite challenge to respond it in the implementation.

C: how do you identify in CTS whether it has buffer or not. Do you change the response frame?

A: no I’m not proposing anything. That’s the next level details. BSRP TF can be ICF.

C: I don’t think we need the additional traffic indication exchange before. It can be a separate step because of different schemes.

•**Do you support as part of coordinated transmission that a sharing AP identifies a shared AP via an AP ID carried in the AID12 field of the User Info field of the sharing AP’s Trigger frame?**   
Note: the name of "sharing AP" and "shared AP" are TBD.

C: This is SP in the agenda.

A: This is same text as Jay’s SP.

C: You want a multi AP coordination instead of coordinated transmission?

C: is ths multi-AP coordination or coordinated transmission? Is it for every coordination scheme?

C: coordination transmission is different from MAP coordination. Trigger frame is used in coordination transmission. Some MAP coordination scheme does not have coordination transsmion.

A: No both are same.

61Y, 28N, 30A

Recess at 10am.

**September 11, 2024, AM2 (TGbn MAC ad hoc session)**

Chairman: Srinivas Kandala (Samsung)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex and in Hawaii (in-person).

**Introduction**

1. The Chair calls the meeting to order at 10:30.

**Straw Polls**

**SP3: Do you support to use M-STA BA for Initial Control Response frame (ICR) for DL and UL, at least when carrying feedbacks (i.e. unavailability feedback)?**

***Supporting list: [11-24/543, 11-24/857, 11-24/1226, 11-24/1247, 11-24/1504] SP requested by: Liwen***

**Result:**

C: it’s not clear. What’s the purpose of the initial control response frame? It’s a general. It’s just mentioning the block Ack.

A: This is for coexistence

C: I like to be more specific.

A: Multi-STA BA has enough room to carry more information for coexistence scenarios.

C: It’s too early to define this . We haven’t decide which one is the ICF yet.

A: ICF and ICR are two different control frame we can separately define.

C: I suggest that we will run ICF and ICR simultaneously. Here just mentioned the ICR maybe for people that depends on different.

C: It’s not clear for this is coexistence case or not. We already discussed ICR for C-TDMA today.

A: We can add for coexistence.

C: we can remove at least also. When carrying unavailability feedback for coexistence.

C: If coexistence, we can limit UL.

**SP3: Do you support to use M-STA BA for Initial Control Response frame (ICR) when carrying feedbacks for coexistence (i.e. unavailability feedback)?**

**86Y, 57N, 37A**

**SP4: Do you support to include the following in the 11bn SFD:**

* **In MAP coordination scheme, the initiator AP and the responder AP may have different P20 channels. And the P20 channel of initiator AP shall be within the BSS operating channel bandwidth of the responder APs , vice versa.**

***Supporting list: [24/838r0, 24/1075r1] SP requested by: Jay***

**Result:**

C: 11be AP can puncture the channel. This is a very detailed.

C: do you consider any specific MAP mechanism, CBF or CTDMA? You can’t do on CBF. CBF is doing on the same primary channel.

C: It should be in CTDMA.

A: It’s not limited to CTDMA. It’s general case.

**Deferred**

**SP5: Do you support to include the following in the 11bn SFD:**

* **The initiator AP that operates on different P20 channel from the responder AP should transmit its control frame and MGMT . frame in non-HT duplicate PPDU covering the P20 channel of the responder AP.**

***Supporting list: [24/838r0, 24/1075r1] SP requested by: Jay***

**Result:**

**Deferred**

**SP6: Do you support that a non-AP STA can request its associated AP to initiate TXOPs/frame exchanges with the STA with an initial control frame that enables the non-AP STA to include unavailability feedback in the initial response frame?**

***Supporting list: [11-24/543, 11-24/857, 11-24/1226, 11-24/1247] SP requested by: Abdel***

C: it implies that

C: unavailbility, STA is not available because other radio is working. But if we use some like IDC it may be better we have this event.

C: this unavailability is immediate unavailabilty or it’s something in the future?

C: what are your thoughts on when there are multiple non-AP STAs associated .

C: what is requirement of AP? AP has multipel radios thease days. We can also mention the AP.

A: we want to keep this feature simple that it’s widely adopted and helped.

**Deferred**

**Submissions – C-TDMA Part 2 + QoS + Relay**

1. [24/1017](https://mentor.ieee.org/802.11/dcn/24/11-24-1017-00-00bn-mechanism-for-txop-return-in-c-tdma.pptx) Mechanism for TXOP Return in C-TDMA Sanket Kalamkar

C: what happens if the sharing AP is not going to respond after receiving new action frame?

C: support this SP.

C: you’re proposing to use action frame for return TXOP. I’d have thought that maybe more protection would have been put in this control frames for sharing TXOP returning it.

C: CAS Control uses public action frame. Why do we move this all information to action frame?

1. [24/1250](https://mentor.ieee.org/802.11/dcn/24/11-24-1250-00-00bn-discussion-on-txop-allocation-in-c-tdma.pptx) Discussion on TXOP Allocation in C-TDMA Serhat Erkucuk

C: slide 11, when ap 1 allocate AP 2 and AP 3 by a single trigger frame, AP 2 transmits frame exchange and then AP2 share the TXOP to AP 3. What if both AP 2 and AP 3 are hidden each other? In that case the AP 2 returns the TXOP to AP 1 and AP 1 shares txop to AP 3

C: slide 5, why do AP 2 might not respond when it receives TF prior to the scheduled time?

C: Do you consider AP 2 is in power saving mode in this procedure?

C: slide 9, TXS time should also be included in the frame.

C: we can expand this concept. AP 2 can be TXOP holder.

C: we can share the time to one AP one by one. Slide 10.

C: do we need TXOP returning or sharing to other AP procedure? Shared TXOP can be very short. TXOP truncation may be simple.

1. [24/0818](https://mentor.ieee.org/802.11/dcn/24/11-24-0818-01-00bn-low-latency-flow-treatment-triggered-by-upper-layer-including-ecn-indicators.pptx) LL flow treatment triggered by upper-layer (incl. ECN) indicators Maulik Vaidya

C: for descriptor, do you consider low latency or a general future latency?

A: Emergency services may have a different requirements set for latency comcpared to normal low latency treatment.

C: are you thinking to kind of envisioning to use the ECM bit in terms of prioritizing the scheduling at the AP?

C: slide 14, descriptor is more likely to be more uplink layer. Original element is MAC layer.

Recess at 12:30.

**September 12, 2024, AM1 (TGbn MAC ad hoc session)**

Chairman: Srinivas Kandala (Samsung)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex and in Hawaii (in-person).

**Introduction**

1. The Chair calls the meeting to order at 08:00.

**Straw Polls**

**SP1:** Do you agree to add mechanism(s) in 11bn to improve latency for peer-to-peer communication for a non-AP STA on the base channel as well as off-channel?

Note 1:

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

- A channel where the associated AP is not operating is an off-channel for the non-AP STA.

Note 2: Off-channel P2P improvement can be based on enhancement to the baseline Channel Usage procedure; whether additional procedures are needed is TBD.

*Supporting list: [11-22/1528r1, 11-23/294r1, 11-23/1424r0, 11-23/1929r0, 11-24/392r2, 11-24/393r3, 11-24/0403r2] SP requested by: Rubayet*

**C: the channel is that the AP is outside of ? Please clarify the text. You can delete the where texts..**

**C: are you proposing new mechanism or based on the existing protocol?**

**A: It’s open. Both possible.**

**C: Do you want to say add or reuse?**

**C: Do we have base channel definition?**

**C: Are you referring the reuse as it is or enhanced existing mechanism?**

**Updated SP**

**SP1:** Do you agree to add or reuse/enhance mechanism(s) in 11bn to improve latency for peer-to-peer communication for a non-AP STA on the base channel as well as off-channel?   
Note 1:   
- Base channel is the channel where the AP associated with the non-AP STA is operating.   
- A channel outside the associated AP’s operating bandwidth is an off-channel for the non-AP STA.   
Note 2: Off-channel P2P improvement can be based on enhancement to the baseline Channel Usage procedure; whether additional procedures are needed is TBD.   
*Supporting list: [11-22/1528r1, 11-23/294r1, 11-23/1424r0, 11-23/1929r0, 11-24/392r2, 11-24/393r3, 11-24/0403r2]*

**89Y, 57N, 33A**

**SP2:** Do you support that an UHR STA that uses the power save mode to transition from lower capability (LC) mode to higher capability (HC) mode, advertises the amount of padding it needs in a received initial control frame?

* + Padding values range between 0 and TBD us with a TBD resolution

*Supporting list: [24/503, 24/544, 24/1129, 24/1227] SP requested by: Sherief*

C: Can you make more open for the ranges?

A: Ok, do you want to extend the value or maximum value from 256 to larger or TBD?

C: Yes.

A: I can make it change. It can be from 256 to TBD.

C: Any objection or count?

**130Y, 35N 26 A**

**SP3:** Do you support that if a UHR STA (UHR non-AP STA or UHR Mobile AP) operates with the power save mode where the STA transitions from a lower capability mode to a higher capability mode upon reception of an initial control frame (that we call here DPS), then its associated peer STA, that supports transmitting intermediate FCS, shall include an intermediate FCS, if needed by the STA, in the initial control frame that it transmits to the STA.

–         Mandatory/optional support for transmitting intermediate FCS is TBD

*Supporting list: [24/544, 24/1129, 24/1227, 24/1246] SP requested by: Sherief*

**C: padding value could also be zero in which case you shouldn’t need to include an intermediate FCS, correct?**

**A: That’s basically why we are seeing if needed here. When DPS STA is requesting no padding, then there might be no need to add I-FCS. So we want to cover this in other scenarios. Where no padding is needed.**

125Y, 55N, 35A

**SP4: Do you agree that TGbn shall define a Coordinated TDMA (C-TDMA) procedure for an AP to share its time resources of an obtained TXOP with a set of APs.**

* **Set of APs is TBD.**
* **The set can consist of one AP.**

***Supporting list: [11-23/0041, 11-23/249, 11-23/0261, 11-23/739, 11-23/1085, 11-23/1692, 11-23/1895, 11-23/1910, 11-23/1912, 11-24/93, 11-24/227, 11-24/382, 11-24/411, 11-24/423, 11-24/462, 11-24/842, 11-24/843, 11-24/866, 11-24/887, 11-24/941, 11-24/1016, 11-24/1017, 11-24/1225, 11-24/1250] SP requested by: Abhishek***

**No objection**

**SP5: Do you agree to define a mode of operation in NPCA where the NPCA non-AP does not use untriggered UL transmissions on the NPCA primary channel**

* **This mode can be enabled/disabled by the AP**
* **Whether the mode is for all associated non-APs or per non-AP is TBD**
* **TBD whether MU EDCA parameters mechanism is used for this or not**

**Supporting list: 24/1093] SP requested by: Sindhu**

**Deferred**

**SP6: Do you agree with the following:**

* **An NPCA STA shall initiate frame exchange on the NPCA Primary channel with an NPCA Initial Control Frame in the non-HT PPDU or non-HT duplicate PPDU format using a rate of 6 Mb/s, 12 Mb/s, or 24 Mb/s**
* **Details on NPCA ICF are TBD**

**Supporting list: [24/1093] SP requested by: Sindhu**

**Deferred**

**Submissions – C-TDMA Part 2 + QoS + Relay**

1. [24/0660](https://mentor.ieee.org/802.11/dcn/24/11-24-0660-00-00bn-dynamic-qos-profiles-with-scs.pptx) Dynamic QoS profiles with SCS Binita Gupta

C: do you also support the combining of optoin A and option B that is STA can send either SCS change request or a control field based on the SCS condition?

A: It’s possible.

C: which way you do it you really need the AP side to act faster. To do the change the profile I don’t see the kind of option an and option will at least option B will mean a faster way.

C: He is asking what happens if AP cannot provison any more. So what happens in the baseline now?

C: Option 1and 2 are confusing me.

C: I think we are it’s a compliciated way to achieve a goal which seems like wants to your previous commenters. We are not really saving on provisioning.

1. [24/0067](https://mentor.ieee.org/802.11/dcn/24/11-24-0067-01-00bn-range-expansion-via-repeated-transmission.pptx) Range Expansion via Repeated Transmission Nima Namvar

Presented. The chair recommended to present in joint session. No discussion.

1. [24/0852](https://mentor.ieee.org/802.11/dcn/24/11-24-0852-01-00bn-timely-transmission-of-low-latency-traffic-with-reduced-preemption-occurance.pptx) Timely TX of LL traffic with reduced preemption occurance Jerome Gu

C: I’m a bit doubtful that switching the capability mode is a good solution.

A: The change our capability mode may be not happen in some cases. I think that’s one scenario that’s one side of the preemption when the preemption is in the other way. If there are a lot of low latency traffic that is buffered, it should be transmitted in a very short time.

C: assumption, LL traffic, looks like it hast to be transmitted really fast. Five or ten miliseconds. Can you elaborate a little bit on your assumption what kind of use cases?

1. [24/0870](https://mentor.ieee.org/802.11/dcn/24/11-24-0870-00-00bn-further-considerations-on-preemption.pptx) Further Considerations on Preemption Serhat Erkucuk

C: slide 6, STA 1 is TXOP holder and allow to AP to respond if there a preemption request. In the case the revert direction is possible?

C: STA2 is sending to STA1. Is it p2P secenarios?

C: I’m wondering when was the STA classified and also how does the one know the classification information because I think the information is very variable not field.

C: what made the decision? STA 1 or AP?

C: how to categorize the STAs? I think the condition of the category of STAs ? Negotiation?

A: Yes negotiation.

C: Use case, UL TXOP, STA may not want to preemption to happen for long duration? Because it does not get to regain the contorl of the TXOP. That’s your use case of it?

C: Who is dictating these category of STAs? Ideally AP would be know controlling when preemptions happen? I’m not usre if it’s categorizing the STA coming from TXOp holder is a good direction?

C: how to deal with that. You may have two or three STAs the AP want to preempt in a larger network. Need evaluation how it will work well. AP TXOP sharing is also effective method. So it does not have to be a preemption for that.

Recess at 10am.

**September 12, 2024, AM2 (TGbn MAC ad hoc session)**

Chairman: Srinivas Kandala (Samsung)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex and in Hawaii (in-person).

**Introduction**

* The Chair calls the meeting to order at 10:30.

**Straw Polls**

**SP1: Do you agree with the following:**

* Unavailability Target Start Time is indicated using 9 bits with a granularity of 64us
* Unavailability Duration is indicated using 9 bits with a granularity of 64us

Deferred

**SP2: Do you support that**

* The AP maintains up to one unavailability report per STA
* And the most recent unavailability report (received in a control frame) is the valid one

**Supporting list: 24/1093: Both SPs requested by Sindhu**

Deferred

**SP3: Do you agree to add the following text to the TGbn SFD?**

* If an initial control frame includes an intermediate FCS for UHR STA(s) that precedes padding and the FCS field, the intermediate FCS has the size of 32 bits**.**

**Supporting list: [24/1129, 23/1873, 24/485, 24/497, 24/1227, 24/1246, 24/1256] SP requested by SunHee**

C: The user info fields right now the way that they are designed, they’re not going to host those thirty two bits. I’m guessing it’s going to be postponing. Is it same as FCS?

Result: No objection

**SP4 Do you agree to add to the TGbn SFD the following**

**define mechanisms that enable APs to coordinate their rTWT schedule(s) and/or to ensure that one AP provides the protection of the rTWT schedule(s) of the other AP.**

**NOTE – TBD mechanisms include negotiation between 2 APs and advertisement.**.

*Supporting list: [23/0250, 23/1871, 23/1887, 23/1916, 23/1932, 23/1952, 23/1962, 23/2212, 23/2022, 23/2084, 24/0160, 24/0161, 24/0388, 24/0407, 24/0678, 24/827] SP requested by: Giovanni*

C: what’s the meaning of protection here?

C: can we add negotiation between two APs and all advertisement?

A: we run MAP coordination related motion and that was listed

C: why do you extend only R-TWT? Not general TWT?

A: The scope of this is predictable latency traffic.

C: It’s important to let AP to coordinate their transmission to better manage the inter AP interference. It’s not forbidding anything. I’m wondering and if we put this R-TWT as a basis of inter AP interference. We should consider stronger mechanisms for low latency traffic.

C: You have two things. What do you mean the slash here? You want both or one?

A: negotiation may not be necessary and APs can simply list. Not mandatory.

C: Both can be optional.

C: remove and/or and you can have two bullets. You can have note – both are optional.

C: I’m a little concerned about this two APs. Individual negotiations will be sufficient to protect R-TWT.

**Result: 134Y, 19N, 26A**

**SP5: Do you agree to add to the TGbn SFD the following:**

* **define a new mechanism and/or enhance existing mechanism for AP power save?**

*Supporting list: [11-23/10, 11-23/2002, 11-23/2040, 11-24/659, 11-24/450, 24/544, 24/671, 24/451] Requested by Laurent*

C: can you change the words to define mechanisms?

A: we are going to define at least a mechanism. I guess that’s what it says here. We can obviously discuss this again, this doesn’t preclude that two. There’s already sort of two in there. Let’s do this right now and then obviously we can.

**133 Y, 8 N, 26 A**

**SP6: Do you agree that a TXOP Sharing Group which may be a subset of a Multi-AP Coordination group should be established to coordinate the sharing of TXOPs?**

*Supporting list: [24/0941] Requested by Klaus*

C: I was kind of looking confused about maybe it’s like are you trying to define independent transmit opportunity sharing group? We pass a traw poll AM 1 about CTDMA and I’m just trying to see what exactly is the difference between these two?

C: You’re trying to define two level groups? The first is MAP group and second is TXOP sharing group?

C: Firstly we can discussion MAP group and then can go to next step.

C: I don’t think that anything like group need to be exposed outside the implementation of any given AP. You may need to address thos Aps individually.

C: I’d like to defer this SP.

C: do we need to define group for all MAP?

A: I can defer

SP is deferred

**Submissions – C-TDMA Part 2 + QoS + Relay**

1. [24/0729](https://mentor.ieee.org/802.11/dcn/24/11-24-0729-00-00bn-thoughts-on-preemption.pptx) Thoughts on preemption Binita Gupta

C: step 3, I was wondering if we the traffic is so urgent that has to use preemption basic overiding another STAs transmsion or TXOP to transmit.

A: We are talking about TXOP the PR starts

C: That’s only part i Have a little bit of an issue the whole notioin of the AP getting an idea of what the STA need and then being allowed to authorize in order to.

C: we need preemption for supporting low latency application whose delay bounds are on the order of TXOP limit. I’m overall supportive of this direction.

C: slide 5, SCS request, implies that you wanted trigger based uplink access. Preemption is entrile EDCA based mechanism. what is the signaling telling the AP? What is the behavior.

A: SCS is used to register preemption request with AP. AP would use this to decide what type of flows it should authorize for preemption. In this case, SCS is not triggering not resulting in UL trigger.

1. [24/1074](https://mentor.ieee.org/802.11/dcn/24/11-24-1074-00-00bn-preemption-txop.pptx) Preemption TXOP Yuxin Lu

C: If you only define one for preempty, then which one is the preempty?

C: when you define the duration limit, you have the starting time and then the end time. when this preemption happens, you may not know when the duration ends how you define this? Is it dynamic?

1. [24/1076](https://mentor.ieee.org/802.11/dcn/24/11-24-1076-00-00bn-some-thoughts-on-preemption.pptx) Some thoughts on preemption Jay Yang

C: In option 2, why do you add TID 8-15, we already have TID 0-7 for high and low priorities.

A: In the current category may not be enough or it’s depending on how many streams the STA have.

Adjourned at 12:30.