IEEE P802.11
Wireless LANs

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|  TGbi Teleconference Minutes December 2024 – January 2025 |
| Date: 2025-01-10 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Stéphane Baron | Canon | Cesson-Sévigné, France |  | Stephane.baron@crf.canon.fr |

Abstract

This document contains the minutes for the IEEE 802.11bi task group meetings that took place in between December 04th 2024 and January 08th 2025.

Note: Highlighted text are action items.

Q – proceeds a question

A - proceeds an answer

C - proceeds a comment

Yellow highlight - action point

**Wednesday December 04th 2024, 10:00 EST.**

**Chair: Carol Ansley, Cox Communications**

**Secretary: Stéphane Baron**

**Vice-chairs: Jerome Henry, Cisco; Antonio DeLaOlivaDelgado, InterDigital, Inc**

**Technical editor: Po-Kai Huang, Intel**

Chair calls meeting to order at 10:02 ET.

Agenda slide deck: [11-24-2041r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2041-00-00bi-tgbi-december-telecons-agenda.pptx):

1. Reminder to do attendance
2. The chair mentioned the call for essential patents

No answers.

1. Review of policies and procedures.

IEEE individual process slides were presented.

1. The chair covered the IEEE copyright policy and participation rules.

No Questions

1. **Discussion of agenda 11-24-2041r0 (slide #14)**
	1. Discussion on agenda

No discussion

* 1. Adoption of agenda by unanimous consent (17 participants).

1. **Administrative**

Chair indicates she will present the documents presented during the F2F related to transition cases.

1. **Technical contributions**
	1. [11-24/1714r4](https://mentor.ieee.org/802.11/dcn/24/11-24-1714-04-00bi-proposed-spec-text-for-aid-anonymization.docx) – Proposed spec text for AID anonymization - Domenico Ficara

Document presented by Domenico

New presentation after last F2F meeting’s presentation.

Main different is the answer from station to the AID assignment from the AP, especially the maximum number of AID storing supported by the non-AP STA.

* + 1. Discussion:

Q: This is better in general, especially due to the partial AID storage. How does the STA indicate this max value?

A: This storage can be done during setup where the STA indicates maximum capacity or by answering that only a limited storage is available.

C: I prefer the first solution and “shall” statement is ok for me.

Q: number of values for Aid is 16 bits coded allowing much more values than number of Epoch number. This should be the reverse.

A: agree

C: probably the solution is to increase the number of possible epochs by using 16 bits to encode it as for the number of AIDs.

A: agree.

Q: status code, we have 3 values, but I think the last one has no real value, this is ambiguous.

A: The last one is for any other reason unspecified.

C: You should indicate reject for the last value.

A: Agree.

Q: on page 7: maybe we could say that the station is takin out of the group rather than de authenticated? they already have a MAC address and an Aid. Can we just let the station in and indicate it is not in any group?

A: Thanks this is an interesting option. I need to check if this is possible.

Q: regarding previous question, we should decide what to do if a STA indicate supporting only 1 AID

A: agree.

C: regarding the epoch sequence number and the relation with the AID is not obvious.

C: I am wondering if being de authenticating station upon impossibility to store AID. This will drive station to reassociates all the time.

C: I prefer to indicate the max number of storable AID.

C: Editorial comments: can you reactivate track changes on your document?

A: Here I only display the Word diff tool result, there is no track change in the document itself.

C: OK, so then indicate instruction for editor and use D0.7 as the reference.

Q: What is the point of the response frame here?

A: This a way for the STA to indicate issue for storing AIDs.

C: for IoT devices this problem may occur, but uplink frames are expensive for them. We should remove the answering frame and make it deterministic instead.

A: OK, but the ack wouldn’t be enough to validate that the Aid are received and stored, this is why we add this answering mechanism.

Q: regarding the de-authentication, we should indicate operation for the non-AP station, especially when a station goes out of power save, to allow the AP to provide them AID assignment. I think the non-ap sta run out of Aid but this should not be a reason to de associate. The AP should send new Aid to station in power save in they run out of AIDs.

A: Should we let the de authentication to implementation?

A: yes, the AP should be responsible of feeding the stations with AIDs.

Q: Can we have a minimum value for the number of stored AID?

A: yes, I think this make sense, but what value to set?

C: I think the best way is to put a capability, I think.

C: regarding the minimum number of stored AID, remember AID is 4 bits value, so a small number of stored AID will not harm, maybe 4.

A: Yes, but this is a very small value.

C: I think we need to set this value for D1.0, we may change it after if needed.

C: regarding the dynamic number of Aid, the AP will have issue if the station changes its value among time this will put strong constraints on the AP computing. Same issue if the STAs provide different values. Making it deterministic make it easier for the AP.

C: I would highly recommend to make it deterministic using capabilities.

A: I think the station will answer that it only stores the first 100 for instance, then the AP will provide the rest latter on.

Q: How does the AP knows when to send the rest?

A: Everything is linked to the epoch schedule. AP knows when a STA run out of AID.

C: So, the AP have to remember the number of Aid stored by each station. Let me think of it.

C: I think we can indicate a minimum value and mandate the STA to be able to store it. AID is very small, I think any 802.11 device can store up to let say 40 AIDs, 20 bytes of storage should not be an issue.

C: About the status for AID and the need for a STA not to change its AID, but enabling disabling the change of AID may useful also.

A: So, you think status code number 3 should be “reject”?

Q: what if a station doesn’t want to anonymize the Aid but only other parameters?

A: This is something we never studied. If a station say it cannot change Aid, it will compromise the whole group privacy.

1. **AoB**

Technical editor indicates that regarding new presentation you submit, pleas use D0.7 as a reference to ease my work. This D0.7 will be published today or tomorrow.

Q: What is the status of the comment resolution.

A: (tech editor) we have 54 Cid to solve. I sent an email to people assigned to comment resolution to check this is correct. I can make a more detailed status during next session.

1. Chair adjourned the meeting at 11:13 EDT

**Attendance**

           Timestamp                       Name                                     Affiliation
Breakout
TGbi      12/04/2024              Ansley, Carol                         Cox Communications Inc.
TGbi      12/04/2024              Wullert, John                                    Peraton Labs
TGbi      12/04/2024              Smith, Luther  Cable Television Laboratories Inc. (CableLabs)
TGbi      12/04/2024         Patwardhan, Gaurav                      Hewlett Packard Enterprise
TGbi      12/04/2024             Nezou, Patrice                    Canon Research Centre France
TGbi      12/04/2024               Mutgan, Okan                                           Nokia
TGbi      12/04/2024               Levy, Joseph                              InterDigital, Inc.
TGbi      12/04/2024              Sevin, Julien                    Canon Research Centre France
TGbi      12/04/2024              Huang, Po-Kai                                           Intel
TGbi      12/04/2024                 Ho, Duncan                           Qualcomm Incorporated
TGbi      12/04/2024           Ficara, Domenico                             Cisco Systems, Inc.
TGbi      12/04/2024  DeLaOlivaDelgado, Antonio                              InterDigital, Inc.
TGbi      12/04/2024                 Das, Subir                                    Peraton Labs
TGbi      12/04/2024             Campiglio, Ugo                             Cisco Systems, Inc.
TGbi      12/04/2024            baron, stephane                    Canon Research Centre France

TGbi      12/04/2024             Kneckt, Jarkko                                       Apple Inc

**Wednesday December 11th 2024, 10:00 EST.**

**Chair: Carol Ansley, Cox Communications**

**Secretary: Stéphane Baron**

**Vice-chairs: Jerome Henry, Cisco; Antonio DeLaOlivaDelgado, InterDigital, Inc**

**Technical editor: Po-Kai Huang, Intel**

Chair calls meeting to order at 10:02 ET.

Agenda slide deck: [11-24-2041r1](https://mentor.ieee.org/802.11/dcn/24/11-24-2041-01-00bi-tgbi-december-telecons-agenda.pptx):

1. Reminder to do attendance
2. The chair mentioned the call for essential patents

No answers.

1. Review of policies and procedures.

IEEE individual process slides were presented.

1. The chair covered the IEEE copyright policy and participation rules.

No Questions

1. **Discussion of agenda 11-24-2041r1 (slide #14)**
	1. Discussion on agenda

Request to add 1936r2 for SP and 1579r9

Also add 11bi CID 1109 and 1166 and associated quick SP in for document 1739r1.

* 1. Adoption of agenda by unanimous consent (15 participants).
1. **Administrative**

Tech editor present the status of the remaining CIDs unresolved.

After presentation, it seems we are very close to solve all the comments for January.

1. **Technical contributions**
	1. **Po-Kai Huang – 24/2084, 24/1679r3**
	2. [11-24/2084r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2084-00-00bi-cr-for-already-resolved-cids.docx) – CR for already resolved CID – Po-Kai Huang

Resolves 2 CIDs that are already resolved CID1518 and 1522)

 No change in the spec, since the comments are already resolved.

**StrawPoll#1 text**:

Do you support the inclusion of 24/2084r0 to resolve CIDs 1518 and 1522?

Y: / N: / A:

**Discussion on** **SP**#1:

C: Should indicate in what we include doc 24/2084r0.

A: Agree

SP text modified accordingly.

**SP#1 final text** ; Do you support the inclusion of 24/2084r0 in the TGbi draft to resolve CIDs 1518 and 1522?

**SP#**1 **result:** SP#1 approved with unanimous consent

* 1. [11-24/1739r1](https://mentor.ieee.org/802.11/dcn/24/11-24-1739-01-00bi-d0-4-misc-fixes.docx) –d0.4\_misc\_fixes– Jerome Henry

Presented by Jerome.

During the straw poll on this document, 2 CIDs discussed was not listed in the list of CIDs even if discussed.

So, Po-kai ask to vote for this 2 “forgotten” CIDs

* + 1. Discussion:

Q: what is the resolution for CID1166?

A: same as 1109.

Q: Can we include the comment resolution is the table also in an r2 revision?

A: ok, I will do it. To have something more formal.

C: Do not forgot to update the abstract list as well.

Author will come later on with an R2

* 1. [11-24/1679r3](https://mentor.ieee.org/802.11/dcn/24/11-24-1679-03-00bi-cr-for-miscellaneous-cids.docx) –CR for Miscellaneous CIDs– Po-Kai Huang

Presented by Po-kai.

Propose a light evolution on the resolution for the remaining CID 1427. By using originator and responder wording.

* + 1. Discussion:

No discussion

Author request a SP for this CID

**StrawPoll#1 text**:

Do you support the inclusion of the relevant text in 24/1679r3 into the TGbi draft to resolve CID 1427

Y: / N: / A:

**Discussion on** **SP**#1:

No discussion

**SP#**1 **result:** SP#1 approved with unanimous consent

* 1. [11-24/1936r2](https://mentor.ieee.org/802.11/dcn/24/11-24-1936-02-00bi-d0-6-more-misc-cids.docx) –d0.6 more misc CIDs– Jerome Henry

Presented by Jerome.

Present the document that contains resolution for CIDs that indeed are already resolved in other documents.

Second presentation explaining that the document was not straw polled due to lack of time at the very end of previous F2F sessions in Vancouver

* + 1. Discussion:

Q: This is not really a resolution right, shouldn’t we indicate the resolution to indicate where the resolution really occurs?

A: We can indicate revise, but people may have a different opinion, and we may ping pong forever.

C: I think you should not only point to another document as long as the pointed document do not list this CID, you should rather indicate the resolution of the CIDs that solved also the CIDs you are listing.

A: (tech editor) I do not have to change anything, and since the document pointed here are motioned this is fine for me.

Author will come back later with a new revision taking into account the received comments.

* 1. [11-24/1579r9](https://mentor.ieee.org/802.11/dcn/24/11-24-1579-09-00bi-bss-privacy-beaconing.docx) –BSS privacy beaconing – Jerome Henry

Revision 9 includes modification for the AAD format provided by a commenter.

* + 1. Discussion:

Q: what is the difference between r8 and r9

A: Frame control field AAD change in the beacon format has been updated after comments received in latest presentation.

C: Indication of MPDU in AAD seems strange to me for management frame, but this is probably general in this text, and in the baseline as well.

A: Well, we cannot do anything here, this should be management there and, in the baseline, as well

C: This is not management frame, but extended frame. So MPDU may be correct here. So, we can keep it here

Q: Can we change the instruction to the editor indicating addition of the section 12.5.4.3.3, not modifying.

A: agree, this is a new section.

Author update the document according to the received comments and created r10.

Author request a SP for this latest revision of the document

**StrawPoll#1 text**: Do you support the inclusion of 24/1579r10 into the TGbi draft to resolve CIDs 1519, 1122, 1157, and 1376 ?

Y: / N: / A:

**Discussion on** **SP**#1:

No discussion

**SP#**1 **result:** SP#1 approved with unanimous consent

* 1. [11-24/1739r2](https://mentor.ieee.org/802.11/dcn/24/11-24-1739-02-00bi-d0-4-misc-fixes.docx) –d0.4\_misc\_fixes-- po-kai

new presentation after modification from earlier revision today.

* + 1. Discussion:

No discussion

**StrawPoll#1 text**:

Do you support the inclusion of 24/1739r2 into the TGbi draft to resolve CIDs 1109 and 1166?

Y: / N: / A:

**Discussion on** **SP**#1:

No discussion

**SP#**1 **result:** SP#1 approved with unanimous consent

* 1. [11-24/1936r3](https://mentor.ieee.org/802.11/dcn/24/11-24-1936-03-00bi-d0-6-more-misc-cids.docx) --d0.6 more misc CIDs – Jerome Henry

new presentation after modification from earlier revision today. Including comment resolution language update.

* + 1. Discussion:

No discussion

Author ask for a SP on this revision

**StrawPoll#1 text**:

Do you support the inclusion of 24/1936r3 into the TGbi draft to resolve CIDs 1028, 1049, 1058, 1071, 1103, 1350, 1500?

Y: / N: / A:

**Discussion on** **SP**#1:

No discussion

**SP#**1 **result:** SP#1 approved with unanimous consent

* 1. 1946r0 back – Carol Ansley

Presentation by Carol.

This document presents resolution of issues regarding transaction spreading accross the transition period

* + 1. Discussion:

C: About AID discussion, most of the frames are unicast frames and reveals what AID should be used.

C: Can we have a simple rule indicating that if you want old parameter, you can use old MAC address.

C: If we consider your general rule about keeping parameters identical during a transaction, I think you solve a lot of cases

A: Agree

Q; What about the data sent in response to the ps poll occurring after the end of the transition?

A: I think that before the end of the transition the AP can use old params and after the end the AP uses new parameters.

Q: Do we want to ban an AP to send AID just before the transition period?

A: This will probably need to be done in the future. AID list is a recent addition not motioned yet, and we will have to consider a minimal duration before the transition for the sending of AID list by the AP.

Q: In your proposal you have to indicate the new parameters will be used during the transition.

A: yes.

C: I think the rule should be on the transmitter, the receiver should accept anything during the transition.

A: agree.

C: The new do not have to mention the transition period, just indicate you use the active parameters set that is the new one once you pass the EDP epoch start time.

About buffered traffic:

C: for packet transmitted before, the packet in bound with a MAC address we cannot change it to avoid easy correlation of packet with same payload. Otherwise, you can change the MAC address.

A: seems to make sense.

C: the AP follow the same rule that station for the data transmission. It can use old MAC addresses for retransmission, but have to use new MAC address for fresh data.

C: since we are following the normal rule, doesn’t this part redundant with addressing stuff.

Q: can we change it to a note.

C: Can we refer to the addressing clause?

A: agree.

Text change according by referring to the 10.71.5.4 clause and remains normative.

About Multi-sta block ack.

Q: are we saying that we should keep parameters during a frame exchange sequence? This should be our rule.

A: agree.

Q: Then should the AP indicate by setting a bit to indicate if it uses old or new AIDs?

A: If we do so, then we may need bits for many frames. Can we find a simple rule instead?

C: Maybe we have a rule that the TB stuff, and multi sta stuff should be for the stations having same boundaries.

Author will restructure the text taking into account received comments, and will come back during next session.

1. **AoB**

No other business.

1. Chair adjourned the meeting at 12:00 EDT

**Attendance**

           Timestamp             Name                                     Affiliation
Breakout
TGbi      11/12/2024   Ansley, Carol                         Cox Communications Inc.

TGbi      11/12/2024    Henry, Jerome                             Cisco Systems, Inc.
TGbi      11/12/2024  McCann, Stephen                    Huawei Technologies Co., Ltd
TGbi      11/12/2024     Mutgan, Okan                                           Nokia
TGbi      11/12/2024   Nezou, Patrice                    Canon Research Centre France
TGbi      11/12/2024    Sevin, Julien                    Canon Research Centre France
TGbi      11/12/2024       Yee, Peter                                         NSA-CSD
TGbi      11/12/2024   Hawkes, Philip                           Qualcomm Incorporated
TGbi      11/12/2024    Wullert, John                                    Peraton Labs
TGbi      11/12/2024    Huang, Po-Kai                                           Intel
TGbi      11/12/2024    Smith, Graham                                    SRT Wireless
TGbi      11/12/2024       Ho, Duncan                           Qualcomm Incorporated
TGbi      11/12/2024    Smith, Luther  Cable Television Laboratories Inc. (CableLabs)

TGbi      11/12/2024 Baron, Stephane                    Canon Research Centre France

**Wednesday December 18th 2024, 10:00 EST.**

**Chair: Carol Ansley, Cox Communications**

**Secretary: Stéphane Baron**

**Vice-chairs: Jerome Henry, Cisco; Antonio DeLaOlivaDelgado, InterDigital, Inc**

**Technical editor: Po-Kai Huang, Intel**

Chair calls meeting to order at 10:02 ET.

Agenda slide deck: [11-24-2041r2](https://mentor.ieee.org/802.11/dcn/24/11-24-2041-02-00bi-tgbi-december-telecons-agenda.pptx):

1. Reminder to do attendance
2. The chair mentioned the call for essential patents

No answers.

1. Review of policies and procedures.

IEEE individual process slides were presented.

1. The chair covered the IEEE copyright policy and participation rules.

No Questions

1. **Discussion of agenda 11-24-2041r2 (slide #14)**
	1. Discussion on agenda

A new revision of 1741r1 is ready for presentation, it is added to the end of the agenda.

* 1. Adoption of agenda by unanimous consent (15 participants).
1. **Administrative**

Status review: Tech editor we review some contribution and have some new Cid ready for motion.

1. **Technical contributions**
	1. [11-24/2116r0](https://mentor.ieee.org/802.11/dcn/24/11-24-2116-00-00bi-transition-related-spec-texts.docx) – Transition-related spec texts – Carol Ansley

Document presented by Carol.

Document covered text discussed during previous session related to the 9.1.3.5.2 and 35.3.12.4 regarding AID and transition.

Discussion:

Q: Can we change “guidelines” to rules?

A: Agree

C: I am a little concern to put those lines in clause 9

A: The first paragraph is existing text in baseline.

C: I agree there is a problem, but I don’t know if this is a REV problem or an 11bi problem.

C: This should be a REVmf issue but 11bi will be ready before REVmf.

C: In clause 35, we should say that the privacy is active before your added sentence, and I do not see it there.

A: ok we can discuss that with people editing REV to find out how to solves that.

C: For now, we could change all those stuff into a note.

A: can be done, we do not need to indicate “shall” there.

Q: Can we just keep the existing text, but with everything from "in the (Re)Association ..."onwards deleted?

A: OK.

Text is removed from clause 9.

Author indicate she will post an r1 after adding the EDP mode active mention.

C: at the moment, there is no way to indicate EDP anonymization is active, I plan to bring a contribution to solve that.

C: We have capability defined, but not the active defined.

A: We have Epoch capability defined, for frame anonymization it is basically the same.

Q: Regarding anonymization, if a STA is capable and joins an AP that is capable, does it automatically mean it is used? If not, it should be switchable.

* 1. [11-24/1741r1](https://mentor.ieee.org/802.11/dcn/24/11-24-1741-01-00bi-cids-1046-1187-1188-1190-1191.docx) --CIDs 1046 1187 1188 1190 1191 – Phil Hawks

Document presented by Phil covering some definition and then solving 4 associated CIDs.

Discussion

CID1046:

C: Commenter agree with the proposed resolution/

C: The point is that the DS MAC address does not change, only the transmitted MAC address changes.

A: To clarify that, we can indicate STA MAC address that only have OTA variant of the MAC address, the DS MAC is at upper level and do not change.

C: I think this is fine to add STA each time OTA is used to clarify.

C: All your resolution text points to the wrong document (typo).

A: thanks, I will generate an r2 then.

CID1188 accepted (no comment)

CID1190:

C: The extension is what we currently have so, we should reject this comment, since we actually follow the baseline.

A: Agree, I add the baseline example in the resolution text.

CID 1191 accepted (editorial without comment)

C: Presence monitoring definition should stick to the CPE and find another name for the BPE stuff.

A: Agree let’s do that latter on.

Author then ask for a SP for this revision r2. He will upload r2 and then come back after 1946 presentation for a quick Straw poll

* 1. [11-24/1946r1](https://mentor.ieee.org/802.11/dcn/24/11-24-1946-01-00bi-transition-period-examples.pptx) – Transition period examples – Carol Ansley

Document presented by Carol

Discussion:

About Mulli STA block ACK:

C: I think a bit will not resolve the problem. Things can be more difficult for instance for DL MU and cascading sequence. So, setting rule is probably the best direction to go.

A: OK, I will take a look to the cascading sequence.

C: multi-STA block ack can be sent after trigger-based transmission so this note is suitable for the trigger case when old and new AID can be triggered at the same time.

C: In general, I am not in favor of indicating that there is a transition on going, so it is better not to add any additional info during transition. This is a more secure way to avoid attacker to use this information.

C: I think there is a text saying that we shouldn’t change hour status during a frame exchange and that is a good rule to follow.

C: I don’t think using a reserved bit is good way to go. Making a bit unreserved is always a critical thing, and I don’t think we need it there.

C: Regarding Aid assignment, can’t we just add rule one the AID list assignment stuff saying the AP shall not assign an AID to non-AP STA that is already assigned to another STA for the same period of time. The period of time being the Epoch duration + the next epoch transition period.

A: I see your points and I will see how we can draft corresponding text. The point is that we just have format for the AID list assignment, not the associated behavior.

Regarding the NDP announcement frame.

C: I think this is better to let station use old and new AID because this will be difficult to have a very precise determination of the end of the transition.

C: I think transition period will give tolerance for AP and STA to use old and new AID if needed. I don’t think it is good to add restriction during the transition.

C: I agree that once you start exchange between peers using some parameters, they should maintain this parameter. The point is to know the duration of the transition. Transition should be match to retransmission. In that sense we may not need the transition period and rather rewrite our text according to the frame exchange and associated parameters.

C: Re-transmissions are not a frame exchange sequence.

C: I agree that during a txop we do not change the parameters.

C: I think that transition period is not ms order so you I am in favor of a general rule.

Author indicate she will come back with text for ps poll.

* 1. [11-24/1741r2](https://mentor.ieee.org/802.11/dcn/24/11-24-1741-02-00bi-cids-1046-1187-1188-1190-1191.docx) -- CIDs 1046 1187 1188 1190 1191 – Phil Hawks

Document presented by Phil after updates

Author run a straw poll on this new revision r2

SP text : Do you support the inclusion of 24/1741r2 into the TGbi draft to resolve CIDs 1046, 1187, 1188, 1190, 1191 ?

Y/N/A

SP result : SP approved with unanimous consent

1. **AoB**

No other business.

Carol’s remaining presentations are scheduled for January 8th.

Chair call for contribution to be presented.

1. Chair adjourned the meeting at 11:29 EDT

**Attendance**

           Timestamp                       Name                                     Affiliation
Breakout
TGbi      12/18/2024              Sevin, Julien                    Canon Research Centre France
TGbi      12/18/2024  DeLaOlivaDelgado, Antonio                              InterDigital, Inc.
TGbi      12/18/2024              Ansley, Carol                         Cox Communications Inc.
TGbi      12/18/2024             Hawkes, Philip                           Qualcomm Incorporated
TGbi      12/18/2024               Levy, Joseph                              InterDigital, Inc.
TGbi      12/18/2024            McCann, Stephen                    Huawei Technologies Co., Ltd
TGbi      12/18/2024            baron, stephane                    Canon Research Centre France
TGbi      12/18/2024              Smith, Graham                                    SRT Wireless
TGbi      12/18/2024             Nezou, Patrice                    Canon Research Centre France
TGbi      12/18/2024                 Yee, Peter                                         NSA-CSD

TGbi      12/18/2024              Smith, Luther  Cable Television Laboratories Inc. (CableLabs)

**Wednesday January 08th 2024, 10:00 EST.**

**Chair: Carol Ansley, Cox Communications**

**Secretary: Stéphane Baron**

**Vice-chairs: Jerome Henry, Cisco; Antonio DeLaOlivaDelgado, InterDigital, Inc**

**Technical editor: Po-Kai Huang, Intel**

Chair calls meeting to order at 10:02 ET.

Agenda slide deck: [11-24-2041r4](https://mentor.ieee.org/802.11/dcn/24/11-24-2041-04-00bi-tgbi-december-telecons-agenda.pptx):

1. Reminder to do attendance
2. The chair mentioned the call for essential patents

No answers.

1. Review of policies and procedures.

IEEE individual process slides were presented.

1. The chair covered the IEEE copyright policy and participation rules.

No Questions

1. **Discussion of agenda 11-24-2041r4 (slide #14)**
	1. Discussion on agenda

No discussion

* 1. Adoption of agenda by unanimous consent (11 participants).
1. **Administrative**

802.11 January Interim – 6 sessions –

* + 1. Monday PM1
		2. Tuesday AM1 & PM2
		3. Wednesday AM1
		4. Thursday AM1 & PM1

Document timeslot requires: doc 1999r1 from Stephane. Two documents from Jarkko, 1 short document from Antonio, 1 document Tuesday AM1 from Po-kai 1927r1.

2 submissions also from Carol.

1. **Technical contributions**
	1. [11-25/0044r0](https://mentor.ieee.org/802.11/dcn/25/11-25-0044-00-00bi-capability-bit-for-ds-mac-address.docx) -- CIDs 1046 1187 1188 1190 1191 – Po-Kai Huang

Document presented by Po-kai

Capability bits for DS MAC address

Feedback from contributor to have a specific handling for DS MAC so required a capability bit to indicate support of it.

Discussion:

Q: what happen if you don’t support DQS MAC ?

A: this is needed if you ant to change MAC address when you reassociate, typically when you roam.

If you do not support DS MAC you keep same MAC address before and after roaming.

C: we use the MLD MAC address right, so if you do not support DS MAC, it doesn’t make sense to rotate MAC address.

A: I see your point, this is also linked to following operations like changing the MAC address while associated. So, this is additional feature support.

Q: So STA needs to support both DS MAC and MAC address change ?

A: yes we can clarify this.

Q: How does it work with 11bh feature like IRMA ?

A: I think this is specific for DS functionality and I think IRMA is not touching this. With IRMA, when you roam you keep same MAC address.

* 1. [11-24/1999r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1999-00-00bi-cr-for-edp-epoch-start-time.docx) – CR for EDP epoch start time – Stéphane Baron

Document presented by Stéphane.

The purpose is to provide clarification for EDP Epoch start time computation

Discussion:

C: I have a concern with defining a reference counter at AP side. Each counter is different for each link. During 11be specification, we didn’t go in the direction of defining a common reference at MLD level. I think this will be difficult to push such solution for 11bi.

A: In fact the AP can select one of its link as reference. In that case there is no additional work since the AP already maintain the offset between links.

C: I also see an issue with accuracy. We need a simpler way to define this TSF reference that is usually handled at phy level.

A: OK , TSF is handled at low level. But offset time between links is handled at least at MAC level for synchronization of links. I think we can use a TSF of a dedicated link .

A: I agree that requesting a clock reference at MLD level is a too strong requirement.

Q: I see that you can use link as a reference. Can you explicit this in the document.

A: I can then do the reverse: giving the example of 1 link TSF tiler selected as reference by the AP and indicate that the AP can also have an MLD level TSF counter as reference it prefers.

C: You must synchronize offset due to different accuracy of links.

A: No, the synchronization is handled at link level thru beacon and TSF counter sending. The offset is constant because this is an offset between link.

C: I have similar issue as previous commenter. It creates several reference times for implementation. Need to simplify mechanism to compute EDP Epoch Start time. Maybe we can just maintain an index to indicate this time reference.

A: I think, you are taking about an offset index indicating to a station the number of the first EDP epoch it will handle even if the sequence is tarted for long.

A: In that case the complexity for the AP is higher since it has to maintain this offset index per link, per sta and per sequence. In addition this index needs to be updated each time a station enter a EDP group, or a new EDP sequence is initiated. On the other hand, the link offset is only computed in case on link addition/removal.

C: Can you indicate those arguments in your document?

A: OK.

Q: Perhaps we can solve first CIDs that are non-controversial first. You can divide the contribution into 2 documents?

A: I will do that.

1. **AoB**

No other business.

1. Chair adjourned the meeting at 10:59 EDT

**Attendance**

           Timestamp                       Name                                     Affiliation
Breakout
TGbi      01/08/2025            baron, stephane                    Canon Research Centre France
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TGbi      01/08/2025               Mutgan, Okan                                           Nokia
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TGbi      01/08/2025            Qureshi, Haneya                                              GM