IEEE P802.11
Wireless LANs

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| IEEE 802.11bd Task Group Meeting Minutes – May 2020 |
| Date: 2019-03-17 |
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Abstract

This document includes minutes of all IEEE 802.11bd teleconference between the January and May face to face meetings.

*Versioning:*

R0: Uploaded after Feb 4 teleconference

R1: Uploaded after Feb 18 teleconference

R2: Uploaded after Mar 3 teleconference

R3: Uploaded after Mar 17 teleconference

# Tuesday, February 4, 2020

## Opening

* 1. Call to order 9:05 AM EST
	2. Chair introduced the task group leadership
	3. Chair introduced the patent policy and meeting rules.
	4. No response to the call for patents.

## Agenda

* 1. Chair presented the agenda as sent on email list: <http://www.ieee802.org/11/email/stds-802-11-tgbd/msg00192.html>
	2. Chair is verifying that presenters are on the call and order of presentations
	3. Agenda for this session has been adopted without objection

### Draft TGbd Comments on FCC NPRM Docket 19-138 (802.11-20/0104r12)

* 1. Presentation by Vice Chair Joseph Levy
		1. Oral report on the state of the document
		2. Members have been contributing
		3. Still have at least 30 days since NPRM hasn’t officially been published
		4. Document has been discussed on three weekly 802.18 calls so far.
		5. Best way to contribute is to provide the text on the reflector
		6. Several sections are awaiting contribution
	2. Discussion
		1. Discussion about timeline. If the NPRM enters the federal register after Feb 19, the 30 day window includes the EC closing plenary at March F2F. If it is before that date, then email approval is needed as previously planned.
		2. Question about breaking up document to approve subsections piece by piece
		3. Response that so far its been contribution driven.
		4. Proposed process: Joe to send an email listing missing sections and questions to the email to drive consensus in the next two weeks.

### Technical Submission (802.11-20/0102r1)

* 1. Presentation by James Lepp
	2. Discussion:
	3. Question about whether this proposal makes sense in any regulatory region at this point. Suggesting no change at this time.
	4. Discussion about preamble relating to coexistence 11bd vs 11ax in U-NII-4
	5. Member supports the idea. FCC is in deadlock. Need to start right away. Make the FCC aware of an activity for simple sharing between DSRC and Wi-Fi in U-NII-4. Deal with sharing now, deal with protection later.
	6. Comment on the [P802.11bd PAR](https://standards.ieee.org/project/802_11bd.html). It contains the word 5.9GHz band and references the annex E. That annex has not yet changed. Don’t need to change the PAR.
	7. Eventually need to make changes to the Annex depending on the outcome of FCC rulemaking process.

### Liaison from ITU-T FG-VM (802.11-20/0223r0)

* 1. Liaison was posted to 802.11 and 802.11bd email list.
	2. Zip file contains 3 documents from ITU-T FG-VM
	3. Use cases document which was recently completed
	4. Architecture document which is now under development
	5. Call for participation. FG-VM meets the week before our March Face to Face. Remote participation is possible. See the document for detailed information.
	6. Presenter suggests no response needs to be drafted. If a member disagrees please draft something.

### Closing

* 1. End of agenda
	2. Any other business? None brought forward.
	3. Meeting is adjourned at 10:00am EST

Attendance:

* James Lepp (BlackBerry)
* Bo Sun (ZTE)
* Dongguk Lim
* Hanseul Hong
* Hiroyuki Motozuka (Panasonic)
* Ionnis Sarris (u-blox)
* Joseph Levy (Interdigital)
* Onn Haran
* Osama Abdul-Magd
* Paul Underhuber (DLR)
* Rui Yang (Interdigital)
* Sebastian Schiessl (u-blox)
* Timothy Jeffries

# Tuesday, February 18, 2020

## Opening

* 1. Call to order 9:30 AM EST after some technical difficulties starting the webex and several notices on the email reflector. <http://www.ieee802.org/11/email/stds-802-11-tgbd/msg00207.html>
	2. Chair introduced the task group leadership
	3. Chair introduced the patent policy and meeting rules.
	4. No response to the call for patents.

## Agenda

* 1. Chair presented the agenda as sent on email list: <http://www.ieee802.org/11/email/stds-802-11-tgbd/msg00202.html>
	2. Agenda for this session has been adopted without objection

### Status of TGbd Comments on FCC NPRM Docket 19-138 (802.11-20/342r0)

* 1. Presentation by Vice Chair Joseph Levy
	2. Discussion
		1. 802.18 chair commented that new text submissions are needed sooner than later. Need to vote on the final version on Thursday.
		2. Comment that the conclusion also needs to be written.
		3. 802.18 chair thanked the TGbd vice chair for his work moving this document forward.
		4. Member comments he is interested in reviewing the document.

### Draft TGbd Comments on FCC NPRM Docket 19-138 (802.18-20/0020r5)

* 1. Summary of recent changes by Vice Chair Joseph Levy
	2. Discussion
		1. Sections requiring further input were highlighted
		2. Members offering comments were directed how to present them to IEEE 802.18.

### Closing

* 1. End of agenda
	2. Any other business?
		1. John Kenney, Liaison person for IEEE 1609, provided the group with information about the next IEEE 1609 tomorrow and highlighted IEEE 802.11bd related agenda items.
		2. Vice chair mentioned the potential for drafting reply comments based on the FCC schedule dates between March 10 and April 6. Our face to face meeting Atlanta lines up with this period.
		3. No further business.
	3. Meeting is adjourned at 10:26am EST

Attendance:

* James Lepp (BlackBerry)
* Bo Sun (ZTE)
* Dongguk Lim
* Jeongki Kim (LG)
* Joseph Levy (Interdigital)
* Alecs (Qualcomm)
* Claudio da Silva
* Rui Yang (Interdigital)
* Chenchen Liu (Huawei)
* John Kenney
* Onn Haran
* Sebastian Schiessl (u-blox)
* Stephan Sand (DLR)
* Timothy Jeffries
* Xiaofei
* Yonggang Fang
* Yan Xin
* Jay Holcomb (Itron)

Note: A 802.11 SENS telco was scheduled on the same webex so some of those participants joined the latter part of the 802.11bd call with intent to join the SENS call.

# Tuesday, March 3, 2020

## Opening

* 1. Call to order 9:00 AM EST.
	2. Chair introduced the task group leadership
	3. Chair introduced the patent policy and meeting rules.
	4. No response to the call for patents.

## Agenda

* 1. Chair presented the agenda as sent on email list: <http://www.ieee802.org/11/email/stds-802-11-tgbd/msg00214.html>
	2. Agenda for this session has been adopted without objection

### Status of TGbd Comments on FCC NPRM Docket 19-138 (802.11-20/0342r1)

* 1. Presentation by Vice Chair Joseph Levy
	2. Provided history and current status of TGbd Comments on FCC NPRM Docket 19-138
	3. 802 EC e-vote finished at midnight last night. Waiting for official tally to be announced.
	4. Question about whether the EC votes are public.
	5. Answer yes (see <http://ieee802.org/secmail/mail1.html>)
	6. Question about goodput vs PHY rate and a MAC efficiency percentage.
	7. Comment that during 11n studies were made based on 11a PHY/MAC.
	8. A member shared this link in the chat box. <https://mentor.ieee.org/802.11/dcn/13/11-13-0505-00-0hew-mac-efficiecy-analysis-for-hew-sg.pptx>
	9. Member thanked Joe and Jay for all their hard work and long hours getting this drafted and approved.
	10. Question about reply comments
	11. From timing perspective, reply comments need to be drafted and approved at March plenary to go on EC agenda. Either at Friday EC plenary, or 10 day e-mail ballot it’s the same deadline for drafting. 802.18 will have to approve on Thurs March 19 at the F2F.
	12. Will be contribution driven as usual.
	13. Suggest to organize it by quoting the submission, and adding this groups reply.
	14. A suggestion to collect contributions before the F2F and have a skeleton ready.
	15. No objection to posting skeleton in 802.18 mentor.
	16. Brief discussion about the status of the F2F meeting. EC has a telecon on Thursday. Any change will be sent on the 802.11 reflector by the chair.

### Update on IEEE 1609 discussions

* 1. Verbal presentation by John Kenney
	2. Update to 802.11-19/1982r0. Presenting informal notes from recent 1609 meeting on the call today. Will make a presentation for the F2F.
	3. Discussion about whether MA-UNITDATA-STATUS.indication() and MA-UNITDATA.indication() are triggered by transmit or receive events (or vice-versa).
	4. Need to clarify which information is on transmit and receive operations.
	5. Question about whether MPDU coding needs to be explicit or is already known implicitly
	6. Questions about the measurement period for the environment measurements.
	7. Question about specifics of canceling the transmission of a packet already in the queue.
	8. Presenter will prepare a document with the questions for the group to present at the March F2F.

### Closing

* 1. Chair (Bo Sun) will not be able to attend the March F2F and the Working Group Chair (Dorothy) has appointed Vice Chair Joseph Levy to run the 802.11bd meeting.
	2. Meeting adjourned at 10:10am EST

Attendance:

* James Lepp (BlackBerry)
* Bo Sun (ZTE)
* Dongguk Lim
* Carl Kain
* Dick Roy
* Hanseul Hong
* Hiroki Motozuka (Panasonic)
* John Kenney (Toyota)
* Osama Abdul-Magd
* Joseph Levy (Interdigital)
* Peter Yee (NSA-CSD)
* Sebastien Schiessl (u-blox)
* Song An
* Rui Yang (Interdigital)
* Jay Holcomb (Itron)

# Tuesday, March 17, 2020

## Opening

* 1. Call to order 10:05 AM EDT.
	2. Chair introduced the patent policy and meeting rules in document 802.11-20/0449r1
	3. No response to the call for patents.
	4. Chair presented guideline for Strawpolls during teleconference (and lessons learned during recent 802.11be calls) using the webex “polling” tool.

## Agenda

* 1. Chair presented the agenda in document 802.11-20/0449r1
	2. Discussion about the agenda
		1. Some members are unavailable today so some presentations and Strawpolls will be run on Friday Mar 20.
		2. New technical proposals will be run first. Specification text proposals will be left for after.
		3. Question about attendance requirement. Do we need 75% to maintain voting rights if member was set to lose voting rights in March Plenary.
		4. Action on the chair to bring this to the CAC (Chairs Advisory Council) meeting and have the Working Group leadership send out a clarification. Have no control of this at the Task Group level.
	3. Agenda for this session has been adopted without objection

## Meeting plan

* 1. Chair’s proposal is to have presentations and Strawpolls during Mar 17 – Mar 31 teleconferences. Editor will incorporate the submissions into a new draft 0.3 which will be sent out for a 20 day comment collection. Comments will be collated and call for comment resolution volunteers made in time for the May Interim meeting.
	2. Comment about possibility of the May meeting being cancelled. Need to plan for that outcome.
	3. Comment that some Strawpolls may be inconclusive and technical votes may be needed. Suggestion to ask WG and EC level for exemption on voting rules.
	4. Chair states leadership will work on a plan.

### NPRM review (802.11-20/0342r2)

* 1. Presentation by Vice Chair, Joseph Levy
	2. Discussion
		1. Informed members of the 802.18 meeting schedule and deadlines
		2. Brief summary of the 802.18 drafting process.
		3. Informed members how to contribute to the NPRM “reply comments”

### CITS report

* 1. Presentation by Chair Bo Sun
	2. Discussion
		1. This is not an official liaison
		2. Chair was invited to give report to ITU CITS group. Has provided 3 reports at this time as summarized in the slides
		3. Contents all derived from public information.
		4. Expect next report to be Oct 2020
		5. Secretary asked presenter to post on mentor so a reference to it can be recorded in the minutes for the benefit of all the members.
		6. Presenter will embed this report in a Word Document and post on Mentor
		7. Secretary Note: This was subsequently posted as 802.11-20/0498r0

### Editors Report (802.11-19/2045r2)

* 1. Presentation by Technical Editor Bahar Sadeghi
	2. Discussion
		1. No questions or comments

### Timeline review (802.11-20/0449r1)

* 1. Presentation of slide 14 of the agenda by Chair
	2. Noted that the Task Group can’t run a motion to update the timeline until the next face to face is convened
	3. No questions or comments

### Technical Submission (802.11-20/0451r0)

* 1. Presentation by Rui Cai (NXP)
	2. Discussion
	3. No comments or discussion.
	4. Straw Poll 1 “Do you agree to incorporate the spec changes in 11-20/0452r0 into 11bd spec D0.3?”
		1. Chair used webex polling tool to collect responses
		2. Straw poll Yes:18 / No:0 / Abstain:6 / No response:5

### Technical Submission (802.11-20/0453r1)

* 1. Presentation by Rui Cao
	2. Presenter highlighting differences from r0
	3. Discussion
		1. Discussion about the “repeated LTF\_1x” performance vs” repeated LTF\_2x” with regards to the range extension properties.
		2. Comment if you do smoothing, “Repeated LTF\_1x” are the same as “LTF\_2x”. Thus, they are the same and it doesn’t provide either efficiency or range extension.
	4. Strawpoll 1 “Do you agree that NGV LTF\_1x uses 1.6us GI?”
		1. No discussion
		2. No objection. No formal count taken, consensus agreed.
	5. Strawpoll 2 “Do you agree that NGV does not support repeated LTF\_1x?”
		1. No discussion
		2. Chair used webex polling tool to collect responses
		3. Straw poll Yes:16 / No:0 / Abstain:8 / No response:4
	6. Presenter showing the spec changes in document 802.11-20/0454r0
	7. Redlines show proposed changes to the D0.2.
	8. Discussion
		1. No questions or comments
	9. Strawpoll 3 “Do you agree to incorporate the spec changes in 802.11-20/0454r0 into 11bd spec D0.3”
		1. Chair used webex polling tool to collect responses
		2. Straw poll Yes:23 / No:0 / Abstain:1 / No response:4

### Closing

* 1. With 12 minutes remaining we will proceed with Miguel’s presentation in the next meeting Friday, March 20
	2. Discussion about Strawpolls for the spec text change proposals
	3. Chair reminded the group that the next teleconference is Friday March 20, 10am EDT
	4. Secretary noted that he received a message from WG Vice Chair. Since the March plenary was cancelled, the voting rights rule has not changed. Attendance of 2 of 4 plenaries is required, and there is no March plenary the next plenary is July. Note that members can lose voting rights due to lack of participation in letter ballots.
	5. Meeting adjourned at 11:54am EDT

Attendance:

* James Lepp (BlackBerry)
* Bo Sun (ZTE)
* Bahar Sadeghi (Intel)
* Carl Kain
* Dongguk Lim (LG Electronics)
* Carl Kain (Noblis)
* Dongguk Lim (LGE)
* Hui-Ling Lou (NXP)
* John Kenney
* Jonathan Goldberg (IEEE)
* Miguel Lopez
* Peter Yee (NSA-CSD)
* Prabohd Varshney
* Prashant Sharma
* Rui Cao (NXP)
* Michael Montemurro (BlackBerry)
* Alan Zeleznikar
* Stephen Sand (DLR)
* Yujin Noh
* Joseph Levy (Interdigital)
* Liwen Chu (NXP)
* Yan Zhang (NXP)
* Hanseul Hong (Yonsei Univ.)
* Ronny Yongho Kim (KNUT)
* Jay Holcomb (Itron)
* Matthias Wendt (Signify Research)
* Bo Yu (NXP)
* Hitoshi Morioka
* Jianwei Bei (NXP)
* Sudhir Srinivasa (NXP)
* Yossi Shaul (Autotalks)
* Ron Toledano
* Jonas Sedin (Ericsson)
* Miguel Lopez
* Hongyuan Zhang (NXP)
* Mao Yu
* Niranjan Grandhe (NXP)

# Next Meetings

Face to face:

Marriott Hotel, Warsaw, Poland, May 11, 2019

<http://www.ieee802.org/11/Meetings/Meeting_Plan.html>

Teleconferences:

Feb 4, 18, Mar 3 | Time 9:00-11:00am EST | Webex

Mar 17, 20, 24, 26, 31, Apr 7, 14, 21, May 5, 26 | Time 10-11:59am EDT | Webex

 Meeting Documents:

 <https://mentor.ieee.org/802.11/documents>

 Task Group Email reflector:

 <http://www.ieee802.org/11/email/stds-802-11-tgbd/index.html>

 Website:

 <http://www.ieee802.org/11/Reports/tgbd_update.htm>