Minutes of 802.18 (RR-TAG) Meeting

(San Diego, CA, in July, 2018)

IEEE 802.18

Radio Regulatory-TAG

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| Radio Regulatory Technical Advisory Group Minutes |
| Date: 9-12 July, 2018 |
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| Officer presiding:  |
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Abstract

Minutes of IEEE 802 RR-TAG Plenary meeting in San Diego, CA, in July, 2018

**Tuesday, July 10th, 2018, AM2**

1. The Chair, Jay Holcomb, called the meeting to order at 10:31 local.
	1. About 28 people in the room
2. The Chair used the agenda meeting plan document 18-18/0079r02.
3. Chair reviewed Slide 2, Call to Order / Administrative Items
	1. Chair goes through the 4 administration slides embedded in this slide.
4. Chair reviewed slide #3-4, Other Guidelines for IEEE WG Meetings and Participation in IEEE 802 Meetings.
5. Chair reviewed Slide 5, the agenda
	1. Call to Order
		1. Attendance server is open
	2. Administrative items
	3. Approve agenda & last minutes
	4. Discussion items
		1. TR-51 SUN meeting invite
		2. EU Items
		3. Ofcom consultation
		4. NPRM on 3.7 to 4.2 GHz Band
		5. Google waiver request
		6. IEEE 802 6GHz single voice
		7. IEEE SA additional spectrum statement
		8. Time for teleconferences
		9. Teleconferences through December
	5. Actions required
		1. TBD – TAG to decide based on discussion items
	6. AOB and Adjourn.
6. Motion passed to approve the meeting agenda on Slide #6
	1. Motion: To approve the agenda as presented on previous slide
	2. Moved by: Stuart Kerry (Arris/Ruckus)
	3. Seconded by: Jim Petranovich (ViaSat)
	4. Discussion?
	5. Vote: Unanimous consent
7. Motion passed to approve March 2018 meeting minutes on Slide #6
	1. Motion: To approve the minutes from the IEEE 802.18 meeting at the Warsaw Marriott Wireless Interim in document: <https://mentor.ieee.org/802.18/dcn/18/18-18-0055-00-0000-meeting-minutes-may-2018-f2f-warsaw.docx> Posted: 13-May-2018 19:24:59 ET
	2. Moved by: Jim Petranovich (ViaSat)
	3. Seconded by: Stuart Kerry (Arris/Ruckus)
	4. Discussion?
	5. Motion Result: Yes: No: Abs = 15 : 0 : 2
	6. Motion passes.
8. Chair asked the group if anyone has an interest in being the 802.18 Vice-Chair?
	1. Needs to be a member of the SA and send a declaration of term commitment and affiliation letters to the EC.
	2. Q: what are the duties?
		1. Responsibilities of WG Vice Chair are listed on Slide 7.
	3. No one stood up at the meeting.
9. Chair went through slide #8 on TR-51 SUN meeting invite
	1. TIA's Director of Smart Building Programs, Limor Schafman, will be in San Diego.
	2. TIA's Director of Global Standards Programs, Victoria Mitchell has invited interested 802 participants to attend their TR-51 Smart Utility Networks meeting this Friday, 13 July.
		1. If interested in attending please RSVP to Victoria.
		2. Victoria Mitchell, Director, Global Standards Programs
		Telecommunications Industry Association (TIA)
		vmitchell@tiaonline.org
	3. C: Normally TR-51 meetings are just in the morning, though this week is scheduled for all day.
10. Chair reviewed Slide 9-10, EU Items
	1. ETSI – BRAN – meeting #99 – 18-21 Sept
		1. EN 302 567, 60 GHz, new draft has been released. 2 details to work out on short range devices, anticipated to be finalized for September meeting.
			* For now still have to go to Notified Bodies, with the rcve performance issue, could change tomorrow.
		2. SRDoc draft on 60GHz is posted, some clarity needed on it purpose for some. Getting close to finalizing.
		3. The new work item in BRAN(18)098002 was adopted.
			* Technical Report on WAS/RLANs in the band 6 725 MHz to 7 125 MHz
			* A draft is due in the next month.
	2. ETSI - ERM - TG-11
		1. Previous: EN 300 328 (v2.2.1 (2018-04)) - Draft accepted by ERM and receipt by ETSI Secretariat on 07 June; Now to National vote. ERM(18)065022r3;
		2. [https://portal.etsi.org/webapp/WorkProgram/Report\_WorkItem.asp?WKI\_ID=51206](https://portal.etsi.org/webapp/workProgram/Report_Schedule.asp?WKI_ID=51206)
		3. Any news? no
	3. CEPT – ECC SE45
		1. Next f2f: 13 August (afternoon) -14 August 2018, ECO, Copenhagen, Denmark
		2. A call recently has the RLAN parameters are being accepted in general, still in discussion. Should have for the meeting in August.
	4. CEPT – ECC FM57
		1. Next meeting 18 July, a web-meeting. tbd.
	5. Any other EU news?
		1. ITS difficult discussions going on, e.g. between rail and ITS users,
			* 802.11p is in these discussions.
			* Working toward agreement by the end of year.
11. Chair went through slide #11-14 on Ofcom – WRC-19
	1. **Ofcom** Consultation: UK preparations for the World Radiocommunication Conference 2019 (WRC-19)
		1. <https://www.ofcom.org.uk/consultations-and-statements/category-1/uk-preparations-wrc-19>
		2. <https://mentor.ieee.org/802.18/dcn/18/18-18-0069-00-0000-ofcom-consultation-on-preparations-for-wrc-19.pdf>
		3. **The closing date for responses is 13 September 2018. (To EC by 16 or 23 Aug)**
		4. There are 32 questions Ofcom is asking.
		5. We should focus on AIs from our view point document; 1.12, 1.13, 1.15, 1.16, 9.1 and 10.
	2. 1.1 This consultation calls on stakeholders to help us play an important part in shaping the regulations that govern how the world’s radio spectrum is used. It sets out the key issues to be discussed at next year’s World Radiocommunications Conference (WRC-19) – and spells out our early thinking on the outcomes we’d like to achieve. It also explains the engagement process which Ofcom manages in order to allow stakeholders to feed into the development of UK positions for the WRC.
	3. 1.2 Among the areas for discussion at WRC-19 are use of spectrum for mobile broadband – including next generation 5G. Decisions taken at the conference on this and other matters could affect thousands of UK businesses and consumers.
	4. Chair: we still have time until Sep 2018. We have not decided whether we want to response. We will continue to walk through a mark-up draft and add to our comments
	5. Chair went through the document on the topics we may have interest.
12. Chair went through slide #15, FCC - Open Meeting this Thursday
	1. Expanding Flexible Use of the 3.7 to 4.2 GHz Band
	The Commission will consider an [Order and Notice of Proposed Rulemaking](https://www.fcc.gov/document/expanding-flexible-use-37-42-ghz-band) that would continue the Commission’s efforts to make mid-band spectrum in the 3.7-4.2 GHz band available for expanded flexible use, primarily by seeking comment on mechanisms for clearing for mobile use and whether to allow point-to-multipoint use on a shared basis in portions of the band. To inform the Commission’s decision-making on the future of the band, it would also collect information from FSS earth stations and space stations to provide a clear understanding of the operations of current users. (GN Docket Nos. 18-122, 17-183; RM Nos. 11778, 11791)
	2. Cellular Reform Third Report and Order
	3. Children’s Television Programming Rules
	4. Emergency Alert System and Wireless Emergency Alerts
	5. Nationwide Number Portability
	6. Formal Complaint Rules Consolidation Order
13. Chair went through slide #16, FCC - Flexible Use of the 3.7 to 4.2 GHz Band
	1. Mentor: [https://mentor.ieee.org/802.18/dcn/18/18-18-0076-00-0000-nprm-3-9-4-2ghz-gn-18-122 (draft).pdf](https://mentor.ieee.org/802.18/dcn/18/18-18-0076-00-0000-nprm-3-9-4-2ghz-gn-18-122.pdf)
	2. ECFS: <https://www.fcc.gov/ecfs/search/filings?proceedings_name=18-122&sort=date_disseminated,DESC>
	3. Do we delay start of Thursday AM2 until after this agenda item and present the open meeting until then? Yes.
		1. (members will get Thursday AM1 attendance credit.)
		2. RR-TAG ‘formal’ start will be 8:30, while we will be showing the FCC Open meeting from 7:30 to 8:30.
	4. Will only touch on the NPRM as it is only a draft and the actual one is likely to have changes.
	5. First pass does not show much for unlicensed use.
14. Chair went through slide #17-18, on Google Wavier
	1. Reminder on our 4 Points – from 26 April agenda.
		1. Sharing is not clear with 100% duty cycle, it is a 10x e.i.r.p. level, 802.11 has LBT, etc.
			* Google says not a 100% duty cycle, gave an example, but not obvious what duty cycle they will use.
		2. Didn’t test with 802.11ad with single carrier modulation which is the majority of users. (OFDM is more tolerant which is what they did test with.)
			* Didn’t really respond to our input, but did talk to WiGi OFDM symbol duration, etc.
		3. Didn’t test in the same device, like a phone.
			* They say it will only be Google devices.
		4. Didn’t test with 802.15.3e (which is different from 3c which Google mentions).
			* Google did not respond to this.
	2. NCTA – The Internet & Television Association
		1. They saw that Google filed some new technical analysis on June 8th, supplementing the study they submitted along with their request for waiver relating to the operation of Soli sensors in the 57-64 GHz band.  They found IEEE 802’s comments on the request for waiver very helpful, and NCTA filed replies that echoed some of the concerns that we raised.
			* <https://mentor.ieee.org/802.18/dcn/18/18-18-0081-00-0000-google-s-waiver-request-ncta-replies-supporting-ieee-802-comments-on-motion-sensing-57-64-ghz.pdf>
	3. NCTA asking, have IEEE 802 folks had a chance to review the latest Google submission?
		1. <https://mentor.ieee.org/802.18/dcn/18/18-18-0080-00-0000-google-s-waiver-request-supplement-to-coexist-with-802-11-with-motion-sensing-57-64ghz.pdf>
	4. In our view, does it resolve some of the concerns that IEEE 802 raised?
	5. C: Google says its duty cycle is 10% but there is no rules limit that; also it is not clear how Google did their simulation.
	6. Excellent feedback from a member on behind the scenes, as on the surface seems Google is providing answers to some of our concerns, though looking deeper, there are ways around much of what they say. E.g. the rules won’t limit duty cycle, their system for now maybe.
		1. The member will provide the chair with many of these points.
	7. After this discussion, the RR-TAG wants to look more seriously at an ex parte, and NCTA will likely support what we are seeing. More to come.
15. Chair reviewed Slide 19-20, IEEE 802 – Can we get to a Single Voice on 6GHz?
	1. Word is the FCC NPRM (Notice of Proposed Rulemaking) on 6GHz band should be out before the end of the year, and could be as soon as September.
		1. Comment period could be shorter, tbd.
	2. With that we need to understand in what direction IEEE 802 as a whole should (or should not) respond to the NPRM with.
	3. Reminder:
		1. IEEE P802.11ax – wants this band for spectrum expansion that WiFi needs.
			* Keep in mind, others, e.g. 3GPP also want the band.
		2. IEEE 802.15.4, UWB, is already in use in the band, and is the band most used around the world for 802.15.4-UWB.
		3. The concern is WiFi interferes with UWB with its very low power.
		4. Recently 802.19 voted on the .11ax CoEx document and it failed.
			* This is being worked on through the normal IEEE 802 process, to be updated and part upcoming letter ballot, etc.
		5. There are a number of other incumbents in USA and the EU concerned with coexistence.
	4. Sunday, chairs of 802.11, 802.15, 802.18, 802.19 and others met to discuss the topic.
	5. Here is a link to what was reviewed,
		1. <https://mentor.ieee.org/802-ec/dcn/18/ec-18-0133-00-00EC-how-can-ieee-802-get-to-a-single-voice-for-6ghz-band.pptx>
	6. Next steps
		1. 802.19/802.11ax, will work through the 802.11ax coexistence document through the process so it is updated, passes 802.19 and can be in an upcoming 802.11ax letter ballot. (802.18 will stay involved)
		2. Once the 802.11ax coexistence document is approved, 802.18 can work possible comments.
			* However until the NPRM actually comes out, we will not be sure what is in them exactly to know just how to do final comments.
		3. Timing? Until the NPRM is published in the Federal Register, no way to speculate very close the date comments will be due.
			* Speculating the shortest time frame is the NPRM is published early September with a 30 day comments period. Making them due mid-October between the September Interim and November plenary.
	7. New feedback, current word on the street may see NPRM at the October open meeting, which would give IEEE 802 another month to work on a single voice.

1. Chair reviewed Slide 21, Thursday Agenda
	1. Reminder of IEEE policies we are under
		1. Attendance server is open
		2. Remember to state your name, affiliation, employer and/or clients first time you speak.
	2. Items from Tuesday or new.
		1. IEEE SA additional spectrum statement
		2. Time for teleconferences
		3. Teleconferences through 27 Dec. 2018
	3. Actions Required
	4. AOB
	5. Adjourn
2. We recessed at 12:11PM.

**Thursday, July 12th, 2018, AM1**

1. The Chair, Jay Holcomb, called the meeting to order at 8:30 local.
	1. About 14 people in the room
2. The Chair used the agenda meeting plan document 18-18/0079r03.
3. The Chair presented Slide 21, Thursday Agenda
	1. Reminder of IEEE policies we are under.
		1. Attendance server is open.
		2. Remember to state your name, affiliation, employer and/or clients first time you speak.
	2. Items from Tuesday or new.
		1. NPRM on 3.7 to 4.2 GHz Band
		2. Flexible Use of the 3.7 to 4.2 GHz Band
		3. Review Ofcom questions
		4. IEEE SA additional spectrum statement
		5. Where is the EU statement, added during agenda check.
		6. Time for teleconferences
		7. Teleconferences through 27 Dec. 2018
		8. Google wavier ex parte was brought up, though waiting on the input asked on Tuesday for the next step.
	3. Actions Required
	4. AOB
	5. Adjourn
4. Chair reviewed Slide 22, NPRM Flexible Use of the 3.7 to 4.2 GHz Band
	1. Question brought up in 802.24 meeting yesterday:
		1. Does this NPRM touch in any way what was discussed in our teleconferences on A Future For Unlicensed Spectrum, in:
		2. <https://mentor.ieee.org/802.18/dcn/18/18-18-0060-02-0000-a-future-for-unlicensed-spectrum.pptx>
		3. …. develop a position paper on why IEEE 802 believes that database control of spectrum access is a future requirement, and regulators need to start that development now.
		4. And what was brought up at the 802.11 WNG Tuesday.
		5. <https://mentor.ieee.org/802.11/dcn/18/11-18-1055-03-0wng-a-future-for-unlicensed-spectrum.pptx>
		6. Data base control mentioned here is over-simplified and likely could be multiple data base schemes, depending on the need.
		7. We are a ways from going down this path.
	2. From the FCC open meeting Thursday morning, the comments focused to clear out the band over time and open up for 5G.
		1. Still need to get final version when it comes out and see if other possible use beyond 5G, they do say expanding flexible use.
5. Chair reviewed Slide 23, Ofcom consultation on preparations for wrc-19
	1. Would like to review some of the questions again, as looking closer, our viewpoints do not answer some of the questions exactly.
		1. <https://mentor.ieee.org/802.18/dcn/18/18-18-0069-00-0000-ofcom-consultation-on-preparations-for-wrc-19.pdf>
	2. Chair reviewed document 18-18/69, Ofcom consultation on preparations for wrc-19
	3. Good and more detailed discussion on several of the questions. See a later revision of the 18-18/0069 document for the mark up with comments.
6. Chair reviewed Slide 24, IEEE SA additional spectrum position statement
	1. The IEEE-SA BoG SPCC reviewed and discussed the draft Spectrum Use position statement we have reviewed the past months (18-18/0010r0x). It agreed to move it forth to the BoG for its approval at the *9 July* meeting--with the addition of text addressing shared spectrum.
	2. The latest from us: <https://mentor.ieee.org/802.18/dcn/18/18-18-0010-06-0000-sa-use-of-spectrum-draft-position-06dec17.docx>
		1. Note: the IEEE 802 chair had asked for clarity on how the different IEEE 802 standards and projects are stated.
	3. Have heard we may see more updates after their 09 July meeting, for us to review.
		1. Nothing has come in yet.
7. Chair reviewed Slide 25, IEEE EU position statement on spectrum management
	1. From earlier teleconferences:
		1. IEEE European Public Policy Position Statement on Spectrum Management
			* <https://mentor.ieee.org/802.18/dcn/18/18-18-0028-00-0000-draft-ieee-european-public-policy-position-statement-on-spectrum-management.pdf>
			* We are being asked to review this statement, similar to the one in November, though some focus for the EU. Guidance is to review and comment in detail.
				1. Document 18-18/0028rxx, latest revision is our current review markup.
			* Please send comments to .18 chair, to integrate, to be reviewed by the TAG.
		2. Becoming clearer the starting premise of the current paper is from several years ago and input is coming in the premise has changed in recent years.
			* With that trying to understand how to propose edits to the paper.
	2. Was asked in the meeting where is this position statement?
	3. Concern: If this statement is being used it maybe presenting a premise that is out of date.
	4. Maybe the new Executive Director has an opinion on this.
	5. The chair will ask about this.
8. Chair reviewed Slide 26, Teleconferences
	1. Per earlier discussion, should we move teleconferences 30mins later; to 15:00 – 15:55 ET?
		1. Note will cutoff the call **no later than** 15:55 ET, maybe even earlier, as many have another call at 16:00 ET.
	2. **Motion: The 802.18 Chair or Vice Chair is directed to conduct, as necessary, teleconferences on Thursdays at 15:00 ET through 27 December 2018**
	3. Moved by: John Notor (Notor Research)
	4. Seconded by: Guido Hiertz (Ericsson)
	5. Discussion
		1. C: The WFA meeting starts at 16:00ET.
		2. C: That is why we will end at 15:55 ET
	6. Motion results: \_9\_ Y / \_1\_ N / \_1\_ A
	7. Motion Passed.
9. Chair reviewed Slide 27, Actions Required
	1. Inputs from members for the Ofcom consultation questions. Response will have to be done with emails and on the teleconferences.
	2. Review the NPRM on 3.7-4.2 GHz in more detail once the final is available.
	3. A member will list out points to consider on the Google reply comments to IEEE 802 ex parte, on the Google request for higher power at 60GHz.
	4. IEEE SA has more edits coming on their Position Statement on Additional Spectrum for us to review.
	5. IEEE EU position statement, need to investigate where it is at.
	6. Stay on top of 6 (5-7) GHz and single voice from IEEE 802.
	7. Stay on top of 802.11 WNG proposal on Future of Unlicensed Spectrum.
10. Chair reviewed Slide 28, Any Other Business
	1. None brought up.
	2. Straw Poll: How many people would like to come back to this venue?
		1. Yes -- # 15
		2. No – # 0
		3. Like the Social – # 3
		4. Disliked the Social – # 0
		5. Did not go to Social – # 6
11. Chair reviewed Slide 29, Adjourn
	1. The next face to face meeting of the 802.18 RR-TAG will be at the IEEE 802 Wireless Interim 11-13 Sept 2018 at the Hilton Waikoloa Village, Kona, HI, USA
		1. Usual time slots, Tuesday AM2 and Thursday AM1 (-2)
	2. Next teleconference: 19 July 2018 – *15:00* ET
		1. Call in info: <https://mentor.ieee.org/802.18/dcn/16/18-16-0038-09-0000-teleconference-call-in-info.pptx> (*or latest, watch for an update*)
		2. Note: If the call-in link doesn’t work send the Chair an email right away.
		3. All changes/cancellations will be sent out to the 802.18 list server.
	3. Adjourn:
		1. We are the end of our agenda, any objection to Adjourn.
		2. None heard, we are Adjourned at 9:33, Thursday 12 July 2018
12. The Thursday AM2 extra meeting was cancelled.