IEEE 802.18

Radio Regulatory-TAG

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| Radio Regulatory Technical Advisory Group Minutes |
| Date: 09dec21 |
| Name | Affiliation | Address | Email |
|  |  |  |  |
| Author and Officer presiding:  |
| Jay Holcomb, Chair, RR-TAG | Itron | Liberty Lake, (Spokane) WA | jholcomb@ieee.org |

Co-Vice-chairs are Stuart Kerry (OK-Brit/Self) and Al Petrick (Skyworks Solutions)

Abstract

Minutes of the IEEE 802 RR-TAG teleconference

These are the Minutes of the IEEE 802 RR-TAG teleconference Thursday, 09dec21

1. Chair calls the meeting to order at 15:02 et
2. Chair presents slides 2 – 7 of 802.18-21/0144r01, the call to order and administrative items
	1. Includes IEEE 802 meeting and participant’s guidelines and requirements.
3. Chair presents slides 8, the agenda:
	1. Call to Order
		1. Attendance is not on IMAT (VC & webex)
		2. Remember to mute when not speaking, thanks.
		3. Please request Q in the chat window.
	2. Administrative items
		1. Someone to take some notes, \_Peter E.\_
		2. Attendance & monitor chat window, Stuart K
	3. Approve agenda, last minutes & administration
	4. Discussion items
		1. EU Items
		2. Other Regions Items
		3. ITU-R Items
		4. General Discussion Items
	5. Actions required.
		1. \_\_\_\_\_\_
		2. Anything new today
		3. ongoing: WRC-23 AI Viewpoints & Stds. freq. table fill in
	6. AOB
	7. Adjourn
4. Chair presents slides 8 - 9 Administrative – Motions and more
	1. **Motion: To approve the agenda as presented on previous slide**

Moved by: Stuart Kerry (OK-Brit, self)

Seconded by: Mike Lynch (MJLynch Assoc.)

Discussion? None

Vote: Approved by unanimous consent

* 1. **Motion:** To approve the minutes in document <https://mentor.ieee.org/802.18/dcn/21/18-21-0131-00-0000-minutes-04nov21-rrtag-teleconference.docx> 05-Nov-2021 12:47:53 ET, with editorial privilege for the 802.18 chair.

Moved by: Al Petrick (Skyworks)

Seconded by: Vijay Auluck (self)

Discussion? None

Vote: Approved by unanimous consent

* 1. **Administrative moving forward**
		1. For **Jan 2022 Electronic** Wireless Interim – (was Panama) - Opening is Friday 14Jan21 10:00et
			1. WCSC Sept. call, the Jan 2022 Wireless Interim will be electronic/virtual.
		2. **FEES & DEADLINES**
			1. **Early Registration: Until 23:59 PM Eastern Time Thursday December 30, 2021** $US 50.00 for all attendees
			2. **Standard Registration: After Early, Until 23:59 PM Eastern Time Friday January 14, 2022** $US 75.00 for all attendees
			3. **Late Registration: After 23:59 PM Eastern Time Friday January 14, 2022** $US 125.00 for all attendees
		3. **MTG Events - REGISTRATION WEBSITE:** [**Link to website.**](https://urldefense.com/v3/__https%3A/touchpoint.eventsair.com/ieee-802-wireless-interim-session-jan-2022__;!!F7jv3iA!nrBVgCSpfikQRI3YkHn54N92xnRzChCl3roGsrfxTk71DDFhWPhLLIq9WHi8ySM27w$)🡸 different from the last couple of virtual meetings.
		4. .18 will be our normal weekly times and call-in, Thursday’s 20th and 27th Jan22,
			1. **and the .18 chair declares this an accredited interim and will have voting participation credit.**
		5. There are some issues with certain credit cards, it is being addressed.
		6. For **March 2022** Plenary (was Orlando)
			1. Decision point was on LMSC/EC call Tuesday/07dec21; will stay electronic and they also approved:
			2. Early: Before 12:00 PM UTC, Friday, January 21, 2022 $US 75.00 for all attendees
			3. Standard: Before 12:00 PM UTC, Friday, February 25, 2022 $US 100.00 for all attendees
			4. Late/On-site: After 12:00 PM UTC, Friday, February 25, 2022 $US 150.00 for all attendees
			5. *Expect* Plenary dates to be 4-18 March (Avoids conflict with IEEE-SA Meetings March 22-24.)
			6. Deadbeat day = June 18, 2022
			7. .18 will be our normal weekly times and call-in, expect Thursday’s 10th and 17th march2022,
1. Chair presents slides 10 - 11, **EU items to share**
	1. General EU info: [<ojeu>](https://eur-lex.europa.eu/oj/direct-access.html) [<HStds>](https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/) <https://www.etsi.org/deliver/etsi_en/>
		1. Remember–BRAN documents can be found in 802.11 private area documents (daily refresh)
			1. for reference, ad hoc meetings can make decisions, rapporteur meetings cannot.
	2. **ETSI –** [<BRAN>](https://portal.etsi.org/tb.aspx?tbid=287&SubTB=287) **next call #112, 13-17dec21; (#113, 04-14feb22)**
		1. Update on EN 303 722 (60 GHz) goes to ENAP starting tomorrow, the 10th of dec.
		2. Around 30 docs to discuss next week.
		3. BRAN(21)112019, provided by 3 countries authorities, many mixed points are being brought up. e.g. NB FH, Client to Client, in-band blocking, UAR, and etc.
		4. BRAN#112 draft agenda 112001r1, to see more. [https://docbox.etsi.org/BRAN/BRAN/05-CONTRIBUTIONS/2021/BRAN(21)112001r1\_Draft\_agenda\_for\_ETSI\_TC\_BRAN\_meeting\_\_112.xlsx](https://docbox.etsi.org/BRAN/BRAN/05-CONTRIBUTIONS/2021/BRAN%2821%29112001r1_Draft_agenda_for_ETSI_TC_BRAN_meeting__112.xlsx)
		5. **02dec:** Calls this week on 6 GHz and 5 GHz, then tomorrow another call on 6GHz.
			1. The call on meshing this week was very short.
			2. 5 GHz have gotten through about 2/3s of the draft and doing some editorial updates
			3. 6 GHz NB FH still being worked and how to get in the standard. Discussions on blocking ongoing. And, Client to Client comms is close to being accepted in ISM, but not DFS bands that still needs more work.
				1. Having to work out how to prove they are indoors. keep in mind in the EU there is LPI and VLP so as long as you can hear the indoor AP, then your confedered indoor.
				2. 802.11ax E.2.7 explains use of Transmit Power Envelope.
			4. At the recent WP 5A ITU-R meeting, the BRAN chair shared the liaison from BRAN to ITU-R related to the M.1450 recommendation.
			5. Will have 47 total BRAN meetings in 2021
		6. **18nov:**  Call this week on TR 103 721 made good progress.
		7. Calls coming up next week, on 6GHz and 5GHz stds on Tuesday. Thursday a call on 60GHz.
		8. **11nov21:** 3 calls since last report:
		9. TS 103 754 – multiple AP performance measurement, approved a new draft and making good progress
		10. Looking at working with Broad Band Forum, n the TS 103 754 stds.
		11. Resolved the comments on TVWS EN 301 598, from the assessment by the EC and the different consultants. Sent to 90-day ENAP.
		12. ad hoc on 2nd 60GHz standard, EN 303 722, Response on 1st ENAP technical comment resolved, now to 2nd 90-day ENAP.
		13. VC nominations end tomorrow and current VC are standing.
		14. Call next week on TR 103 721 (Feasibility assessment of applying mitigation techniques to WAS/RLAN to enable coexistence in the 5 725 MHz to 5 850 MHz band)
		15. FYI: Sounds like updates to the RED being discussed. Activating article 3.3 for IoT devices with security. protecting privacy, etc.
	3. **CEPT–**[**<ECC>**](https://cept.org/ecc/groups/ecc/client/introduction/) **(and more) next call, #58 01-04mar22, or just in general**
		1. **02dec:** France has opened the lower ½ of the 6 GHz band. This was quicker than some had thought.
		2. **18nov:** the ECC Report 327 has been published covering the UWB band above 6GHz with the following point:
			* 1. - Fixed outdoor used
				2. - simplified vehicular use cases
				3. - higher power pf -31.3dBm/MHz indoor.
			1. Link: <https://docdb.cept.org/document/22112>
			2. Also review ECC Report 330 on 5.8 GHz coexistence - <https://docdb.cept.org/download/3501>
			3. note: 2 members have volunteered to put together a few slides the EC, ECC, ETSI, CEPT and all interconnect.
	4. **CEPT – ECC** [**<SE45>**](https://cept.org/ecc/groups/ecc/wg-se/se-45/client/introduction/) **next call #15, 03-04mar22, e-meeting**
	5. **CEPT – ECC** [**<WGFM>**](https://cept.org/ecc/groups/ecc/wg-fm/client/introduction/)  **next meeting #101, 07-11feb22, Tentative, ECO (no virtual)**
2. Chair presents slide 12, **Other regions (outside EU-Stds and USA), items to share**
	1. **UK – OFCOM –** has posted a discussion paper entitled "Unlocking the potential of Terahertz radio spectrum" on:<https://www.ofcom.org.uk/__data/assets/pdf_file/0032/228929/terahertz-spectrum-paper.pdf>
		1. or : <https://mentor.ieee.org/802.18/dcn/21/18-21-0134-00-0000-uk-ofcom-terahertz-spectrum-paper.docx>
		2. Ofcom is interested in hearing public opinions on this discussion paper.  Although there is no official comment submission deadline, it said "We will share the feedback received and our evolving thinking in our Spectrum Roadmap, which we plan to publish in Spring 2022"
		3. The 802.15 SC THz will be preparing something for the January Interim session.
	2. Anything else to share today? nothing heard
3. Chair presents slides 13, **ITU-R items to share**
	1. Anything to share today?
		1. BRAN 112017 is their M.1450 update a submission for discussion. BRAN will review next week.
	2. **02dec:** WP 5A had meetings in the last weeks.
		1. The 2 liaisons from IEEE 802 (802.11), were presented and are being carried forward in the Chairman’s report.
		2. One country brought up is it nomadic or mobile for WiFi (.11ax), which designation? Nomadic seems more appropriate.
		3. So may want to submit a contribution to support the nomadic operation. The .11 ITU ad hoc will work on a liaison to bring to .18 and to the LMSC. Note: the next WP 5A meeting is 23may21-03jun22.
		4. Still questions on are sharing agreements need to be worked on.
		5. Other sections of our liaisons had good responses.
	3. **standing by for this spring(2022):** Additional WP 1A light communications and 2 WP 5A submissions from IEEE 802.
	4. **ongoing: WRC-23 agenda items, the list is on the ITU-R website at:**
		* 1. <https://www.itu.int/en/ITU-R/study-groups/rcpm/Pages/wrc-23-studies.aspx> (updated 26Aug20)
			2. <https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0041PDFE.pdf>
		1. <https://mentor.ieee.org/802.18/dcn/20/18-20-0107-01-0000-res-811-wrc-19-wrc-23-agenda-items.docx>
		2. **IEEE 802 viewpoints on WRC-23 agenda items.**
			1. Doc for viewpoints updated (actions items in notes on this slide in agenda): <https://mentor.ieee.org/802.18/dcn/21/18-21-0039-01-0000-ieee-802-viewpoints-on-wrc-23-agenda-items.pptx>
			2. Sometime, will review actions noted at the July Plenary.
		3. Reference:
			1. btw- the initial AIs to consider IEEE 802 viewpoints:
				1. 1.1 -800-4 990 MHz and Resolution 223. Connection w/ITS going there?
				2. 1.2 -300-3 400MHz, 3 600-3 800MHz, 6 425-7 025MHz, 7 025-7 125MHz and 10.0-10.5GHz for International Mobile Telecommunications (IMT) and resolution 245.
				3. 1.5 -470-960 MHz in Region 1-consider possible regulatory actions, Resolution **235.**
				4. 10 **-**recommend to the Council items for inclusion in the agenda for the next WRC
	5. For miscellaneous links for ITU-R, SGs, WPs and calendars, see back up slides in agenda.
4. Chair presents slide 14, **General Discussion Items**
	1. none today
5. Chair presents slide 15, **General Discussion Items – ongoing fyi - MSGs 6 GHz**
	1. **1. The WInnforum “6 GHz Committee”, all groups meet every 2 weeks except *Incumbent Information, interference and Test & Certification* - weekly (168 people); some docs:** [**https://6ghz.wirelessinnovation.org/work-group-products**](https://6ghz.wirelessinnovation.org/work-group-products)
		* 1. <https://www.wirelessinnovation.org/6ghz-multistakeholder-committee>
			2. For access to documents from the committee, can request to be an observer from the MSG below.
		1. Org: 2 focus areas:
			1. 1) AFC Functional Specification -WG – includes: Interference-TG, Incumbent Info-TG, security and Protocols 3GPP-TG
			2. 2) AFC Test and Certification-WG
		2. Request for petition stay (by 14dec) and petition for rule making by utility and public safety. e.g. concept on beacons causing interference. more to come.
		3. 18nov: WInnforum met with the OET today to discuss AFC testing. (WFA also meet with OET)
			1. ex partes will be out soon. WInnforum is about 9 slides. One point is asking about more than 1 test lab and how they would work.
		4. 21oct: TR-1014 (IR3) is in internal ballot, being shared with WFA AFC TG
			1. The process of coordination with the different organization has improve and time to approval is quicker.
			2. <https://www.wi-fi.org/file/afc-specification-and-test-plans> (open to all, just need contact info and privacy agreement)
	2. **2. From the FCC R&O, an informal MSG (“Group”) has also been formed. (260+ people)**
		1. <https://groups.wirelessinnovation.org/wg/6MSG/dashboard>.
			1. Work stream 1 - interference protection and resolution (CableLabs, EPRI, Lake Cty, APCO) Meets biweekly, from 28Jan21-10:00 et,
			2. Work stream 2 - correct incumbent data (ULS) (Comsearch, APCO)
			3. Work stream 3 - AFC and how it provides protection, etc. (Charter, Google, UTC)
			4. Overall Co-chairs: NPSTC, UTC, WFA, WISPA.
		2. Tomorrow is a meeting, and what to do with the final report, as consensus was not reach on everything.
		3. **18nov:** WS#1 reviewed final report, made one change and will present to 10Dec MSG full group for approval. <https://groups.wirelessinnovation.org/wg/6GHz-MSG-WS1/document/download/16761>
			1. 21dec21 is when AFC applications are due.
6. Chair presents slide 16, **General Discussion Items – ongoing fyi - Table of IEEE 802 Stds Frequency Bands**
	1. **Problem statement**
		1. It is difficult for 802 wireless standards developers to quickly and accurately identify all the frequency bands by the family of 802 wireless standards in a regularly maintained database.
		2. The primary application is to simplify identification of potential frequency bands for coexistence assessment.
	2. **Initial Audiences:**
		1. 1) 802 wireless standards developers
		2. 2) 802.19 wireless coexistence working group
	3. **Ad hoc calls**
		1. **The spreadsheet is going, always look for latest:**
		2. <https://mentor.ieee.org/802.18/dcn/21/18-21-0036-09-0000-frequency-table-template.xlsx>
	4. **From ad hoc call on 23nov21**
		1. Clarified 802.22 orig. std.; filled in many specific freq. ranges for 802.11
		2. Updates a few UWB ranges and added the Light-Ranges Sheet
	5. **From ad hoc call on 28sept21**
		1. Updated most of the 802.15 cells/rows, less UWB ones.
		2. And proposing to swap columns D&E to get the clause numbers for the current standard by the current standards. and clarified what goes in the clause cell.
	6. The activity is entering the phase to fill in the sheet now, so more intense and time consuming.
	7. The **next meeting will be 11jan22.** (call-in in agenda backup slides)
7. Chair presents slide 17, Actions / AOB / Recess
	1. **Actions required:**
		* n/a
* **ongoing:**
	+ For IEEE 802 viewpoints on WRC-23 AIs, reach out to those identified, looking for input on the viewpoints.
	1. **Proactive Spectrum Sharing – Contact Rich Kennedy if you can help or have inputs. or want to join the task force.**
1. Chair presents slide 18 Any Other Business
	1. none hear
2. Chair presents slide 19, Adjourn.
	1. **Next “weekly” teleconference (sched’d to 19may22): 16dec12 –*15:00–<15:55* et –**
		* **no calls: 23 or 30dec**
		1. Call in info: <https://mentor.ieee.org/802.18/dcn/16/18-16-0038-19-0000-teleconference-call-in-info.pptx>
		2. Also, see back up slide in this agenda. **(note: new call-in info starts 20jan22)**
		3. All late changes/cancellations will be sent out to the 802.18 list server.
	2. Overall IEEE 802 schedule: <http://ieee802.org/802tele_calendar.html>
		1. or only 802.18: [IEEE 802.18 TAG Calendar](https://calendar.google.com/calendar/embed?src=c2gedttabtbj4bps23j4847004%40group.calendar.google.com&ctz=America%2FNew_York)
	3. Adjourn:
		1. Any objection to Adjourn.
		2. None heard, Adjourn at 15:26et
	4. **The IEEE 802.18 (wireless) interim will be electronic in Jan 2022 with attendance credit.**
	5. **The IEEE 802.18 plenary will be electronic in March 2022 with attendance credit.**
	6. **Thank You**
3. Attendance

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| --- | --- | --- | --- |
| **Voting Attendees:** |  |  | **9-Dec** |
| 1 | **Au** | Edward (Kwok Shum) | Huawei Technologies Co., Ltd | **x** |
| 2 | **Auluck** | Vijay | Self | **x** |
| 3 | **Ecclesine** | Peter | Cisco Systems, Inc. | **x** |
| 4 | **Hiertz** | Guido | Ericsson GmbH | **x** |
| 5 | **Holcomb** | Jay | Itron Inc. | **x** |
| 6 | **Jeffries** | Timothy | FutureWei Technologies, Inc. | **x** |
| 7 | **Kain** | Carl | USDOT, Noblis, Inc. | **x** |
| 8 | **Kenney** | John | TOYOTA InfoTechnology Center U.S.A. | **x** |
| 9 | **Kerry** | Stuart | OK‐Brit, Self | **x** |
| 10 | **Levy** | Joseph | InterDigital, Inc. | **x** |
| 11 | **Lynch** | Michael | MJ Lynch & Associates, LLC. | **x** |
| 12 | **Palm** | Stephen | Broadcom Corporation | **x** |
| 13 | **Petrick** | Al | Skyworks Solutions Inc. | **x** |
| 14 | **Pirhonen** | Riku | NXP Semiconductors | **x** |
| 15 | **Rolfe** | Benjamin | Blind Creek Associates | **x** |
| 16 | **Stanley** | Dorothy | Hewlett Packard Enterprise | **x** |
| 17 | **Ward** | Lisa | Rohde & Schwarz | **x** |
| 18 | **Yaghoobi** | Hassan | Intel Corporation | **x** |
|  |  |  |  |  |
| **Non-Voting Attendees:** |  |  |
| 1 | **Fang** | Yonggang | MediaTek | **x** |
| 2 | **Scott** | Andy | NCTA – The Internet & Television Association | **x** |