IEEE 802.18

Radio Regulatory-TAG

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| Radio Regulatory Technical Advisory Group Minutes |
| Date: 06jan22 |
| 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)

* IEEE 802.18, RR-TAG website: <https://www.ieee802.org/18/>

Abstract

Minutes of the IEEE 802 RR-TAG teleconference

These are the Minutes of the IEEE 802 RR-TAG teleconference Thursday, 06jan22

1. Chair calls the meeting to order at 15:02 et
2. Chair presents slides 2 – 7 of 802.18-21/0148r01, 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: Al Petrick (Skyworks)

Discussion? None

Vote: Approved by unanimous consent

* 1. **Motion:** To approve the minutes in document <https://mentor.ieee.org/802.18/dcn/21/18-21-0147-00-0000-minutes-16dec21-rrtag-teleconference.docx> 17-Dec-2021 09:22:55 ET, with editorial privilege for the 802.18

Moved by: Al Petrick (Skyworks)

Seconded by: Ben Rolfe (Blind Creek Assoc.)

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. **Standard Registration:**
				1. **After Early, Until 23:59 PM Eastern Time Friday January 14, 2022** $US 75.00 for all attendees
				2. **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 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.**
		2. **The next 802 technical plenaries are thursdays, 13jan22 (next week) and 03mar21 @ 09:00et.**
			1. **For next week, the agenda:** [**https://1.ieee802.org/2022-01-technical-plenary-agenda/**](https://1.ieee802.org/2022-01-technical-plenary-agenda/)
		3. For **March 2022** Plenary (was Orlando)
			1. Decision point was on LMSC/EC call Tuesday/07dec21 and Plenary will stay electronic:
			2. **However, contract negotiations on the March 2022 cancellation will result in a significant penalty fee not anticipated on December 7th, 2021.**
			3. **Registration for the March 2022 Plenary was suspended immediately until the new Fee Structure for the plenary to address the high penalty fee was determined this week at the 04jan21 LMSC/EC call.**
				1. $400 until Friday, January 28, 2022 (fully refundable. {until January 28th})
				2. $600 until Friday, February 25, 2022 (refundable with cancellation fee. {January 28th to February 25th})
				3. $800 after Friday, February 25, 2022 (non-refundable. {after February 25th})
			4. **note: for those that already registered, what to do for them is being worked out with IEEE.**

{Those individuals who had previously registered will be contacted directly by the IEEE 802 EC Executive Secretary for further instructions.}

* + - 1. **Intro to plenary:** [**http://802world.org/plenary/**](http://802world.org/plenary/)
			2. **Face to Face Registration Website will open back up soon:** [**https://cvent.me/yG5GY2**](https://cvent.me/yG5GY2)
			3. **Plenary dates to be 04-18 March (**Avoids conflict with IEEE-SA Meetings March 22-24.)
				1. .18 will be our normal weekly times and call-in, Thursday’s 10th and 17th March2022. For **March 2022** Plenary – (was Orlando)

{note: info in {}s above was learned after the teleconference}

1. Chair presents slides 11 - 12, **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 #113, 04-14feb22 (dates are set through 2024.) Many other calls also setup.**
		1. (no calls since 13dec21)
		2. 16dec: 53 Contributions (total of all)
			1. Incoming Liaison from CEPT, 5.8 GHz power out questions on what is in OJEU. BRAN working on response.
			2. Response back to ITU-R being worked on (as reported earlier)
			3. Friday, the current VCs will be voted in and continuing through the next term.
			4. Approved for a new draft of EN 301 893, 5GHz, standard coming up.
			5. Modified WI for EN 303 753 has been approved, this is the 3rd 60GHz standard.
			6. EN 303 687, 6 GHz, some good progress and text for NB FH has been approved. These will be VLP.
			7. Approved TF 103 754, Mesh performance, to go into remote consensus, due 31jan22.
			8. The chair submitted 2 docs, proposing the two meeting to be electronic (Feb. and June)
			9. 47 meetings, 1 std EN 302 567 published. 2 more in ENAP; busy 2021.
			10. Chairman’s notes of the week is in BRAN(21)112014
			11. Meeting #112 will wrap tomorrow, Friday the 17th.
				1. BRAN(21)112044 - Clean proposal for EN 303 687 v0.0.15
				2. Here are all of documents for ETSI TC BRAN meeting #112 <https://portal.etsi.org/Contribution.aspx?MeetingId=38757>
				3. (remember the .11 private area has the BRAN documents.)
			12. After meeting: Both the EN 301 893 and EN 303 687 drafts were approved and will be in the 802.11 members private area.
			13. Also, many ad hocs approved for the next few months [BRAN(21)112046r4 - Future Ad hoc meetings](https://urldefense.com/v3/__http%3A/portal.etsi.org/ngppapp/ContributionCreation.aspx?primarykeys=238141__;!!F7jv3iA!hgsAcMNhHTZFhaELSftE93kIrl6hK2qPC-UfUcxTFd5UjGNXP6_xbHuQsHBTL11FWQ$)
	3. **CEPT–**[**<ECC>**](https://cept.org/ecc/groups/ecc/client/introduction/) **(and general items) next call, #58 01-04mar22, hybrid/ECO/tbd**
		1. November meeting: <https://cept.org/ecc/groups/ecc/news/57th-ecc-plenary-meeting-2-5-november/>
			1. New Work item on WAS/RLAN in 6425-7125 MHz: the ECC agreed on the new WI on the basis that, inter alia, no regulatory measures shall be taken under this WI and that the work in preparation for WRC-23 agenda item 1.2 will run independently from the work conducted under this work item.
	4. **CEPT – ECC** [**<SE45>**](https://cept.org/ecc/groups/ecc/wg-se/se-45/client/introduction/) **next call #15, 03-04mar22, web-meeting**
		1. last on website: SE45-14 met online on 28 October and continued its work to further study OOB emissions below 5935 MHz from Very Low Power (VLP) WAS/RLAN devices in the 6 GHz band, to protect CBTC systems that operate in the band 5915-5935 MHz
	5. **CEPT – ECC** [**<WGFM>**](https://cept.org/ecc/groups/ecc/wg-fm/client/introduction/)  **next meeting #101, 07-11feb22, web or hybrid/ECO**
		1.
		2. last on website: (04-08oct): WGFM approved for publication, the revision of ECC Recommendations on rail communications ECC/REC/(05)08 and ECC/REC/(08)02. WGFM also published two ECC Reports. **ECC Report 330 on RLAN at 5.8 GH**z and ECC Report 329 on VHF digital maritime voice radio.
	6. nice site: CEPT 6 GHz status across the countries: <https://docdb.cept.org/implementation/>[16737](https://docdb.cept.org/implementation/16737)
		1. 16dec: showing 3 -4 countries. note, updating this site is very slow, beware.
2. Chair presents slides 13-14, **Other regions (outside EU-Stds and USA), items to share**
	1. **India:** The following rule, The Use of Low Power Equipment in the Frequency Band 865-868 MHz for Short Range Devices (Exemption from Licence) Rules, 2021, is published in the Gazette of India on December 13, 2021, and in the DoT website on December 16, 2021:
	<https://dot.gov.in/sites/default/files/The%20use%20of%20low%20power%20equipment%20in%20the%20frequency%20band%20865-867%20MHz%20for%20short%20range%20devices%20%28Exemption%20from%20License%29%20Rules%2C%202021.pdf?download=1>
		1. Selected summary
			1. No licenses shall be required
			- These rules shall not be applicable to the wireless equipment which has been type approved under the Use of low power equipment in the frequency band 865-867 MHz for (RFID) Radio Frequency Identification Devices (Exemption from Licensing Requirement) Rules, 2005, and shall be effective till the end of its life.
			- Technical specifications for different types of devices are provided in Tables I to IV therein.
		2. Note: Std 802.15.4u is for 865-867MHz.
	2. standing by: UK – Ofcom 802.15 SC THz response to paper on THz.
		1. <https://mentor.ieee.org/802.18/dcn/21/18-21-0134-00-0000-uk-ofcom-terahertz-spectrum-paper.docx>
	3. Korea MSIT has recently begun two consultations related to the use of 5925 to 6425 MHz band for subway/passenger cars.
	Administrative notice (2021-1009) related to a partial revision to wireless devices for wireless stations that can be open without notification
		1. Consultation period:  December 22, 2021 to February 21, 2022
		2. Link: [https://www.msit.go.kr/bbs/view.do?sCode=user&mId=109&mPid=103&pageIndex=&bbsSeqNo=84&nttSeqNo=3179377&searchOpt=ALL&searchTxt=](https://urldefense.com/v3/__https%3A/www.msit.go.kr/bbs/view.do?sCode=user&mId=109&mPid=103&pageIndex=&bbsSeqNo=84&nttSeqNo=3179377&searchOpt=ALL&searchTxt=__;!!F7jv3iA!k1RdPGv72B-7mKwkk3tStDXl1ammAfTdDfXmUHFIHlOJFuKT0S34Wn7M2v-tZDkVxA$)
		3. Proposed changes are shown in red as follows:

|  |  |  |
| --- | --- | --- |
| **Frequency band (MHz)** | **Antenna supply power density or radiated power** | **Notes** |
| **5925 ~ 6425** | **25mW or less** | **Including antenna absolute gain.** |
| **5925 ~ 6425** | **250mW or less** | **Wireless devices used in subway/passenger cars.****Including antenna absolute gain.** |
| **5925 ~ 7125** | **250mW or less** | **Wireless devices used in buildings.****Including antenna absolute gain.** |

* + 1. Administrative notice (2021-1010) related to a partial revision to technical standards for radio equipment for radio stations that can be open without notification
		2. Consultation period:  December 22, 2021 to February 21, 2022
		3. Link: [https://www.msit.go.kr/bbs/view.do?sCode=user&mId=109&mPid=103&pageIndex=&bbsSeqNo=84&nttSeqNo=3179378&searchOpt=ALL&searchTxt=](https://urldefense.com/v3/__https%3A/www.msit.go.kr/bbs/view.do?sCode=user&mId=109&mPid=103&pageIndex=&bbsSeqNo=84&nttSeqNo=3179378&searchOpt=ALL&searchTxt=__;!!F7jv3iA!k1RdPGv72B-7mKwkk3tStDXl1ammAfTdDfXmUHFIHlOJFuKT0S34Wn7M2v-c0O-uXg$)
		4. Proposed changes are shown in red as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Frequency band** **(MHz)** | **Occupied frequency bandwidth** | **Power density including antenna absolute gain** | **Notes** |
| **5925 ~ 6425** | 160 MHz or less | 2dBm/MHz or less | The power density including the absolute gain of the antenna should be an average value. Limited to devices installed and operated by being connected to the power source in subway/passenger cars, or devices communicating with this device. |

1. Chair presents slides 15, **ITU-R items to share**
	1. Anything to share today? none heard
	2. **09dec:** BRAN 112017 is their M.1450 update a submission for discussion. BRAN will review next week.
	3. **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.
	4. **standing by for this spring(2022):** Additional WP 1A light communications and 2 WP 5A submissions from IEEE 802.
	5. **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
	6. For miscellaneous links for ITU-R, SGs, WPs and calendars, see back up slides in agenda.
2. Chair presents slide 16, **General Discussion Items**
	1. The following is the court order that the court upholds the FCC decision on 6 GHz that you may want to share with the group. <https://docs.fcc.gov/public/attachments/DOC-378888A1.pdf>
	2. **last paragraph:**
	3. We end where we began, with the principles that guide our review of petitioners' challenges. As explained in the foregoing pages, petitioners commercial communications providers, electric utilities, and APCO have failed to demonstrate that the Commission "relied on factors which Congress has not intended it to consider , entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the [Commission], or is so implausible that it could not be ascribed to a difference in view or the product of [Commission] expertise." *State Farm,* 463 U.S. at 43. This failure is especially significru1t because in issuing the Order, the Commission was acting to "foster [] innovative methods of exploiting the spectrum," thus requiring our "greatest deference." *Mobile Relay Associates,* 457 F.3d at 8 (internal quotation marks omitted). We therefore deny their petitions for review. **But for the reasons set forth above, we grant the National Association of Broadcasters' petition in part remand for further proceedings consistent with this opinion.**
3. Chair presents slide 17, **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

* + 1. nothing new today
		2. **09dec21:** 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.
	1. **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. 10dec meeting was only 28mins. The RLAN signal characteristics input was moved back to WS1 which met yesterday to work on putting into the final report.
			1. With that effort is still trying to get the final report done, to get to the FCC. The details are taking more time
	2. **General: 16dec: A public notice is expected in January about work needed on improving the ULS data.**
1. Chair presents slide 18, **General Discussion Items – ongoing fyi - Table of IEEE 802 Wireless 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)
2. Chair presents slide 19, Actions required
* **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 20 Any Other Business
	1. none hear
2. Chair presents slide 21, Adjourn.
	1. **Next “weekly” teleconference (sched’d to 19may22): 13jan22 –*15:00–<15:55* et –**
		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 15:38et
	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:** |  |  | **6-Jan** |
| 1 | **Auluck** | Vijay | Self | **x** |
| 2 | **Boldy** | David | Broadcom Corporation | **x** |
| 3 | **Holcomb** | Jay | Itron Inc. | **x** |
| 4 | **Kain** | Carl | USDOT, Noblis, Inc. | **x** |
| 5 | **Kenney** | John | TOYOTA InfoTechnology Center U.S.A. | **x** |
| 6 | **Kerry** | Stuart | OK‐Brit, Self | **x** |
| 7 | **Levy** | Joseph | InterDigital, Inc. | **x** |
| 8 | **Lynch** | Michael | MJ Lynch & Associates, LLC. | **x** |
| 9 | **Palm** | Stephen | Broadcom Corporation | **x** |
| 10 | **Petrick** | Al | Skyworks Solutions Inc. | **x** |
| 11 | **Pirhonen** | Riku | NXP Semiconductors | **x** |
| 12 | **Rolfe** | Benjamin | Blind Creek Associates | **x** |
| 13 | **Yaghoobi** | Hassan | Intel Corporation | **x** |
| 14 | **Yucek** | Tevfik | Qualcomm Incorporated | **x** |
|  |  |  |  |  |
| **Non-Voting Attendees:** |  |  |
| 1 | **Fang** | Yonggang | MediaTek | **x** |
| 2 | **Haasz** | Jodi | IEEE SA | **x** |
| 3 | **Scott** | Andy | NCTA – The Internet & Television Association | **x** |