IEEE 802.18

Radio Regulatory-TAG

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| Radio Regulatory Technical Advisory Group Minutes |
| Date: 29apr21 |
| 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, 29apr21

Chair calls the meeting to order at 15:02 et

1. Chair presents slides 2 – 6 of 802.18-21/0047r01, the call to order and administrative items
	1. Includes IEEE 802 meeting and participant’s guidelines and requirements.
2. Chair presents slides 7, the agenda:
	1. Call to Order.
		1. Attendance is not on IMAT
		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 & announcements.
	4. Discussion items
		1. EU Items
		2. Other Regions Items
		3. ITU-R Items
		4. MSGs on 6 GHz
		5. IEEE 802 Stds Table of Frequency Bands
		6. FCC and wireless mics
		7. General Discussion Items
	5. Actions required.
		1. Turn in 2 question poll on Sept21 Interim
		2. All-ongoing-WRC-23 AIs viewpoints, & restructure ext. influence
		3. Anything new today
	6. AOB and Adjourn
3. 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 from the IEEE 802.18 teleconference in document <https://mentor.ieee.org/802.18/dcn/21/18-21-0045-01-0000-minutes-22apr21-rrtag-teleconference.docx> 23-Apr-2021 14:52:24 ET with editorial privilege for the 802.18 chair..

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

Seconded by: Vijay Auluck (self)

Discussion? None

Vote: Approved by unanimous consent

* 1. **Administrative moving forward**
		1. For **May 2021** that was at the Hilton in Panama City, Panama, the WCSC on 03Feb21 **approved to cancel the in-person 802W interim**. This leaves the WGs and TAGs to hold interims as they wish.
			1. At this point still no participation credit, no word from EC yet.
			2. Other WGs/TAGs
			3. .11: 10-18May21; .15: 11-20(early)May21;
			4. ,19:\_n/a\_\_\_ .24: \_wed\_
			5. For .18 will plan on: 13 & 20May21 (normal Thursday’s, 1500et, 55 mins)
		2. For **July 2021** that was in Madrid, Spain, the LMSC(EC) on 05Mar21 **approved to cancel the in-person 802 Plenary.** It will be electronic like the past ones.
			1. At the EC teleconference Tuesday (06Apr), approved 09-23 July 21 dates.
			2. Also the registration fee was approved. The plan:
			3. $50 – till 30June $75 registration fee after 30june.
			4. registration opens: 10 May
			5. reminder sent on 28june (2 days, before fee increases) and on 30june last day before fee increases.
			6. reminder sent on 05 july – notifying of $75 fee started 01july
			7. For .18 will plan on: 15 & 22Jul21 (normal Thursday’s 1500et, looking at 2 hour slot for one, possibly the 22nd. )
				1. Do not want to overlap with .19 with the 2 hr slot.
				2. The extra hour will focus on IEEE 802 WRC-23 AIs viewpoints
		3. **From WCSC call, 07apr21**
			1. Not for May, for future Wireless interims if we have any that are virtual:
				1. Will look closer to have them as a full Wireless Interim of all WG/TAGs, not as individual sessions.
				2. Will have specific time slots all meetings will adhere too. To help with overlap/adjacent meetings and stay with in 17:59 IMAT window.
				3. Likely will have a registration fee similar to what the plenaries are doing.
		4. For **Sept 2021** still on at the Hilton in Waikoloa, HI, 12th-17th. WCSC will be discussing in their 05may21 monthly call, virtual or f2f.
			1. With the dynamics and unknowns looking at an electronic survey of membership before 05may21. (19-23Apr21?)
			2. 2 questions coming: If Sept21 interim is f2f, will you be able to attend in person?
				1. And, If Sept21 interim is electronic, will a meeting registration fee of $50 ($75 late fee) prohibit you from participating?
		5. **ePoll email was sent out and inputs are coming in. It will run through 02may21, this Sunday.**
		6. **Note:** **Hybrid meeting(s)** has been brought up several times, too complex and expensive, so not for now.
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/**](https://www.etsi.org/deliver/etsi_en/)
	2. **Remember – BRAN documents can be found in the 802.11 private area documents (daily refresh)**
	3. **ETSI is working on how to recoup all the costs for all the virtual meetings.**
		1. 01apr: They are looking at virtual meetings at least until 01sep21 like CEPT.
	4. **ETSI –** [**<BRAN>**](https://portal.etsi.org/tb.aspx?tbid=287&SubTB=287) **calls are #109a-15-22Apr21 and #109e-26-30Apr21**
		1. UAR was today, a new draft version of EN 301 893 was posted for decision at Friday’s call; along with the 5 and 6 GHz standards updates.
			1. What a notified body has to do had a good discussion also.
			2. UAR had a discussion on interference to other users and just how that will work. e.g. even in TVWS
		2. After Friday, the updated drafts will be uploaded to .11 private area within a day or so.
		3. There was no consensus on Narrow Band FHSS (VLP)
		4. 15apr: 109a-Agenda has comments from ENAP on EN 302 567 (60GHz, multi-GB, RLAN) and if needed a revised draft for ENAP again.
		5. 25mar: In BRAN(21)109061, ETSI TC BRAN ad hoc meeting #109e (26-30Apr21) will focus on
			1. • EN 301 893 (5 GHz),
			2. • EN 303 687 (6 GHz), and
			3. • the discussion of User Access Restrictions (UAR).
	5. **CEPT**
		1. **Note: CEPT will only have virtual meetings through 01Sep21, at this point.**
	6. EC RSComm met earlier (9-10mar21). There are no formal minutes, decisions are public however.
		* 1. As also discussed on 9-10Mar21: Commission Mandate to CEPT to review the limit of out-of-band (OOB) emissions below 5935 MHz applicable to very low power (VLP) WAS/RLAN devices operating in the 5945-6425 MHz band
			2. Minutes are out also, with other decisions of interest to us. This does take an EC login to get them however.
	7. **CEPT – ECC** [**<WGSE>**](https://cept.org/ecc/groups/ecc/wg-se/client/introduction/) **calls #88, 19-23Apr21; #89 27Sep-01Oct21**
		1. Minutes are in [SE(21)079](https://cept.org/Documents/wg-se/64177/se-21-079_minutes-of-88th-wg-se-meeting). WI 63 for SE 24 – short term interference into fixed systems, like into uWave stations at 6GHz. Need to watch this one close.
		2. 15apr: SE21 – ECC recommendation on receiver performance. This is also with ERM, on the ETSI side.
			1. New phases of the RED are coming and will have new rules that will be adding more to the receiver standards.
		3. Not seeing anything on SE 45.
	8. **CEPT – ECC** [**<FM57>**](https://cept.org/ecc/groups/ecc/wg-fm/fm-57/client/introduction/) **calls #14 19-22Apr21; #15 10-12May21; #16 12-13Jul21 (provisional)**
		1. Meeting last week progressed the draft ECC Report on enabling WAS/RLAN on a national basis in the 5.8 GHz.
		2. Temp Doc TEMP 004 (CEPT login) outdoor operation and registration for outdoor operation, inputs from from Czech and UK.
		3. 15apr: Contributions have been posted, e.g. [FM57(21)007](https://cept.org/Documents/fm-57/64031/fm57-21-007_revisions-to-draft-ecc-report-on-national-measures-for-wasrlan-zip-file-cover-plus-annex) on 5.8 GHz. Also, [FM57(21)008](https://cept.org/Documents/fm-57/64032/fm57-21-008_country-determination-capability-cdc-requirements-for-was-rlan-operating-in-58-ghz) France has country determination capability input, it is back again.
		4. 08apr: Only topic at #14, is on 5.8 GHz sharing EC 04(08). Other docs are not through public EC consultations yet, so nothing to discuss.
2. Chair presents slides 13, **Other regions (outside EU-Stds and USA), items to share**

* 1. UK, OFCOM, SRD list of where specific rules are:
	2. <https://www.ofcom.org.uk/__data/assets/pdf_file/0028/84970/ir-2030.pdf>
		1. These rules take effect on 12may21.
		2. And, UK rules are different from the EU side, by a little. so need to review.
		3. Release news: <https://www.ofcom.org.uk/consultations-and-statements/category-2/licence-exemption-licensing-equipment-changes>
	3. Saudi Arabia, CITC, released a 3-year outlook for commercial and innovative use of spectrum there:
		1. Mentor: <https://mentor.ieee.org/802.18/dcn/21/18-21-0041-00-0000-citc-spectrum-outlook-for-commercial-innovative-use-2021-23.pdf>
		2. One of the items:
		3. Unlicensed consultation (5925 – 7125 MHz and 66 – 71 GHz) Detailed plans for the 6 GHz and 66 – 71 GHz bands including power levels and any restrictions Consultation Q2 2021
		4. Looking for the consultation, not yet.
1. Chair presents slide 14, **ITU-R items to share**
	1. WP 5A meeting has started (lasts about 2 weeks) the 3 contributions from IEEE 802 are there.
	2. The THz contribution has been in discussion and has been incorporated into the draft, **and IEEE 802 was thanked for the contribution.**
	3. The other 2 contributions, M.1801 and M.1450 yet to come up, maybe introduced in the next day or so.
	4. IEEE 802 viewpoints on WRC-23 agenda items. **ad hoc: 5 folks stepped up. Are there any others to help?**
		1. Doc for viewpoints: <https://mentor.ieee.org/802.18/dcn/21/18-21-0039-00-0000-ieee-802-viewpoints-on-wrc-23-agenda-items.pptx>
		2. Key item was to review what we can on responses to consultations many countries are doing on topics related to WRC-23 AIs, e.g. on 6 GHz that is included in AI 1.2
		3. Though this process could work for other Agenda Items that maybe of interest to us also.
			1. It does seem the Arab states are engaging quicker than other regions, e.g. on 6 GHz.
			2. Oman has a consultation out on Wi-Fi 6;
				1. <https://www.tra.gov.om/En/ViewPublicConsultations.jsp?code=33>
			3. FCC WAC has a *preliminary* view on AI 1.2, we should look at this.
				1. <https://www.fcc.gov/us-contributions-sent-citel-pccii-wrc-23>
			4. Don’t forget the actual ITU-R WPs will be working AIs they have.
			5. **Next discussions will be during July 2021 electronic plenary**.
		4. Reference:
		5. Updated WRC-23 Agenda Item list: [https://mentor.ieee.org/802.18/dcn/20/18-20-0107-01-0000-res-811-wrc-19-wrc-23-agenda-items.docx](https://mentor.ieee.org/802.18/dcn/20/18-20-0107-00-0000-res-811-wrc-19-wrc-23-agenda-items.docx)
		6. btw- the initial AIs to consider IEEE 802 viewpoints:
		7. 1.1 -800-4 990 MHz and Resolution 223. Connection w/ITS going there?
		8. 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.
		9. 1.5 -470-960 MHz in Region 1-consider possible regulatory actions, Resolution **235.**
		10. 10 **-**recommend to the Council items for inclusion in the agenda for the next WRC
2. Chair presents slide 15, **MSG 6 GHz**
	1. **The WInnforum “6 GHz Committee”, all groups meet every 2 weeks except interference-weekly (168people)**
		* 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. New org: 2 (now) focus areas:
			1. 1) AFC Functional Specification -WG – includes: Interference-TG, Incumbent Info-TG, security (new) and 3GPP-TG (moved to this focus area)
			2. 2) AFC Test and Certification-WG
			3. Nothing to share
	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. The monthly meeting is tomorrow, 30April. May know more next week. Best is to watch WS1 – open to anyone.
		3. 22apr: There was a WS1 call this morning, has a introductory presentation on studies between real fixed service links and wireless LPI available devices, already available. This was live in the field. More to come the results in detail.
			1. This is the same link used as reported in prior FCC dockets, out of Columbus, GA.
		4. Here are links to two good reports, you may need to request username/password which is open to anyone.
			1. Nokia <https://groups.wirelessinnovation.org/wg/6GHz-MSG-WS1/document/16057>
			2. Aviat [https://groups.wirelessinnovation.org/wg/6GHz-MSG-WS1/document/16060](https://urldefense.com/v3/__https%3A/groups.wirelessinnovation.org/wg/6GHz-MSG-WS1/document/16060__;!!F7jv3iA!ivim7mUl4J61_76KJL-rC6chy96h7Az9WLSZLOiSYPDClL47btdAt_QPJ1oi5bLnVw$)
3. Chair presents slide 16, **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/21/18-21-0036-02-0000-frequency-table-template.xlsx>
	4. Made a few updates to the Table of Frequency Bands at the ad hoc, 27apr21. A few include:
		1. Added worksheet Frequency Range for frequency range additional info, like names.
		2. Added a column, Standard or Project, to the Stds (new name) worksheet.
		3. Updated the instructions for above.
		4. Then added a worksheet (will call them worksheets not tabs), for notes, e.g. pull in the future items from the .18 meeting a few weeks ago.
		5. Moving forward try to get going adding in frequency ranges from the different WGs.

* 1. Discussion in this meeting was on countries, and power out and different countries different services. this is captured in the future considerations.
	2. **The next meeting will be 25may21. (call-in in backup slides here)**
1. Chair presents slide17, FCC NPRM for Wireless Mics
	1. FCC Notice of Proposed Rulemaking (FCC 21-46)., ET Docket No. 21-115; RM-11821
		1. <https://www.fcc.gov/document/fcc-looks-open-door-new-wireless-microphone-technologies-0>
		2. Or <https://mentor.ieee.org/802.18/dcn/21/18-21-0046-00-0000-fcc-nprm-new-wireless-microphone-technologies-fcc-21-46a1.docx> (40 seek comments)
		3. “Wireless Multi-Channel Audio System” (WMAS) in the US (FCC 21-46)
		4. Wireless Microphones are authorized 6875-6900 MHz and 7100-7125 MHz and more bands.
		5. **1W per microphone plus 1W per microphone channel = 2W in the air in the band per microphone**
		6. Digitally combining multiple microphone signals
		7. NPRM seeks public comment allowing WMAS shared with incumbents  under Part 74 licensed devices
		8. NPRM seeks public comment should permit WMAS to operate unlicensed under Part 15 rules
		9. WMAS on a licensed basis in frequency bands where wireless microphones already are currently authorized, including the TV bands, the 600 MHz duplex gap, and in portions of the 900 MHz, 1.4 GHz, and 7 GHz bands
		10. FCC not intend to impact  incumbents of the bands
		11. WMAS is permitted in EUROPE under ETSI
		12. All – please review the FCC wireless mic action and is there anything .18 should review further or act upon?
	2. Current ETSI standard, 2017:
	3. <https://www.etsi.org/deliver/etsi_en/300400_300499/30042201/02.01.02_60/>
	4. For UK: <https://www.gov.uk/government/publications/designated-standards-radio-equipment>
2. Chair presents slide 18, **General Discussion.**
	1. **Also at the FCC Open Meeting on 22apr21:**
	2.

* 1. Other feedback: FCC made clear rule changes that affect non-Federal use of 5650-5925 MHz. There is doubt launches will try to use the band.
	2. It is FCC-21-44; Docket/RM: 13-115, RM-11341
	3. <https://www.fcc.gov/document/fcc-seeks-make-spectrum-available-commercial-space-launches-0>
	4. <https://www.fcc.gov/ecfs/search/filings?proceedings_name=13-115&sort=date_disseminated,DESC>
1. Chair presents slide 19, **Actions required.**
	* get 2 question poll for sept21 results turned in
	* All – ongoing - please review the FCC wireless mic action and is there anything .18 should review further or act upon?
	* VC - to email members to verify affiliations, then use MyProject for any updates.
		1. Plan is in July electronic plenary announcement / call-in info, to ask all .18 members to check their affiliation in the voters list off the 802.18 web site and confirm their affiliation. If an update is needed, to go into their own myProject account and update.
		2. <https://www.ieee802.org/18/RRTAG_Voters.pdf>
		3. <https://development.standards.ieee.org/myproject-web/public/view.html#landing>
	* All – if you have any actionable possibilities to update/improve/etc. our external influence on regulatory bodies, as part of the IEEE 802 restricting, please pass along to the chair. \
	* All – ongoing – bring to RR-TAG info they hear, e.g. different country consultations, on the WRC-23 AIs we are interested in.
2. Chair presents slide 20 Any Other Business
	1. none heard
3. Chair presents slide 21, Adjourn.
	1. Next “weekly” teleconference (sched’d to 02sep21): 06May21–*15:00–<15:55* ET
		1. Call in info: <https://mentor.ieee.org/802.18/dcn/16/18-16-0038-17-0000-teleconference-call-in-info.pptx> (new call-in starting 14Jan21)
			1. Also, see back up slide in this agenda.
		2. 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 16:00et
	4. The next face to face meeting is tbd.
	5. **The next IEEE 802.18 (wireless) interim will be electronic in May 2021**
	6. **The next IEEE 802 plenary will be electronic in July 2021**
	7. Thank You
4. Attendance

Voting members:

|  |  |  |
| --- | --- | --- |
| **Auluck** | Vijay | Self |
| **Ecclesine** | Peter | Cisco Systems, Inc. |
| **Holcomb** | Jay | Itron Inc. |
| **Jeffries** | Timothy | FutureWei Technologies, Inc. |
| **Kain** | Carl | USDoT/Noblis |
| **Kenney** | John | TOYOTA InfoTechnology Center U.S.A. |
| **Kerry** | Stuart | OK‐Brit, Self |
| **Levy** | Joseph | InterDigital |
| **Lynch** | Michael | MJ Lynch & Associates, LLC. |
| **Nikolich** | Paul | Self, HPE, Huawei, Wyebot, UNH BCoE, YAS BBV, Origin Wireless  |
| **Petrick** | Al | Skyworks |
| **Rolfe** | Benjamin | Blind Creek Associates |
| **Stanley** | Dorothy | Hewlett Packard Enterprise |
| **Yaghoobi** | Hassan | Intel Corporation |
| **Yucek** | Tevfik | Qualcomm |
| **Non-Voting (Nearly Voters, Aspirant Members, Observers & Other Attendees)** |
| **Hamilton** | Mark | Ruckus/CommScope |
| **Pirhonen** | Riku | NXP Semicondustors |