IEEE 802.18

Radio Regulatory-TAG

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| Radio Regulatory Technical Advisory Group Minutes |
| Date: 04 April 2019 |
| Name | Affiliation | Address | Phone | Email |
|  |
| Author(s):  |
|  |  |  |  |  |
|  |
| Author and Officer presiding:  |
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Abstract

Minutes of the IEEE 802 RR-TAG Teleconference.

These are the Minutes of the IEEE 802 RR-TAG Teleconference, Thursday, 04 April 2019

**Voters for this meeting:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** | **Attendance** |
| **07Feb** | **13Feb** | **14Feb** | **21Feb** | **28Feb** | **07Mar** | **21Mar** | **28Mar** | **04Apr** |
| Auluck | Vijay | Self Employed |  | **X** | **X** |  |  | **X** | **X** | **X** |  |
| Ecclesine | Peter | Cisco Systems, Inc. | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  | **X** |
| Harrington | Tim | Pro ID & UWB Alliance |  |  |  |  |  |  |  |  | **X** |
| Holcomb | Jay | Itron Inc. | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| Kain | Carl | Noblis Inc. | **X** |  |  |  |  |  |  |  |  |
| Kennedy | Richard | Self |  |  |  |  |  |  |  |  |  |
| Kerry | Stuart | ARRIS/Ruckus | **X** | **X** | **X** | **X** |  | **X** |  | **X** | **X** |
| Lepp | James | BlackBerry | **X** |  | **X** | **X** | **X** | **X** |  |  |  |
| Lynch | Mike | MJLynch Assoc | **X** |  |  | **X** | **X** |  |  | **X** | **X** |
| Nejatian | Alireza | Ericsson | **-** | **-** | **-** | **-** | **-** | **-** |  |  | **X** |
| Salazar  | Ruben | Landis Gyr Group WW |  |  |  |  |  |  |  | **X** |  |
| Yaghoobi | Hassan | Intel Corporation | **X** |  |  | **X** |  |  |  | **X** | **X** |

**Non-Voters for this meeting:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** | **Attendance** |
| **07Feb** | **13Feb** | **14Feb** | **21Feb** | **28Feb** | **07Mar** | **21Mar** | **28Mar** | **04Apr** |
| Fischer | Michael | NXP Semiconductors | **X** | **X** | **X** |  |  |  |  |  |  |
| Hamilton | Mark | Ruuckus |  |  |  |  |  |  | **X** |  |  |
| Kenney | John (nv) | Toyota ITC |  | **X** | **X** | **X** | **X** |  | **X** |  |  |
| Levy | Joeseph | Interdigital |  |  | **X** | **X** | **X** |  |  | **X** |  |
| Nejatian | Alireza | Ericsson | **X** |  |  | **X** | **X** |  | **-** | **-** |  |
| Rajkotia | Purva | IEEE Staff |  |  |  |  |  |  |  |  |  |
| Rison | Mark | Samsung |  |  | **X** |  |  |  |  |  |  |
| Rolfe | Ben | Blind Creek Assoc. and UWB Alliance | **X** |  |  |  |  |  |  |  |  |

Chair calls the meeting to order at 15:03 ET.

1. Chair presents slides 2, 3, and 4 of 802.18-19/046r01, the call to order and administrative items
	1. Includes IEEE 802 meeting and participant’s guidelines and requirements.
2. Chair presents slides 5, of 802.18-19/0046r01, the agenda:
	1. Call to Order
	2. Administrative items
		1. Need a recording secretary, Peter Ecclesine (Cisco)
	3. Approve agenda & last minutes
	4. Discussion items
		1. EU Items
		2. Ofcom Consultation on enabling opportunities for innovation,
		3. NPRM Expanding Broadband to the 896 / 935 MHz PLMR Band
		4. General Discussion Items
	5. Actions required
		1. Ofcom Consultation
		2. FCC NPRM at 895/935
		3. Anything new today
	6. AOB and Adjourn
3. Chair presents slide 6, Administrative – Motions and more
	1. **Motion: To approve the agenda as presented on previous slide**
		1. Moved by: Tim Harrington (UWB Alliance)
		2. Seconded by: Peter Ecclesine (Cisco)
		3. Discussion? None
		4. Vote: Unanimous consent
	2. **Motion: To approve the minutes from the IEEE 802.18 teleconference 28 March 2019 in document:** <https://mentor.ieee.org/802.18/dcn/19/18-19-0044-00-0000-minutes-28mar19-rrtag-teleconference.docx>  **Posted:** 29-Mar-2019 08:46:43 ET
		1. Moved by: Stuart Kerry (Ruckus)
		2. Seconded by: Jay Holcomb (Itron)
		3. Discussion? None
		4. Vote: Unanimous consent
	3. The Chair noted the RR-TAG is in need of a vice-chair and secretary**, is there anyone that can help? no response**
4. Chair presents slides 7-8, EU Items to share
	1. **ETSI –** [<BRAN>](https://portal.etsi.org/tb.aspx?tbid=287&SubTB=287) **next meeting #102, 17-20 June, Sophia Antipolis ,**
		1. Adaptivity discussions continue. Notes on their site.
	2. **CEPT – ECC** [<SE45>](https://cept.org/ecc/groups/ecc/wg-se/se-45/client/introduction/) **next meeting #7, 24-25 Apr, Copenhagen**
		1. 23 sets of comments are posted on ECC Report 302 public consultation.
		2. SE45(19)001-A27 document has all the comments. Will be discussed at #7.
		3. Serious inputs are from UK and France, asking for more study on a few points.
		4. Look at input docs for #7.
	3. **CEPT -** [<CPG PT D>](https://cept.org/ecc/groups/ecc/cpg/cpg-pt-d/client/introduction/) **(project team D)**
		1. For WRC 1.16 and 9.1.5 was able to achieve agreement on levels for cars, trains and airplanes, for the 5 GHz band.
		2. France still may have some input coming in on Radar 22 (Giraffe), a rider radar technology is the concern, protecting Giraffe will protect it. This could be contentious.
5. Chair presents slide 9-10, **Ofcom\_Enabling-opportunities-for-innovation\_2.4 GHz**
	1. <https://www.ofcom.org.uk/consultations-and-statements/category-1/enabling-opportunities-for-innovation>
		* 1. <https://mentor.ieee.org/802.18/dcn/19/18-19-0034-00-0000-ofcom-enabling-opportunities-for-innovation-2-4ghz.pdf>
		1. Response was due by March 12th, completed using [consultation responses form (RTF, 1.5 MB)](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.ofcom.org.uk_-5F-5Fdata_assets_rtf-5Ffile_0026_130688_enabling-2Dinnovation-2Dconsultation-2Dform.rtf&d=DwMDaQ&c=pqcuzKEN_84c78MOSc5_fw&r=z8R-nWJ8GIxwjOjNKhEFByb-tZ6XE3GZXWSggNdVo-w&m=3FBZmV-USi1IAJCcWLc_TKEa1D1P2ap2wmW9rVIDII0&s=Xr3ivvSquLAhW7zYeHsx70dkYfyIx3oz9mAK7LT-jww&e=).
			1. <https://mentor.ieee.org/802.18/dcn/19/18-19-0035-00-0000-ofcom-enabling-opportunities-consultation-form-2-4ghz.rtf>
		2. The 2390-2400 MHz discussion starts around page 35
			1. Handsets 23 dBm, base stations to 42 dBm, some other IOT considerations
		3. Annex 6. Interference risk assessment in 2300 MHz shared spectrum, page 103.
		4. **Question 19:** (Section 8)Do you have any other comments on our proposal?

1) We are in an adjacent channel and we question analysis in Annex 6.

2) e.g. need to consider .11ax is coming

3) The receive performance that Ofcom pushed for is going to be a problem.

4) Should speak to Zigbee and 802.15.4g ….

5) BT is there also.

6) Need to consider economic value of bottom of 2.4 GHz band / channel 1.

7) Added-why tie this 10 MHz to this opportunity?

* + 1. **Timing: let’s get some points together and filing sooner is better than depth.**
		2. **Text of discussions to date:**
			1. <https://mentor.ieee.org/802.18/dcn/19/18-19-0045>
		3. **And now put into official form for finalization:**
			1. <https://mentor.ieee.org/802.18/dcn/>[19/18-19-0035](https://mentor.ieee.org/802.18/dcn/19/18-19-0035-00-0000-ofcom-enabling-opportunities-consultation-form-2-4ghz.rtf)
			2. We reviewed and a couple of grammar edits to make an r02 and a clean r03.
		4. **Motion: Move to approve the comments in** [**https://mentor.ieee.org/802.18/dcn/19/18-19-0035-03-0000-ofcom-enabling-opportunities-consultation-form-2-4ghz.docx**](https://mentor.ieee.org/802.18/dcn/19/18-19-0035-03-0000-ofcom-enabling-opportunities-consultation-form-2-4ghz.docx)**; response to Ofcom on enabling opportunities consultation including 2390-2400 MHz. For review and approval by the EC for sending to the Ofcom before 17 April 2019. The Chair of 802.18 is authorized to make editorial changes as necessary.**

Move by: Mike Lynch (MJLynch Assoc.)

Second by: Tim Harrington (Pro ID)

Discussion: None

Vote: \_7\_ Yes \_0\_ No \_0\_ Abstain

Motion: Passed

# In attendance: 7

1. Chair presents slides 11-12, **FCC NPRM Expanding Broadband to the 896/935 MHz pair**
	1. [Notice of Proposed Rulemaking](https://www.fcc.gov/document/expanding-broadband-900-mhz-band) that proposes to reconfigure the 900 MHz band to create a broadband segment to facilitate technologies and services for a wide variety of businesses, including critical infrastructure, as well as seek comment on various transition mechanisms to achieve this goal. (WT Docket No. 17-200)
	2. Final: <https://mentor.ieee.org/802.18/dcn/19/18-19-0038-00-0000-final-nprm-17-200-expanding-broadband-to-896-935-mhz.pdf> [<18-19-0028r01 is the highlighted draft version)>](https://mentor.ieee.org/802.18/dcn/19/18-19-0028-01-0000-draft-nprm-17-200-expanding-broadband-to-896-935-mhz.docx)
	3. The proceeding: <https://www.fcc.gov/ecfs/search/filings?proceedings_name=17-200&sort=date_disseminated,DESC>
	4. This is for the 896-901/935-940MHz land mobile licenses band today.
		1. Some want the FCC to reorganize spectrum so they can have 3 MHz paired for private LTE, moving existing LMR users elsewhere.
	5. New the dates were announced: Comments due: 03May19; Reply Comments due: 03June19
		1. <https://www.federalregister.gov/documents/2019/04/03/2019-06349/commission-proposes-to-reconfigure-the-900-mhz-band-to-facilitate-broadband-services?utm_campaign=subscription%20mailing%20list&utm_source=federalregister.gov&utm_medium=email>
	6. 802.11 & 802.15 both have standards in between this pair, as well as all the road tolling is there.
	7. We may do comments, will review in upcoming teleconferences.
	8. Would we need to focus on the ‘use’ of the band in recent years, since the rules have been higher power in this band all along.
	9. To-do: 1. Look at the other filings (to-do); 2. Compare power levels from today’s rules.
		1. We propose to permit an effective radiated power for base and repeater stations in the broadband segment not to exceed 400 watts/megahertz in non-rural areas and 800 watts/megahertz in rural areas, with the maximum permissible power decreasing as the HAAT rises above 304 meters.
	10. Found in today’s rules: §90.635   Limitations on power and antenna height.
		1. The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table.
	11. Interest is not there to comment. Will move to general discussion items for a few weeks.
2. Chair present slides 13-14 General Discussion Items.
	1. [FCC <39GHz - reconsideration>](https://www.federalregister.gov/documents/2019/03/28/2019-05911/notice-of-initial-39-ghz-reconfiguration-procedures?utm_campaign=subscription%20mailing%20list&utm_source=federalregister.gov&utm_medium=email) - FYI.
		1. FCC seeks comment on the next steps toward implementing the procedures to reconfigure the 39 GHz band in preparation for the incentive auction that will offer new flexible use licenses in the Upper 37 GHz, 39 GHz, and 47 GHz bands.
	2. <https://www.acma.gov.au/theACMA/draft-five-year-spectrum-outlook-2019-23>
		1. <https://mentor.ieee.org/802.18/dcn/19/18-19-0048-00-0000-acma-draft-five-year-spectrum-outlook-2019-23.docx>
		2. Comments due 16 May 2019
	3. There is nothing on the 5925 MHz and above. We need to review if we comment on where is this band and what is going on in the EU with AU and ETSI focused country. .
	4. Expanding Flexible Use of the 3.7 to 4.2 GHz Band – FYI.
		1. <https://www.federalregister.gov/documents/2019/04/04/2019-06472/expanding-flexible-use-of-the-37-to-42-ghz-band?utm_campaign=subscription%20mailing%20list&utm_source=federalregister.gov&utm_medium=>[email](https://www.federalregister.gov/documents/2019/04/04/2019-06472/expanding-flexible-use-of-the-37-to-42-ghz-band?utm_campaign=subscription%20mailing%20list&utm_source=federalregister.gov&utm_medium=email)
		2. The Earth Station and Space Station Information Collections in paragraphs 7-12 of the Order published at [83 FR 42043](https://www.federalregister.gov/citation/83-FR-42043), August 20, 2018, are effective April 4, 2019.
3. Chair presents slide 15, Actions required
	1. Chair to start Ofcom EC ballot.
	2. Review ACMA 5 Year outlook for possible comments or not.
4. Chair presents slide 16 Any Other Business
	1. None
5. Chair presents slide 17, Adjourn
	1. Next teleconference: 11 April 2019 – 15:00 – <15:55 ET
		1. Call in info: <https://mentor.ieee.org/802.18/dcn/16/18-16-0038-11-0000-teleconference-call-in-info.pptx> (or latest)
		2. All changes/cancellations will be sent out to the 802.18 list server.
	2. Adjourn:
		1. Agenda complete, any objection to Adjourn.
		2. None heard, Adjourn at 15:48 ET.
	3. The next face to face meeting of the 802.18 RR-TAG will be at the IEEE 802, 14 – 16 Wireless Interim in Atlanta, GA, USA at the Grand Hyatt in Buckhead
		1. Time slots, Tuesday AM2 and Thursday AM1