IEEE 802.18

Radio Regulatory-TAG

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| Radio Regulatory Technical Advisory Group Minutes | | | |
| Date: 15-22jul21 | | | |
| 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)](mailto:stuart@ok-brit.com) and [Al Petrick (Skyworks Solutions)](mailto:apetrick@ieee.org)

Abstract

Minutes of the IEEE 802 RR-TAG teleconference

These are the Minutes of the IEEE 802 RR-TAG teleconference Thursday, 15-22jul21

1. Chair presents slide 2: Registration for the July 802 electronic plenary session

* This meeting is part of the July 802 plenary session
* You must pay the registration fee in order to attend
* If you have not already done so, you can register at: <https://cvent.me/D5LYLq>
* If you do not intend to register for this session you must leave this meeting and, if you have logged attendance on IMAT, please email the 802.18 chair or a vice chair to have your attendance cancelled
* At conclusion of each of the 802.18 calls, the Webex log and IMAT will be reviewed accordingly.

Chair calls the meeting to order at 15:02 et

1. Chair presents slides 3 – 7 of 802.18-21/0087r01, the call to order and administrative items
   1. Includes IEEE 802 meeting and participant’s guidelines and requirements.
2. Chair presents slides 8, the agenda:
   1. Call to Order.
      1. Attendance is on IMAT (w/VC & webex checks)
      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. MSG 6 GHz
      5. IEEE 802 Stds Table of Frequency Bands
      6. General Discussion Items
   5. Actions required.

      2. All-ongoing-WRC-23 AIs viewpoints, & restructure ext. influence
      3. Anything new today
   6. AOB
      1. Straw poll for November
   7. Recess/Adjourn
3. Chair presents slides 8 - 10 Administrative – Motions and more
   1. **Motion: To approve the agenda as presented on previous slide**

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

Seconded by: Hassan Yaghoobi (Intel)

Discussion? None

Vote: Approved by unanimous consent

* 1. **Motion:** To approve the minutes in document <https://mentor.ieee.org/802.18/dcn/21/18-21-0054-01-0000-minutes-electronic-interim-13-20may21-rr-tag-pty.docx> 21-May-2021 17:40:02 ET, with editorial privilege for the 802.18 chair.

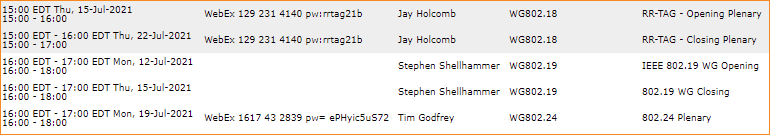
Moved by: Stephen Palm (Broadcom)

Seconded by: Al Petrick (Skyworks)

Discussion? None

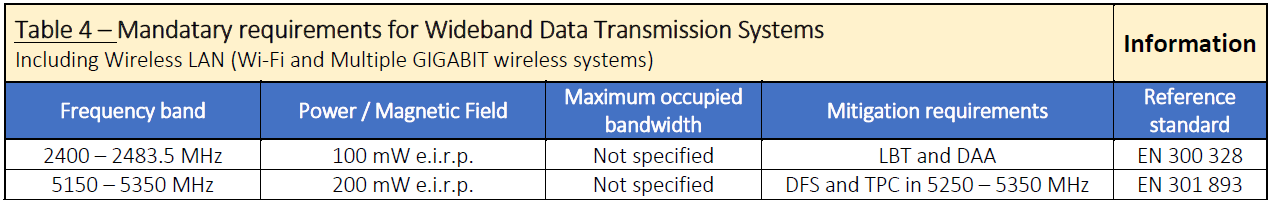
Vote: Approved by unanimous consent

* 1. **Administrative moving forward** 
     1. For **July 2021,** wasin Madrid, Spain, now EC approved electronic plenary form 09-23 July 21 dates.
        1. Also, the registration fee was approved. **$75 registration fee after 30june.** <<<just one fee for all WGs/TAGs combined
        2. registration is open: **REGISTRATION WEBSITE:**[**https://cvent.me/D5LYLq**](https://cvent.me/D5LYLq)
        3. Registration fee is required and if not paid would ask to leave the call.
        4. For .18 planning on: 15 & 22Jul21 (normal Thursday’s 1500et, planning on 2-hour slot the 22nd.
        5. The extra hour will focus on IEEE 802 WRC-23 AIs viewpoints. Looking at other WGs/TAGs:
        6. .11: 12-20 jul 21 time slot over .18: 13:30-15:30 (11az, 11bh)
        7. .15: 13-21 jul 21 time slot over .18: 15:00-17:00 (SG4ab-NG-UWB)



* + 1. From plenary announcement: per earlier discussions, this would be a great time to ask all .18 voting members to check their affiliation in the voters list on the 802.18 web site, [https://www.ieee802.org/18/RRTAG\_Voters.pdf](https://urldefense.com/v3/__https:/www.ieee802.org/18/RRTAG_Voters.pdf__;!!F7jv3iA!nEuOkVitFVRw_Qm9zNCzAU62sjb8Xc938eoHxAwSXpzBwUFBETuwZ3CVIdNGb8XWJQ$), and confirm their affiliation.  If an update is needed, then inform the 802.18 VC by sending an email directly to him at [stuart@ok-brit.com](mailto:stuart@ok-brit.com).
  1. 802 level meetings and .19 will require Webex registration ahead of time. Experimenting considering fee required to attend.
  2. Chairs of all WG/TAGs are to report all attendees to meetings to compare against who paid fees.
  3. **For Sept 2021,** it will be an electronic Wireless Interim, with one ($50, $75, $125) registration fee for all groups.
     1. Dates are Friday 10sep to our .18 meeting on 23sep21. .18 will meet our normal Thursday’s, 16th and 23rd.
     2. Looking at a wireless opening meeting Friday 10sep21 at 0900et (similar to what was done at f2fs )
     3. From WCSC on 07July: $50 – 14jul-27aug; $75 – 28aug-09sep; $125 >09sep;

1. Chair presents slide 11, Teleconferences
   1. **Motion: The 802.18 Chair or Chair designee is directed to conduct, as necessary, teleconferences on Thursdays at 15:00 ET (for 55mins) through 13 Jan 2022**
      1. Moved by: Stuart K.
      2. Seconded by: Vijay A.
      3. Discussion? None
      4. Passed by Unanimous Consent
      5. Motion passed, \_28\_ voters with \_30\_attendees
2. Chair presents slides 12 & 13, **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 the 802.11 private area documents (daily refresh)
   2. **Is the EC 6 GHz Decision on the OJEU yet? yes**
      1. <https://mentor.ieee.org/802.18/dcn/21/18-21-0083-00-0000-european-commission-decision-eu-2021-1067-for-6ghz-in-ojeu.pdf>
      2. Article 3 By 1 December 2021, Member States shall designate the 5 945-6 425 MHz frequency band and make it available on a nonexclusive, non-interference and non-protected basis, for the implementation of WAS/RLANs in accordance with the technical conditions set out in the Annex. When introducing new applications into the 5 945-6 425 MHz frequency band or into adjacent frequency bands after the entry into force of this Decision, Member States shall not adopt technical and operational conditions applicable to any new application that unduly restrict the continued use of WAS/RLAN in the 5 945-6 425 MHz frequency band in accordance with this Decision.
   3. **ETSI –** [**<BRAN>**](https://portal.etsi.org/tb.aspx?tbid=287&SubTB=287) **next meeting #111 27sep-01oct21; ad hocs #110a-f; 05aug; 09,** 01,02,06,07sep21
      1. Considering the EC decision above, the ETSI Standard for 6 GHz earliest release date is in 2023.
      2. TS 103 754 on multi-access point testing is to be complete in Nov 2021.
      3. CDC (Country Determination Capability) documented in 5GHz draft has shall be mandatory for equipment above 5.725 GHz and >25mW. There is input from WGFM asking why mandatory.
      4. Remember BRAN is by consensus, not a vote. Today it is a shall be mandatory but could change in further meetings.
      5. 24jun: For those with an ETSI account or access to .11 private area there is a clean next draft of the 6 GHz standard, (and the 5GHz clean draft ) [BRAN(21)110053r1 - Clean proposal for EN 303 687 v0.0.13](https://portal.etsi.org/LoginRedirection.aspx?ReturnUrl=%2fngppapp%2fContributionCreation.aspx%3fprimarykeys%3d227862).
         1. CDC and test of CDC document still being worked, RFC 5985, HART. Will be an Annex in the 5 GHz standard.
         2. In the 6 GHz Standard CDC will be in Notes. **Note the differences of 5GHz and 6GHz docs and philosophies.**
         3. Later input: ad hocs 01,02,06sept21 on 6GHz EN 303 867; and 07sep21 on White Space Devices EN 301 598
      6. EN 301 893 (5 GHz), EN 303 687 (6 GHz), User Access Restrictions (UAR), Country Determination Capability (CDC)
   4. **Note:** message from CEPT president, that looking at allowing some physical face-2-face meetings sometime after 01sept but have to allow remote attendees so a hybrid. and the face2face portion will have restrictions.
   5. UWB working on new regulations by end of year for >6GHz. Includes items, fixed outdoor, okay in vehicles, higher power (-31.2dBm/MHz indoor), etc. See ECC report 327. This could be significant changes. More to come.
   6. **CEPT – ECC** [<SE19>](https://cept.org/ecc/groups/ecc/wg-se/se-19/client/introduction/) **next call #88 30Sep-01Oct21**
      1. Some looking at UWB and fixed services interference mitigation. Sweden is pushing the issue, very political discussion.
   7. CEPT – [<ECC>](https://cept.org/ecc/groups/ecc/client/introduction/) (and more) next call
   8. CEPT – ECC [<WGSE>](https://cept.org/ecc/groups/ecc/wg-se/client/introduction/) next call #89 27Sep-01Oct21
   9. **CEPT – ECC** [**<SE45>**](https://cept.org/ecc/groups/ecc/wg-se/se-45/client/introduction/) **next call #14 28-29Oct21**
      1. The next call is about OOBE at 5935 MHz.
      2. 03jun: The group started 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.
   10. CEPT – ECC [<WGFM>](https://cept.org/ecc/groups/ecc/wg-fm/client/introduction/) next call #100, 04-08Oct21
       1. nothing was shared.
       3. **03jun:** WGFM approved for public consultation, a new draft ECC Report on 5.8 GHz RLAN and more
          1. Approved by WG FM for public consultation; Draft new ECC Report on RLAN at 5.8 GHz; Draft revision of ERC/REC 70-03 Annex – several
          2. To be approved by the ECC for publication; Draft revision of ECC/DEC/(04)08 on RLAN at 5 GHz; Draft CEPT Report 79 on RLAN at 5 GHz
   11. **CEPT – ECC** [**<FM57>**](https://cept.org/ecc/groups/ecc/wg-fm/fm-57/client/introduction/) **next call #16 14-15Sep21**
       1. nothing was shared.
       2. 17jun: New rapporteur from France, this will affect style and substance.
          1. FAUSSURIER Emmanuel via Fm-57 <fm-57@list.cept.org>
          2. Side item UK is out now and FM57 (and other groups) working through that.
3. Chair presents slides 14 and 15, **Other regions (outside EU-Stds and USA), items to share**
   1. **Saudi Arabia – CITC -** has now published updated technical specifications for communication and information technology devices. including RI054 (specification for Short Range Devices)
      1. <https://www.citc.gov.sa/en/RulesandSystems/RegulatoryDocuments/EquipmentApproval/Pages/Technical_Specification.aspx>
   2. **Egypt – NTRA – published 2 new regulatory documents**
      * 1. Adjustment in Mandatary Tables:



* + - 1. The full SRD guidelines can be found here.
      2. <https://www.tra.gov.eg/wp-content/uploads/2021/06/EGY-NTRA-June21-SRD.pdf>
    1. Also, published an updated National Frequency Allocations Table (NFAT)
       1. The NFAT can be found here.
  1. <https://www.tra.gov.eg/wp-content/uploads/2021/06/EGY-NTRA-June21-NFAT-1.pdf>
  2. **Reminders from before:**
  3. Saudi Arabia – CITC - here is the consultation, 21/0074, we were watching out for
     1. CITC web site:  <https://www.citc.gov.sa/en/new/publicConsultation/Pages/144207.aspx>
     2. mentor:   <https://mentor.ieee.org/802.18/dcn/21/18-21-0074-00-0000-saudi-arabia-radio-spectrum-allocation-and-use-regulation-for-wlan-applications.docx>
     3. Views/comments can be submitted by 07aug21 to ([Spectrum.Strategy@citc.gov.sa](mailto:Spectrum.Strategy@citc.gov.sa)).
     4. The Communications and Information Technology Commission (CITC) published a public consultation on “Radio Spectrum Allocation and Use Regulation for WLAN Applications”.
     5. The document introduces updates to the allocation and use regulations of the WLAN frequency bands in Saudi Arabia and identifies new spectrum for the use of WLAN applications in (6) and (60) GHz bands. These updates aim to enable the latest wireless technologies in the Kingdom which include the sixth generation of Wi-Fi technologies (WiFi - 6e), WiGig technology, virtual and augmented reality (VR / AR) and Internet of Things (IoT).
  4. Canada – ISED – is seeking comments on: RSS-248, issue 1, “Radio Local Area Network (RLAN) Devices in the 5925-7125 MHz band” which sets out the certification requirements for licence-exempt low-power RLAN devices operating indoors in the frequency band 5 925 - 7 125 MHz. Comments due 16 Aug 21.
     1. <https://www.rabc-cccr.ca/ised-radio-standards-specifications-rss-248-issue-1-june-2021-draft-radio-local-area-network-rlan-devices-in-the-5925-7125-mhz-band/>
     2. <https://mentor.ieee.org/802.18/dcn/21/18-21-0070-00-0000-canadian-6-ghz-consultation-rss-248.pdf>

1. Chair presents slide 16, **ITU-R items to share**
   1. IMT 2030 discussion going on at ITU-R.
   2. From 08july: : There is a LS from WP 5D regarding the update of Recommendation ITU-R M.2012 – *Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-Advanced (IMT-Advanced).* [**https://mentor.ieee.org/802.18/dcn/21/18-21-0086-00-0000-ls-for-updating-itu-r-m-2012-to-rev-6.docx**](https://mentor.ieee.org/802.18/dcn/21/18-21-0086-00-0000-ls-for-updating-itu-r-m-2012-to-rev-6.docx)
   3. **Standing by: WP 1A LS to IEEE and IEC - Request for information on standards referenced in the working document towards a preliminary draft new Recommendation, on Optical Wireless Communications.**
      1. Report ITU-R SM.2422 and IEEE Std 802.15.7-2011 on “Short Range Wireless Optical Communication Using Visible Light are mentioned.
      2. There next e-meeting is 03-12nov21
      3. On Mentor: <https://mentor.ieee.org/802.18/dcn/21/18-21-0080-00-0000-request-for-information-itu-r-wp-1a.docx>
      4. 802.11bb will work on some draft text and bring to .18;
      5. Also checking with .15 what they want to do and then need to compare .11 and .15 inputs.
   4. Standing by: WP 5A (15-26nov21): M.2121 (ITS) and M.14501/1801. See back up slides for more.
   5. **Next week, 22jul21: 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. **Next discussions will be during July 2021 electronic plenary.**
      3. Depending on what we want to do with viewpoints, need to work with IEEE staff if sending to ITU-R. Has to be filed by IEEE-USA or by individual companies. Not to be filed by IEEE-SA.
      4. Reference:
         1. 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)
         2. 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
2. Chair presents slides 17-18, **MSGs 6 GHz**
   1. The WInnforum “6 GHz Committee”, all groups meet every 2 weeks except interference-weekly (168 people)
      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.
      3. New org: 2 (now) focus areas:
         1. ) AFC Functional Specification -WG – includes: Interference-TG, Incumbent Info-TG, security (new) and Protocols 3GPP-TG
         2. 2) AFC Test and Certification-WG

* + 1. **01jul:** The Committee met with FCC on AFC System approval process, e.g. w/ lessons learned from TVWS and CBRS.
       1. <https://www.fcc.gov/ecfs/search/filings?proceedings_name=18-295&sort=date_disseminated,DESC>
       2. WInnForum- setting up a get-hub with a snapshot of a weekly and a daily ULS output for a week in June. This will allow companies testing for AFC data acquisition. It is similar to CBRS. (careful- big files).
       3. USA 2021 github Wireless Innovation Forum AFC This repository contains code for testing the compliance of Automated Frequency Coordinator (AFC) software. <https://github.com/Wireless-Innovation-Forum/6-GHz-AFC>
       4. USA 2021 github Wireless Innovation Forum AFC This repository contains data for testing the compliance of Automated Frequency Coordinator (AFC) software. <https://github.com/Wireless-Innovation-Forum/6-GHz-Data>
       5. USA 2020 github Wireless Innovation Forum SAS data - terrain, National Land Cover use, census data, can be used for 6 GHz AFC calculations <https://github.com/Wireless-Innovation-Forum/SAS-Data>
       6. USA 2020 github Wireless Innovation Forum Spectrum Access System - CBRS bands <https://github.com/Wireless-Innovation-Forum/Spectrum-Access-System>
    2. 2. From the FCC R&O, an informal MSG (“Group”) has also been formed. (260+ people)
    3. <https://groups.wirelessinnovation.org/wg/6MSG/dashboard>.
    4. Work stream 1-interference protection and resolution (CableLabs, EPRI, Lake Cty, APCO) Meets biweekly, from 28Jan21-10:00 et,
    5. Work stream 2 - correct incumbent data (ULS) (Comsearch, APCO)
    6. Work stream 3 - AFC and how it provides protection, etc. (Charter, Google, UTC)
    7. Overall Co-chairs: NPSTC, UTC, WFA, WISPA.

* + 1. nothing was shared.

1. Chair presents slide 19, **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/21/18-21-0036-06-0000-frequency-table-template.xlsx>
   4. **22June ad hoc: some updates to the spreadsheet:** 
      1. The caption of Amendment Column has been changed to: PHY Amendment (Date of Initial Approval)
      2. The caption of Clause number Column has been changed to: Clause Number in the Current Standard
      3. There are now four possible entries in Status Column Project, Approved, Published, Integrated
      4. Set an initial trigger point, 30 days after a Standard Boards meeting, for maintenance/update of the table.
      5. Also discussed the future consideration of frequency range applications and regulatory authorizations. Then added some columns on the Freq-Ranges-Other-Info worksheet, Application(s), Country/Region, Regulatory Authorization
      6. Will use frequency range to tie the Standards-Frequency-Ranges to the Freq-Ranges-Other-Info worksheets.
      7. Both worksheets can be sorted by any column and can have .Applications as column A on the Other worksheet.
      8. This is setting the effort up for after we find all the frequency ranges in the standard’s today.
   5. **The next meeting will be 27jul21. (call-in in backup slides here)**
2. Chair presents slides 20-21, General Discussion Items
   1. **FCC NPRM on 60GHz on Radar Sensing Technology** 
      1. Was on FCC agenda at the July open meeting last Tuesday, <https://www.fcc.gov/document/fcc-announces-tentative-agenda-july-open-meeting-8>
      2. Allowing Expanded Flexibility and Opportunities for Radar Operation in the 57-64 GHz band
      3. Notice of Proposed Rulemaking – ET Docket No. 21-264 <https://docs.fcc.gov/public/attachments/DOC-373482A1.pdf>
      4. [https://mentor.ieee.org/802.18/dcn/21/18-21-0079-00-0000-fcc-nprm-allowing-expanded-flexibility-for-radar-operation-in-57-64-ghz-band.docx](https://urldefense.com/v3/__https:/mentor.ieee.org/802.18/dcn/21/18-21-0079-00-0000-fcc-nprm-allowing-expanded-flexibility-for-radar-operation-in-57-64-ghz-band.docx__;!!F7jv3iA!iHSNDjm_0wQnPNpjM0_urBR1YgYnCXA02Aa3pUkbzQ5nksw-fG7CyqIZkPEzErWp_g$) 44 seek comments
      5. Abstract in notes on this slide.
      6. Proceeding: [https://www.fcc.gov/ecfs/search/filings?q=((proceedings.name:((21%5C-264\*))%20OR%20proceedings.description:((21%5C-264\*))))&sort=date\_disseminated,DESC](https://www.fcc.gov/ecfs/search/filings?q=((proceedings.name:((21%5C-264*))%20OR%20proceedings.description:((21%5C-264*))))&sort=date_disseminated,DESC)
      7. It is now adopted by the FCC commission, has not be published in Federal Register yet.

* 1. **C**ommissioner Carr’s statement should be reviewed, lots on spectrum pipeline and calendar, where we have been and where we need to go. In the proceeding above.
  2. Need to keep an eye on this one.
  3. **Proactive Spectrum Planning**
     + 1. Latest version of presentation given to 802.19:
  4. <https://mentor.ieee.org/802.19/dcn/21/19-21-0009-00-0000-proactive-spectrum-planning.pptx>
  5. **Set up a task force for spectrum discussions (802.18?)**
     1. With the cellular industry\*, the fixed services and satellite services industries
     2. With regulators
     3. **Radio Regulatory TAG engagement**
        1. Fine tune this proposal
        2. Begin surveying existing allocations for sharing opportunities generally
           1. Focus on recent sharing successes, e.g. 6 GHz
           2. Technology advances make mmWave bands more suitable for low-cost technologies today
     4. Closely monitor both 802.11 and 802.15 WNG groups for potential new spectrum requirements
     5. If you are open to help, connect up with Rich Kennedy (Self). he is looking for folks to help and provide input.

1. Chair presents slide 22, **Actions / AOB / Recess**
   * nothing new today
   * All – ongoing – bring to RR-TAG info they hear, e.g. different country consultations, on the WRC-23 AIs we are interested in.
   1. **AOB before recess to next Thursday, 22jul21**
      1. Straw poll: Will you attend the 2021 November IEEE 802 Plenary if held in-person at the Hyatt Regency Vancouver, in Vancouver, Canada Nov 14-19, 2021?
      2. yes: 19 no; 13 no result: 4 total #: 36
      3. Reminder: everyone on the call could vote.
      4. And hybrid meeting is not being considered.
   2. **Remember, must be registered and to log attendance in IMAT**
   3. **Recessed at 15:57 until Thursday 22jul21, 15:00et**
2. Chair presents slide 23, **2nd -meeting Thursday 22jul21, 15:00et Agenda**
3. Chair calls the meeting to order at 15:\_\_\_\_\_\_02 et
   1. **Reminder we are still under all IEEE policies as shown last Thursday (05Nov20)**
      1. Attendance is on IMAT (w/VC and webex checks)
      2. Remember to state your name, affiliation, employer and/or clients first time you speak.
      3. Someone to take a few notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
      4. Attendance and request queue in chat window, Stuart K.
      5. Voters, please confirm affiliation on .18 web pate.
   2. **Items from last week or new**
   3. **Discussion items** 
      1. EU Items
      2. Other Regions Items
      3. ITU-R Items
      4. IEEE 802 viewpoints on selected WRC-23 Agenda Items
      5. MSG 6 GHz
      6. IEEE 802 Stds Table of Frequency Bands
      7. General Discussion Items
   4. **Actions Required**

      2. Anything new today
   5. **AOB**
   6. **Adjourn**
   7. Any objections to accepting the agenda?
      1. None heard

**Results:** Approved by unanimous consent

1. Chair presents slides 24 & 25, **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 –** [**<BRAN>**](https://portal.etsi.org/tb.aspx?tbid=287&SubTB=287) **next meeting #111 27sep-01oct21; ad hocs #110a-f; 05aug; 09, 01,02,06,07sep21**


   7. 15july: Considering the EC decision above, the ETSI Standard for 6 GHz earliest release date is in 2023.
      1. TS 103 754 on multi-access point testing is to be complete in Nov 2021.
      2. CDC (Country Determination Capability) documented in 5GHz draft has shall be mandatory for equipment above 5.725 GHz and >25mW. There is input from WGFM asking why mandatory.
      3. Remember BRAN is by consensus, not a vote. Today it is a shall be mandatory but could change in further meetings.
   8. 24jun: For those with an ETSI account or access to .11 private area there is a clean next draft of the 6 GHz standard, (and the 5GHz clean draft ) [BRAN(21)110053r1 - Clean proposal for EN 303 687 v0.0.13](https://portal.etsi.org/LoginRedirection.aspx?ReturnUrl=%2fngppapp%2fContributionCreation.aspx%3fprimarykeys%3d227862).
      1. CDC and test of CDC document still being worked, RFC 5985, HART. Will be an Annex in the 5 GHz .
      2. In the 6 GHz Standard CDC will be in Notes. Note the differences of 5GHz and 6GHz docs and philosophies.
      3. Later input: ad hocs 01,02,06sept21 on 6GHz EN 303 867; and 07sep21 on White Space Devices EN 301 598
   9. EN 301 893 (5 GHz), EN 303 687 (6 GHz), User Access Restrictions (UAR), Country Determination Capability (CDC)
   10. **Note:** message from CEPT president, that looking at allowing some physical face-2-face meetings sometime after 01sept but have to allow remote attendees so a hybrid. and the face2face portion will have restrictions.
   11. **15jul:** UWB working on new regulations by end of year for >6GHz. Includes items, fixed outdoor, okay in vehicles, higher power (-31.2dBm/MHz indoor), etc. See ECC report 327. This could be significant changes. More to come.
   12. **CEPT – ECC** [**<SE19>**](https://cept.org/ecc/groups/ecc/wg-se/se-19/client/introduction/) **next call #88 30Sep-01Oct21**
       1. 15jul: Some looking at UWB and fixed services interference mitigation. Sweden is pushing the issue, very political discussion.
   13. **CEPT – ECC** [**<SE45>**](https://cept.org/ecc/groups/ecc/wg-se/se-45/client/introduction/) **next call #14 28-29Oct21**
       1. nothing was shared.
       2. 15jul: The next call is about OOBE at 5935 MHz
       3. 03jun: The group started 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.
   14. **CEPT – ECC** [**<FM57>**](https://cept.org/ecc/groups/ecc/wg-fm/fm-57/client/introduction/) **next call #16 14-15Sep21**
       1. nothing was shared.
2. Chair presents slides 26, **Other regions (outside EU-Stds and USA), items to share**
3. Chair presents slide 27, **ITU-R items to share**
   1. anything to share

   4. **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>
      3. <https://mentor.ieee.org/802.18/dcn/20/18-20-0107-00-0000-res-811-wrc-19-wrc-23-agenda-items.docx>
      4. With 18-20/0107, we will over time ID the Agenda Items of interest to IEEE 802, to form viewpoints.
   5. **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. **Next discussions will be during July 2021 electronic plenary on the 22nd.**
      3. Depending on what we want to do with viewpoints, need to work with IEEE staff if sending to ITU-R. Has to be filed by IEEE-USA or by individual companies. Not to be filed by IEEE-SA.
      4. Reference:
         1. 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)
         2. 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
4. Chair presents slide 28, **MSGs 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 Protocols ~~3GPP~~-TG
         2. 2) AFC Test and Certification-WG
      2. 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. Nothing to share
5. Chair presents slide 29, **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/21/18-21-0036-06-0000-frequency-table-template.xlsx>
   4. **The next meeting will be 27jul21. (call-in in backup slides here)**
6. Chair presents slides 30 and 31, **General Discussion.**



   4. **802.18 activity since May Interim**
      1. Approvals:
         1. none
      2. Other discussions:
         1. Mexico-IFT-prelim draft 6GHz
         2. Morocco-ANRT- 6GHz rules
         3. ITU-R, Received liaisons from WP 5A on M.1450, M.1801 and ITS
         4. ITU-R WP 5A ( and WP 5C) invite to join Correspondence Group (CG) on WRC-23 AI 9.1 c):
         5. GSM Association (Global System for Mobile Communications) proposing top half 6GHz for licensed 5G.
         6. FCC - Expanding Flexible Use of the 12.2-12.7 GHz Band
         7. A lawsuit filed in D.C. Circuit Court, seeking to reverse the FCC's 5.9 GHz band reallocation (ITS/DSRC)
         8. FCC released a budget recently it included ULS updates
         9. NZ-RSM consultation on 6 GHz
         10. Canada – ISED – is seeking comments on: RSS-248
         11. Brazil – ANATEL consultation on 6 GHz
         12. FCC World Radio Conference Advisory Committee
         13. FCC Proposed Rules - Allocation of Spectrum for Non-Federal Space Launch Operations
         14. USA Legislation - on technology and innovation moving forward.
         15. EC 6 GHz Decision was officially in OJEU
         16. Saudi Arabia – CITC - here is the consultation, 21/0074, on 6 GHz
         17. ITU-R WP 1A LS to IEEE and IEC - Request for information on standards on Optical Wireless Communications.
         18. USA 1st circuit court of appeals - date for oral arguments set date for oral argument in the appeal of the 6 GHz R&O
         19. FCC NPRM on 60 GHz, see the Radar Sensing Technology on July FCC Open meeting.
         20. FCC NPRM for Wireless Microphones in many frequency bands
      3. Ongoing:
         1. ETSI and CEPT most weeks
         2. ITU-R
         3. Other regions, beyond EU and USA
         4. USA 6 GHz MSGs
         5. IEEE 802 Stds Frequency Band table
7. Chair presents slide 32 Actions Required
8. Chair presents slide 33 Any Other Business
   1. none heard
9. Chair presents slide 34, Adjourn.
   1. **Next “weekly” teleconference (sched’d to 02sep21): 05Aug –*15:00–<15:55* et –**

**{no call on 29july)**

* + 1. Call in info: [https://mentor.ieee.org/802.18/dcn/16/18-16-0038-18-0000-teleconference-call-in-info.pptx](https://mentor.ieee.org/802.18/dcn/16/18-16-0038-17-0000-teleconference-call-in-info.pptx)
    2. Also, see back up slide in this agenda.
    3. All late changes/cancellations will be sent out to the 802.18 list server.
  1. 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)
  2. Adjourn:
     1. Any objection to Adjourn.
     2. None heard, Adjourn at 15:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_55et
  3. The next face to face meeting is tbd.
  4. **The next IEEE 802.18 (wireless) interim will be electronic in Sept 2021**
  5. **The next IEEE 802 plenary will be \_\_\_\_\_\_\_\_\_\_\_\_in November 2021**
  6. Thank You

1. Preliminary Attendance

Voting members:

Au Kwok Shum Huawei Technologies Co., Ltd

Auluck Vijay Self

Boldy David Broadcom Corporation

de Vegt Rolf Qualcomm Incorporated

Ecclesine Peter Cisco Systems, Inc.

Godfrey Tim Electric Power Research Institute, Inc. (EPRI)

Holcomb Jay Itron Inc.

Ikegami Tetsushi Meiji University

Jeffries Timothy Futurewei Technologies

Jones Vincent Knowles IV Qualcomm Incorporated

Kain Carl USDOT; Noblis, Inc.

Kenney John TOYOTA InfoTechnology Center U.S.A.

Kerry Stuart OK-Brit; Self

Lansford James Qualcomm Incorporated

Levy Joseph InterDigital, Inc.

Lynch Michael MJ Lynch & Associates, LLC.

Nikolich Paul Self, HPE, Huawei, Wyebot, UNH BCoE, YAS BBV, Origin Wireless

Palm Stephen Broadcom Corporation

Petrick Albert Skyworks Solutions Inc.

Pirhonen Riku NXP Semiconductors

Robert Joerg TU Ilmenau, Fraunhofer IIS

Sand Stephan German Aerospace Center (DLR)

Sato Naotaka Sony Group Corporation

Schiessl Sebastian Apple, Inc.

Sherlock Ian Texas Instruments

Stanley Dorothy Hewlett Packard Enterprise

Verso Billy Qorvo

Wang Lei Futurewei Technologies

YAGHOOBI HASSAN Intel Corporation

Yucek Tevfik Qualcomm Incorporated

non-Voting members:

Berens Friedbert FBConsulting Sarl

Fang Yonggang MediaTek Inc.

Haasz Jodi IEEE SA

Kennedy Richard IEEE member / Self Employed

Kuerner Thomas TU Braunschweig

Lumbatis Kurt CommScope

Scott Andy NCTA