

802.18 Technical Activities November 2022

Edward Au

Chair, IEEE 802.18 Technical Advisory Group

edward.ks.au@gmail.com

802.18 does NOT develop standards

802.18 does NOT develop standards

So ... what is 802.18 doing?

We support the work of 802 & its wireless WGs/TAGs by actively monitoring and participating in radio regulatory matters worldwide as an advocate for 802.

We support the work of 802 & its wireless WGs/TAGs by actively monitoring and participating in radio regulatory matters worldwide as an advocate for 802.

So ... what is 802.18 EXACTLY doing?

Contribute to regulatory proceedings and consultations worldwide

Our primary focus

#1: Review

- APAC
 - Asia-Pacific Telecommunity (APT), Australia ACMA, China MIIT, Hong Kong HKCA, India DoT, India TRAI, Indonesia MCIT, Japan MIC, Korea MSIT, Malaysia MCMC, New Zealand RSM, Singapore IMDA, Thailand NBTC, Vietnam MIC, ...
- Americas
 - Canada ISED, Canada RABC, United States FCC, ...
- Europe
 - European Commission, European Commission RSPG, France Arcep, Norway Nkom, Portugal ANACOM, UK Ofcom, Sweden PTS, ...
- ITU
 - ITU-R Working Party 5A

November 2022

doc.: IEEE 802.18-22/0035r44

IEEE P802.18

Radio Regulatory Technical Advisory Group (RR-TAG)

Status of ongoing consultations and TAG documents for approval

Date: 2022-11-06

Author:

Name	Company	Address	Phone	email
Edward Au	Huawei Technologies	Ottawa, ON, Canada		edward.ks.au@gmail.com
Al Petrick	Skyworks Solutions			apetrick@ieee.org
Stuart Kerry	OK-Brit; Self			stuart@ok-brit.com
Amelia Andersdotter	Sky Group/Comcast			amelia.ieee@andersdotter.cc

Abstract

This document summarizes the status of ongoing consultations and IEEE 802.18 documents required for approval.

#2: Approval

- Individuals prepare draft submissions for review and approval
- 802.18 forwards the submissions to EC to review and consider approval, before submitting as IEEE 802 contributions

Electronic Filing
firmapost@nkom.no

4 October 2022

Re: Høring av forslag til endringer i fribruksforskriften

Dear Norway Nkom,

IEEE 802 LAN/MAN Standards Committee (LMSC) thanks Nkom for issuing the consultation and the opportunity to provide feedback on "Public consultation - proposal for regulations on the amendment of the free use regulations".

IEEE 802 LMSC is a leading consensus-based industry standards body, producing standards for wireless networking devices, including wireless metropolitan area networks ("Wireless MANs"), wireless local area networks ("WLANs"), wireless specialty networks ("WSNs"), and wireless regional area networks ("WRANs"). We also produce standards for wired ethernet networks, and technologies produced by implementers of our standards are critical for all networked applications today.

IEEE 802 is a committee of the IEEE Standards Association and Technical Activities, two of the Major Organizational Units of the Institute of Electrical and Electronics Engineers (IEEE). IEEE has about 400,000 members in over 160 countries. IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity. In submitting this document, IEEE 802 acknowledges and respects that other components of IEEE Organizational Units may have perspectives that differ from, or compete with, those of IEEE 802. Therefore, this submission should not be construed as representing the views of IEEE as a whole¹.

Comments regarding proposed changes for UWB

The studies in ECC Report 327 show that UWB operates with very low risk of causing interference to other services, due to the extremely low transmit power levels, low activity factors, and other technical characteristics, which support high spectral reuse factors and effective sharing on the spectrum. UWB has proven to be an effective complement to other wireless technologies.

With respect to the proposed updates to the regulations for UWB equipment, IEEE 802 LMSC support that Nkom adopt these changes. Expanding the use of radio determination, position tracking and tracking and data collection using fixed devices in outdoor areas will add great public value. UWB is widely deployed in consumer devices such as smartphones and laptops. This has enabled a large number of use cases with significant value to consumers and significant positive economic impact. Fixed devices work with mobile devices to enhance many of these valuable services. Enhanced indoor operation will improve the robustness of these applications in industrial and crowded environments [1, 2, 3].

IEEE 802 LMSC recommend that Nkom also consider additional changes with respect to vehicular use proposed in the update to ECC Decision (06)04.

Comments regarding proposed changes for RLAN

IEEE 802 LMSC are supportive both of Nkom's proposals to mirror in national legislation EC's implementing decision 2022/179/EU (ECC/DEC/(08)04 of 2 July 2021) with respect to use of wireless systems, including WAS/RLAN, in the 5 GHz bands [4].

¹ This document solely represents the views of the IEEE 802 LAN/MAN Standards Committee and does not necessarily represent a position of either the IEEE, the IEEE Standards Association or IEEE Technical Activities.

Conclusion

IEEE 802 LMSC thanks Nkom for providing the opportunity to provide this submission.

Respectfully submitted

By: /ss/
Paul Nikolich
IEEE 802 LAN/MAN Standards Committee Chairman
em: p.nikolich@ieee.org

References:

- [1] "IEEE Standard for Low-Rate Wireless Networks," in IEEE Std 802.15.4-2020 (Revision of IEEE Std 802.15.4-2015), pp.1-800, 23 July 2020, doi: 10.1109/IEEESTD.2020.9144691.
- [2] "IEEE Standard for Low-Rate Wireless Networks--Amendment 1: Enhanced Ultra Wideband (UWB) Physical Layers (PHYs) and Associated Ranging Techniques," in IEEE Std 802.15.4z-2020 (Amendment to IEEE Std 802.15.4-2020), vol., no., pp.1-174, 25 August 2020, doi: 10.1109/IEEESTD.2020.9179124.
- [3] IEEE 802.15 WSNTM Task Group 4ab (TG4ab) 802.15.4 UWB Next Generation: <https://www.ieee802.org/15/pub/TG4ab.html>
- [4] "IEEE Standard for Information Technology--Telecommunications and Information Exchange between Systems - Local and Metropolitan Area Networks--Specific Requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications," in IEEE Std 802.11-2020 (Revision of IEEE Std 802.11-2016), pp.1-4379, 26 February 2021, doi: 10.1109/IEEESTD.2021.9363693.

#3: Archive

IEEE 802 LMSC

Public Statements to Government Bodies

Per IEEE 802 LMSC Operations Manual, Section 7.2.1, all IEEE 802 LMSC public statements to government bodies shall expire 5 years after issue

- 06 Nov 2022, [To ITU-R WP 5A](#), #6, submission on further updates to recommendation M.1450-5
- 06 Nov 2022, [To ITU-R WP 5A](#), #6, Proposed IEEE 802's views on Annex 17 to Doc. 5A/597
- 10 Oct 2022, [To Norway Nkom](#), comment on the consultation "Public consultation - proposal for regulations on the amendment of the free use regulations"
- 04 Oct 2022, [To UK Ofcom](#), comment on the consultation "UK preparations for the World Radiocommunication Conference 2023 (WRC-23)"
- 23 Sep 2022, [To France Arcep](#), comment on the consultation "Preparing for the Future of Mobile Networks"
- 10 Aug 2022, [To European Commission RSPG](#), comment on the consultation "Opinion on the ITU-R World Radiocommunication Conference 2023"
- 26 Jul 2022, [To European Commission](#), comment on the call for evidence: World Radiocommunication Conference 2023 - EU position
- 16 May 2022, [To ITU-R WP 5A](#), #5, submission on further updates to recommendation M.1450-5
- 16 May 2022, [To ITU-R WP 5A](#), #5, submission on further updates to recommendation M.1801-2
- 08 Apr 2022, [To Ofcom](#), comment to the consultation "Enabling spectrum sharing in the upper 6 GHz band"
- 09 Feb 2022, [To Ofcom](#), response to Discussion Document Paper on Unlocking the Potential of Terahertz Radio Spectrum
- 22 Oct 2021, [To ITU-R WP 5A](#), #4, submission on further updates to recommendation M.1450-5
- 22 Oct 2021, [To ITU-R WP 5A](#), #4, submission on further updates to recommendation M.1801-2
- 14 Oct 2021, [To FCC](#), reply comments to NPRM on 60GHz motion sensing radars
- 05 Oct 2021, [To ITU-R WP 1A](#), response to liaison on Visible Light Communications
- 24 Feb 2021, [To ITU-R WP 5A](#)-#3, submission on further updates to recommendation M.1450-5
- 24 Feb 2021, [To ITU-R WP 5A](#)-#3, submission on further updates to recommendation M.1801-2
- 28 Oct 2020, [To FCC](#), ex parte comments to NPRM on revisiting the 5.9GHz band, how to cite IEEE 802 standards
- 06 Oct 2020, [To ITU-R WP 1A](#), submission on THz communications
- 06 Oct 2020, [To ITU-R WP 5A](#), submission on further updates to recommendation M.1450-5
- 06 Oct 2020, [To ITU-R WP 5A](#), submission on further updates to recommendation M.1801-2
- 04 Aug 2020, [To FCC](#), comments to NPRM on Modernizing and Expanding Access to the 70/80/90 GHz Bands
- 08 Jul 2020, [To ITU-R WP 5A](#), submission on updates to recommendation M.1801-2
- 08 Jul 2020, [To ITU-R WP 5A](#), submission on updates to recommendation M.1450-5
- 27 Apr 2020, [To FCC](#), Reply Comments to NPRM on revisiting the 5.9GHz band
- 04 Mar 2020, [To FCC](#), Comments to NPRM on revisiting the 5.9GHz band
- 15 Jan 2020, [To Ofcom](#), comments to Ofcom (UK) on proposals for changes to the licence exemption for Wireless Telegraphy Devices

For the Public Good: Contribute to SA Public Policy Statements

Our new activities

IEEE Statement on Spectrum Update (ISUS) ad-hoc

- Charter:
 - To develop a revised IEEE Standards Association policy statement on the Intelligent Spectrum Allocation and Management (former version: approved on 5 September 2018)



IEEE Standards Association Position Statement

Intelligent Spectrum Allocation and Management

*Approved by the
IEEE Standards Association Board of Governors*

5 September 2018

The IEEE Standards Association (IEEE-SA) supports the position that intelligent spectrum allocation and management is needed for both licensed and license-exempt technologies to meet the explosive growth in wireless data demand. As both consumer and business wireless data consumption increases, increased access to spectrum with commercially viable rules becomes vital to support data growth.

The IEEE-SA, through its participants, is a major contributor to the standardization of leading wireless technologies. IEEE-SA participants develop wireless standards such as the IEEE 802.11¹ Wireless LAN (WLAN) family of standards (inclusive of technologies known as Wi-Fi² and WiGig³) and IEEE Standard 802.15.4⁴ Low Rate Wireless Networks (LRWN) (inclusive of ISA100⁵, WiSUN⁶, and Zigbee⁷), which primarily use license-exempt spectrum. The number of IEEE 802.11 WLAN enabled devices shipped exceeds 15 billion and by 2019 the number of IEEE 802.15.4 LRWN enabled devices are expected to reach 2.1 billion⁸. This high uptake of IEEE 802 standards family of enabled wireless devices is a strong indicator of the importance of license-exempt spectrum as a driver for innovation and economic growth.

The IEEE-SA recognizes the need for more efficient use of existing and to be allocated spectrum through various spectrum sharing mechanisms. Spectrum sharing can make thousands of megahertz available

¹ See <http://www.ieee802.org/11/>.

² *Wi-Fi* is the name of a popular wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections.

³ *WiGig* is a wireless standard developed by the [Wireless Gigabit Alliance](#). It is designed to promote significantly faster speed for wireless network connections.

⁴ See <http://www.ieee802.org/15/pub/TG4.html>.

⁵ See <https://isa100wci.org/en-US/About-ISA100-Wireless/What-is-ISA100-Wireless>.

⁶ See <https://www.wi-sun.org/>.

⁷ See <https://www.zigbee.org/>.

⁸ See 802.11 device shipment - WiFi Alliance; 802.15.4 device forecast - Telecompetitor report.

Support 802 standards development

Our new activities

mmWave (mmW) ad-hoc

- Charter:
 - To study mmWave spectrum bands 45 GHz and 60 GHz to provide insight on global availability and current/projected regulatory status for these bands. The resulting study should be provided to the IEEE 802.11 Ultra High Reliability Study Group and other 802 WGs to increase their understanding of available mmWave spectrum.

September 2022 doc.: IEEE 802.11-22/1398r4

RR-TAG mmWave Spectrum Survey

Date: 2022-09-13

Authors:

Name	Company	Address	Phone	email
Rich Kennedy	Unlicensed Spectrum Advocates	7305 Napier Trl, Austin, TX 78729	+1-737-202-7014	rkennedy1000@gmail.com

Submission Slide 1 Rich Kennedy (Unlicensed Spectrum Advocates)

www.ieee802.org/18

For more information