**IEEE P802.19**

**Wireless Coexistence**

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| Project | IEEE P802.19 Wireless Coexistence WG |
| Title | **September 2024 WG and TG3a Meeting Minutes** |
| Date Submitted | [October 3, 2024] |
| Source | Yukimasa NagaiMitsubishi Electric Corporation5-1-1 Ofuna, Kamakura, KANAGAWA2478501 JAPAN | Voice: N/AE-mail: Nagai.Yukimasa@ds.MitsubishiElectric.co.JP |
| Re: | [] |
| Abstract | September 2024 IEEE 802.19 Working Group and IEEE 802.19.3a Task Group Meeting Minutes in Waikoloa |
| Purpose | [] |
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**Monday September 9, 2024 – Working Group Opening**

* WG chair called the meeting to order at 6:00 PM in both Waikoloa and WebEx.
* The chair reviewed the agenda. No changed were needed. The WG unanimously approved the agenda, document 802.19-24/0031r1.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0031-01-0000-september-2024-wg-agenda.xlsx>
* The chair read IEEE IPR statement and IEEE-SA participant behavior slide on the WG Opening report, document 802.19-24/0030r1. No objections and comments.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0030-01-0000-september-2024-wg-opening-report.pptx>
* The chair reviewed the WG opening Report, document 802.19-24/0030r1.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0030-01-0000-september-2024-wg-opening-report.pptx>
	+ Voting member update: 53
	+ IEEE 802 meeting schedule, number of TG sessions, and coexistence meeting of IEEE 802.11 group were announced.
	+ WG organization introduction
		- WG Chair : Tuncer Baykas (Ofinno)
		- WG Vice Chair : Steve Shellhammer (Qualcomm)
		- WG Secretary : Yukimasa Nagai (Mitsubishi Electric)
		- TG3a Chair : Ben Rolfe (Blind Creek Associates)
		- Liaison To/From 802.11 : Tuncer Baykas (Ofinno)
		- Liaison To/From 802.15 : Ben Rolfe (Blind Creek Associates)
	+ Coexistence Meeting Announcement
		- There are several coexistence related meetings
		- 802.11 Coex (Tuesday AM1)
		- 802.11 Coex (Tuesday PM3) – Joint meeting with 802.15.4ab
		- 802.11 Coex (Thursday AM1)
	+ Schedule Announcement
	+ Public Visibility SC Activities
		- The WG chair announced the social media (LinkedIn), Webinars and IEEE 802 – ITU Workshop. The related conference, named IEEE CSCN (Conference on Standards for Communications and Networking), was also introduced. The details can be found on [2024 IEEE CSCN | IEEE Conference on Standards for Communications and Networking | 25–27 November 2024 // Belgrade, Serbia (ieee-cscn.org)](https://cscn2024.ieee-cscn.org/).
	+ Straw poll
		- The WG chair announce the straw poll for the upcoming meeting time schedule change. No additional discussion on straw poll.
			* Strawpoll: Considering the opening times for the restaurants in Madrid, Spain, I prefer the adjust the planned times for meetings:
				+ Option 1: Keep nominal schedule, but add PM3 before dinner

AM1=8:00-10:00; AM2=10:30-12:30;

Lunch 12:30-13:30

PM1=13:30-15:30; PM2=16:00-18:00; PM3=18:30-20:30

Dinner after 20:30

* + - * + Option2: Move full schedule back 1 hour (start 9 am) & add PM3 before dinner

AM1=9:00-11:00; AM2=11:30-13:30;

Lunch 13:30-14:30

PM1=14:30-16:30; PM2=17:00-19:00; PM3=19:30-21:30

Dinner after 21:30

* + - Results:
			* Option 1; 8
			* Option 2; 4
			* Abstain; 3
	+ The motion to approve the minutes from the previous meeting, document 802.19-24/0028r0, passed unanimously. Moved by Yuki Nagai, Second by: Kazuto Yano.
	<https://mentor.ieee.org/802.19/dcn/24/19-24-0028-00-0000-july-2024-wg-and-tg3a-minutes.docx>.
	+ Liaison Report From 802.11
		- The 802.11 liaison provided a verbal liaison report from 802.11. Group status updates were introduced: IEEE 802.11be finished, No WNG meeting, very active for coexistence meeting.
		- Two additional topics were introduced:
			* Enhances light communication group is going to prepare PAR and CDS. So they are going to probably have a coexistence assessment document in consideration of IEEE 802.15 light communication.
	+ Liaison Report From 802.15
		- The 802.15 liaison provided a verbal liaison report from 802.15. Group status updates were introduced: TG6t initial sponsor ballot started, very active for TG4ab, Privacy for TG4ac, NG-SUN PHY for TG4ad, planning couple presentations including new project about disaster communication and low energy IoT communication at WNG.
	+ No other businesses discussed.
* The WG recessed at 6:49 PM and switched to TG3a opening.

**Monday September 9, 2024 – TG3a Opening**

* TG chair called the meeting to order at 6:49PM.
* The chair reviewed the agenda. The TG3aunanimously approved the agenda, document 802.19-24/0033r1.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0033-01-003a-tg-19-3a-agenda-and-meeting-slides-sept-2024.pptx>.
* The TG chair reviewed project overview, officers, near term milestones and call for contributions for specific topics. Neither future discussion nor objection for agenda. No changed were needed.
* The motion to approve the minutes from the previous meeting, document 802.19-24/0028r0, passed unanimously.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0028-00-0000-july-2024-wg-and-tg3a-minutes.docx>.
* Kazuto Yano, ATR presented the contribution titled “Measurement result of radio noise over 920 MHz band emitted from mini PC”, document 802.19-24/0029r0.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0029-00-003a-measurement-result-of-radio-noise-over-920-mhz-band-emitted-from-mini-pc.pptx>.
	+ Comments and questions:
		- Several comments were made about the measurement conditions and environment.
		- The target device and the measurement device were too close to each other. Are similar interference effects observed when the distance between the target and measurement device is increased? 🡪 This is first measurement result to check the existence of a noise. Planning to measure various condition in consideration of comments.
		- Do you have any hypothesis for the wipe noise on the measurement result? This device jitters the oscillator so that it remains under some power spectrum density, because it’s not allowed to have really sharp peaks inside the spectrum. So what it jitters the clock to really make wireless be under the power spectrum density that is allowed. 🡪 Additional observation will be necessary to check the details.
		- Additional measurements and observations are welcome to see how is the short term structure of the signal. We don’t see the effect that happened one or two milliseconds, since measurement results were longer periods.
		- What the clock specification of the CPU, memory and GPU on the target device for clarification the route cause? 🡪 Haven’t checked the detail.
		- Additional analysis for the measurements results and radio type approval information were required from the floor.
* Takenori Sumi, Mitsubishi Electric presented the contribution titled “IEEE 802.11ah and IEEE 802.15.4g SUN OFDM PHY Coexistence Simulation”, document 802.19-24/0032r0.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0032-00-003a-ieee-802-11ah-and-ieee-802-15-4g-sun-ofdm-phy-coexistence-simulation.pptx>.
	+ Comments and questions:
		- What is the best way to understand the legend of the PDR and Latency graphs? There are several IEEE 802.15 and IEEE 802.11ah lines. 🡪 (offline discussion): In the content discussed in IEEE 802.19.3, the coexistence environment of IEEE 802.15.4g-FSK and IEEE 802.11ah 1 MHz bandwidth has been discussed. In this simulation, the graphs are complicated because the results of the past IEEE 802.19.3 discussions and the new IEEE 802.15.4g-OFDM and IEEE 802.11ah 1 MHz bandwidth coexistence environment are shown together. Both IEEE 802.15.4g PDR and IEEE 802.11ah PDR at coexistence are described here. In addition, the IEEE 802.15.4g side is considered for FSK, MCS4, and MCS5 environments, so there are a total of six lines shown in the graph.
		- Please provide rationale for the CINR parameters, PHY data preamble, data size of 100 byte, the selection of antenna heights, and the traffic model. 🡪 The evaluation was performed with IEEE 802.15.4g-OFDM PHY added to the IEEE 802.19.3 simulation parameters. The detailed conditions are described in the relevant documents, which I cannot recall at this time. Additional simulation results will be presented at the next meeting, so we will be prepared to respond to the simulation parameters by adding a summary of past IEEE 802.19.3 and previous meeting discussions.
* No other business discussed.
* The TG3a recessed at 7:50 PM.

**Thursday September 13, 2024 – Task Group Closing**

* Took anniversary Hawaii meeting photo.
* The TG chair called the meeting to order at 6:30 PM in both Waikoloa and WebEx.
* The chair reviewed the agenda. The TG3aunanimously approved the agenda, document 802.19-24/0033r1.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0033-01-003a-tg-19-3a-agenda-and-meeting-slides-sept-2024.pptx>
* The TG chair reviewed project overview, officers, near term milestones.
* Ben Rolfe, presented the contribution titled “802.15.4 Coexistence Feature Update” document 802.19-24/0034r0.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0034-00-003a-802-15-4-coexistence-feature-update.pptx>
	+ Comments and Questions
		- The clarification for CSMA/CA and CSMA/CD was discussed. CSMA/CA is applied to wireless medium to avoid collision.
		- How does that impact CSMA/CA ability to detect or and or prevent collision? 🡪 Sub-1 GHz frequency character is quite different from millimeter wave like beam forming. But some of stuff in that's been done for spatial diversity.
* Near Term Milestones
* Next Step
* Call for Contributions for November, and responses from 3 attendance
	+ Simulation update
	+ Spectrum measurement
	+ Measurement contribution
* Other Business:
* The TG adjourned 19:22 PM this week and switched to WG closing.

**Thursday September 13, 2024 – Working Group Closing**

* The WG chair called the meeting to order at 19:22 PM in both Waikoloa and WebEx.
* The chair read IEEE IPR statement and IEEE-SA participant behavior slide on the WG Opening report, document 802.19-24/0030r1. No objections and comments.
<https://mentor.ieee.org/802.19/dcn/24/19-24-0030-01-0000-september-2024-wg-opening-report.pptx>
* Coexistence Assessment Documents (CAD):
	+ No voting between July and September meeting.
* Report to wireless interim chair of Straw Poll for Spain
	+ Based on straw poll on Monday, IEEE 802.19 WG selected Option 1.
* No other business discussed.
* The WG adjourned 19:26 PM this week.

**Attendance**

Attendance September 2024

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| Carlos Aldana | Meta Platforms |
| Yusuke Asai | Nippon Telegraph and Telephone Corporation |
| Tuncer Baykas | Ofinno |
| Harry Bims | Bims Laboratories, Inc. |
| MARC EMMELMANN | Self |
| Jianlin Guo | Mitsubishi Electric Research Laboratories (MERL) |
| David Halasz | Morse Micro |
| Hiroshi Harada | National Institute of Information and Communications Technology (NICT) |
| Tetsushi Ikegami | Meiji University |
| SHUGO KAJITA | Space-Time Engineering Japan, Inc. |
| Akira Kishida | NTT |
| Shoichi Kitazawa | Muroran IT |
| Hitoshi Morioka | SRC Software |
| Yukimasa Nagai | Mitsubishi Electric Corporation |
| Stephen Palm | Broadcom Corporation |
| Gaurav Patwardhan | Hewlett Packard Enterprise |
| Haneya Qureshi | GM |
| Joerg Robert | Technische Universitaet Ilmenau |
| Benjamin Rolfe | Blind Creek Associates |
| Sam Sambasivan | AT&T |
| Stephan Sand | German Aerospace Center (DLR) |
| Stephen Shellhammer | Qualcomm Incorporated |
| Ian Sherlock | Texas Instruments Inc. |
| Takenori Sumi | Mitsubishi Electric Corporation |
| Mineo Takai | Space-Time Engineering |
| Matthias Wendt | Signify |
| Kazuto Yano | Advanced Telecommunications Research Institute International (ATR) |