IEEE P802.15
Wireless Specialty Networks

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| IEEE 802.15.13 September, 2018 Phone Call Meeting Minutes |
| Date: 2018-08-28 |
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Abstract

# This document contains the TG13 Multi-Gigabit/s Optical Wireless Communications Meeting minutes from the Phone call September 4, 8-9 A.M. EDT.

**IEEE 802.15.13**

**Tuesday, September 4, 2018, 8-9 EDT time**

Attendance:

* Volker Jungnickel (HHI)
* Nikola Serafimofski (pureLiFi)
* Chong Han (pureLiFi)
* Xu Wang (vlncomm)
* Kai Lennert Bober (HHI)
* Malte Hinrichs (HHI)

The phone call was opened by the TG13 Chair, Volker Jungnickel (Fraunhofer HHI).

The Chair noticed that the meeting minutes from the July meeting were not provided to him for upload. Due to holiday time they will be provided later. After the phone call he approached Tuncer Baykas (IMU) who has sent them immediately.

The discussion on the MAC layer was continued.

The group first discussed to use polling in the CAP. Chong claimed that if there is polling there is no need for the CAP anymore. Moreover, Chong has fundamental concerns that carrier sense, i.e clear channel assessment (CCA) is impossible in optical wireless communication but it is a requirement in the channel access routine in Fig 11 in D3. There are no submissions until now how to make this work. Moreover, polling does not work together with RTS/CTS. Nikola added the claim that the CSMA mechanism is not working for optical wireless communication and this was the main fault of 802.15.7 why it was not implementable. That’s why Nikola claimed to remove CSMA from 802.15.13 and replace it entirely by polling.

Other members of the group disagreed. The RTS/CTS was introduced in 802.15.7r1 following proposals from Huawei and this should solve the CSMA issue as it is the same CA mechanism that has made CSMA working in 802.11. If Device #1 wants to access the network, the RTS/CTS ensures that any other device will be hearing the CTS response and that’s enough for any other device to stop own transmission attempts. Hence, collisions are avoided. Moreover, it is not obvious why the higher directivity of OWC should be a problem because other RF standards like 802.11 use directional antennas in combination with CSMA/CA and the group is unaware of problems with hidden nodes in that case. Nikola and Chong were asked to prove their claim until the September session where a dedicated time slot will be reserved for this discussion.

In general it was concluded that the random access in D3 needs a revision and be better described in general.

The phone call was recessed until the September Interim meeting in Kona.