IEEE P802.15
Wireless Specialty Networks

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| IEEE 802.15.13 Telco Meeting Minutes for March to May 2019 |
| Date: 2019-05-15 |
| Author: |
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**Tuesday, March 26, 2019, 10:00 EDT time**

Abstract

# This document contains the TG13 Multi-Gigabit/s Optical Wireless Communications telco meeting minutes from March to May 2019.

[did not take place due to technical problems]

**Tuesday, April 02, 2019, 10:00 EDT time**

**Attendance:**

* Kai Lennert Bober (HHI)
* Nikola Serafimovski (pureLiFi)
* Chong Han (pureLiFi)
* Jerome Arokkiam (OSRAM)
* Xu Wang (VLNComm)
1. Due to a private issue, the Chair could not attend the telco and asked Kai Lennert Bober to chair the telco. The phone call was opened by the temporary TG13 chair.
2. Last comment resolution was discussed:
	1. Editor comments 117r2 were not resolved. Suggestion is to migrate comments to next comment sheet where no new text is assumed or revoke comments on clauses that are expected to be substantially modified.
3. MAC frame format was discussed:
	1. Security for all frames or data only?

🡪 Either all or none for simplicity. Capability for security will be supported.

* 1. Security for broadcast transmissions towards devices?

🡪 Details regarding security will be resolved once security was introduced.

* 1. There are severe open questions regarding the ACK Information field: Sequence number and device address were suggested to have 7 bits. This is only required in the non-beacon-enabled mode in order to acknowledge frames coming from a device other than the one current frame is destined to. Resolution outstanding. Probably, the ACK Information field will only be present in the non-beacon-enabled mode.
1. The telco was closed.

**Tuesday, April 09, 2019, 10:00 EDT time**

**Attendance:**

* Kai Lennert Bober (HHI)
* Chong Han (pureLiFi)
* Jerome Arokkiam (OSRAM)
* Xu Wang (VLNComm)
1. Due to a private issue, the Chair could not attend the telco and asked Kai Lennert Bober to chair the telco. The phone call was opened by the temporary TG13 chair.
2. Topics for the telco are to discuss the further process until May and MAC layer frame discussion.
3. Objective: to have a pre-agreed comment sheet with resolution before next meeting in May.
4. Unresolved comments (technical and editorial) should be officially withdrawn. Authors of resolved comments sends a mail to the chair and mailing-list stating withdrawing the referenced comments.
5. A new revision of doc. 80, containing the latest commonly discussed details, will be uploaded to mentor after today’s telco.
6. Auxiliary Address 1 (6 octets) is needed in front of Sequence Control field to carry OWPAN ID. The discussion about the OWPAN ID is still open.
7. Auxiliary address 2 is removed from all frames, given “To Backhaul” and “From Backhaul” are both 1 case is reserved.
8. OWPAN ID allocation (size): using coordinator’s MAC address or another value? (still open).
9. Reassociation request/response needed? Reassociation is to retrace the buffered frame from previously associated coordinator, therefore it is necessary. As the current fields of the Reassociation frames are nearly the same as in the association frame, frames could be unified.
10. Topics for next meeting:
	1. Remaining MAC frames / elements
	2. OWPAN ID allocation scheme
11. The telco was closed.

**Tuesday, April 16, 2019, 10:00 EDT time**

**Attendance:**

* [Chair] Volker Jungnickel (HHI)
* Kai Lennert Bober (HHI)
* Chong Han (pureLiFi)
* Jerome Arokkiam (OSRAM)
* Xu Wang (VLNComm)
1. The phone call was opened by the TG13 chair.
2. There are no contributions to be discussed.
3. The telco was closed.

**Tuesday, April 23, 2019, 10:00 EDT time**

**Attendance:**

* Kai Lennert Bober (HHI)
* Chong Han (pureLiFi)
* Xu Wang (VLNComm)
1. Due to a private issue, the Chair could not attend the telco and asked Kai Lennert Bober to chair the telco. The phone call was opened by the temporary TG13 chair.
2. There are no contributions to be discussed.
3. The telco was closed.

**Tuesday, April 30, 2019, 10:00 EDT time**

**Attendance:**

* Kai Lennert Bober (HHI)
* Chong Han (pureLiFi)
* Xu Wang (VLNComm)
1. Due to a private issue, the Chair could not attend the telco and asked Kai Lennert Bober to chair the telco. The phone call was opened by the temporary TG13 chair.
2. It was begun to discuss the contents of the management elements. The discussion starts with the association request and response elements.
3. Discussion of OWPAN ID:
	1. It is not clear, whether an OWPAN ID is required. As there are only transmissions between the coordinator and devices, the coordinator address can be used to ensure frames are received in associated OWPAN only.
	2. To have an unambiguous association with a certain OWPAN from the device perspective, a 16 bit OWPAN ID may not be sufficient. Neighboring networks could coincidentally use the same OWPAN ID, if they are not coordinated.
	3. It is not settled, whether a human-readable OWPAN identification (“OWPAN Name”) is required. For configuration saving / selection of a OWPAN to associate with, the OWPAN ID would be sufficient.
	4. For now, the issue of the OWPAN ID was postponed. Hopefully, the issue clarifies during the further work on MAC frames / elements and procedures.
4. Discussion of reuse of disassociation notification:
	1. Question: should the disassociation notification be a broadcast?
	2. Argument A: Yes, every device should obtain knowledge that a device has left the network. They can thereafter update their respective forwarding tables.
	3. Argument B: Devices should now know of other devices presence. Devices transmit to the coordinator only in the uplink and coordinators to devices in the downlink.
	4. Subsequent discussion about LAN integration: It was agreed that OWPANs appear as general purpose LANs. MSDUs from the MCPS-SAP of devices are transmitted to the coordinator, containing the source and destination MAC addresses. MSDUs from the coordinator’s MCPS-SAP are transmitted to a device’s MCPS-SAP.

The functionality of the standard ends at the MCPS-SAP, where a uplink MSDU is delivered to the higher layers. The higher layer may be a bridge according to IEEE 802 bridging specification in the coordinator.

1. The telco was closed.

**Tuesday, May 07, 2019, 10:00 EDT time**

**Attendance:**

* [Chair] Volker Jungnickel (HHI)
* Kai Lennert Bober (HHI)
* Chong Han (pureLiFi)
* Xu Wang (VLNComm)
1. The phone call was opened by the TG13 chair
2. It is not yet clear whether the goal to submit the draft to WGLB in May can be reached.
3. There was 4 step progress plan:
	1. Element structure was agreed and frame formats were worked on in telcos. Subsequently, the content of frames / elements was to be fixed via discussions around doc. 19-80.
	2. Comments were to be compiled in a common sheet (clause-wise)
	3. Agreement on comments to be found before meeting
	4. Quick comment resolution / motion in Atlanta
4. There is still much work left working on the different clauses, e.g. 5, 6, 7 where the technical content of the MAC resides.
5. Work on clause 4 is low priority and is to be done after technical clauses.
6. Clause 5 from doc. 19-80 is roughly agreeable and could be included into the draft in the opinion of most participants. Additional changes can then be done on the draft later.
7. Clause 6: the element-based frame structure is agreeable, but some elements are not yet agreed upon.
8. Clause 7 is not too complex and could be included from doc. 19-80 if everybody agrees. Changes can be made later on through comments. Alternatively, clause 7 could be kept from the draft and adapted via comments.
9. Security may not be needed in the standard. PAR does not mention security. However, the meeting with the security experts in Vancouver resulted in the Plan to adopt security from 802.15.4 with the key exchange procedures from 802.15.9. This should greatly reduce the work, but may rise some cryptographic questions to be settled. In any case, security will be handled later on.
10. The telco was closed.