**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | **<IEEE802.15 SC minutes>** | |
| Date Submitted | 17 Jan 2019] | |
| Source | [Pat Kinney] [] [Lake Zurich, IL] | Voice: [+1.847.960.3715] Fax: [] E-mail: [pat.kinney@kinneyconsultingllc.com] |
| Re: | [802.15 Standing Committees Meetings in St. Louis, Jan 2019] | |
| Abstract | [IEEE 802.15 Maintenance, WNG, and IETF Standing Committee Minutes] | |
| Purpose | [Official minutes of the Standing Committee Session] | |
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**118th IEEE 802.15 WSN MEETING**

**HILTON ST LOUIS BALLPARK**

**ST LOUIS, MISSOURI, USA**

**Jan 13-17, 2019**

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# SC Maintenance Minutes

## Wednesday 16 Jan AM1

**8:35** Meeting opened

* Chair reviewed IEEE PatCom slides from Opening Report (15-19-0014-00), there were no responses to the Call for Potentially Essential Patents.
* Discussion on any other issues with published standards? There were no requests for discussion.
* Changes requested to operations manual
  + 15-10-0235-21 was reviewed, a typo was found, CSG should be CRG, the document was revised to 15-10-0235-22.
  + Upon no objections document 15-10-0235-22 was approved to be forwarded to the WG for approval at the closing plenary

**9:05** Upon no further discussion nor objection, the meeting was recessed

# SC WNG minutes

## Wednesday 16 Jan AM2

* + **Why you should care about VR network requirements** by Subir Das and Dong-Il DillonSeo (21-19-0009-00)
    - Q: Have you looked at 802.15.3? R: No
    - Q: Data rate requirements? R: 20 Gb/s
    - Q: Range? R: 4 meters
    - C: IEEE 802.15.3 standards should be reviewed against these needs

# SC IETF Minutes

## Monday 14 Jan AM2

### Meeting Objectives / Session Focus - SC IETF

**10:30:** Meeting called to order (9 attendees)

Chair presented Opening Report (15-19-0014-00). Chair showed IEEE patent slides, there were no responses to the Call for Potentially Essential Patents.

Discussion ensued as to the IETF LPWA work group. Previous charter described four technologies: LoRa, SigFox, NBIoT, and WiSUN. Consensus was that the 802.15.4w effort should be included in the new charter. Two aspects would drive this effort, with one being an overview of 802.15.4, and the other being specifically on 802.15.4w.

Short discussion on IETF CORE versus IETF QUIC. Comment made that although IETF LPWA seems focused on CORE, more companies are using QUIC.

Discussion on fragmentation as to how SCHC works with 6LoWPAN. There was no significant outcome.

Comment made that a presentation on 802.15.4w had been made at IETF LPWA. It was agreed that this presentation needs to be updated to include both 6LoWPAN and LECIM fragmentation.

IETF LPWA WG document proposal:

* Draft LPWAN SCHC for 802.15.4 (estimated at 15 – 20 pages)
* More profile parameters
* Focus on 4w for IETF LPWA data rates < 20 kb/s
* Application factors
* Payload size (layer 4 payload)
* Fragmentation comparison/tradeoffs
* Encryption mechanism…PHY or MAC?
* Reliability? Higher layer checksum not required?
* Retransmission time?
* Inactivity time?
* MAC acknowledge requirement
* SCHC “tile” terminology was commented. J Robert to advise as to the document number

**12:08** Meeting recessed until Thursday, PM2

## Thursday 17 Jan PM2

### Meeting Objectives / Session Focus - SC IETF

Review purpose of this standing committee.

* Reviewed IETF presentation “SCHC for 802.15.4 lpwan applications draft-authors-lpwan-schc-802154-00”
* C Perkins lead discussion on SCHC
  + Static Context: topology, application, packets always delivered in order
  + Fragmentation modes: never ack, always ack, ack on error
  + SCHC fragment overhead (~ 1 octet)
    - RuleID: 2 -3 bits minimum
    - Dtag: can be zero
    - W: at least 1 bit if windows are used
    - FCN: at least 2 bits
    - Above does not consider a checksum nor MIC
  + Discussion ensued as to the seemingly increased overhead of 802.15.4 fragmentation. Points were made that error detection should be done at the lowest layer.
  + Discussion as to request to IETF LPWA to be able to elide check at the SCHC level.
    - Consensus was to request this change
* J Robert lead discussion on drafting a new IETF LPWA WG document
  + Data rate < 10 kb/s
  + Typical payload size of 16 bytes (could be larger for some apps)
  + Discussion on where checksums should be done at PHY layer or at SCHC
  + Discussion ended due to lack of time

**AOB**

* None offered

SC IETF adjourned at 17:55