**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title |  | |
| Date Submitted | 16 March 2017] | |
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| Re: | [802.15 Standing Committees Meetings in Vancouver, Canada, March 2017] | |
| Abstract | [IEEE 802.15 Maintenance and WNG Standing Committee Minutes] | |
| Purpose | [Official minutes of the Standing Committee Session] | |
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**IEEE 802.15 Plenary Meeting – Session #107**

**Vancouver, Canada**

**March 13-16, 2017**

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# SC Maintenance Minutes

## Monday 13 March PM2

**16:00** SC Maintenance called to order by Chair, Pat Kinney, Kinney Consulting

First topic was discussion on the transmission order of the 64-bit MAC address. P Kinney presented the pertinent text from all 802.15.4 revisions as documented in 15-17-0166-02. It was noted that while the MAC address order of LSB first, MSB last was used for 802.15.4-2003, 802.15.4-2006, and 802.15.4-2011; it was changed to MSB first and LSB last in 802.15.4-2015. It was further noted that the pertinent text in 802.15.4-2015, 7.1, referred to the transmission order mandated by 802-2014 for 802 devices. It was noted that ZigBee, Thread, WiSUN, W-HART, ISA100, 6tisch, 6lo, ETSI (TS 102 887-1), TIA (TR51), and Wireshark were known to use the transmission order stated in 802.15.4-2003, 802.15.4-2006, and 802.15.4-2011. It was not known if any groups were using the transmission order complying with 802.15.4-2015.

The unanimous consensus of the group was to change the transmission order stated in 802.15.4-2015 back to the order stated in 802.15.4-2003, 802.15.4-2006, and 802.15.4-2011. Two actions were deemed necessary:

1. start a corrigendum to change the MAC address transmission order of 802.15.4-2015
2. Give notice to 802.1 that 802 should be updated as per the transmission of the 64-bit MAC address

The next topic was the discussion as to what changes should go into the next revision of 802.15.4. Rolling up all approved amendments and corrigendum are the minimal changes. Other proposals from group included:

1. Replace Frequency Band (MHz) to Band designator throughout the standard per Table 10-1. Example shown in Table 10-2.
2. 920 MHz band in Table 7-19 specified twice.
3. Band designation specified in Table 7-19 need to be consistent with Table 10-1
4. Table header should be sentence case per IEEE style guide. Example shown in Table 7-19

Chair asked if there were any further issues or changes required to existing standards, there were none.

Chair asked if there were any issues or changes required to the Operations Manual, there were none.

**17:20** Upon no further discussion nor objection, the meeting was adjourned

# SC IETF Minutes

## Tuesday 14 March PM2

**Meeting Objectives / Session Focus - SC IETF**

* Tuesday 14 March, PM2: Status on relevant IETF groups
* Adjourn

**Tuesday PM2 (March 14) (room Plaza A)**

Chair called the meeting to order at 4:01am. Attendance: 10

**Opening / Closing Report (DCN: 15-17-0169-00-0mag)**

**Agenda: Status updates** **on relevant IETF groups**

|  |
| --- |
| * 6tisch * core * 6lo * roll * detnet * lp-wan * t2trg * ace * IEEE 802.15 and IETF liaison communications |

**Patent Policy and call for Essential Patents**

* Chair presents IEEE slides #1 to #4 of the IEEE patent and meeting conduct slides. Chair provides an opportunity for disclosure. None was heard.

**Approve agenda (15-17-0159-01-0mag)**

* No objections

**6tisch**

* draft-ietf-6tisch-6top-protocol-03
  + Abstract: enables distributed scheduling in 6TiSCH networks
* draft-ietf-6tisch-6top-sf0-02
  + Abstract: SF0 dynamically adapts the number of allocated cells between neighbor nodes, based on the amount of currently allocated cells and the neighbor nodes' cell requirements
* [draft-ietf-6tisch-minimal-17](https://datatracker.ietf.org/doc/draft-ietf-6tisch-minimal/)
  + Minimal 6TiSCH Configuration
  + Waiting for Writeup: Revised I-D Needed **for 23 days** Submitted to IESG for Publication:
* draft-vucinic-6tisch-minimal-security-00
  + Abstract: describes the minimal mechanisms required to support secure initial configuration in a device being added to a 6TiSCH network. The goal of this configuration is to set link-layer keys, and to establish a secure session between each joining node and the JCE who may use that to further configure the joining device
* [draft-ietf-6tisch-dtsecurity-secure-join-00](https://datatracker.ietf.org/doc/draft-ietf-6tisch-dtsecurity-secure-join/) 
  + 6tisch Secure Join protocol
  + Abstract: securing the join process and making that fit within the constraints of high latency, low throughput and small frame sizes that characterize IEEE802.15.4 TSCH

**core**

* [draft-ietf-core-coap-tcp-tls–05](https://tools.ietf.org/html/draft-ietf-core-coap-tcp-tls-05)
  + Abstract: CoAP over stream transports just finished WGLC, cap it here.
  + Objective: Feedback from WGLC, Status update
* [draft-ietf-core-http-mapping-17](https://datatracker.ietf.org/doc/draft-ietf-core-http-mapping/) 
  + Guidelines for HTTP-to-CoAP Mapping Implementation
* [draft-ietf-core-object-security](https://datatracker.ietf.org/doc/draft-ietf-core-object-security/)
  + Abstract: This memo defines Object Security of CoAP (OSCOAP), a method for application layer protection of message exchanges with CoAP and CBOR Object Signing (COSE).
  + Objective: Discuss Updates. Are we ready for an Implementation Draft?
* [draft-ietf-core-dynlink-01](https://tools.ietf.org/html/draft-ietf-core-dynlink)
  + Abstract: This document defines conditional observation attributes that work with Link Bindings or with simple CoAP Observe.
  + Objective: Update on document status.
* [draft-ietf-core-interfaces-07](https://tools.ietf.org/html/draft-ietf-core-interfaces)
  + Abstract: This document defines a set of reusable REST resource design patterns suitable for use in constrained environments.
  + Objective: Update on document status
* [draft-ietf-core-senml-04](https://tools.ietf.org/html/draft-ietf-core-senml)
  + Media Types for Sensor Measurement Lists (SenML)
* [draft-ietf-core-yang-cbor-03](https://tools.ietf.org/html/draft-ietf-core-yang-cbor)
  + BOR Encoding of Data Modeled with YANG
* [draft-ietf-core-resource-directory-09](https://datatracker.ietf.org/doc/draft-ietf-core-resource-directory/)
  + CoRE Resource Directory

**6lo**

* [draft-ietf-6lo-nfc-05](https://tools.ietf.org/wg/6lo/draft-ietf-6lo-nfc-05)
  + Abstract: IPv6 over NFC - Updates of the draft addressing comments
* [draft-6lo-blemesh-00](https://datatracker.ietf.org/doc/draft-ietf-6lo-blemesh/)
  + IPv6 Mesh over BLUETOOTH(R) Low Energy using IPSP
* [draft-ietf-6lo-use-cases](https://datatracker.ietf.org/doc/draft-ietf-6lo-use-cases/)
  + Abstract: 6lo Applicability and Use Cases
  + Updates and comments on the draft
* [draft-ietf-6lo-rfc6775-update](https://datatracker.ietf.org/doc/draft-ietf-6lo-rfc6775-update/)
  + Abstract: An Update to 6LoWPAN ND
  + Updates to the draft and Request for adoption
* [draft-ietf-6lo-privacy-considerations-04](https://tools.ietf.org/html/draft-ietf-6lo-privacy-considerations)
  + Abstract: Designating 6LBR for IID Assignment
  + Updates from WG comments
* [draft-ietf-6lo-dect-ule](https://datatracker.ietf.org/doc/draft-ietf-6lo-dect-ule/)
  + Transmission of IPv6 Packets over DECT Ultra Low Energy
* [draft-ietf-6lo-nfc](https://datatracker.ietf.org/doc/draft-ietf-6lo-nfc/)
  + Transmission of IPv6 Packets over Near Field Communication
* [draft-ietf-6lo-dispatch-iana-registry-07](https://datatracker.ietf.org/doc/draft-ietf-6lo-dispatch-iana-registry/)
  + 6lowpan ESC Dispatch Code Points and Guidelines

**roll**

* [draft-ietf-roll-useofrplinfo-10](https://datatracker.ietf.org/doc/draft-ietf-roll-useofrplinfo/)
  + When to use RFC 6553, 6554 and IPv6-in-IPv6
* [draft-ietf-roll-routing-dispatch-05](https://datatracker.ietf.org/doc/draft-ietf-roll-routing-dispatch/)
  + 6LoWPAN Routing Header
  + WG: Submitted to IESG for Publication; IESG: AD Evaluation::Revised I-D Needed
* [draft-ietf-roll-dao-projection-00](https://datatracker.ietf.org/doc/draft-ietf-roll-dao-projection/)
  + Root initiated routing state in RPL
* [draft-ietf-roll-aodv-rpl-00](https://datatracker.ietf.org/doc/draft-ietf-roll-aodv-rpl/)
  + Asymmetric AODV-P2P-RPL in Low-Power and Lossy Networks (LLNs)
* [draft-ietf-roll-mpl-forw-select-00](https://datatracker.ietf.org/doc/draft-ietf-roll-mpl-forw-select/)
  + MPL Forwarder Select (MPLFS**)**

**detnet**

* [draft-ietf-detnet-architecture-00](https://datatracker.ietf.org/doc/draft-ietf-detnet-architecture/)
  + Deterministic Networking Architecture
* [draft-ietf-detnet-dp-alt-00](https://datatracker.ietf.org/doc/draft-ietf-detnet-dp-alt/) 
  + DetNet Data Plane Protocol and Solution Alternatives
* [draft-ietf-detnet-problem-statement-01](https://datatracker.ietf.org/doc/draft-ietf-detnet-problem-statement/)
  + Deterministic Networking Problem Statement
* [draft-ietf-detnet-use-cases-11](https://datatracker.ietf.org/doc/draft-ietf-detnet-use-cases/)
  + Deterministic Networking Use Cases

**lp-wan**

* [draft-ietf-lpwan-coap-static-context-hc-00](https://datatracker.ietf.org/doc/draft-ietf-lpwan-coap-static-context-hc/)
  + 6LPWA Static Context Header Compression (SCHC) for CoAP
* [draft-ietf-lpwan-ipv6-static-context-hc-00](https://datatracker.ietf.org/doc/draft-ietf-lpwan-ipv6-static-context-hc/)
  + LPWAN Static Context Header Compression (SCHC) for IPv6 and UDP
* [draft-ietf-lpwan-overview-00](https://datatracker.ietf.org/doc/draft-ietf-lpwan-overview/)
  + LPWAN Overview
* [draft-farrell-lpwan-lora-overview-01](https://datatracker.ietf.org/doc/draft-farrell-lpwan-lora-overview/)
  + LoRaWAN Overview
* [draft-zuniga-lpwan-sigfox-system-description-01](https://datatracker.ietf.org/doc/draft-zuniga-lpwan-sigfox-system-description/)
  + SIGFOX System Description
* Discussion about whether WiSUN should request a timeslot

**t2trg**

* [draft-irtf-t2trg-iot-seccons-00](https://datatracker.ietf.org/doc/draft-irtf-t2trg-iot-seccons/)
  + Abstract: Security Considerations in the IP-based Internet of Things
* [draft-keranen-t2trg-rest-iot-03](https://datatracker.ietf.org/doc/draft-keranen-t2trg-rest-iot/)
  + Abstract: RESTful Design for Internet of Things Systems
* [draft-koster-t2trg-hsml-00](https://datatracker.ietf.org/doc/draft-koster-t2trg-hsml/)
  + Abstract: Media Types for Hypertext Sensor Markup
* [draft-hartke-t2trg-coral-01](https://datatracker.ietf.org/doc/draft-hartke-t2trg-coral/)
  + Abstract: The Constrained RESTful Application Language (CoRAL)

**ace**

* [draft-ietf-ace-oauth-authz-04](https://datatracker.ietf.org/doc/draft-ietf-ace-oauth-authz/) 
  + Abstract: Authorization using OAuth 2.0 (ACE)
* [draft-ietf-ace-actors-04](https://datatracker.ietf.org/doc/draft-ietf-ace-actors/) 
  + Abstract: An architecture for authorization in constrained environments
* [draft-ietf-ace-cbor-web-token-02](https://datatracker.ietf.org/doc/draft-ietf-ace-cbor-web-token/) 
  + Abstract: CBOR Web Token (CWT)

**IEEE 802.15 and IETF liaison communications**

* lp-wan: SC IETF can identify solutions to numerous problems stated for lp-wan. SC IETF could produce a document describing the behaviors in 802.15.4 (LECIM) and 802.15.9 (KMP) that address the noted problems.
  + Responsibility was transferred to IETF [lpwan]
* 6lo: SC IETF could identify header compression methods that apply to IP but could be extended to MAC and PHY by IEEE 802.15.
  + Responsibility was transferred to IG LPWA
* Discussion about possible liaison between 802.15 and IETF IoT-directorate

**AOB**

* None offered

**Adjourned at 4:33pm**

# SC WNG meeting

## Wednesday 15 March AM2

**11:35** SC WNG called to order by Chair P Kinney, Kinney Consulting

There were two presentations:

**Overview Tutorial on 802.15.10** (15-17-0205-00) from Clint Powell, Verotiana Rabarijaona, Charlie Perkins, and Noriyuki Sato.

* + Q: multicast addressing for 16-bit addresses – block of addresses are made available but assignment is out of scope.
  + Q: how can you ensure a common metric for PQM among all vendors. R: at this time there is no mechanism for standardizing PQM.
  + Q: slide 4 – dynamics of network suggests network movement in a minute timeframe. Do you have a keep-alive? R: If a device loses connection with the PAN coordinator it would have to rejoin as per 802.15.4. If the device cannot obtain a connection to the PAN coordinator, that device may start a new PAN.
* Q: RSW is related to signal strength, is the algorithm predefined? R: to some extent
* Q: what would you like the WG to do with this presentation? R: It is merely informative

**12:16** **App Based Information Broadcast Configuration** by Rick Roberts (15-17-0133-00)

* Q: assumes that the store has a single modulation? R: each light source would have a single modulation but as many modulations as per lights
* Q: how can you guarantee that you have the latest app? R: the apps are standardized.
* C: app needs to know which store it is in
* Q: what would you like the WG to do with this presentation? R: It is merely informative

**12:27** meeting adjourned