**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | 802.15 SG LLC Minutes for September 2015 meeting | |
| Date Submitted | [18 September, 2015] | |
| Source | [Charlie Perkins] [Futurewei] | Voice: [+1-408-330-4586] Fax: [ ] E-mail: [charliep@computer.org] |
| Re: | [SG LLC meeting minutes.] | |
| Abstract | SG LLC minutes from the Bangkok Mtg. | |
| Purpose | [SG LLC meeting minutes.] | |
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**Minutes for IEEE 802.15 SG LLC September Meeting**

**16-17 September, 2015**

**Chair – Pat Kinney**

**Vice Chair - Charlie Perkins**

**Wednesday AM1 (7/16)**

Chair called the meeting to order at 8:06am. Meeting in World Ballroom C. Attendance:11

Bob Heile, Phil Beecher, Ben Rolfe, Tero Kivinen, Amarjeet Kunal, Gary Steubing, Jarrett Kent, Charlie Perkins, Pat Kinney, Don Sturek, Chris Calvert

**Patent Policy and call for Essential Patents**

Chair called the group’s attention to the IEEE patent policy and made a call for notification of essential patents. There were no responses.

**Opening / Closing Report (DCN: 15-15-0730-00-0llc)**

Recap the previous Interest Group discussion held in Kona for this proposed Study Group.

**LLC Proposal for 802.15.4 (15-15-0521-00)**

* LLC as a separate group, not part of 802.15.4. So 802.15.4 will not be required to implement
* Discussion about appropriateness of SigFox; Would like to encourage SigFox to join the effort
* SigFox is proprietary solution
* In November there will be joint meeting between 802.1 and 802.15 and ISA 100.11a would be a topic; they might adopt the LLC
* Pat is co-chair of ISA 100.11a
* LLC does not add a new PHY. It facilitates to use of existing PHYs.
* 802.15.4 has shipped over a billion chips.
* Thread adds a lot more functionality than just 802.15.4, and has built its own LLC. There is a strong difference between Thread and, say SigFox, since Thread is at least partially based on standards.
* There have been interesting anomalies due to lack of willingness to follow regulatory standards; but 802.11 does a pretty good job on this
* Dynamic behaviors
* Management (metrics, neighbor tables, IEs)

**LLC – Feedback about desires from group**

* Phil: would have problem to get support if the proprietary names were part of the proposal
* Don: Should not spend time starting from scratch to do what 802.11 has done for the last 10 years. Should prioritize and make use of their work.
* Phil: Don’t have to get rid of proprietary stuff, but if it is mentioned, it should not be in a positive light. Pat: deleted “Thread” from slide 12. Or maybe delete all of them. … wordsmithing …
* Security work will have its own life; Pat: would like to assimilate 802.15.9

**LLC - Ethertype discussion**

* Discussion about appropriateness of Ethertype. 802.11 and others do have Ethertype. Opposing view is that the need is not yet established for 802.15

**LLC – Drafting PAR discussion for tomorrow’s PM1 session**

* Will focus the effort of the group and enable other groups to understand our plans
* Priority matters: Management, Regulatory, Ethertype
* 6LoWPAN is a Pandora’s box, but overreaches into Layer 4
* Ben: Fragmentation work is important
* Make it easier to use 802.15.9 and 802.15.10, so these functions are likely to be in scope.
* But as Don said, can’t boil the ocean
* Phil: need to simplify the process to let others build on the LLC
* PAR should be broad enough to allow inclusion of peoples’ new ideas

**LLC – Priority topics to be accomplished within the first two years**

* Protocol differentiation / dispatch (includes Ethertype discussion)
* Align 802.15.9 and 802.15.10 with LLC
* Architecture to provide extensibility
* Regulatory (e.g., PHY configuration by country, device class, duty cycle constraints, CCA settings)
* L2 protocol extensions from other organization, e.g. IETF 6TiSCH, Thread
* Priority operation (e.g., queueing priority) (there is also a form of PCA (prioritized channel access) )
* Managed Objects [Pat: but the work is still in process][deleted]

**TODO:** ask for LLC mailing list

Note: IETF liaison has been replaced by IETF/IEEE coordination committee. Pat Thaler is the IEEE 802 contact person

The Study Group went into recess (at 9:45am) until the Thursday PM1 session.

**Thursday PM1 (7/17)**

Chair called the meeting to order at 1:36pm. Meeting in World Ballroom C. Attendance:16

Ben Rolfe, Tero Kivinen, Charlie Perkins, Pat Kinney, Phil Beecher, Chris Calvert, Tim Godfrey, Hidetoshi Yokota, Shusaku Shimada, Henk de Ruijter, Gang Ding, Hyeong-Ho Lee, Jussi Haapola, Shoichi Kitazawa

**Sign-in requested for participants**

**Patent Policy and call for Essential Patents**

Chair called the group’s attention to the IEEE patent policy and made a call for notification of essential patents. There were no responses.

**SG Revisions for 802.15.4 LLC\_July-2015 (15-15-0521-01)**

No further discussion

**Draft PAR discussion (doc# 15-15-0xxx-00-0llc)**

* Pat made a Word document for crafting a rough draft of the PAR and CSD.
* Restrict scope for 802.15.4; could revise later to include 802.15.3 if desired and feasible
* Request 3 years for completion, estimate 100 participants (both analogous to 802.15.4t)
* Wordsmithing… Wordsmithing …
* Refer to LLC as sublayer of the Data Link Layer (DLL)
* Question about addressing DetNet requirements as part of the PAR; not easily known how to craft language for this
* Someone needed to craft a CSD; Charlie will give it a try

**Discussion of teleconference before November meetings**

Not going to request a TG for the EC in November anyway.

No teleconferences scheduled.

**Mailing list requested**

* Will be made available soon.
* To be used for PAR and CSD discussion.

**Motion to adjourn**

Kunal Shah moved; Phil Beecher seconded

The Study Group adjourned (at 2:55pm).