**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 ULI Minutes for September 2015 meeting | |
| Date Submitted | [13 November, 2015] | |
| Source | [Charlie Perkins] [Futurewei] | Voice: [+1-408-330-4586] Fax: [ ] E-mail: [charliep@computer.org] |
| Re: | [SG ULI meeting minutes.] | |
| Abstract | SG ULI minutes from the Dallas Mtg. | |
| Purpose | [SG ULI meeting minutes.] | |
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**Minutes for IEEE 802.15 SG ULI Dallas Meeting**

**10-11 November, 2015**

**Chair – Pat Kinney**

**Vice Chair - Charlie Perkins**

**Tuesday PM2 (November 10)**

Chair called the meeting to order at 4:05pm. Meeting in room Reunion A. Attendance: 21

**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: 15-15-0855-00-0llc)**

Recap the Study Group discussion held in Bangkok for the first meeting of the Study Group.

**Approve agenda (DCN: 15-15-0806-00-0llc)**

James Gilb moved, Tero Kivinen seconded. No objection, so motion passes

**Approve minutes (DCN: 15-15-0719-00-0llc)**

Clint Powell moved, James Gilb seconded. No objection, so motion passes

**LLC functionality discussion (DCN: 15-15-0761-00-0llc)**

* 802.15.9 is in sponsor ballot; 802.15.10 is in letter ballot
* 802.15.3 would have its own LLC
* Would be like Thread? Hard to say since we are still a study group
* Would focus on 802.15.4-2015? Yes, since that is the standard at this time
* Q: Is it mainly focused on 801.15.4? Pat: It is \*only\* focused on 802.15.4
* But putting in 802.15.4 would make for a lot more stress, so it should be an independent TG

**LLC presentation to IETF (DCN: 15-15-0838-00-0llc)**

* The functional diagram as presented to IETF does not adhere to pure protocol layering

**LLC - preparation for joint meeting with 802.1**

* WiSUN is still requesting an EtherType
* The discussion in Consolidated LLC will request an Ethertype
* Discussion about RAC decision on use Ethertype or clone **(DCN: 15-15-0855-01-0llc** slide 6**)**

**Discussion about proposed PAR (DCN: 15-15-0760-00-0llc)**

* Discussion about scope, need
* Agreed to include IETF as a stakeholder; language is needed

**Recess:** The Study Group went into recess (at 5:23pm) until the Wednesday AM1 session

**Tuesday 10 Nov, PM3: Joint meeting with 802.1**

Chair called the meeting to order at 6:22pm. Meeting in room Cotton Bowl. Attendance: 28

**Agenda:**

* Consolidated LLC for 15.4 (45 min) – Kinney
* RAC decision, use Ethertype or clone new type assignment for 802.15 (45 min) – Kinney
* Update on 802.15.10 - L2R (<10 min)  - Powell
* 802.15.3d, the 100g data center project (plus the 15.3 revision and conversion to 48 bit to be 802 compatible) (<10 min) – Kürner [cancelled]

**Consolidated LLC for 15.4** (**DCN: 15-15-0521-01)**

* 802.15.4 is shipping a million devices each day
* Don’t use EtherType compression! Don’t use compression per field. Some people don’t want to route because the packets get too long. Want to look at taking a full size 802 header, and using a header compression technology.
* If you are using work from another organization, you could do it by reference, but then you lose change control. [related to bullet 5 of Prioritized Functionality slide]
* Should use same values for Ethertype that already exists…
* To obtain a new EtherType, it is required to show a subtype plan
* How much of this work could be done in [??]802.1at? 802.1 is encouraging to use ISX
* 802.15.4 does not have managed objects. But if LLC does configuration, it is going to deal with managed objects. It is possible that this will not define any new managed objects.
* Can use 6lowpan protocol discriminator from IETF; ask 6lo to request EtherType from RAC

**Update on 802.15.10 - L2R (Clint Powell)**

* Please notify 802.1 folks when 802.15.10 goes to Sponsor Ballot

**Agreement to have a joint meeting in Atlanta**

* Need to notify meeting planner to avoid problems like tonight.

**Adjourned**

* The Joint meeting adjourned at 7:45pm.

**Wednesday 11 Nov, AM1: Discussion on issues raised during joint 802.1 meeting, continue ULI PAR and CSD**

Chair called the meeting to order at 8:08am. Meeting in Reunion A. Attendance: 14

**Discuss issues from joint meeting with 802.1**

* 802.2 was also an LLC. Should we pick another acronym? What about “ForeUpperLayer” (FUL)? Or, possibly NBI
* This might need to be an acronym that is not in current use.

**Work on LLC PAR (DCN: 15-15-0760-00-0llc)**

* Much language adapted from 802.15.4u
* Discussion about use of “agnostic” versus enabling multiple higher-layer protocols
* Bulletization, spelling out acronyms, simplify sentence structure
* IETF as stakeholder

**Work on LLC CSD (DCN: 15-15-0768-00-0llc)**

* Discussion about language related to managed objects; higher-level protocols may expect a managed-object interface.
* Will bring up CSD compliance statement (1.2.2 (a)) at the next January interim joint meeting with 802.1

**Recess**

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

**Thursday 12 Nov, PM1: Continue drafting ULI PAR and CSD**

Chair called the meeting to order at 1:33pm. Meeting in Reunion A. Attendance: 18

**Discussion points from Tuesday’s joint meeting with 802.1.**

* Don’t use EtherType compression
* Change control will be lost if we use protocol specifications from other organizations
* Getting a new EtherType requires showing a subtype plan
* How much of this work could be done in 802.1 ISIS?
* Ask 6lo to obtain EtherType from RAC
* Need to get a new acronym to replace LLC

**Suggestions for alternate acronym to replace LLC**

* DFUL -- votes == 0
* ULI -- votes == 5
* None of the above -- votes == 2
* Decision: ULI is chosen as the new acronym

**Continue drafting PAR (DCN: 15-15-0760-01-0llc)**

* Discussion about whether to include IETF as a stakeholder
  + Decision: float the PAR to the IETF/IEEE coordination committee, accept their recommendation
* Change LLC to ULI.

**Continue drafting CSD (DCN: 15-15-0768-00-0llc).**

* Modified according to recent modifications made for 4t and 4u
* Change LLC to ULI everywhere, put in the title.
* Proposed modifications to handle comments about managed objects were accepted.

**Motion to extend the SG 802.15.12 until March Plenary**

Benjamin Rolfe moved; Tero Kivinen seconded

Discussion: it’s very likely to succeed

No objection, so motion carries.

**Motion to adjourn**

Gary Stuebing moved; Benjamin Rolfe seconded

The Study Group adjourned (at 2:22pm).