**IEEE P802.15**

 **Wireless Personal Area Networks**

|  |  |
| --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | 802.15 SG ULI Minutes for March, 2016 plenary meeting |
| Date Submitted | [18 March, 2016] |
| 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 Macao Plenary Meeting |
| Purpose | [Record the transactions of the SG ULI plenary meeting during March, 2016] |
| Notice | This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. |
| Release | The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15. |

**Minutes for IEEE 802.15 SG ULI Macao Plenary Meeting**

**14-18 March, 2016**

**Chair – Pat Kinney**

**Vice Chair - Charlie Perkins**

**Tuesday PM2 (March 15) (Room Florence 2206 [level 1])**

Chair called the meeting to order at 4:05pm. Attendance: 15

|  |  |  |  |
| --- | --- | --- | --- |
| Pat Kinney | Kinney Consulting | Charles Perkins | Futurewei |
| Don Sturek | SSNI | Bob Heile | WiSun |
| Tero Kivinen | Inside Security | Gary Stuebing | Cisco |
| Kiyoshi Fukui | OKI | Noriyuki Sato | OKI |
| Hideoshi |  | Billy Verso | DecaWave Ltd |
| John |  | Kunal Shah | SSNI |

**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: 15-16-0196-03-0llc)**

Have comments from 802.1, 802.3, and 802.11 for consideration in 0196-03

**Meeting Objectives/Agenda**

* Tuesday, 15 March, PM2
	+ Call meeting to order
	+ Opening report, approve agenda, approve minutes from last session
	+ Discussion on ULI PAR (15-15-760-07) and CSD (15-15-768-06)
	+ Discussion on topics for tonight’s joint meeting with 802.1
		- 802.15.12 PAR&CSD, Ethertype, et al
	+ Recess
* Wednesday 16 March, AM1:
	+ Discussion on issues raised by WG comments or during joint 802.1 meeting
	+ Modify ULI PAR and CSD, motion to WG to approve
	+ Recess
* Wednesday 16 March, PM1:
	+ Discussion on issues raised during mid-week plenary meeting,
	+ Modify ULI PAR and CSD.
	+ Motion to WG to approve.
	+ Recess
* Thursday 17 March, AM1
	+ Final edits to LLC PAR and CSD.
	+ Motion to WG to approve.
	+ Adjourn

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

**Approve agenda (DCN: 15-16-0194-00-0llc)**

No objection; motion passes

**Approve minutes (DCN: 15-16-0119-00-0llc)**

No objection; motion passes

**Discussion and Changes Resulting from WG 802.1 and Joint Meeting Comments**

* 6.1.b: claims possible registration activity, but needs to specify what that is. Discussion about Dispatch codes, subtypes.
* 5.2: Discussion about what is optional?
* 5.5: eliminate L3 abstraction language, so does not refer to header compression
* 8.1 belongs in CSD
* Discuss relevance of 802.1AC
* Discuss relevance of EtherType Protocol Differentiation (EPD), defined in 802-2014; change instances of EtherType to be EtherType Protocol Differentiation (James Gilb).
* 30 active participants instead of 100

**Discussion and PAR Changes Resulting from WG 802.3 Comments**

* Use SAP instead of sub-layer
* Does not relate to 802 bridging; L2R is a layer-2 routing protocol
* Eliminate the term “sublayer”
* Too many acronyms; hard to read. But the information has to be presented somehow.
* Should not use text formatting that is not supported by the PAR tool; response: will be too complicated to spell everything out.
* Missing a period in 5.6
* Engage RAC early to avoid using EtherTypes as subtypes

**Discussion and CSD Changes Resulting from WG 802.3 Comments**

* Seems in possible conflict to PAR scope about regulation
* Does not relate to 802 bridging; L2R is a layer-2 routing protocol
* Wireless devices are *part of* IoT, not the same as
* *the* IoT marketplace
* remove “and many more”

Reminder to attend Joint Meeting in Milan 2105 at 6:30pm

Recess at 6:00pm

**Tuesday PM3 Joint meeting with 802.1 (Room Milan 2105 [level 1])**

Chair Pat Kinney called the Joint 802.1/802.15 Layer-2 Topics meeting to order at 6:36pm.

**Agenda:**

* Review of 802.15.12 PAR, CSD Comments

**Discussion and PAR Changes Resulting from WG 802.3 Comments**

* Registration activity does not mean allocation of new EtherType values.
* For Dispatch codes below value of 1500, the Multiplex ID 802.15.9 will be used

**Discussion and PAR Changes Resulting from WG 802.11 Comments**

* Use SAP instead of sub-layer
* Does not relate to 802 bridging; L2R is a layer-2 routing protocol

**Recess:** The Study Group went into recess (at 8:30pm) until the Wednesday AM1 session

**Wednesday AM1 (March 16) (Room Milan 2105 [level 1])**

Chair called the meeting to order at 8:09am. Attendance: 12

|  |  |  |  |
| --- | --- | --- | --- |
| Pat Kinney | Kinney Consulting | Charles Perkins | Futurewei |
| Ed Gallaway |  | Ruben Salazar | Landis+Gyr |
| Tero Kivinen | Inside Security | Gary Stuebing | Cisco |
| Ben Rolfe | BCA | Bob Heile | WiSun |

**Agenda:**

* Review of 802.15.12 PAR, CSD Comments since joint meeting with 802.1

**Review of 802.1 comments**

* Clarification about meaning of registration in PAR 6.1.b
* Allow for fragmentation
* Clarify what is optional
* L2+ has been changed to L2
* L3 abstraction has been deleted
* 8.1 material does not belong in PAR
* Discuss the relevance of 802.1AC; agreement to carry on discussion at next 802.1/802.15 joint meeting
* Planning to use EPD – PAR and CSD changed to use EtherType Protocol Discrimination
* “new functionalities” deleted

**Review of 802.3 comments**

* 100 is too optimistic; changed to 30
* Scope uses language and reference architecture not appearing in 802.15.4; change to using SAPs. Also, phrase changed “Furthermore, the ULI integrates optional upper Layer 2 functionalities”
* PAR 5.2: L2R does not related to IEEE 802 bridging
* Number of acronyms is O.K. because not using acronyms makes the document harder to read
* Full stop added
* Changes for wordsmithing

**Review of 802.11 comments**

* Expand 6TiSCH
* Reference to IEEE 802.15.4 MAC should be made
* Accepted replacement text for 5.4 **Purpose** statement
* Replace with much shorter 5.4 **Need** statement
* Replace KMP with KMPs
* Suggest that 8.1 should be deleted
* Suggestion to use EPD
* Does not require *new* registration activity

**Review of revised PAR**

* Clarification about meaning of registration in PAR 6.1.b
* Discussion about whether “Std” needs a period, inserting “the” before IEEE, etc.
* Use EPD in more places

**Review of revised CSD**

* Discussion about 802.1AC using 48-bit addresses
* Use EPD in more places

**Motion to submit PAR and CSD to working group for approval**

* Moved by Ben Rolfe, seconded by Tero Kivinen
* Motion carries; no objections

**Recess:** The Study Group went into recess (at 8:58am) until the Wednesday PM1 session

**Wednesday Midweek 802.15 Plenary meeting AM2 (March 16) (Room Milan 2105 [level 1])**

Chair called the meeting to order at 10:33am. Attendance: ~50

**Agenda:**

* Review of 802.15.12 PAR, CSD comments from 802.1, 802.3, 802.11, and Paul Nikolich
* 802.15 WG approved PAR 15-15-0760-08-0llc-802-15-12-par-draft for EC consideration Friday.
* 802.15 WG approved CSD 15-15-0768-07-0llc-802-15-12-draft-csd for EC consideration Friday.

**Wednesday PM1 (March 16) (Room Florence 2205 [level 1])**

Chair called the meeting to order at 1:33pm. Attendance: 6

|  |  |  |  |
| --- | --- | --- | --- |
| Pat Kinney | Kinney Consulting | Charles Perkins | Futurewei |
| Bob Heile | Wi-Sun | Noriyuki Sato | OKI |
| Fumihide Kojima | NICT | Kiyoshi Fukui | OKI |

**Agenda:**

* 802.15 WG already approved PAR and CSD; no other comments were received, and no other business was proposed.
* Recess at 1:34pm until Thursday AM1.

**Thursday AM1 (March 17) (Room Florence 2301 [level 1])**

Chair called the meeting to order at 8:12am. Attendance: 4

|  |  |  |  |
| --- | --- | --- | --- |
| Pat Kinney | Kinney Consulting | Charles Perkins | Futurewei |
| Tero Kivinen | Inside Security | Gary Stuebing | Cisco |

**Agenda:**

* 802.15 WG already approved PAR and CSD; no other comments were received, and no other business was proposed.
* Adjourn at 8:13am