**IEEE P802.15**

**Wireless Personal Area Networks**

|  |  |  |
| --- | --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title |  | |
| Date Submitted | [14 November, 2013] | |
| Source | [Clint Powell] [PWC, LLC] [1563 W Kaibab Dr.  Chandler, AZ 85248] | Voice: [+1 480-586-8457] Fax: [ ] E-mail: [cpowell@ieee.org] |
| Re: | [TG10 (L2R) session minutes.] | |
| Abstract | TG10 (L2R) meeting minutes from the Dallas Plenary. | |
| Purpose | [TG10 (L2R) session minutes.] | |
| 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 TG10 (L2R)**

**Dallas Plenary Meeting**

**11-15 November 2013**

**Chair - Clint Powell**

**Acting Secretaries - Tim Godfrey, Paul Chilton**

**Tuesday AM2 (11/12)**

Chair calls the meeting to order at 10:34 AM.

Review of agenda (doc. # 0592-05)

Tues. PM1 - is a joint session with 802.1 and SG100G.

Thurs. AM1 - review use cases, presentations, next steps.

Thurs. - Presentations:

one from Paul Chilton

one from Seong-Soon Joo

Thurs. - use cases, req’s., timeline, next steps, Jan. mtg. prep.

Updated agenda to be posted as doc. # 0592-06

Motion to accept agenda (doc. # 0592-06).

Moved by: Paul Chilton

Second: Tim Godfrey

No objections

Call made for patents/patent claims.

No response

Motion to accept Sept. mtg. minutes (doc. # 0583-00).

Moved by: Kunal Shah

Second: Matt Gillmore

No objections

Review and preparation of presentation for 802.1 Joint Session (doc. # 0688-00), based on doc. #’s:

0493-01 examples-of-mesh-networking-over-ieee-802-15-4.pptx

0495-00 why-l2r-on-802-15.pptx

Discussion of 802.1 Collaboration Points (doc. # 0688-00).

Chair clarified that the scope of this work is for 802.15.4.

* Does that mean any PHY of 802.15.4? or MAC option?
* 2011 and 4e to 4p, or whatever is the latest?
* Packet size needs to be addressed - some PHYs are limited to 127 bytes and some are not.

The chair reviews doc. # 0562-03 - IEEE 802.15 TG10 Applications-Providers-Requirements containing use cases, existing providers of L2R solutions, and initial requirements for L2R.

The chair recesses the meeting, at 12:30 PM, until Tuesday PM1.

**Tuesday PM1 (11/12) - Joint Session w/802.1**

Chairs call the meeting to order at 1:30 PM.

Call made for patents/patent claims.

No response

Below are the links to the docs from the joint TG10/SG100/802.1 session:

Presentation on L2R at Nov. Joint 802.1/802.15 Session (pulled from 2 presentations given in York – see link below):

<https://mentor.ieee.org/802.15/dcn/13/15-13-0689-00-0010-tg10-l2r-and-802-15-4.pptx>

Additional doc on 802.1 Collaboration Points shown at Nov. Joint 802.1/802.15 Session:

<https://mentor.ieee.org/802.15/dcn/13/15-13-0688-00-0010-tg10-802-1-collaboration-points.docx>

Discussed with 802.1

* Collaboration Points (doc. # 0688-00)
* 802.1 looking for details on:
  + How low energy impacts (constrain / allow) w.r.t. bridge operation

802.1 bridging protocol requires end-to-end reply of 2 sec

○ Items impacting 802.15.4 end-to-end transit time

* + - Energy
    - Data rate
    - Multi hop
* Updated to doc. # 0688-01
* 802.1 gave a tutorial at March 2013 plenary

Presentation on 100G at Nov. Joint 802.1/802.15 Session:

<https://mentor.ieee.org/802.15/dcn/13/15-13-0635-01-0thz-on-the-scope-of-ieee-802-15-sg-100g.pdf>

These are the links to the 802.15 Presentations given at the 802.1 Sept. Interim in York and the 802.1 Tutorial on Bridging given In March 2013 Plenary:

802.15 Presentations from Sept. 2013 802.1 Interim in York:

<https://mentor.ieee.org/802.15/dcn/13/15-13-0493-01-0000-examples-of-mesh-networking-over-ieee-802-15-4.pptx>

<https://mentor.ieee.org/802.15/dcn/13/15-13-0495-00-0010-why-l2r-on-802-15.pptx>

802.1 Tutorial on Bridging given at March 2013 Plenary

<http://www.ieee802.org/802_tutorials/2013-03/8021-IETF-tutorial-final.pdf>

Chair recesses the meeting, at 3:30 PM, until Thursday AM1.

**Thursday AM1 (11/14)**

Chair calls the meeting to order at 8:05 AM.

Call made for patents/patent claims.

No response

Adjustment to agenda (doc. # 0592-06) to re-arrange Thurs. AM presentations.

Motion to approve modified agenda (doc. # 0592-07):

Moved by: Seong Soon

Second: Paul Chilton

No objections

**A/I - TG10 to prepare some detail on below for discussion on calls and for Jan. mtg.**

* 802.1 looking for details on:
  + How low energy impacts (constrain / allow) w.r.t. bridge operation

(802.1 bridging protocol requires end-to-end reply of 2 sec)

* + Items impacting 802.15.4 end-to-end transit time
    - Energy
    - Data rate
    - Multi hop

**A/I - TG10 to review 802.1 March 2013 tutorial for discussion on calls, and prepare a list of questions to submit to 802.1 to allow for a presentation to be prepared**

Discussion of times for teleconferences

Monday Dec 2, 9, 16

2PM Pacific, 10PM London, 7AM Tokyo

(Chair realized later that time will not work on 12/2 – will send out email to move call 1hr later, to 3PM Pacific)

Presentation of Use Cases in Lighting (doc. # 0703-00) by Paul Chilton, NXP

Video links for later perusal

<http://www.greenwavereality.com/#prettyPhoto/1/>

<http://www.dailymotion.com/video/x173o4s_does-the-connected-by-tcp-wireless-led-lighting-kit-hold-it-s-own_tech>

Chair recesses the meeting, at 10:00 AM, until Thursday AM2.

**Thursday AM2 (11/14)**

Chair calls the meeting to order at 10:35 AM.

Call made for patents/patent claims.

No response

Presentation of L2 Routing Requirements (doc. # 0700-00) by Seong-Soon Joo, ETRI

Chair commented -

* Above presentation last slide asked some good questions of the group.
* What kind of solution needed, decisions will guide what we do base implementation or multiple classes – combination of requirements and MAC capabilities – look at in Jan. for the Tech Guidance doc.
* So what choices and direction to be taken – basics or broader – depends on the contributions and proposals that we get

**A/I - TG10 to review IETF doc. RFC 6552 on objective functions, for discussion on calls**

Review of Applications/Use Cases/ Providers/Requirements (doc. # 0562-03).

(Smart Meter Use Cases, Smart City Use Cases, Requirements)

* Need to get requirements for all app areas we will address in the work.
* How to match against different 4x amendment – eg one way as in 4f.
* Clint and Seong Soon to add in parts of doc. # 0700-00 to the document offline
* Requirements.
* Still work with 802.1 which may add in further requirements.
* Need to look at effective data rates, power etc. and how it affects 802.1
* Route handling – how to send info on routing around the network, not taking up all the bandwidth
* Multiple routing approaches in same network – base eg tree with additional eg AODV?

Changes posted as doc. # 0562-04

Next steps

* Recap of calls and times – Mon 2/ 9/16 Dec at 2pm PST
* Homework assignments – read 802.1 tutorial, RFC6552 before these calls. 802.1q and ac docs for those who are keen
* Also review and update of docs were are working on (eg doc. # 0562-04)
* Guidance on low energy and other things (data rate, hops) that affect 802.1 operations

Volunteer(s) needed to look at 802.1 agendas and sit in on relevant sessions (in Jan. and March mtgs.) and coordinate with TG10.

Noriyuki Sato and Kiyoshi Fukui volunteered

Volunteer(s) needed to attend IETF 6TiSCH calls.

Paul Chilton volunteered

Reminder to sign up for the TG10 email reflector, as we will start to use it as primarily.

Quick review of timeline in doc. # 0645-00

* Timeline pulled in from end of 2016 to Q1 2016 based on previous experience of other TG work.
* Call for proposals end of March meeting, Baseline at end of July and adopt in September.
* Proposals and merging Q3 2014, begin balloting Q4, balloting through 2015.
* The chair notes that fixed-format motions are part of the new P&P for 802.15. A 30 day notification is required for the TEG approval of a new draft going to letter ballot. This is scheduled to occur in parallel with TG internal review of draft.

**A/I - TG10 to review timeline doc. # 0645-00, for discussion on calls**

Next meeting (Jan. 2014)

* Collaboration with 802.1 and establish an SoW
* Start Tech Guidance doc and selection criteria – approach will depend

Motion to adjourn.

Moved by: Paul Chilton

Second: Paul Russell

No objections

Chair adjourns the meeting at 12:10 PM.