**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 TG10 (L2R) Minutes for May 2014 Mtg. | |
| Date Submitted | [15 May, 2014] | |
| Source | [Clint Powell] [PWC, LLC] | Voice: [+1-480-586-8457] Fax: [ ] E-mail: [cpowell@ieee.org] |
| Re: | [TG10 (L2R) meeting minutes.] | |
| Abstract | TG10 (L2R) minutes from the Waikoloa Mtg. | |
| Purpose | [TG10 (L2R) meeting minutes.] | |
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**Minutes for IEEE 802.15 TG10 (L2R)**

**Waikoloa Meeting**

**11-15 May 2014**

**Chair - Clint Powell**

**Acting Secretaries -  
(Verotiana Rabarijaona, Tim Godfrey, Clint Powell)**

**Monday PM1 (5/12)**

Chair called the meeting to order at 1:35 PM.

Chair made call for secretary. Verotiana Rabarijaona volunteered.

**Review of agenda (doc# 15-14-0223-00)**

A modified agenda, doc. # 15-14-0223-01, was reviewed by the chair. Four proposals were received. Two of the 6 presentation slots were absorbed for other business, a time slot was added for a presentation prepared by Soo-Young Chang, and r1of the agenda was posted.

**Motion to approve the agenda**:

Moved: Ed Callaway, Second: Soo-Young Chang

There was no discussion and no objections therefore the motion passed and the agenda was approved unanimously.

**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 in the meeting.

**Motion to approve the March meeting minutes (doc# 15-14-0179-00)**

Moved: Ed Callaway, Second: Noriyuki Sato  
There was no discussion and no objections therefore the motion passed and the minutes were approved unanimously.

**Scenario Preparation for Technical Guidance Document**

Soo-Young presented doc. # 15-14-0239-01 on the requirements for the scenarios to be used in the final proposals. The following Q&A ensued after the presentation.

* Soo-Young inquired about the use of mobility
* Noriyuki Sato said they did not consider mobile devices but changing link status
* Fumihide Kojima inquired about the need for routing between PANs
* Chair asked if the PAN coordinators would communicate using a backhaul
* Kojima-san suggested not to consider multi-PAN routing
* Verotiana Rabarijaona asked if the 10000 nodes-scenario is realistic
* Matt Gillmore confirmed that there could be real-life implementation with 1 coordinator managing 10000 thousands nodes based on existing Zigbee MRDs
* Soo-Young asked for clarification on "It should be possible to merge an independent subnet into a larger network when connectivity between them becomes available, providing both are using similar operating parameters. The merge operation should ideally take place without outside intervention. It should be possible for a network to operate as a number of independent subnets in the event of failure of parts of the network. " (TGD clause 6.1)
* Chair will attempt to check with Paul Chilton
* Chair asked if the data rate in slide 15 correspond to the data rate expected in real-life networks. Similar question with communication range on slide 16
* Verotiana suggested to work from the use cases to define realistic values
* Chair commented that were 5 scenarios in the proposal. Chair asked if the group had a preference towards any of them.
* Verotiana suggested creating scenarios based on the use cases
* Chair asked for a volunteer to create a use cases matrix with the related requirements
* Sato-san suggested that the exit point should be the PAN coordinator and that the other devices should be entry points

The Task Group went into recess (@3:25 PM) until the Tuesday AM1 session.

**Tuesday AM1 (5/13)**

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

Chair made call for secretary. Tim Godfrey volunteered.

**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.

**Presentation of Preliminary Proposals**

Following the agenda order in doc. # 15-14-0233-01:

Preliminary Proposal #1 and Q&A - doc. # 15-14-0279-01, entitled Hierarchical Mesh Tree Routing, by Verotiana et al., was presented. The following Q&A ensued after the presentation.

* Before final proposals, the TG would like to get input from vendors on realistic scenarios for comparison

Preliminary Proposal #2 and Q&A - doc. # 15-14-0286-00, entitled L2R Preliminary Proposal, by Sato, et al., was presented. A short Q&A ensued after the presentation.

* NTR

The Task Group went into recess (@10:00 AM) until the Tuesday AM2 session

**Tuesday AM2 (5/13)**

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

Chair made call for secretary. No one volunteered.

**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 in the meeting.

**Presentation of Preliminary Proposals**

Following the agenda order in doc. # 15-14-0233-01:

Preliminary Proposal #3 and Q&A - doc. # 15-14-0284-01, entitled Preliminary Proposal of L2 Routing for IEEE 802.15.4m TMCTP, by Lee et al., was presented. A short Q&A ensued after the presentation.

Preliminary Proposal #4 and Q&A - doc. # 15-14-0291-00, entitled L2R Preliminary Proposal, by Joo, et al., was presented. A short Q&A ensued after the presentation.

The Task Group went into recess (@12:10 AM) until the Wednesday PM1 session

**Wednesday PM1 (5/14)**

Chair called the meeting to order at 1:35 PM.

Chair made call for secretary. Verotiana volunteered.

**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 in the meeting.

**Joint Q/A on the preliminary proposals**

Chair asked if there were any questions regarding the proposals heard on Tuesday.

None were heard.

**Continuation of Scenario Preparation for Technical Guidance Document**

Soo-Young presented on the changes in doc. # 15-14-0239-02. The following Q&A ensued after the presentation.

* Kojima-san suggested to add scenarios A' and E' where the PAN coord is the entry and exit point.
* He also suggested that all the nodes can be entry points and exit points
* Sato-san agreed, adding that they consider the scenarios of data collection (Many to 1) and control (1 to many)
* Verotiana suggested to create scenarios based on the use cases and to gather realistic parameter values from the members of the TG
* Kojima-san asked how we can evaluate the performance of the routing if we use fixed data rate and fixed LFR.
* Soo-Young explained that he fixed the values

**Scenario Parameters**

Chair presented a table of parameters with respect to the use cases of the TGD. The doc. will be posted as doc. # 15-14-0319-00 after the mtg. The following discussion ensued.

* Soo-Young suggested that the last row should be changed from P2P to Many to One

* Ruben Salazar gave a definition of unicast and P2P

* The Chair recessed the session for 5 minutes

* Sato-san suggested to add P2P Unicast, broadcast, multicast rows
* Kojima-san asked what the difference between Unicast and P2P Unicast is
* Sato-san replied Unicast is MP2P or P2MP
* Kojima-san suggested changing Unicast to MP2P and P2MP
* Sato-san said that the Point in MP2P and P2MP is the PAN coord.
* Kojima-san suggested merging Unicast and P2P unicast; and Multicast and P2P Multicast
* Ruben is confused with the terms P2P Multicast and P2P Broadcast, and he added that there may be cases where the PAN coord is not always the source and the destination
* Kojima-san asked what the difference between P2MP and multicast is

The work on the parameters will continue on the teleconferences.

**TG10 Timeline review**

Chair presents the project schedule, doc. # 15-13-0645-04.

There is nothing to adjust at this time.

**Conference Calls**

Teleconference - Thurs. @ 7AM (Pacific), 1st call on Thurs., May 22nd.

TG will continue work on revising scenarios in TGD for Call for Final Proposals.

**Motion directing the chair to issue the Call for Final Proposals upon completion of editing the TGD**

Moved: Ed Callaway, Second: Noriyuki Sato

There was no discussion and no objections, therefore the motion passed.

**Motion to adjourn the meeting**:

Moved: Ed Callaway, Second: Fumihide Kojima.

There was no discussion and no objections, therefore the motion passed and the meeting was adjourned at 3:35 PM.