**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | **<IEEE802.15 WG minutes>** | |
| Date Submitted | [18 May 2012] | |
| Source | [Pat Kinney] [<Kinney Consulting LLC>] [Chicago, IL] | Voice: [+1.847.960.3715] Fax: [+1.847.790.3805] E-mail: [pat.kinney@ieee.org] |
| Re: | [802.15 Interim Meeting in Atlanta, Georgia] | |
| Abstract | [IEEE 802.15 Working Group Minutes] | |
| Purpose | [Official minutes of the Working Group Session] | |
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**IEEE 802.15 Interim Meeting – Session #78**

**Hyatt Regency Atlanta, Peachtree Center, Atlanta, Georgia, USA**

**May 13-18, 2012**

**Monday, 14 May 2012**

**8:02** 802.11, 802.15, 802.16, 802.18, 802.19, 802.21, and 802.22 Chairs called the joint meeting to order. IEEE 802.15 attendance is included as Annex A.

General announcements:

* Lunch is at Regency VII
* Social is at Hard Rock Cafe

Straw Poll of new attendees: 6

**8:03** IEEE patent policy

802.15 WG chair read the IEEE-SA instructions for the WG chair and displayed the four slides explaining patent policy and informed the attendees that additional information could be found on the PatCom web site.

Chair asked participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard in the appropriate WG.

802.15 WG chair read IEEE anti-trust policy.

**8:09** Financial report by Jon Rosdahl (11-12-0625-00, 15-12-0235-00)

* March 05, 2012 – $467,328.13
  + IEEE account: $325,524.45 +31,115.55 +50,000 +176.94 +150.96 = $406,967.90
  + Face-to-Face: $241,985.73 -95,776.96 +47,750 -143,798.54 +10,200 = $60,360.23
* April 30, 2012 – $586,817.38
  + IEEE account: $406,967.90 -$15,318.60 -$20.00 +$158.27 = $391,948.68
  + Face-to-Face: $60,360.23 +$42,900-$8,159.08 +$130,350-$30,582.45= $194,868.70
* Atlanta
  + Registration Income: $227,100 $209,400
    - Hotel Credits $0 $1,800
    - Registrations 350 318
  + Meeting Expense Estimate: $227,780 $213,215
    - AV $16,000 $16,400
    - Financial Fees $12,955 $11,670
    - Meeting Planner $41,650 $37,500
    - Food & Beverage $89,950 $83,160
    - Network Services $43,500 $40,510
    - Social $15,125 $15,125
    - Shipping $ 7,250 $ 7,500
    - Misc $ 1,350 $ 1,350
  + Surplus/(Deficit) $(680) $ (2,015)

**8:12** Wireless announcements by Rick Alfvin (15-12-019-02)

**8:13** IMAT by C Boyce: (15-12-0238-00)

**8:16** Review future sessions

* March 11-16, 2012, Hilton Waikoloa Village, Big Island, HI, USA
* May 13-18, 2012, Hyatt Regency Atlanta, Atlanta, GA, USA
* July 15-20, 2012, Grand Hyatt Manchester, San Diego, CA, USA
* September 16-21, 2012, Hyatt Grand Champions, Palm Springs, CA, USA
* November 11-16, 2012, Grand Hyatt San Antonio, San Antonio, TX, USA
* January 13-18, 2013, Hyatt Regency Vancouver, BC, CA, *802 Wireless Interim Session*\*
* March 17-21, 2013, Caribe Royale, Orlando, FL, USA, *802 Plenary Session*
* May 12-17, 2013, Hilton Waikoloa Village, Big Island, HI, USA, *802 Wireless Interim Session*\*
* July 14-19, 2013, Geneva*, 802 Plenary Session*
* September 15-20, 2013, Nanjing (tentative), *802 Wireless Interim Session*\*
* November 10-15, 2013, Hyatt Regency Reunion, Dallas, TX, USA, *802 Plenary Session*

**8:19 Working Group Updates**

* Documents 11-11-1595, 11-11-1596, 11-11-1597 help describe 802.11
* 802.11 by B Kramer (Marvell Semiconductor): 294 voters, 38 potential voters (11-12-0462)

TGrevmb - REVISION

TGaa - VIDEO TRANSPORT

TGac - VHT 5 GHz

TGad – VHT 60 GHz

TGae - QOS-MAN

TGaf- TVWS

TGah- S1G

TGai – FILS

SG: IDS (infrastructure service)

SG: CmmW - CHINA mmWAVE

802.15 by B Heile (171 voters, 20 nearly voters)

TG4j: MBAN

TG4k: LECIM

TG4m: TVWS

TG4n: CMB

TG4p: PTC

TG8: PAC

TG9: Key Management Protocol (KMP)

SG- SG4q ULP Ultra Low Power amendment

SG-PTC positive train control

IG- 15.7 Enhancements - Visible Light LED-ID, LBS, and RFID

802.16 by Roger Marks (71 voters)

Maintenance: 16r3 and 16.1 (minus WirelessMAN-Advanced)

Grid: 16n, 16.1a

M-M: 16p, 16.1b

SG: HetNet

SG: Metrology

802.18 by Michael Lynch (7 voters)

* FCC items
* Revision to 18-12-441

802.19 Ivan Reede (52 voters)

* TG1 - TVWS Coexistence: comment resolution of failed letter ballot

802.21 Subir Das

* TG21c – single radio handover
* TG21d – multicast group management

802.22 Mody (31 voters)

* TG2 Recommended Practice for Deployment of WRAN Systems
* TGa - MIBS
* TGb - Enhanced Broadband Services and Monitoring Applications

**8:46** Joint meeting adjourned

**9:31** B Heile (ZigBee Alliance), WG chair called the 802.15 WG plenary to order (15-12-199-03)

Chair reminded attendees that highlights of the IEEE-SA Standards Board Bylaws on Patents in Standards. Chair referred those who wished to review these policies that the IEEE-SA patent policy presentation slides 0-5 and reading the instructions for the WG Chair. (<http://standards.ieee.org/board/pat/pat-slideset.ppt>).

Chair asked participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard, to which there were no responses.

Chair reminded participants of anti-trust rules and obligations.

Approve/modify joint opening agenda (15-12-0199-03-0000)

* Moved by J Adams, seconded by A Astrin. Following neither discussion nor objection the agenda was approved.

Review and approve 802.15 WG minutes from the Waikoloa session (15-12-0125-00-0000)

* Moved by J Adams, seconded by A Astrin. Upon neither discussion nor objection the joint minutes were approved.

**9:37** Rules update by P Kinney

**9:40** Wireless Network Updates by Rick Alfvin (15-12-019-02)

* 186 voters and 26 nearly voters
* Rick described the attendance requirements for the week, 13 meetings must be attended to obtain credit for this session

**9:45** ECSG by J Gilb

* meets PM1

**9:50** Task Group updates

TG4k: since there is no business, Seong Soon Joo cancelled the only AM1 meeting

TG4m: since there is no business Mike McInnis canceled the only TG4f meeting

TG4p: will have only one short meeting today, others will be canceled

15.9: will have a meeting but will cancel Tuesday and Thursday meetings

**9:50** WG recessed

**Wednesday 16 May 2012**

**802.15 mid-session plenary meeting**

**10:32** Bob Heile called the meeting to order.

**802.18** by J Notor

* review of 3rd R&O on TV whitespace from FCC
* working on ITU-R letter

**802.19** by S Kato

* working on letter ballot comment resolutions
  + 116 comments complete

**TG4j (MBAN)** by Ray Krasinski

* resolving comments from LB81

**TG4k (LECIM)** by Pat Kinney

* completing 15-12-0089-05 preliminary draft

**TG4m (TVWS)** by SangSung Choi

* 10 preliminary proposals will be heard this week

**TG4n (CMB)** by Art Astrin

* completed first meeting, getting set up
* will send out a call for applications

**TG4p (PTC)** by Jon Adams

* working on technical guidance document
* agreed upon chair (Jon Adams)
* hearing presentation resulting from CFA

**TG8 (PAC)** by Myung Lee (CUNY)

* hearing CFA presentations
* will be discussing technical requirement documents

**TG9 (KMP)** by R Moskowitz (Verizon)

* hearing presentations

**SG4q** by Shariar Emami

* starting PAR discussion

**WNG** by P Kinney

* two presentations:
  + Letter Ballot 81 MAC Features
  + L2 Routing Demands for FAN

**AoB** none

**10:48** Recessed until Thursday at 18:30

**Thursday, 17 May 2012**

**18:29** 802.15 WG chair called the meeting to order (agenda 15-12-0199-03)

**18:31** TG4j (MBAN) Closing Report by Ray Krasinski (15-12-0292-00)

**18:34** TG4k (LECIM) Closing Report by Pat Kinney (15-12-0298-00)

**18:40** TG4m (TVWS) Closing Report by Phil Beecher (15-12-0297-00)

**18:42** TG4n (CMB) Closing Report by Art Astrin (15-12-0294-01)

Move to *affirm Art Astrin as chair of TG4n*: Moved by Ben Rolfe, seconded by James Gilb. Upon neither discussion nor objection the motion carries.

**18:46** TG4p (PTC) Closing Report by Jon Adams (15-12-0271-01)

Move to *affirm Jon Adams as chair of TG4p*: Moved by Ben Rolfe, seconded by James Gilb. Upon neither discussion nor objection the motion carries.

**18:49** TG8 (PAC) by M Lee (15-12-0295-00)

Move to *affirm Myung Lee as chair of TG8*: Moved by Jon Adams, seconded by Ben Rolfe. Upon neither discussion nor objection the motion carries.

**18:55** TG9 (KPM) by R Moskowitz (15-12-0290-01)

**18:58** SG4q by Shariar Emami (15-12-0289-00)

**19:01** LED by R Roberts

* wait until after July to determine if focus on position

**19:03** SCWNG closing report by Pat Kinney (15-12-0273-00)

##### L2 Routing IG was formed, with Clint Powell as chair

**19:05** SCMAG closing report by Pat Kinney

The purpose of a maintenance SC is to capture issues such as corrigenda, requests for clarification, etc.

Motion to *create a maintenance standing committee* moved by Pat Kinney, seconded by Ben Rolfe. Upon neither discussion nor objection the motion carries.

**19:07** 802.11 Liaison report by Clint Chaplin (15-12-299-00)

**19:17** 802.18 liaison report by John Notor (15-12-291-01)

**19:20** Motion *to adjourn* was made by R Alfvin, seconded by C Powell, upon no objection the motion carried, this session is adjourned.

**Annex A** Attendance = 90

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| **Last Name** | **First Name** | **Affiliation** |

|  |  |  |
| --- | --- | --- |
| Adams | Jon | Lilee Systems |
| Alfvin | Richard | Verilan |
| Ameen | Moshaddique | Inha University |
| Astrin | Arthur | Astrin Radio |
| Baykas | Tuncer | National Institute Of Information And Communications Technology (NICT) |
| Beecher | Philip | Bcc |
| Bynam | Kiran | Samsung |
| Cain | Brent | Itron Inc. |
| Calvert | Chris | Landis Gyr Group Worldwide |
| Canchi | Radhakrishna | Kyocera Communications Inc. |
| Chang | Soo-Young | California State University, Sacramento (Csus) |
| Chang | Sung-Cheol | Electronics And Telecommunications Research Institute (ETRI) |
| Chaplin | Clint | Samsung |
| Chasko | Stephen | Landis Gyr Group Worldwide |
| Cheong | Minho | Electronics And Telecommunications Research Institute (ETRI) |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dotlic | Igor | National Institute Of Information And Communications Technology (NICT) |
| Du | Jiadong | China Academy Of Telecommunication Research (Catr) |
| Emami | Shahriar | 802.15 IEEE Work Group For Wpan |
| Evans | David | Philips Electronics |
| Farserotu | John | Csem, Inc. |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Gilb | James | Tensorcom, Inc. |
| Haapola | Jussi | Centre For Wireless Communications / University Of Oulu |
| Harada | Hiroshi | National Institute Of Information And Communications Technology (NICT) |
| Heile | Robert | ZigBee Alliance |
| Hernandez | Marco | National Institute Of Information And Communications Technology (Nict) |
| Holcomb | Jay |  |
| Howard | David | On-Ramp Wireless, Inc. |
| Inoue | Satoru | K-Micro (Kawasaki Microelectronics) |
| Iwaoka | Mitsuru | Yokogawa Electric Corporation |
| Jeong | Wuncheol | Electronics And Telecommunications Research Institute (ETRI) |
| Jillings | Steven | Semtech Corporation |
| Jin | Sunggeun | Electronics And Telecommunications Research Institute (ETRI) |
| Joo | Seong-Soon | Electronics And Telecommunications Research Institute (ETRI) |
| Kambayashi | Toru | Toshiba Corporation |
| Kang | Hyunduk | Electronics And Telecommunications Research Institute (ETRI) |
| Kent | Jeritt | Analog Devices Inc. |
| Kim | Daegyun | Samsung |
| Kim | Jinkyeong | Electronics And Telecommunications Research Institute (ETRI) |
| Kim | Suhwook | LG Electronics |
| Kinney | Patrick | Kinney Consulting LLC |
| Kivinen | Tero | Authentec |
| Kohno | Ryuji | Yokohama National University |
| Krasinski | Raymond | Philips Electronics |
| Kwak | Byung-Jae | Electronics And Telecommunications Research Institute (ETRI) |
| Lee | Donghun | Electronics And Telecommunications Research Institute (ETRI) |
| Lee | Jae Seung | Electronics And Telecommunications Research Institute (ETRI) |
| Lee | Myung | Cuny - City University Of Ny |
| Li | Feng | China Academy Of Telecommunication Technology(Catt) |
| Li | Huan-Bang | National Institute Of Information And Communications Technology (NICT) |
| Li | Yong | Chongqing University Of Posts And Telecommunications |
| Liru | Lu | National Institute Of Information And Communications Technology (NICT) |
| Mizutani | Keiichi |  |
| Mori | Kenichi | Panasonic Corporation |
| Moskowitz | Robert | Verizon |
| Naganuma | Ken | Toko America Inc. |
| Ngo | Chiu | Samsung |
| Notor | John | Silver Spring Networks Inc. |
| Ohba | Yoshihiro | Toshiba Corporation |
| Park | Chanwoo | Samsung |
| Park | Jongae | Samsung Electronics |
| Park | Seung-Hoon | Samsung |
| Petrick | Albert | Jones-Petrick And Associates, Llc. |
| Powell | Clinton | Pwc, Llc |
| Pyo | Chang-Woo | National Institute Of Information And Communications Technology (Nict) |
| Randall | Karen | Nsa/Iad |
| Reede | Ivan | Amerisys Inc. |
| Roberts | Richard | Intel Corporation |
| Rolfe | Benjamin | Blind Creek Associates |
| Ryu | Kiseon | Lg Electronics |
| Salazar Cardozo | Ruben | Landis Gyr Group Worldwide |
| Sasaki | Shigenobu | Niigata University |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Seibert | Cristina | Silver Spring Networks Inc. |
| Shao | Huairong | Samsung Information Systems America, Inc. |
| Shimada | Shusaku | Yokogawa Co. |
| Shin | Changsub | Electronics And Telecommunications Research Institute (ETRI) |
| Song | Chunyi | National Institute Of Information And Communications Technology (Nict) |
| Takai | Mineo | Space-Time Engineering |
| Waheed | Khurram | Freescale Semiconductor, Inc. |
| Wamboldt | Jeffrey | Landis Gyr Group Worldwide |
| Wang | Xiang | Wuxi Sensingnet Industrialisation Research Institute |
| Yang | Yang | Wuxi Sensingnet Industrialisation Research Institute |
| Yee | Peter | Nsa/Iad |
| Yoon | Chanho | Electronics And Telecommunications Research Institute (ETRI) |
| Yun | Minhong | Electronics And Telecommunications Research Institute (ETRI) |
| Zeira | Eldad | Interdigital, Inc. |
| Zhao | Bingxuan |  |
| Zhu | Chunhui | Samsung |