**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 | [20 Jan 2012] | |
| Source | [Pat Kinney] [<Kinney Consulting LLC>] [Chicago, IL] | Voice: [+1.847.960.3715] Fax: [+1.630.524.9054] E-mail: [pat.kinney@ieee.org] |
| Re: | [802.15 Interim Meeting in Jacksonville, Florida] | |
| 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 #76**

**Hyatt Regency Riverview, Jacksonville, Florida**

**Jan 15-19, 2012**

**Monday, 16 Jan 2012**

**8:03** 802.11, 802.15, 802.16, 802.18, 802.19, and 802.22 Chairs called the joint meeting to order (15-11-871-01). IEEE 802.15 attendance is included as Annex A.

General announcements:

* Social will be at River City Brewing Company

Straw Poll of new attendees: 5

**8:05** 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 (11-12-0043-00)

* **September 18, 2011 - $391,736.35**
  + IEEE Account: $340,599.69 + $247.24 - $18,515.00 = $322,331.93
  + Face-to-Face: $69,404.42 = $69,404.42
* **November 06, 2011 - $431,742.15**
  + IEEE Account: $322,331.93 + $137.80 + $39,985.00 = $362,454.73
  + Face-to-Face: $69,404.42 - $117 = $69,287.42
* **December 30, 2011 - $562,934.39**
  + IEEE Account: $362,454.73 - $37266.95 + $150.84 + $185.83 =$325,524.45
  + Face-to-Face: $69,287.42 + $168,122.52 = $237,409.94
* Jacksonville
  + Registration Income:$240,050
  + Processing Fee $0
  + Registrations 349
  + Surplus (Deficit) $16,398

**8:12** Wireless announcements: (15-12-019-00)

Wireless Network Updates by Rick Alfvin

* <https://murphy.events.ieee.org/imat/login>

**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): 300 voters, 40 potential voters

TGaa - VIDEO TRANSPORT

TGac - VHT 5 GHz

TGad – VHT 60 GHz

TGae - QOS-Mgmt Frames

TGaf- TVWS

TGah- <1GHz

TGai – FILS

SG: IDS (infrastructure service)

SG: CMW (Chinese millimeter wave)

802.15 by B Heile (186 voters, 26 nearly voters)

WNG: next generation

TG4e: MAC enhancements

TG4f: RFID applications

TG4g: SUN applications

TG4j: MBAN

TG4k: LECIM

TG4m: TVWS

TG6: BAN

TG9: Key Management Protocol

SG-PAC peer aware communications

SG-PTC positive train control

SG-CMB Chinese medical band

802.16 by Rakesh Taori (87 voters)

* Maintenance: 16r3 and 16.1
* Grid: 16n, 16.1a
* M-M: 16p, 16.1p

802.18 by John Notor 18-12-002-02 (7 voters)

* Additional spectrum for Medical devices in 413-457 MHz
* Petition for rule making by Lockheed Martin
* Request for waiver to register certain TV receive sites
* Radiolocation in 78-81 GHz
* ITU-R documents

802.19 Steve Shellhammer 19-12-007-00 (55 voters)

* TG1 - TVWS Coexistence: prepare for WG letter ballot after this session

802.22 Mody (28 voters)

* recommended practice 802.22.2 going to SB
* Enhanced MIB and Mgmt Plane 802.22a
* 802.22b enhanced broadband services and monitoring applications

Architecture by P Nikolich

* Architecture document is out for comment to all 802 WGs

**8:47** Joint meeting adjourned

**9:31** B Heile (ZigBee Alliance), WG chair called the 802.15 WG plenary to order (15-12-871-02)

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, there were no responses.

Chair reminded participants of anti-trust rules and obligations.

Approve/modify joint opening agenda (15-11-0871-02-0000)

* Moved by B Rolfe, seconded by J Notor. Following neither discussion nor objection the agenda was approved.

Review and approve 802.15 WG minutes from the Atlanta session (15-11-0769-01-0000)

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

**9:37** Wireless Network Updates by Rick Alfvin (15-12-019-00)

* 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

TG4e: since there is no business, Seong Soon Joo cancelled the only AM1 meeting

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

TG4g: will have only one short meeting today, others will be canceled

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

**9:52** WG recessed

**Wednesday 18 Jan 2012**

**802.15 mid-session plenary meeting**

**10:30** Bob Heile called the meeting to order.

**10:31** **Mid-week status updates**

**TG4e**

* meetings were canceled in the opening plenary meeting

**TG4f**

* meetings were canceled in the opening plenary meeting

**WG802.18**

* received emails on support of request for changes to 433 MHz will submit them as a 802.18 document to FCC

**TG4g** by P Beecher (15-12-049-00)

* no matters to be resolved, adjourned for the week

**TG4j (MBAN)** by Ray Krasinski

* two presentations: update of FCC progress and status of European progress
* working on MAC features and draft text

**TG4k (LECIM)** by Pat Kinney

* Hearing proposals for draft text
* Will decide upon technical editor on Thursday

**TG4m (TVWS)** by SangSung Choi

* Presentation on channel model
* Discussion on technical guidance to continue

**TG6 (BAN)** by A Astrin

* no matters to be resolved, draft is in RevCom for approval

**TG9 (KMP)** by R Moskowitz

* vice chair (Peter Yee) and secretary (Paul Chilton) have been affirmed
* working on timeline and liaisons

**SG CMB** by Clint Powell

* Working on PAR and 5C, 15-12-005-03 and 15-12-007-03 respectively
* Added two new meetings on Thursday, PM1 and PM2
* Goal is to request WG approval at closing plenary

**SG PAC** by Myung Lee

* Working on PAR and 5C draft
* Will present at next WNG

**SG PTC** by Jon Adams (15-12-052-00)

* Working on PAR and 5C

*Motion: request that the PAR and Five Criteria contained in documents 15-11-0821-08 and 15-11-0876-06 respectively, be approved by the IEEE 802.15 WG and that the EC be requested to forward the PAR to NesCom*

Moved:  Jon Adams  Second: Michael McInnis.  Following no discussion the vote was taken with the results of 52/0/1, the motion carries

Motion: *That the WG chair be empowered to make editorial changes to the PTC PAR and 5C during the submission process*

Moved by J Adam and seconded by R Alfvin. Upon neither discussion nor objection the motion carries with unanimous consent

**WNG** by P Kinney

The WNG meeting will have three presentations:

* Group management and routing issues (21-12-009-01) by Subir Das
* PAC introduction (15-12-046-01) by M Lee, H Li, and S Park
* TG4e MAC changes (15-11-0484-02) by P Kinney

**AoB** none

**10:55** Recessed until Thursday at 18:30

**Thursday, 19 Jan 2012**

**18:30** WG chair called the meeting to order (agenda 15-11-0871-03)

**18:31** TG4e Closing Report

* There were no TG4e meetings at this session

**18:31** TG4f Closing Report

* There were no TG4f meetings at this session

**18:32** TG4j Closing Report by Ray Krasinski (15-12-0070-00)

**18:35** TG4k Closing Report by Pat Kinney (15-12-0066-00)

**18:38** TG4m Closing Report by Sangsung Choi (15-12-0069-00)

**18:42** TG6 Closing Report by Art Astrin (15-12-0054-00)

**18:46** TG9 (KPM) by Peter Yee (15-12-0059-02)

**18:52** SG-PAC by Myung Lee (15-12-065-00)

Motion: *request that the PAR and Five Criteria contained in documents 15-12-063-00 and 15-12-064-00 respectively, be approved by the IEEE 802.15 WG and that the EC be requested to forward the PAR to NesCom*

Moved: Myung Lee, second: Jon Adams.  Following no discussion the vote was taken with the results of 25/0/0, the motion carries

*Move to the authorize the 802.15 WG chair to make any needed editorial changes to the PAC PAR and 5C in support of the submission of these documents*

Moved by Myung Lee, Seconded by Art Astrin: Following neither discussion nor objection the motion carries with unanimous consent.

**19:01** SG-CMB by Clint Powell (15-12-074-00)

*Motion: request that the PAR and Five Criteria contained in documents 15-12-005-04 and 15-12-007-04 respectively, be approved by the IEEE 802.15 WG and that the EC be requested to forward the PAR to NesCom*

Moved:  Clint Powell,  Second: Betty Zhao.  Following no discussion the vote was taken with the results of 24/0/0, the motion carries

*Move to the authorize the 802.15 WG chair to make any needed editorial changes to the PAC PAR and 5C in support of the submission of these documents*

Moved by Clint Powell, Seconded by Betty Zhao: Following neither discussion nor objection the motion carries with unanimous consent.

**19:09** SG-PTC by Jon Adams (15-12-068-01)

**19:13** WNG closing report by Pat Kinney (15-12-0073-00)

**19:15** Architecture update by James Gilb

802.1 bridging is required for 802 WGs that defines two requirements: unique MAC address, Ether type (i.e. two octets long)

**19:26** 802.11 Liaison report by Al Petrick (15-12-079-00)

**19:33** 802.18 liaison report by John Notor (15-12-067-00)

**19:35** 802.19 by Shu Kato

**19:38** 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 = 109

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

|  |  |  |
| --- | --- | --- |
| Adams | Jon | Freescale Semiconductor, Inc. |
| Alfvin | Richard | Verilan |
| Ameen | Moshaddique | Inha University |
| Armstrong | Lee | US D |
| Astrin | Arthur | Astrin Radio |
| Baykas | Tuncer | NICT |
| Beecher | Philip | BCC |
| Callaway | Edgar | Sunrise Micro Devices, Inc. |
| Canchi | Radhakrishna | Kyocera Communications Inc. |
| Chang | Kuor-Hsin | Elster Electricity, LLC |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| Chikkam | Rama Kishore | Health Micro |
| Chilton | Paul | NXP Semiconductors |
| Chincholi | Amith | InterDigital, Inc. |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dotlic | Igor | NICT |
| Du | JiaDong | China Academy of Telecommunication Research (CATR) |
| Emami | Shahriar |  |
| Evans | David | Philips Electronics |
| Flammer | George | Silver Spring Networks Inc. |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Gottlib | Elad | Silver Spring Networks Inc. |
| Haapola | Jussi | Centre for Wireless Communications / University of Oulu |
| Hagino | Brian | Taiyo Yuden USA |
| Hara | Shinsuke | NICT |
| Heile | Robert F. | ZigBee Alliance |
| Hernandez | Marco | NICT |
| Ho | Jin-Meng | Texas Instruments Incorporated |
| Howard | David | On-Ramp Wireless, Inc. |
| Huh | Jeff | ETRI |
| Hwang | Jung-Hwan | ETRI |
| Jillings | Steven | Semtech Corporation |
| Jin | Sunggeun | ETRI |
| Johnson | Matthew | Itron Inc. |
| Joo | Seong-Soon | ETRI |
| Kain | Carl | Noblis |
| Kang | Hyunduk | ETRI |
| Kato | Shuzo | Tohoku University |
| Kent | Jeritt | Analog Devices Inc. |
| Kiernan | Brian | InterDigital Communications, LLC |
| kim | Daegyun | SAMSUNG |
| Kim | Kwangsoo | ETRI |
| Kim | Suhwook | LG ELECTRONICS |
| Kim | Youngsoo | Samsung Electronics |
| Kinney | Patrick | Kinney Consulting LLC |
| Kivinen | Tero | AuthenTec |
| Kojima | Fumihide | NICT |
| Krasinski | Raymond | Philips Electronics |
| Kwak | Jin-Sam | LG ELECTRONICS |
| Kwak | Kyung Sup | Inha University |
| Lan | Zhou | NICT |
| Le | Khanh Tuan | Texas Instruments Incorporated |
| Lee | Hyungsoo | ETRI |
| Lee | Jae Seung | ETRI |
| Lee | Myung | CUNY - City University of NY |
| Lee | Wookbong | LG ELECTRONICS |
| Lewis | Daniel | National ICT Australia Limited (NICTA) |
| Li | Feng | individual |
| Li | Huan-Bang | NICT |
| Li | Liang | Vinno Technologies Inc. |
| Li | Qing | InterDigital, Inc. |
| Lin | Wang | DT mobile |
| Liru | Lu | NICT |
| McInnis | Michael | The Boeing Company |
| Millet | Charles | Analog Devices Inc. |
| Moskowitz | Robert | Verizon |
| Muftic | Ibrahim | Parsons Brinckerhoff |
| Myers | Theodore | On-Ramp Wireless, Inc. |
| Naganuma | Ken | Toko America Inc. |
| Ngo | Chiu | SAMSUNG |
| Notor | John | Notor Research |
| Ohba | Yoshihiro | TOSHIBA Corporation |
| Park | JongAe | Samsung Electronics |
| Park | Seung-Hoon | Samsung Electronics |
| Patro | Ranjeet | Samsung Electronics |
| Peng | Xiaoming | Institute for Infocomm Research |
| Petrick | Albert | Jones-Petrick and Associates, LLC. |
| Powell | Clinton | PWC, LLC |
| Powell | Richard | Zarlink Semiconductor, Inc. |
| Rahman | Mohammad | NICT |
| Ramasastry | Jayaram | Silver Spring Networks Inc. |
| Randall | Karen T. | NSA/IAD |
| Reede | Ivan | AmeriSys Inc. |
| Reznik | Alex | InterDigital, Inc. |
| Roberts | Richard | Intel Corporation |
| Rolfe | Benjamin | Blind Creek Associates |
| Sasaki | Shigenobu | Niigata University |
| Sato | Naotaka | Sony Corporation |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Seibert | Cristina | Silver Spring Networks Inc. |
| Shah | Kunal | Silver Spring Networks Inc. |
| Shao | Huairong | SAMSUNG |
| Shellhammer | Stephen | Qualcomm Incorporated |
| Shimada | Shusaku | Yokogawa Co. |
| Sum | Chin-Sean | NICT |
| Tabroff | Ronald | Mueller Systems |
| Waheed | Khurram | Freescale Semiconductor, Inc. |
| Wang | Chonggang | InterDigital, Inc. |
| Wang | Junyi | NICT |
| Wang | Xiang | Shanghai institute of microsystem and information technology |
| Winkel | Ludwig | Siemens Corporation |
| Won | Eun Tae | Samsung Electronics |
| Yang | Yang | Wuxi SensingNet Industrialisation Research Institute |
| Yee | Peter | NSA/IAD |
| Yokoo | Kaoru | FUJITSU |
| Yoon | Chanho | ETRI |
| Yun | Minhong | ETRI |
| Zhu | Chunhui | SAMSUNG |
| Zuniga | Juan | InterDigital, LLC |