**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 | 11 November, 2011 |
| Source | [Pat Kinney][Kinney Consulting, LLC][Chicago, IL] | Voice: [1.847.960.3715]Fax: []E-mail: [pat.kinney@ieee.org] |
| Re: | 802.15 Plenary Meeting in Atlanta |
| Abstract | IEEE 802.15 Working Group Minutes |
| Purpose | Official minutes of the Working Group Session |
| 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. |
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**IEEE 802.15 Plenary Meeting – Session #75**

**Hyatt Regency, Atlanta**

**Nov 6 - 11, 2011**

**Monday, 7 November 2011**

**11:02 AM** The chair, Bob Heile, called the meeting to order.

The chairasked for new attendees to raise their hands; there were none.

Announcements:

* Social on Wednesday at 18:30

Chair informed the group of, and displayed the IEEE-SA patent policy presentation slides 0-5 (<http://standards.ieee.org/board/pat/pat-slideset.ppt>).

Chair asked the participants who wished to declare a Letter of Assurance (LoA) or 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 any of the ongoing activities within the 802.15 WG. There were no attendant responses to this call.

Chair displayed and read the standard IEEE Anti-Trust statement.

Rick Alfvin stated the information (IEEE 802.15-11-035-05) on registration requirements and the network information. Basic topics covered were:

* Registration requirements
* Network information
* Attendance sheets
* Voting Tokens
* Voting Rights
* Meeting Video Audio recording – not allowed

802.15 Work Group Membership status (as of 7 November 2011):

* 211 voting members
* 35 nearly voters
* 84 aspirants

Future Sessions (15-11-0492-00)

* 15-20 January, 2012, Hyatt Regency Jacksonville, Jacksonville, FL
* 11-16 March, 2012, Hilton Waikoloa Village, Big Island, HI, USA
* 13-18 May, 2012, Hyatt Regency Atlanta, Atlanta, GA, USA
* 15-20 July, 2012, Grand Hyatt Manchester, San Diego, CA, USA
* 16-21 September, 2012,Hyatt Grand Champion, Palm Springs, CA USA
* 11-16 November, 2012, Grand Hyatt San Antonio, San Antonio, TX,
* January, 2013 open
* March, 2013
* 12 – 17 May 2013, Hilton Waikoloa Village, Big Island, HI, USA
* July, 2013
* Sept, 2013 open
* 19 – 24 Jan, 2014
* March 2014
* 11 – 16 May 2014

Straw poll on Non-North American registration fees:

* those in favor of engaging in a non-north American interim venue incurring up to $1,000 registration fees with results of 28 in favor and 6 against (there were about 120 attendees)

Straw poll on interim flat registration fees

* those in favor of normalizing meeting fees on an annual basis were 7 in favor and 7 against

Chair presented the EC Meeting Report (IEEE 802.15-11-0zzz-00)

C Chaplin presented the Treasurer Report (IEEE 802.15-11-0771-01)

* 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

Chair asked to have the WG approve the agenda (document IEEE 15-10-0713-02-0000). Art Astrin moved *to approve the agenda*, with Ed Callaway seconding the motion. Following no objection the agenda was approved.

Ben Rolfe moved *to approve the previous meeting minutes (document 15-11-0625-0000)* and Art Astrin seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes

802 Architecture report by James Gilb

* Two meetings this session: Tuesday AM1, Thursday AM1 to resolve comments from letter ballot

802.18 Radio regulatory by John Notor

* Progeny request for waiver in 900 MHz ISM band that would jeopardize Part 15 device operation
* PTC spectrum
* NIST draft guidelines for securing WLANs
* License exempt wireless telegraphy
* Smart Grid
* Cross band operation of devices

802.19 by Shu Kato

* No updates

Task group reports follow:

Seong-Soon Joo presented the status for TG4e (MAC enhancement)

TG4e goals for week:

* Resolve comments from Recirc-2
* Prepare RevCom submission

Mike McInnis gave TG4f (RFID) goals

* Prepare RevCom submission

P Beecher gave TG4g (SUN) goals

* Resolve comments from Recirc-1
* Prepare RevCom submission

R Krasinski gave TG4j report:

* Review/evaluate 2 remaining proposals
* Develop baseline draft

P Kinney gave TG4k report:

* hearing preliminary proposals

TG4m by Sangsung Choi

* finalize by Thursday

TG6 by Arthur Astrin

* + - Resolve comments from Recirc-1
		- Prepare RevCom submission

SG PAC by Myung Lee

* working on PAR and 5C
* 7 presentations from call for presentations

TerraHz IG by Tomas Kürner

* + 3 technical presentations
	+ start working on technical expectations

SG KMP by Robert Moskowitz

* Working on PAR and 5C comments this week

IG SRU by

* Coexistence discussions

IG PTC by Jon Adams

* Weekly calls since early Oct
* Locomotive to track devices communications

WNG by P Kinney

* Request for interpretation

Rules by Pat Kinney

* Minor changes to OM to be presented in WNG

WNG for 802.11 By Clint Chaplin

* + Flexibility on Channel Access Allocations (11-11-1485-00-0wng Flexibility on Channel Access Allocations.pptx) – Antonio de la Oliva
	+ 802.11s Issues with Adhoc Mode in Mesh Networking (11-11-1492-00-0wng 802.11s Issues with Adhoc Mode in Mesh Networking.ppt) – Romana Challans
	+ Update to Improving the Case for Wireless LAN Transmit Power Control - Including to better service Mobile Telephones? () – Lawrence Zuckerman
	+ The better spectrum utilization for the future WLAN standardization (11-11-1464-00-0wng-the-better-spectrum-utilization-for-the-future-wlan-standardization.pptx) - Yasuhiko Inoue
	+ Discovery of ESS Services (11-11-1507-00-0wng-discovery-of-ess-services) - Stephen McCann
	+ Plans for January 2012

Motion: *The 802.15 Working Group agrees to allow Bob Heile to run for the position of 802.15 Chair position for the March 2012-March 2014 term should he choose to do so*. Moved by Pat Kinney and seconded by Rick Alfvin. Upon no discussion the vote was taken with the following results: 68/0/1, motion carries.

AoB - none

**12:19 PM** The chair recessed the meeting

Wednesday, 9 Nov 2011

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

WG Chair made announcements concerning social and logistics.

**10:35** WG18 liaison by J Notor

* Progeny LMS waiver issue (18-11-092)
* PTC frequency allocation discussion
* ITU SG1 Smart Grid discussion

**10:38** TG4e closing report by Seong-Soon Joo (ETRI) (15-11-0815-00)

* Completed all objectives for this session
* Motion: *802.15 WG requests unconditional approval from the EC to submit P802.15.4e-D08 draft amendment to RevCom.*
* Moved by Seong-Soon Joo, seconded by Pat Kinney.
* Upon no discussion, the vote was taken with the following results 56/0/0, motion carries.

**10:42** TG4f by Michael McInnis (15-11-780-00)

* Completed all objectives for this session
* Move: *802.15 WG requests unconditional approval from the EC to submit P802.15.4f-D07 draft amendment to RevCom:*
* Moved by Michael McInnis, seconded by Ben Rolfe
* Upon no discussion, the vote was taken with the following results 51/0/3, motion carries.

**10:47** TG4g by Phil Beecher

* Resolved all comments

10:48 TG4j by R Krasinski

* Working on merging the two remaining proposals

10:49 TG4k by Pat Kinney

* Heard merger proposals, discussion this afternoon, baseline adoption on Thursday

**10:50** TG4m by Sangsung Choi

* Discussions on Technical requirements and regulations

10:51 TG6-BAN by Art Astrin

* Resolving comments, 3 are yet to be resolved

**10:52** PAC SG by Myung Lee

* Hearing presentations
* Will start discussing PAR matters

**10:53** SG KMP by Bob Moskowitz

* Presented the revised PAR and 5C
* Question: 15.4e is not a standard yet, any risk? No
* Comment: SUN may not use all of the 4e enhancements, so this recommended practice may not apply to SUN devices
* Motion: *request that the PAR and Five Criteria contained in documents 15-11-0613-06 and 15-11-0665-05 be approved by the IEEE 802.15 WG and that the EC be requested to forward the PAR to NesCom*
	+ Moved by Robert Moskowitz, seconded by M McInnis
	+ Vote was taken with results of 41/1/9
* Motion *that the 802.15 WG empowers its WG chair to make minor content changes to the PAR and Five Criteria in response to EC discussion.*
	+ Moved by Robert Moskowitz, seconded by M McInnis
	+ Vote was taken with results of 42/0/3

**11:14** IG THZ by Tomas Kürner

* Issued a call for applications
* Working on a technical expectations document
* Next meeting will be in March

**11:15** IG SRU by Shoichi Kitazawa

* 13 participants at this session’s meeting

**11:16** PTCby Jon Adams

* 15 participants at this morning’s meeting
* intent is to request SG at closing plenary

**11:24** WG chair recessed the meeting until Thursday evening.

**Thursday, 10 November 2011**

**18:35** WG chair called the meeting to order

**18:36** TG4f (RFID) closing report by M McInnis (15-11-0844-00)

**18:39** Closing report for TG4g by P Beecher (15-11-0843-00-004g)

Motion: *802.15 WG requests conditional approval from the EC to submit P802.15.4g-D07 draft amendment to RevCom.*

Moved by Phil Beecher, seconded byJay Ramasastry

Following no further discussion the vote was taken with the results of

48/0/0, motion carries

**18:44** TG4m by Phil Beecher (15-11-0834-00)

**18:47** TG4j (MBAN) closing report by Ray Krasinski (15-11-0838-00)

**18:49** TG4k **(**LECIM) closing report by Pat Kinney (15-11-827-00)

**18:54** Closing report for TG6 by A Astrin (15-11-0846-00-0006)

Motion: *802.15 WG requests conditional approval from the EC to submit P802.15.6-D06 draft amendment to RevCom*

*Moved by* Art Astrin*, seconded by* Clint Chaplin

Discussion:

* Chuck Farlow (Medtronic) spoke against the motion
* WG chair advised the group that IEEE legal reviewed the draft and suggested changes to address safety concerns that have been applied to the draft.

Following no further discussion the vote was taken with the results of

45/1/3, motion carries.

**19:03** SG PAC by Myung Lee (15-11-0809-00)

Motion: *that the 802.15 Working Group seeks approval from the 802 EC to form a study group to develop the PAR and 5c documents for a communication standard supporting Peer Aware Communication.*

Moved by Myung Lee and seconded by Seunghoon Park.

Upon no discussion the vote was taken with the results of 48/0/0, the motion carries.

**19:07** IG KMP by Robert Moskowitz (15-11-841-01)

request was made for a WNG presentation at the January Interim for general interest in this group’s efforts

The issue of modifying the answer to question 6.1b in the KMP PAR to be Yes instead of No was discussed, with no objections from the WG.

**19:11** IGTerraHz by ThomasKürner(15-11-823-00)

**19:14** IG SRU by Shoichi Kitazawa (15-11-830-00)

**19:17** IG PTC by Jon Adams (15-11-840-02)

Motion: *that the 802.15 Working Group seeks approval from the 802 EC to form a study group to develop the PAR and 5c documents for a wireless communication standard supporting US-mandated Positive Train Control.*

Moved by Clint Chaplin, Seconded by Clint Powell

Upon no further discussion the vote was taken with the results of 49/0/0, the motion carries.

**19:27** SC WNG by Pat Kinney (15-11-0773-00)

* Motion: *move to request that the 802 EC approve the 802.15 WG response to the Interpretation Request as documented in 15-11-0837-00 as the official 802 response, and request approval to report and publish as appropriate.*
* Moved by Pat Kinney, seconded by Phil Beecher
* Following discussion, the vote was taken with the results of 46/0/1, the motion carries.
* Motion: *that the 802.15 Working Group seeks approval from the 802 EC to form a study group to develop the PAR and 5c documents for a PHY amendment to 802.15.4 to take advantage of newly available unlicensed spectrum for medical applications in China*.
	+ Moved by Liang Li
	+ Seconded by Pat Kinney
	+ Vote was taken with the result of 46/0/1, the motion carries

**19:33** 802.11 liaison report by C Chaplin (15-11-847-00)

**19:38** 802.18 liaison by J Notor (15-11-0832-00)

**19:40** 802.19 liaison byShu Kato

**19:46** Motion to adjourn was made by Mike Lynch and seconded by Ben Rolfe. Upon hearing no objection, the motion carries; the session is adjourned.

**Annex A**

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| 159 Attendees |  |

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| --- | --- | --- | --- |
| **Last** | **First**  | **Middle**  | **Affiliation** |
| Adams | Jon |  | Independent |
| Ajito | Katsuhiro |  | NTT Microsystem Integration Labs. |
| Alfvin | Richard |  | Verilan |
| Ameen | Moshaddique | Al | Inha University |
| Armstrong | Lee |  | US D |
| Asano | Takamasa |  | Fuji Electric |
| Assimiti | Robert |  | NIVIS |
| Astrin | Arthur |  | Astrin Radio |
| Bahr | Michael |  | Siemens AG, Corporate Technology |
| Batra | Anuj |  | Texas Instruments Incorporated |
| Baykas | Tuncer |  | National Institute of Information and Communications Technology (NICT) |
| Beecher | Philip |  | BCC |
| Boucachard | Philippe |  | Canon Research Centre France |
| Boytim | Mathew |  | Sensus |
| Britz | David |  | att labs |
| Brown | Monique |  | M. B. Brown Consulting |
| Buffington | John |  | Itron Inc. |
| Bynam | Kiran |  | Samsung Electronics |
| Cain | Brent |  | Itron Inc. |
| Cain | Peter |  | Agilent Technologies, Inc. |
| Callaway | Edgar |  | Sunrise Micro Devices, Inc. |
| Canchi | Radhakrishna | KYOCERA Corporation |
| Chang | Kuor-Hsin |  | Elster Solutions |
| Chang | Soo-Young |  | California State University, Sacramento (CSUS) |
| Chaplin | Clint |  | SAMSUNG |
| Chilton | Paul |  | NXP Semiconductors |
| Chitrakar | Rojan |  | Panasonic |
| Choi | Sangsung |  | Electronics and Telecommunications Research Instititute (ETRI) |
| Conley | Robert |  | Eigen Wireless |
| Davenport | David |  | GE Global Research |
| Dawkins | Mark |  | Toumaz Technology Ltd. |
| De Ruijter | Hendricus |  | Silicon Laboratories |
| Demessie | Yohannes |  | National Institute of Information and Communications Technology (NICT) |
| Dey | Sourav |  | On-Ramp Wireless, Inc. |
| Doppler | Klaus |  |  |
| Dotlic | Igor |  | National Institute of Information and Communications Technology (NICT) |
| Evans | David |  | Philips Electronics |
| Farlow | Charles | S | Medtronic, Inc. |
| Farserotu | John |  | CSEM, Inc. |
| Fennell | Kevin |  | Landis Gyr Group Worldwide |
| Grigat | Michael |  | Deutsche Telekom AG |
| Haapola | Jussi |  | Centre for Wireless Communications / University of Oulu |
| Hagino | Brian |  | Taiyo Yuden USA |
| Hara | Shinsuke |  | OCU |
| Harada | Hiroshi |  | National Institute of Information and Communications Technology (NICT) |
| Harada | Shigekazu |  | NEC Corporation |
| Harrington | Timothy |  | WhereNet - Zebra ESG |
| Heile | Robert |  | ZigBee Alliance |
| Hernandez | Lizardo |  | Landis Gyr Group Worldwide |
| Hernandez | Marco |  | IEEE-802 LAN/MAN Standards Committee |
| Hirakawa | Mitsuru |  | Innovation Core SEI |
| Ho | Jin-Meng |  | Texas Instruments Incorporated |
| Howard | David |  | On-Ramp Wireless, Inc. |
| Hwang | Jung-Hwan |  | Electronics and Telecommunications Research Instititute (ETRI) |
| Ikegami | Tetsushi |  | Meiji University |
| Inoko | Takuya |  | Niigata University |
| Inoue | Satoru |  | K-micro (Kawasaki Microelectronics) |
| Ionescu | Dumitru |  | Olympus Communication Technology of America, Inc. |
| Jeong | SangKwon |  | IMRC |
| Jillings | Steven |  | Semtech Corporation |
| Johnson | Matthew |  | Itron Inc. |
| Joo | Seong-Soon | Electronics and Telecommunications Research Instititute (ETRI) |
| Kain | Carl |  | Noblis, Inc. |
| Kang | Hyunduk |  | Electronics and Telecommunications Research Instititute (ETRI) |
| Kang | Seok | Kyu | Telecommunications Technology Association (TTA) |
| Kasamatsu | Akifumi |  | National Institute of Information and Communications Technology (NICT) |
| Kato | Shuzo |  | Tohoku University |
| Kent | Jeritt |  | Analog Devices Inc. |
| Kiernan | Brian |  | InterDigital, Inc. |
| Kim | Bonghoe |  | LG ELECTRONICS |
| kim | Daegyun |  | SAMSUNG |
| Kim | Jinkyeong |  | Electronics and Telecommunications Research Instititute (ETRI) |
| kim | junghun |  | Telecommunications Technology Association (TTA) |
| Kim | Kyung | Hee | Korea Railroad Research Institute (KRRI) |
| Kim | Myoung | Jin | Hankuk University of Foreign Studies (HUFS) |
| Kim | Suhwook |  | LG ELECTRONICS |
| King | Jeffrey |  | Elster Solutions |
| Kinney | Patrick |  | Kinney Consulting LLC |
| Kitazawa | Shoichi |  | ATR Wave Engineering Laboratories |
| Kivinen | Tero |  | AuthenTec |
| Kojima | Fumihide |  | National Institute of Information and Communications Technology (NICT) |
| Krasinski | Raymond |  | Philips Electronics |
| Kuerner | Thomas |  | TU Braunschweig |
| Kwak | Joseph |  | Epsilon Lambda Electronics |
| Kwak | Kyung | Sup | Inha University |
| Lamborn | Mark |  | Bombardier Transportation |
| Lan | Zhou |  | National Institute of Information and Communications Technology (NICT) |
| Le | Khanh | Tuan | Texas Instruments Incorporated |
| Lee | Jae | Seung | Electronics and Telecommunications Research Instititute (ETRI) |
| Lee | Myung |  | CUNY - City University of NY |
| Lewis | Daniel |  | National ICT Australia Limited (NICTA) |
| Li | Feng |  | China Academy of Telecommunication Technology(CATT) |
| Li | Huan-Bang |  | National Institute of Information and Communications Technology (NICT) |
| Li | Liang |  | Vinno Technologies Inc. |
| Li | Yong |  | ChongQing University of Posts and Telecomunications |
| Lynch | Michael |  | Nortel Networks |
| McInnis | Michael |  | The Boeing Company |
| McPartland | David |  | Toumaz Technology Ltd. |
| Millet | Charles |  | Analog Devices Inc. |
| Mori | Kenichi |  | Panasonic |
| Moskowitz | Robert |  | Verizon |
| Naganuma | Ken |  | Toko America Inc. |
| Ngo | Chiu |  | SAMSUNG |
| Nichter | Kevin |  | Lilee Systems |
| Notor | John |  | Notor Research |
| Omeni | Okundu |  | Toumaz Technology Ltd. |
| Paek | Alex |  | Xilinx, Inc. |
| Park | Chul |  | ERTI |
| Park | Hyungbai |  | KWISA |
| Park | Seung-Hoon |  | Samsung Electronics |
| Patro | Ranjeet |  | SAMSUNG |
| Petrick | Albert |  | Jones-Petrick and Associates, LLC. |
| Petro | John |  | NSA/IAD |
| Popa | Daniel |  | Itron, Inc |
| Powell | Clinton |  | PWC, LLC |
| Rahman | Mohammad | Azizur | National Institute of Information and Communications Technology (NICT) |
| Ramasastry | Jayaram |  | Silver Spring Networks Inc. |
| Reede | Ivan |  | AmeriSys Inc. |
| Roberts | Richard |  | Intel Corporation |
| Rolfe | Benjamin |  | Blind Creek Associates |
| Sakamoto | Kentaro |  | Tokyo Gas |
| Sasaki | Shigenobu |  | Niigata University |
| Schmidt | Michael |  | Atmel Corporation |
| Schwoerer | Jean |  | France Telecom |
| Seibert | Cristina |  | Silver Spring Networks Inc. |
| Shah | Kunal |  | Silver Spring Networks Inc. |
| Shao | Huairong |  | Samsung Information Systems America, Inc. |
| Shellhammer | Stephen |  | Qualcomm Incorporated |
| Shen | Jie |  | Wuxi SensingNet Industrialisation Research Institute |
| Sherman | Matthew |  | BAE Systems |
| Shimada | Shusaku |  | Yokogawa Co. |
| Simon | Jonathan |  | Dust Networks, Inc. |
| Siti | Massimiliano | STMicroelectronics |
| Son | Jaeseung |  | Samsung electronics |
| Song | Chunyi |  | National Institute of Information and Communications Technology (NICT) |
| Stadnik | Paul |  | Micro Systems Engineering |
| Sum | Chin-Sean |  | National Institute of Information and Communications Technology (NICT) |
| Sun | Chen |  | National Institute of Information and Communications Technology (NICT) |
| Sungi | Gu |  | samsung electronics |
| Tsubakihara | Jungo |  | Analog Devices Inc. |
| Umehira | Masahiro |  | Ibaraki University |
| Victor | Dalton |  | Silver Spring Networks Inc. |
| Wang | Junyi |  | National Institute of Information and Communications Technology (NICT) |
| Wang | Xiang |  | Wuxi SensingNet Industrialisation Research Institute |
| Watanabe | Hidenori |  | Niigata University |
| West | Nicholas |  | Landis Gyr Group Worldwide |
| Won | Eun | Tae | Samsung electronics |
| Wong | Ian |  | National Instruments Corporation |
| Xing | Tao |  | Shanghai institute of microsystem and infomation technology |
| Yaita | Makoto |  | NTT Microsystem Integration Labs |
| Yang | Yang |  | Wuxi SensingNet Industrialisation Research Institute |
| Yasukawa | Kazuyuki |  | Fuji Electric |
| Yee | Peter |  | NSA/IAD |
| Yokoo | Kaoru |  | FUJITSU |
| Yoon | Chanho |  | Electronics and Telecommunications Research Instititute (ETRI) |
| Youn | Kabqyu |  | LG ELECTRONICS |
| Yu | Heejung |  |  |
| Zhao | Mu |  | Huawei Technologies Co. Ltd |
| Zhou | Zheng |  | Beijing University of Posts and Telecommunications (BUPT) |