**IEEE P802.15**

**Wireless Personal Area Networks**

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| --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title |  |
| Date Submitted | [14 Nov 2013] |
| Source | [][][Chicago, IL] | Voice: [+1.847.960.3715]Fax: [+1.847.790.3805]E-mail: [pat.kinney@ieee.org] |
| Re: | [802.15 Interim Meeting in Dallas, Texas] |
| 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 #87**

**Hyatt Regency, Dallas, Texas, USA**

**November 10-14, 2013**

**Monday, 11 Nov 2013**

**10:58 AM** The chair, Bob Heile, called the meeting to order (15-13-0590-05)

The chairasked for new attendees to raise their hands; there was one.

Announcements:

* Ethernet 40th Monday night at 19:00
* Social on Wednesday at 18:30

Tuncer Baykas moved to *approve the agenda (document IEEE 15-13-0590-05-0000)* with Clint Powell seconding the motion. Following no objection the agenda was approved.

Rick Alfvin moved *to approve the previous meeting minutes (document 15-13-0525-00-0000)* and Pat Kinney seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes.

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 802.15-13-027-05) 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:

* 132 voting members
* 27 nearly voters
* 44 aspirants

Future Sessions

* January 19-24, 2014, Hyatt Century Plaza, Los Angeles, CA, USA, *802 Wireless Interim Session*
* March 16-21, 2014, China World Hotel, Beijing, CN, *802 Plenary Session.*
* May 11-16, 2014, Hilton Waikoloa Village, Big Island, HI, US, *802 Wireless Interim Session*
* July 13-18, 2014, Grand Hyatt Manchester, San Diego, CA, US*, 802 Plenary Session.*
* September 14-19, 2014, Hilton Athens under review
* November 2-7, 2014, Grand Hyatt San Antonio, San Antonio, TX, US, *802 Plenary Session*
* January 18-23, 2015, Hyatt Regency Atlanta, Atlanta, Georgia, USA *802 Wireless Interim Session*

Chair presented the EC Meeting Report (IEEE 802.15-13-0662-00)

B Rolfe presented the Treasurer Report (IEEE 802.15-13-0665-00)

* Sept 1, 2013 – $409,424.40

IEEE account: $386,061.74 +85.67-$21,515.00+88.07+83.64 = $364,804.12

Face-to-Face: $193,000.31 - $146,358.20 -$1,982.86 - $39.00 = $44,620.25

* Oct 31, 2013 – $409,466.33

IEEE account: $364,804.12 + $80.96 = $364,885.08

Face-to-Face: $44,620.25 – 39 = $44,581.25 (Sept 30)

**Status Reports**

802.18 by John Notor

* FCC request for comment for licensing 3650 MHz band
* ITU-T actions that may affect 802 wireless

802.15

TG4m TVWS by Sangsung Choi

* Sponsor ballot has closed with 166 comments
* Comment resolution effort this week

TG4n CMB by Kenichi Mori

* Working on draft

TG4p RCC by J Adams

* Finishing up Sponsor Ballot
* Looking for unconditional approval

TG4q ULP by Shariar Emami

* Reviewing proposals

TG8 PAC by Myung Lee

* Editing technical guidance doc

TG9 KMP by Robert Moskowitz

* Working on technical issues
* Text editing

TG10 L2R by Clint Powell

* Joint meeting with 802.1

SG 100G by Tomas Kürner

* drafting PAR and 5C
* participating in joint meeting with 802.1

SG SRU by Shoichi Kitazawa

* hearing presentations
* drafting PAR and 5C

IG LED by Prof Jang

* Hearing presentations on LED communications and LED ID

IG Dependability by Jussi Haapola

* Hearing presentations

SC WNG by P Kinney

* + 4 presentations:
		- Two innovative energy efficient IEEE 802.15.4 MAC sub-layer protocols with packet concatenation: employing RTS/CTS and multi-channel scheduled channel polling
		- Proposal for a Study Group focusing on ranging support for WPAN’s
		- Proposal for a Study Group focusing on a European PHY amendment to 802.15.4
		- Presentation on potential collaboration between IEEE and IETF in the context of operating large IP(v6) subnets over a composite of 15.4(e) mesh networks

SC MAG by P Kinney

* focus of meetings is Operations Manual updates and 802.15.4 revision

802 Architecture by James Gilb

* ballot ends today at midnight

AoB

* Eight 802 PARs to be considered this week
* Motion: *That the 802.15 Working Group gives its permission for Bob Heile to stand for re-election as the 802.15 Working Group Chair at his discretion.  Further, the Working Group gives its permission for Pat Kinney and Rick Alfvin to stand for re-election as 802.15 Working Group Co-Vice Chairs.*
	+ Moved by Ben Rolfe, seconded by Clint Powell
	+ Upon no further discussion, the vote was taken as 54/0/0, motion carries
* Recognition of contributors for IEEE 802.15.4k

**12:23 PM** The chair recessed the meeting

**Wednesday, 13 Nov 2012**

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

WG Chair made announcements concerning social and logistics.

**10:31** 802.18 TAG by John Notor

* Working on TAG 24 report

**10:35** TG4m by Sangsung Choi

* Will be creating RevCom package today for submission to 802 EC on Friday

**10:37:** TG4n by Liang Li

* Editing draft, submitted it to technical editor
* goal is to go for letter ballot after session closes

**10:38** TG4p by Monique Brown

* going to 10-day recirc today
* Will be creating RevCom package today for submission to 802 EC on Friday

**10:40** TG4q by Shariar Emami

* 3 more presentations to go

**10:41** TG8 (PAC) by Myung Lee

* looking to generate draft

**10:42** TG9 (KMP) closing report by Bob Moskowitz (15-13-0687-01)

**10:46** TG10 (L2R) by Clint Powell

* joint meetings with 802.1 were well attended and 802.1 understands 802.15.4 issues better

**10:48** SG SRU by Shoichi Kitazawa

* Heard presentations, working on PAR and 5C

**10:50** SG100G closing report by Thomas Kürner (15-13-0697-00)

* Heard presentations, working on PAR and 5C

Motion: *that the 802.15 Working Group seeks approval from the 802 EC to extend the study group in 802.15 to develop the PAR and 5c documents for 100 Gbit/s over beam switchable wireless point-to-point links*

Moved by: Thomas Küerner

Seconded by Katsuhiro Ajito

Upon no discussion, the vote was taken with the results of 56/0/0, the motion carries

**10:54** LED ID closing report by Yeong Min Jang

* 3 presentations

**10:55** IG Depend closing report by R Kohno (15-13-0699-00)

**11:00** SC maintenance closing report by Pat Kinney (15-13-0201-00)

* Changes to Operation Manual (15-10-0235-10) will continue on AM2, Thursday

**11:06** WG chair recessed the meeting until Thursday evening.

**Thursday, 14 Nov 2012**

**18:31** WG chair called the meeting to order

**18:34** TG4m **(**4TV) closing report by Sangsung Choi (15-13-0721-00)

*Move that 802.15 submits a request for conditional approval from the EC to submit the P802.15.4m draft amendment to RevCom.*

Moved: Phil Beecher

Seconded:  Jon Adams

Upon no discussion the vote was taken with the results of: 40/0/0, motion carries

**18:41** TG4n (CMB) closing report by Kenichi Mori (15-13-724-00)

*Move that the 802.15 WG start a WG Letter Ballot requesting approval to forward document d0P802-15-4n\_Draft\_Standard.pdf to Sponsor Ballot, pending the completion and inclusion of the edits from the WG technical editor.*

Moved by: Kenichi Mori

Seconded by: Ben Rolfe

Upon neither discussion nor objection the motion carries

**18:47** TG4p (PTC) closing report by Jon Adams (15-13-0713-01)

*Move that 802.15 submits a request for conditional approval from the EC to submit the P802.15.4p draft amendment to RevCom.*

Moved by Steve Jillings

Seconded by  John Notor

Upon no discussion the vote was taken with the results of: 37/0/0, motion carries

**18:51** TG4q **(**ULP) by Shariar Emami (15-13-0719-00)

**18:56** TG8 (PAC) closing report by Myung Lee (15-13-0725-00)

**19:00** TG10 (L2R) closing report by Clint Powell (15-13-0711-00)

**19:04** SG SRU by Shoichi Kitazawa (15-13-0717-00)

Motion: *that the 802.15 Working Group seeks approval from the 802 EC to extend the study group in 802.15 to develop the PAR and 5c documents for SRU*

Moved by Shoichi Kitazawa, seconded by Clint Powell

Upon no discussion the vote was taken with the results of 35/0/0, motion carries

**19:11** IGLED by Yeong Min Jang (15-13-0720-00)

Motion: *that the 802.15 Working Group seeks approval from the 802 EC to form a study group in 802.15 to develop the PAR and 5c for an amendment to 802.15.7 addressing Optical Camera Communications*

Moved by Yeong Min Jang, seconded by Jon Adams

Upon no discussion the vote was taken with the results of 32/0/0, motion carries

**19:15** SC closing report by Pat Kinney (15-13-0712-00)

Motion: *that the 802.15 WG approve the WG Operations Manual as stated in document 15-10-235-12 to be effective at the close of this session*

Moved by Pat Kinney, Seconded by Ben Rolfe

Discussion:

* ANA clause: it was noted that the inclusion of the addition of non-specific Managed Resource enumeration in 13.4 is problematic and would create unjustified additional work
* Motion to amend by adding “The 802.15 WG shall approve any new resource enumeration.” to 13.3.3. Upon completion of discussion, there was no objection, motion carries.

Upon completion of the motion to change, there was no further discussion nor objection, the motion carries.

Motion: *that the 802.15 Working Group seeks approval from the 802 EC to form a study group in 802.15 to develop the PAR and 5c documents for “802.15.4r – Common Ranging Protocol (CRP)”*

*Moved by Pat Kinney, seconded by Jon Adams*

*Vote results 32/0/0*

Motion:*that the 802.15 Working Group seeks approval from the 802 EC to form a study group in 802.15 to develop the PAR and 5c documents for “802.15.4s – EU Regional PHY Support (EUR)”*

*Moved by Pat Kinney, seconded by Steve Jillings*

*Vote results: 31/0/0, motion carries*

Motion: *that the 802.15 Working Group approves the formation of an Interest Group in 802.15 focused on collaboration with IETF 6TiSCH, to be named IG 6TiSCH*

*Moved by Pat Kinney, seconded by Clint Powell*

Upon neither discussion nor objection the motion carries

**19:33** Architecture by J Gilb

* 137 comments from the latest recirc

**19:35** 802.24 liaison by J Gilb

* finished 236 draft response
* completed smart grid response
* white paper is progressing

**19:36** 802.11 liaison report by C Chaplin

C Chaplin had a conflict and could not present the liaison report, he will post his presentation.

**19:38** 802.18 liaison by J Notor (15-13-0714-00)

**19:46**  Motion to adjourn was made by Jon Adams and seconded by Clint Powell. Upon hearing no objection, the motion carries; the session is adjourned.

**Annex A** Attendance = 129

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

|  |  |  |
| --- | --- | --- |
| Adams | Jon | Lilee Systems |
| Ajito | Katsuhiro | Microsystem Integration Laboratories NTT |
| Alfvin | Richard | Verilan |
| Ariyoshi | Masayuki | Advanced Telecommunications Research Institute International (ATR) |
| Ash | William | IEEE-Standards Association (IEEE-SA) |
| Barroca | Norberto | Instituto de Telecomunicacoes |
| Baykas | Tuncer | Tohoku University |
| Beecher | Philip | Wi-SUN Alliance |
| Beer | Frederik | University of Erlangen-Nuremberg, Fraunhofer IIS |
| Berger | Catherine | IEEE STAFF |
| Brown | Monique | M. B. Brown Consulting |
| Buffington | John | Itron Inc. |
| Bynam | Kiran | SAMSUNG |
| Cai | Yunlong | Huawei Technologies Co. Ltd |
| Calvert | Chris | Landis Gyr Group Worldwide |
| Canchi | Radhakrishna | Kyocera Communications Inc. |
| Cha | Jaesang | Seoul National University of Science and Technology(Seoul Tech) |
| Cha | Jaesun | Electronics and Telecommunications Research Institute (ETRI) |
| Chang | Sanghyun | Samsung electronics |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| Chaplin | Clint | Samsung Information Systems America, Inc. |
| Chilton | Paul | NXP Semiconductors |
| Cho | Seungkwon | Electronics and Telecommunications Research Institute (ETRI) |
| Choi | Sangsung | Electronics and Telecommunications Research Institute (ETRI) |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dolmans | Guido | Holst Centre / IMEC-NL |
| Dotlic | Igor | National Institute of Information and Communications Technology (NICT) |
| Eckert | Edward | Itron Communications, Inc. |
| Eggert | Dietmar | Atmel Corporation |
| Emami | Shahriar | Samsung Information Systems America, Inc. |
| Evans | David | Philips Electronics |
| Flammer | George | Silver Spring Networks Inc. |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Gilb | James | Tensorcom, Inc. |
| Gillmore | Matthew | Itron Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Gottlib | Elad | Silver Spring Networks Inc. |
| Grow | Robert | Intel Corporation |
| Haapola | Jussi | Centre for Wireless Communications / University of Oulu |
| Hara | Shinsuke | Osaka City University (OCU) |
| Harada | Hiroshi | National Institute of Information and Communications Technology (NICT) |
| Harrington | Timothy | WhereNet - Zebra ESG |
| Heile | Robert | ZigBee Alliance |
| Herbst | Thomas | Silver Spring Networks Inc. |
| Hernandez | Marco | National Institute of Information and Communications Technology (NICT) |
| Hiraga | Ken | NTT |
| Holcomb | Jay | Itron Inc. |
| Hong | Young-Jun | SAMSUNG |
| Howard | David | Silver Spring Networks Inc. |
| Huang | Li | Holst Centre / IMEC-NL |
| Huang | Rongsheng | Olympus Communication Technology of America, Inc. |
| Iwaoka | Mitsuru | Yokogawa Electric Corporation |
| Jang | Yeong Min | Kookmin University |
| Jeong | Wuncheol | Electronics and Telecommunications Research Institute (ETRI) |
| Jillings | Steven | Semtech Corporation |
| Jung | Soojung | Electronics and Telecommunications Research Institute (ETRI) |
| Kang | Hyunduk | Electronics and Telecommunications Research Institute (ETRI) |
| Kato | Shuzo | Tohoku University |
| Kato | Toyoyuki | Anritsu Engineering Co., Ltd. |
| Kent | Jeritt | Analog Devices Inc. |
| Kim | Basiliojun | Korea Smart Grid Association |
| Kim | Byoung hak | Electronics and Telecommunications Research Institute (ETRI) |
| Kim | Hyung-Jin | Electronics and Telecommunications Research Institute (ETRI) |
| Kim | Jaehwan | Electronics and Telecommunications Research Institute (ETRI) |
| Kim | Junghun | Telecommunications Technology Association (TTA) |
| Kim | Seokki | Electronics and Telecommunications Research Institute (ETRI) |
| Kim | Suhwook | LG ELECTRONICS |
| Kim | Youngsoo | SAMSUNG |
| Kinney | Patrick | Kinney Consulting LLC |
| Kitazawa | Shoichi | ATR Wave Engineering Laboratories |
| Kivinen | Tero | INSIDE Secure |
| Kohno | Ryuji | YNU/CWC-Nippon |
| Kojima | Fumihide | National Institute of Information and Communications Technology (NICT) |
| Kuerner | Thomas | TU Braunschweig |
| Kuroda | Masahiro | National Institute of Information and Communications Technology (NICT) |
| Kwak | Byung-Jae | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Hyun | etri |
| Lee | Ilgu | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Jae Seung | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Jae-Ho | ETRI |
| Lee | Myung | CUNY - City University of NY |
| Lee | Yuro | Electronics and Telecommunications Research Institute (ETRI) |
| li | Hongkun | InterDigital, Inc. |
| Li | Huan-Bang | National Institute of Information and Communications Technology (NICT) |
| Li | Liang | Vinno Technologies Inc. |
| Li | Qing | InterDigital, Inc. |
| Liru | Lu | National Institute of Information and Communications Technology (NICT) |
| Lynch | Michael | Nortel Networks |
| Mc Laughlin | Michael | DecaWave |
| McInnis | Michael | The Boeing Company |
| Melet | Patrick | Landis Gyr Group Worldwide |
| Mori | Kenichi | Panasonic Corporation |
| Moskowitz | Robert | Verizon |
| Na | Woongsoo | Chung-Ang University |
| Nair | Jinesh | SAMSUNG |
| Ngo | Chiu | SAMSUNG |
| Notor | John | Silver Spring Networks Inc. |
| Oh | Jong-Ee | Electronics and Telecommunications Research Institute (ETRI) |
| Ohba | Yoshihiro | TOSHIBA Corporation |
| Ozaki | Kazuyuki | FUJITSU LABORATORIES LIMITED |
| Park | Taejoon | Electronics and Telecommunications Research Institute (ETRI) |
| Popa | Daniel | Itron Inc. |
| Powell | Clinton | PWC, LLC |
| Powell | Richard | Microsemi Corporation |
| Rabarijaona | Verotiana | National Institute of Information and Communications Technology (NICT) |
| Ramasastry | Jayaram | Silver Spring Networks Inc. |
| Roberts | Richard | Intel Corporation |
| Rolfe | Benjamin | Blind Creek Associates |
| Russell | Paul | InterDigital, Inc. |
| Salazar Cardozo | Ruben | Landis Gyr Group Worldwide |
| Sasaki | Shigenobu | Niigata University |
| Sato | Naotaka | Sony Corporation |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Seibert | Cristina | Silver Spring Networks Inc. |
| Sekine | Norihiko | National Institute of Information and Communications Technology (NICT) |
| Shao | Huairong | Samsung Information Systems America, Inc. |
| Shimada | Shusaku | Schubiquist Technologies Guild |
| Shin | ChangSub | Electronics and Telecommunications Research Institute (ETRI) |
| Shin | CheolHo | Electronics and Telecommunications Research Institute (ETRI) |
| Shin | Wooram | Electronics and Telecommunications Research Institute (ETRI) |
| Song | Chunyi | National Institute of Information and Communications Technology (NICT) |
| Stuebing | Gary | Cisco Systems, Inc. |
| Taylor | Larry | DTC (UK) |
| Verso | Billy | DecaWave |
| Villardi | Gabriel | National Institute of Information and Communications Technology (NICT) |
| Yee | Peter | NSA/IAD |
| Yu | Chang Wahn | Electronics and Telecommunications Research Institute (ETRI) |
| Zhang | Yan | Holst Centre / IMEC-NL |
| Zhou | Mingtuo | National Institute of Information and Communications Technology (NICT) |