**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 | [20 Mar 2014] | |
| 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 Beijing, China] | |
| Abstract | [IEEE 802.15 Working Group Minutes] | |
| Purpose | [Official minutes of the Working Group Session] | |
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**IEEE 802.15 Plenary Meeting – Session #89**

**China World Hotel, Beijing, China**

**March 16-20, 2014**

**Monday, 17 Mar 2014**

**11:02 AM** The chair, Bob Heile, called the meeting to order (15-13-0099-05)

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

Announcements:

* Waikoloa hotel bookings are going fast, please make your reservations
* No Social on Wednesday

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.

Tim Godfrey moved to *approve the agenda (document IEEE 15-13-0099-05-0000)* with Clint Powell seconding the motion. Following no objection the agenda was approved.

Rick Alfvin moved *to approve the previous meeting minutes (document 15-14-0031-00-0000)* and Clint Powell seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes.

Rick Alfvin stated the information (IEEE 802.15-14-0035-01) 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:

* 131 voting members
* 15 nearly voters
* 15 aspirants

Chair presented the EC Meeting Report (IEEE 802.15-14-0161-00)

Future Sessions

* 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, Athens, Greece *802 Wireless Interim Session*
* November 2-7, 2014, Grand Hyatt San Antonio, San Antonio, TX, US, *802 Plenary Session*
* January 11-16, 2015, Hyatt Regency Atlanta, Atlanta, Georgia, USA *802 Wireless Interim Session*
* March 8-13, 2015, Barcelona, Spain (TBC), *802 Plenary Session.*
* May 10-15, 2015, Hyatt Regency Vancouver, Vancouver BC, CA *802 Wireless Interim Session.*

B Rolfe presented the Treasurer Report (IEEE 802.15-14-0149-00)

Oct 31, 2013 – $409,466.33

* IEEE account: $364,804.12 + $80.96 = $364,885.08
* Face-to-Face: $44,620.25 – 39 + 9600 – 147.75 = $54,033.50

Dec 31, 2013 – $597,980.08

* IEEE account: $364,885.08 + 83.67 + 80.99 + 21,515 -25 = $386,539.74
* Face-to-Face: $44,581.25 + 95,700 – 32,306.83 +104,850 – 10,836.33 = $211,440.34

Feb 28, 2014 – $432,242.38

* IEEE account: $386,539.74 + 87.84 + 88.66 = $386,716.24
* Face-to-Face: 211,440.34 - 211,440.34 + 90,600.00 - 46,283.81 + 650 - 210,880.39 = 45,526.14

**Status Reports**

802.15

TG4m TVWS by Sangsung Choi

* Working on RevCom comments

TG4n CMB by Liang Li

* Working on resolutions for 250 LB comments

TG4p RCC by B Rolfe

* Working on RevCom comments

TG4q ULP by Alan Chui

* Reviewing final two proposals

TG8 PAC by Huan-Bang Li

* Hearing proposals

TG9 KMP by Peter Yee

* Finalizing a draft

TG10 L2R by Clint Powell

* Working on guidance document

SG 100G by Tomas Kürner

* Resolve any comments from 802 WG
* participating in joint meeting with 802.1
* channel modeling presentation

SG SRU by Shoichi Kitazawa

* discussing scope
* drafting PAR and CSD

TG4r by Dietmar Eggert

SG7a LED by Prof Jang

* working on PAR and CSD
* hearing presentations

IG Dependability by Ryuji Kohno

* Hearing presentations

SC WNG by P Kinney

* + 1 presentation:IEEE 802.15.4 Performance In Heavily Loaded Mixed Protocol Environments

SC MAG by P Kinney

* focus of meetings is Operations Manual updates and 802.15.4 revision

802 Architecture by James Gilb

* going for conditional approval

802.24 working on scope expansion

AoB

March 2014 Officer Elections

* Bob Heile had stated his intention to run again for Chair position
* Rick Alfvin and Pat Kinney had stated their intention to run for the 802.15 vice-Chair positions
* Motion to *affirm B Heile as Chair of 802.15* vote taken as 28/0/1
* Motion to *affirm P Kinney as First Vice Chair of 802.15*, vote was taken as 30/0/0
* Motion to *affirm R Alfvin as Second Vice Chair of 802.15*, vote was taken as 33/0/0

**12:08 PM** The chair recessed the meeting

**Wednesday, 19 Mar 2014**

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

WG Chair made announcements concerning social and logistics.

**10:33** 802.18 TAG by Ben Rolfe

* Discussion on rules allowing very high power at the low end of the 2.4 GHz band

**10:34** TG4m by Sangsung Choi

* Waiting for RevCom responses

**10:35:** TG4n by Liang Li

* Resolving 240 LB comments

Motion: That *802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the 802.15.4n draft standard with the following membership: Arthur Astrin, Kenichi Mori, Masahiro Kuroda, Dietmar Eggert, Rick Powell, Wei Xia Zou and Liang Li. The 802.15.4n BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the 802.15.4n draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences announced to the reflector at least 7 days in advance.*

* Moved by Liang Li; Seconded by  Ben Rolfe
* Upon neither discussion nor objection the motion carries

**10:38** TG4q by Allan Choi

* Merging final two proposals

**10:40** TG8 (PAC) by Myung Lee

* Heard all 16 proposals

**10:41** TG10 (L2R) by Clint Powell

* Working on guidance for proposers

**10:42** SG SRU by Shoichi Kitazawa

* Heard presentations, working on PAR and CSD

**10:43** SG100G report by Thomas Kürner

* Heard presentation on 802.15.3 MAC, working on resolutions to PAR and CSD comments

**10:56** SG 4r by Dietmar Eggert (15-14-0181-00, 15-14-0182-00)

* Resolved comments from NesCom and WGs

WG Motion: *request that the PAR and CSD contained in documents 15-14-0075-04 and 15-14-0076-04, respectively, be approved by the 802.15 WG and that the 802 EC be requested to forward the revised PAR to NesCom. The 802.15 working group chair and technical editor are authorized to make additional modifications to the PAR and CSD as needed to reflect EC discussion at its closing meeting.*

Moved: Dietmar Eggert

Second: Ben Rolfe

Upon no discussion the vote was taken with the following results: 34/0/0, motion carries

**11:07** IG LED ID closing report by Yeong Min Jang

* 3 presentations

**11:08** IG Depend report by R Kohno

* hearing presentations on various application spaces

**11:12** IG 6T by Pat Kinney

* no meetings yet, Wed PM2 is first meeting this session

**11:13** SC maintenance report by Pat Kinney

* working on revision, issues with standards, and op manual changes

**11:15** SC WNG by Pat Kinney

* IEEE 802.15.4 Performance In Heavily Loaded Mixed Protocol Environments

**11:16** WG chair recessed the meeting until Thursday evening.

**Thursday, 20 Mar 2014**

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

**18:32 Motion**: *that the 802.15 Working Group seeks approval from the 802 EC to extend the four study groups in 802.15 to develop PAR and CSD documents*

Moved by Thomas Kürner, seconded by Tim Godfrey

Upon no discussion the vote was taken with the results of 23/0/0, motion carries

**18:34** TG4m **(**4TV) motion by Phil Beecher

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the balloting of the 802.15.4m draft standard with the following membership: CS Sum, C Powell, P Beecher, Soo-Young Chang, H Harada, B Rolfe, K Waheed, R Salazar, C Seibert, M Gillmore, J Kent, F Kojima, A Liru, M Zhou, K Shah, J Gilb, Jaehwan Kim, with P Beecher the chair of this BRC. The 802.15.4m BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the 802.15.4m draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences announced to the reflector at least 7 days in advance.*

Moved: Phil Beecher

Seconded:  Gary Stuebing

Upon no discussion and no opposition, motion carries

**18:38** TG4n (CMB) closing report by Liang Li (15-14-199-00)

**18:42** TG4p (RCC) motion by Ben Rolfe

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the balloting of the 802.15.4p draft standard with the following membership: Monique Brown, John Notor, Jon Adams, Benjamin Rolfe, with B Rolfe the chair of this BRC. The 802.15. 4p BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the 802.15. 4p draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences announced to the reflector at least 7 days in advance.*

Moved by Ben Rolfe

Seconded by Phil Beecher

Upon no discussion nor opposition the motion carries

**18:46** TG4q **(**ULP) by Allan Zhu (15-14-0201-01)

**18:50** TG8 (PAC) closing report by Myung Lee (15-14-0202-00)

**18:53**  TG9 (KMP) closing report by Peter Yee (15-14-0195-00)

**18:56** TG10 (L2R) closing report by Clint Powell (15-14-0180-00)

**19:01** SG SRU by Shoichi Kitazawa (15-14-0187-00)

**19:04** SG 3d (100G) by Thomas Kürner (15-14-0192-01)

Motion: *request that the PAR and CSD contained in documents 15-13-523-06 and 15-13-522-05, respectively, be approved by the 802.15 WG and that the 802 EC be requested to forward the revised PAR to NesCom. The 802.15 working group chair and technical editor are authorized to make additional modifications to the PAR and CSD as needed to reflect EC discussion at its closing meeting.*

Moved by: Thomas Kürner

Seconded by Ken Hiraga

Upon no discussion the vote was taken with the results of 24/0/1

Motion: *That the 802.15 WG authorizes the WG chair to submit the amended PAR, document 15-13-523-07as the version of the PAR that is submitted to NesCom.*

*Moved by Thomas Kürner*

*Seconded by James Gilb*

*Upon no discussion the vote was taken with the results of 25/0/1, motion carries*

**19:28** SG 4r (DMT) by Dietmar Eggert (15-14-182-02)

**19:32** SG7aOCC by Yu Zeng (15-14-0203-01)

**19:35** IG Dep by Ryuji Kohno (15-14-0204-00)

**19:41** IG 6 tisch by Pat Kinney (15-14-0205-00)

**19:45** SC closing report by Pat Kinney (15-14-0196-00)

Motion: *that the 802.15 Working Group approves the formation of an Interest Group in 802.15 focused on 802.15.4 security, to be named IG Sec with Tero Kivinen**as chair*

Upon neither discussion nor objection the motion carries

**19:52** 802.11 liaison report by C Chaplin (15-14-0207-00)

**20:05** 802.24 liaison by J Gilb

* looking to expand scope to address vertical applications

**20:11**  Motion to adjourn was made by Clint Powell and seconded by Ben Rolfe. Upon hearing no objection, the motion carries; the session is adjourned.

**Annex A** Attendance = 77

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

|  |  |  |
| --- | --- | --- |
| Alfvin | Richard | Verilan |
| Beecher | Philip | Wi-SUN Alliance |
| Boucachard | Philippe | Canon Research Centre France |
| 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) |
| Chang | Kuor-Hsin | Elster Solutions |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| Chaplin | Clint | Samsung Information Systems America, Inc. |
| Choi | Sangsung | Electronics and Telecommunications Research Institute (ETRI) |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dotlic | Igor | National Institute of Information and Communications Technology (NICT) |
| Dou | Jianqing | Southeast University, China |
| Eggert | Dietmar | Atmel Corporation |
| Evans | David | Philips Electronics |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Gilb | James | Tensorcom, Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Golmie | Nada | National Institute of Standards and Technology (NIST) |
| Hach | Rainer | Nanotron Technologies GmbH |
| 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 |
| Hong | Young-Jun | SAMSUNG |
| Horisaki | Koji | TOSHIBA Corporation |
| Hosako | Iwao | National Institute of Information and Communications Technology (NICT) |
| Huang | Li | Holst Centre / IMEC-NL |
| Ikegami | Tetsushi | Meiji University |
| Jang | Yeong Min | Kookmin University |
| Joo | Seong-Soon | Electronics and Telecommunications Research Institute (ETRI) |
| Kang | Hyunduk | Electronics and Telecommunications Research Institute (ETRI) |
| Kasamatsu | Akifumi | National Institute of Information and Communications Technology (NICT) |
| Kim | Jaehwan | 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 |
| Korhonen | Jouni | Broadcom Corporation |
| Kuerner | Thomas | TU Braunschweig |
| Kuroda | Masahiro | National Institute of Information and Communications Technology (NICT) |
| Kwak | Byung-Jae | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Jae Seung | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Myung | CUNY - City University of NY |
| Lee | Sangjae | Electronics and Telecommunications Research Institute (ETRI) |
| Li | Huan-Bang | National Institute of Information and Communications Technology (NICT) |
| Li | Liang | Vinno Technologies Inc. |
| Li | Qing | InterDigital, Inc. |
| Lynch | Michael | Nortel Networks |
| McLaughlin | Michael | DecaWave |
| Mingrui | ZOU | china academy of engineering physics |
| Mori | Kenichi | Panasonic Corporation |
| Ogawa | Hiroyo | Association of Radio Industries and Businesses (ARIB) |
| Ozaki | Kazuyuki | FUJITSU LABORATORIES LIMITED |
| P S Bhat | Chandrashekhar | SAMSUNG |
| Park | Seung-Hoon | Samsung |
| Powell | Clinton | PWC, LLC |
| Rabarijaona | Verotiana | National Institute of Information and Communications Technology (NICT) |
| Rolfe | Benjamin | Blind Creek Associates |
| Ryu | Cheol | Electronics and Telecommunications Research Institute (ETRI) |
| Salazar Cardozo | Ruben | Landis Gyr Group Worldwide |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Shimada | Shusaku | Schubiquist Technologies Guild |
| Stuebing | Gary | Cisco Systems, Inc. |
| Toshimitsu | Kiyoshi | TOSHIBA Corporation |
| Verso | Billy | DecaWave |
| Villardi | Gabriel | National Institute of Information and Communications Technology (NICT) |
| Xu | Dayin | Rockwell Automation |
| Yang | Guang-Qi |  |
| Yee | Peter | NSA/IAD |
| Yu | Xiaopeng | Zhejiang University |
| Zeng | Yu | China Telecom |