**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 | [13 Mar 2015] | |
| 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 Berlin, Germany] | |
| 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 #95**

**Estrel Hotel, Berlin, Germany**

**Mar 9-12, 2015**

**Monday, 9 Mar 2015**

**10:31 AM** The chair, Bob Heile, called the meeting to order (15-15-0101-01)

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

Announcements:

* Hyatt Vancouver early bird hotel rates end 3 April 2015, please make your reservations

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.

C Powell moved to *approve the agenda (document IEEE 15-15-0101-02-0000)* with R Alfvin seconding the motion. Following no objection the agenda was approved.

R Alfvin moved *to approve the previous meeting minutes (document 15-15-0024-00-0000)* and C 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 802.15-15-0182-00) 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:

* 99 voting members
* 17 nearly voters
* 49 aspirants

Chair presented the EC Meeting Report (IEEE 802.15-15-0188-00)

Future Sessions

* May 10-15, 2015, Hyatt Regency Vancouver, Vancouver BC, CA *802 Wireless Interim Session.*\*
* July 12-17, 2015, Hilton Waikoloa Village, Big Island, HI, US, *802 Plenary Session.*
* September 13-18, 2015, Centara Bangkok, Bangkok, Thailand, *802 Wireless Interim Session.\**
* November 8-13, 2015, Hyatt Regency Dallas, Dallas, TX, USA, *802 Plenary Session.*
* January 17-22, 2016, Hyatt Regency Atlanta, Atlanta, GA, USA, *802 Wireless Interim Session.*\* **(100th Session of 802.15)**
* March 13-18, 2016, Sands Venetian Hotel Macau, PRC (TBC), 802 Plenary Session.
* May 15-20, 2016, Hilton Waikoloa Village, Kona, HI, USA, 802 Wireless Interim Session.\*
* July 24-29, 2016, Grand Hyatt Manchester, San Diego, CA, USA, 802 Plenary Session

The Treasurer Report will be given at the midweek plenary

**Status Reports**

802.15

TG3d by T Kürner

* Review and Discuss Contributions

IG THz by T Kürner

* Starts again, ITU-R discussion

TG4n CMB by B Heile

* Completed first recirculation
* Resolve Letter Ballot comments
* Seek approval to start Sponsor Ballot

TG4q ULP by Chiu Ngo

* + Completed recirc
  + Objective is to resolve received comments

TG4r ranging by B Heile

* + Work on how to proceed given lack of chair

TG4s SRU by Shoichi Kitazawa

* Work on Technical Guidance Doc

TG7.1 LED by Yeong Min Jang

* Secure approval for the PAR and CSD

TG8 PAC by M Lee

* Continue work on draft

TG9 KMP by P Yee

* Comment resolution

TG10 L2R by Clint Powell

* Getting draft ready for LB after session

SG 3e by T Kürner

* Work on PAR and CSD comments

IG HRSC by Junhyeong Kim

* Issue a CFP

IG dep by R Kohno

* Review CFI responses from auto industry and medical industry

SC WNG by P Kinney

* 2 presentations:
  + What is an Ultra Low Power PHY? by J Gilb
  + OPTICWISE presentation by M Uysal

SC MAG by P Kinney

* focus of meetings is final review of draft before recirc- 802.15.4 revision

Operations Manual changes (15-10-0235-15) by P Kinney

* 5.3  Duration
  + A BRC is chartered from the closing plenary meeting of a session (either Interim or Plenary) to the starting plenary meeting of the subsequent session (either Interim or Plenary).
* 5.4a Before meeting tasks:
  + Announce the time and place of a BRC meeting along with an agenda for the BRC meeting at least 30 days prior to the meeting
* Vote on these changes will take place at the closing plenary

**11:28 PM** The chair recessed the meeting

**Wednesday, 11 Mar 2015**

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

WG Chair made announcements concerning social and logistics.

**10:36** TG3d report by Thomas Kürner

* Completing application requirements document

**10:37:** TG4n by B Heile

* Sponsor Ballot closed

**10:37** TG4q by Chiu Ngo

* Resolving comments

**10:38** TG4r by B Heile

* Will start meeting this afternoon

**10:39** TG4s by S Kitazawa

* Hearing presentations and working on TGD

**10:40** TG7.1 LED by Yeong Min Jang

* Working on TRD

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

* Working on draft

**10:43** TG9 (KMP) by Peter Yee

* Comment resolution almost complete

Motion: *that the IEEE 802.15 WG request a Cipher Suite Selector from the IEEE 802.11 WG for use within the IEEE 802.15.9 specification.*

Moved by: Peter Yee, seconded by R Alfvin

Upon neither discussion nor objection motion carries

Motion: *request that the modified IEEE 802.15 TG9 PAR contained in document 15-15-0224-01-0009-par-changes.doc be approved for submission to EC to forward the PAR to NesCom.*

Moved by: Peter Yee

Seconded by: Tero Kivinen

Vote was taken with the results of 41/0/0, motion carries

Motion *that 802.15 WG reaffirm the constitution of a Ballot Resolution Committee (BRC) for the WG balloting of the 802.15.9 draft recommended practice with the following membership: Robert Moskowitz, Tero Kivinen, Don Sturek, Peter Yee, Subir Das, Brian Weis, Gary Stuebing. The 802.15.9 BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the 802.15.9 draft on behalf of the 802.15 WG. Comment resolution between sessions will be conducted via reflector email and via teleconferences announced to the reflector at least 30 days in advance.*

Moved by: Tero Kivinen Seconded by: Gary Stuebing

Upon neither discussion nor objection motion carries

**10:58** TG10 (L2R) by Clint Powell

* Finishing draft with plans to go to LB after the session

**11:00** SG 3e by Thomas Kürner

Motion: *request that the PAR contained in documents 15-14-0715-05-003e-sg3e-draft-par with the resolutions to the comments on the PAR contained in 15-15-0229-02-003e-par-csd-comments-resolutions and the CSD contained in 15-14-0716-06-003e-sg3e-draft-csd, 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 Andrew Estrada

Upon no discussion the vote was taken with the results of 43/0/0, motion carries

**11:08** IG THz closing report by Thomas Kürner (15-15-0239-00)

**11:09** HRRC closing report by Junhyeong Kim (15-15-0233-00)

**11:12** ECSG Privacy by J Carlos (11-15-432-00)

**11:24** IG Depend closing report by R Kohno (15-15-0235-00)

**11:26** IG 6T by P Kinney

* discussed TSCH security issues and proposed a request for charter change specifying 802.15.4 rather than 4e

**11:27** SC maintenance report by P Kinney

* reviewing DF4 for errors

**11:28** SC WNG by P Kinney

Three presentations:

* + What is an Ultra Low Power PHY? by J Gilb
  + OPTICWISE presentation by M Uysal
  + Proposal to modify TG4r PAR by P Kinney

**11:29** WG chair recessed the meeting until Thursday evening.

**Thursday, 12 Mar 2015**

**18:32** WG chair called the meeting to order

**18:40** TG3d **(**100G) closing report by T Kürner (15-15-0258-00)

**18:38** TG4n (CMB) closing report by B Heile (15-15-063-01)

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the Sponsor balloting of the 802.15.4n draft standard with the following membership: Arthur Astrin (chair), Liang Li, Shinsuke Hara, WeiXia Zou and Kenichi Mori. 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 30 days in advance.*

Moved by Rick Alfvin Seconded by Clint Powell

Upon neither discussion nor objection the motion carries

**18:40** TG4q **(**ULP) by Chiu Ngo (15-15-0267-00)

**WG Motion:** *Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG comment collection of the 802.15.4q draft standard with the following membership: Chiu Ngo, Allan Zhu, Fredrik Beer, Hendricus De Ruijter, Chandrashekhar Thejaswi PS, Kiran Bynum, Younsoo Kim.  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 30 days in advance.*

Moved by: Chiu Ngo Seconded by: Clint Powell

Upon neither discussion nor objection the motion carries with unanimous consent

Motion: *802.15 requests conditional approval from the 802 EC to submit* 802.15.4q revision- *draft to Sponsor Ballot* *pending recirculation*

Moved by Chiu Ngo and seconded by Clint Powell

James spoke against this motion due to the fact that all of the comments weren’t resolved.

Upon no further conversation vote was taken 29/7/2, motion carries.

**18:57** TG4r closing report by P Kinney

**19:06** TG7r1 by Yeong Min Jang (15-15-0265-00)

**19:08** TG8 (PAC) closing report by Myung Lee (15-15-0263-00)

**19:10** TG9 (KMP) by Peter Yee (15-15-0237-01)

*Move that the 802.15 WG start a WG Recirculation Letter Ballot, requesting approval to forward document P802-15-9-D02\_Draft\_Recommended\_Practice.pdf to Recirculation Letter Ballot, pending the completion and inclusion of the edits from 15-14-0718-19-0009 and 15-15-0240-00-0009.*

Moved by Peter Yee, seconded by James Gilb

Upon neither discussion nor objection the motion carries

**19:15** TG10 (L2R) closing report by Clint Powell (15-15-0262-00)

**Motion for WG approval to proceed to Letter Ballot.**

*Move that 802.15 WG start a WG Letter Ballot requesting approval to forward document draft 802-15-r10, edited in accordance with the instructions in document 15-15-0251-02-0010, to Sponsor Ballot pending the completion and inclusion of the edits in the draft.*

*Moved by C Powell, seconded by R Alfvin*

Upon neither discussion nor objection the motion carries

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the TG10 draft recommended practice with the following membership:* Clint Powell, Verotiana Rabarijaona, Fumihide Kojima, Noriyuki Sato, Kiyoshi Fukui, Soo-Young Chang, Jaehwan Kim, SangSung Choi. *The TG10 BRC is authorized to approve comment resolutions and to approve the start of balloting the TG10 draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences as announced to the reflector at least 30 days in advance.*

*Moved by C Powell, seconded by R Alfvin*

Upon neither discussion nor objection the motion carries

**19:22** SG3eby Thomas Kürner (15-15-0259-00)

Motion: *that the 802.15 Working Group seeks approval from the 802 EC to extend the study group 3e in 802.15 to develop the PAR and CSD documents for*High-Rate Close-Proximity (HRCP)

Moved by: Thomas Kürner and seconded by A Estrada

Upon no further conversation vote was taken 29/0/0, motion carries.

**19:45** SCm closing report by Pat Kinney (15-14-0481-00)

**WG Motion:** *Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the 802.15.4 Revision draft standard with the following membership:* Pat Kinney, James Gilb, Jeritt Kent, Benjamin Rolfe, Clint Powell, Billy Verso, Kunal Shah, Dalton Victor, Phil Beecher, Fumihide Kojima, Tero Kivinen, and Tim Harrington. *The 802.15.4 Revision BRC is authorized to approve comment resolutions and to approve the start of balloting the 802.15.4 Revision 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 in advance.*

Moved by Pat Kinney

Upon neither discussion nor objection the motion carries with unanimous consent

**Recirculation:**

*Move that the 802.15 WG approve start of a 15-day recirculation of WG Letter Ballot* P802.15.4-REVc-DF5 *to Sponsor Ballot.*

Moved by Pat Kinney

Upon no opposition the motion carries with unanimous consent.

**Sponsor Ballot:**

Motion: *802.15 requests conditional approval from the EC to submit* P802.15.4-REVc-D00 *revision draft to Sponsor Ballot* *pending recirculation noting that the draft will be modified as per comment database 15-14-0423-43.*

*Moved by Pat Kinney, seconded by Rick Alfvin*

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

**19:50** 802.24 liaison by J Gilb (15-15-266-00)

**WG Motion**: *IEEE 802.15 WG supports the formation of IEEE 802.24 IoT Task Group with the proposed TG scope defined in 24-15-003-01 or current version.*

Moved by Rick Alfvin and seconded by James Gilb

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

**19:53** B Heile presented the Treasurer Report (15-15-0187-00)

**19:56**  **WG Motion**: to adjourn was made by Clint Powell and seconded by Rick Alfvin. Upon hearing no objection, the motion carries; the session is adjourned.

**Annex A** Attendance = 81

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

|  |  |  |
| --- | --- | --- |
| ACHIR | Mounir | Canon Research Centre France |
| AKIYAMA | KEIJI | Sony Corporation |
| Alfvin | Richard | Verilan |
| Aoyama | Hideki | Panasonic Corporation |
| Bahr | Michael | Siemens AG, Corporate Technology |
| Bynam | Kiran | SAMSUNG |
| Cha | Jaesang | SNUT |
| Chasko | Stephen | Landis Gyr Group Worldwide |
| Chitrakar | Rojan | Panasonic Asia Pacific Pte Ltd. |
| Choi | Sangsung | Electronics and Telecommunications Research Institute (ETRI) |
| Chung | Hee-Sang | 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) |
| Drude | Stefan | NXP Semiconductors |
| Estrada | Andrew | Sony Corporation |
| Evans | David | Philips Electronics |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Gilb | James | Pulse-LINK Inc. |
| Gillmore | Matthew | Itron Inc. |
| Haapola | Jussi | Centre for Wireless Communications / University of Oulu |
| Hach | Rainer | Nanotron Technologies GmbH |
| Hartman | James | Landis Gyr Group Worldwide |
| Heile | Robert | ZigBee Alliance |
| Hernandez | Marco | National Institute of Information and Communications Technology (NICT) |
| Hiraga | Ken | NTT |
| Horisaki | Koji | TOSHIBA Corporation |
| HOSAKO | IWAO | National Institute of Information and Communications Technology (NICT) |
| Hui | Bing | Electronics and Telecommunications Research Institute (ETRI) |
| IIZUKA | Nobuo | Casio Computer Co., Ltd. |
| Jang | Yeong Min | Kookmin University |
| Jungnickel | Volker | Fraunhofer HHI |
| Kent | Jeritt | Analog Devices Inc. |
| Kim | Jaehwan | Electronics and Telecommunications Research Institute (ETRI) |
| Kim | Junhyeong | Electronics and Telecommunications Research Institute (ETRI) |
| 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 |
| Kwak | Byung-Jae | Electronics and Telecommunications Research Institute (ETRI) |
| lee | hoosung | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Jae Seung | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | JunHwan | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Myung | CUNY - City University of NY |
| Lee | Seok-Jin | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Seungsik | Electronics and Telecommunications Research Institute (ETRI) |
| Li | Qing | InterDigital, Inc. |
| Liu | Qian |  |
| Lynch | Michael | Nortel Networks |
| maekawa | itaru | Japan Radio Co., Ltd. |
| Matsumura | Hiroyuki | Sony Corporation |
| Mc Laughlin | Michael | DecaWave |
| Mourad | Alaa | BMW Group |
| Ngo | Chiu | SAMSUNG |
| Oshima | Mitsuaki | Panasonic Corporation |
| Ouvry | Laurent | CEA-Leti |
| Perkins | Charles | Futurewei Technologies |
| Powell | Clinton | Powell Wireless Consulting, LLC |
| P S Bhat | Chandrashekhar | SAMSUNG |
| Rabarijaona | Verotiana | National Institute of Information and Communications Technology (NICT) |
| Rakanovic | Demir | u-blox |
| Roberts | Richard | Intel Corporation |
| Russell | Paul | InterDigital, Inc. |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Sekine | Norihiko | National Institute of Information and Communications Technology (NICT) |
| Serafimovski | Nikola | pureLiFi |
| Shah | Kunal | Silver Spring Networks Inc. |
| Shimizu | Masashi | Nippon Telegraph and Telephone Corporation (NTT) |
| Sihn | Gyung Chul | Electronics and Telecommunications Research Institute (ETRI) |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sturek | Don | Silver Spring Networks Inc. |
| Takai | Mineo | Space-Time Engineering |
| Togashi | Kou | TOSHIBA Corporation |
| toshimitsu | kiyoshi | TOSHIBA Corporation |
| Uysal | Murat | Ozyegin University |
| Yano | Hiroyuki | National Institute of Information and Communications Technology (NICT) |
| Yee | Peter | NSA/IAD |
| Zeng | Yu | China Telecom |