**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 | [15 Dec 2012] |
| 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 San Antonio, Texas] |
| 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 #81**

**Grand Hyatt, San Antonio, Texas, USA**

**November 11-15, 2012**

**Monday, 12 Nov 2012**

**11:03 AM** The chair, Bob Heile, called the meeting to order (15-12-555-03)

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

Announcements:

* Social on Wednesday at 18:30

Clint Powell moved to *approve the agenda (document IEEE 15-12-0555-02-0000)* with Jon Adams seconding the motion. Following no objection the agenda was approved.

Art Astrin moved *to approve the previous meeting minutes (document 15-12-0494-00-0000)* and Jon Adams 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 802.15-12-019-05) 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:

* 124 voting members
* 29 nearly voters
* 83 aspirants

Future Sessions

* 13-18 January, 2013, Hyatt Regency Vancouver, BC, CA, 802 Wireless Interim Session
* 17-21 March, 2013, Caribe Royale, Orlando, FL, USA, 802 Plenary
* 12-17 May, 2013, Hilton Waikoloa Village, Big Island, HI, USA, 802 Wireless Interim Session
* 14-19 July, 2013, Geneva, CHE, 802 Plenary Session
* 15-20 Sept, 2013, Zhong Shan Hotel, Nanjing, China
* 10 – 15 Nov, 2013, Hyatt Regency Reunion, Dallas, TX, US

Chair presented the EC Meeting Report (IEEE 802.15-12-0607-00)

B Rolfe presented the Treasurer Report (IEEE 802.15-12-0599-00)

**March 05, 2012 – $467,328.13**

* **July 1, 2012 – $433,424.66**
	+ IEEE account: $391,948.68 + $462.69 = $392,411.37
	+ Face-to-Face: $194,868.70+$45,300-$30,209.32+$2,400.09-$171,346.18 = $41,013.29
* **Sept 1, 2012 – $562,733.66**
	+ IEEE account: $392,411.37 + $266.67 = $ 392,678.04
	+ Face-to-Face: $41,013.29+$52,500-$7,816.99 +$106,650 -$22,290 = $170,055.62
* **Oct 31, 2012 – $457,267.69**
	+ IEEE account: $392,678.04 + $87.14= $ 392,765.18
	+ Face-to-Face: $170,055.62 +$53,700 -$7,677.01 +$5,300 -$158,876.10 = $64,502.51

Status Reports

802.18 by John Notor

* FCC Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions
* Progeny

802.15 task group status

TG4j report by Ray Krasinski:

* Working on Sponsor Ballot comment resolutions, will go for recirc soon

TG4k report by Pat Kinney:

* LB85 concluded with the aggregate results of 102 (70%) responded, 91 approved (93%), 7 disapproved, and 4 abstained (4%). There were 98 comments, 9 marked as must be satisfied.
* Expectation is to go to Sponsor ballot after next recirc

TG4m by Sangsung Choi

* Presentations on merged baselines
* Comment resolution effort

TG4n CMB by Art Astrin

* CFA presentations will be heard
* CFP presentations will be heard

TG4p PTC by Jon Adams

* Editing proposed draft text

TG8 PAC by Myung Lee

* Working on technical guidance doc

TG9 KMP by Robert Moskowitz

* Working on state machine issues and service calls
* Continuing effort with 802.1

SG4q ULP by Shariar Emami

* Address all comments on PAR and 5C

IG LED by Jang

* Hearing presentations on LED communications and LED ID

IG THZ by Tomas Kürner

* presentations on technology advancement, spectrum use, etc

IG SRU by Shoichi Kitazawa

* single meeting will be hearing presentations

IG L2R by Clint Powell

* tutorial tonight
* determining if significant desire to go to SG

SC WNG by P Kinney

* + no meeting will be held as there are no requests

SC MAG by P Kinney

* Meeting Tuesday evening
* focus of meeting is resolving submissions on 802.15.4-2011and 802.15.4g-2012

802 Architecture by James Gilb

* TAG 802.24 has 3 meetings this week

AoB

* Twelve 802 PARs to be considered this week (one is 802.15.4q)

**12:03 PM** The chair recessed the meeting

**Wednesday, 14 Nov 2012**

**10:31** Bob Heile, WG chair called the meeting to order.

WG Chair made announcements concerning social and logistics.

**10:35** RAC proposal for reorganizing the OUI tier structure by Glen Parsons ([ec-12-0061-01-00EC](https://mentor.ieee.org/802-ec/dcn/12/ec-12-0061-01-00EC-rac-summary-of-oui-registry-tiers-proposal.pdf))

* Q: Is there a detailed document on this proposal? R: yes, we can send these documents
* Q: Company Identifier, 1 or 2? R: there are two company identifiers
* Q: some organizations seem to have thousands of OUIs, can you recycle? R: no since it is very difficult
* Q: recommendation for 48-bit or 64-bit EUIs? R: new protocols use 64-bit EUI, backward compatible should use 48-bit
* Q: Documentation of efforts with EUI 128? R: to date only effort has been a justification of whether it’s needed

**10:53** OmniRAN EC Study Group Proposal by Roger Marks & Max Riegel ([16-12-670-01](https://mentor.ieee.org/802.16/dcn/12/16-12-0670-01-Shet-omniran-overview-and-status.pptx))

* Effort has been worked on in 802.16 since March, 2012
* Planning to ask EC to start an EC study group this week
* C: Vendors with constrained products (no additional capability) will not participate
* C: “don’t reinvent the wheel”, plenty of solutions to leverage, working with IETF
* Q: how does this work relate to 802.21? 21 is a L2 solution, this proposal’s scope rises above L2

**11:18** WG18 liaison by J Notor

* Drafts for TV incentive auction NPRM and Microphone are being reviewed
* Progeny comments being collected to be submitted on ex parte basis

**11:21** TG4j closing report by R Krasinski (15-12-0642-00)

* All comments have been resolved
* Next step is Sponsor Ballot recirculation of d5P802-15-4j
* Motion: *that working group requests conditional approval from the EC to submit d5P802-15-4j draft amendment to RevCom*.
* Moved by Ray Krasinski
* Seconded by Ben Rolfe
* Voting Results: 48/0/0, motion carries

**11:24** TG4k closing report by Pat Kinney (15-12-0632-00)

* Completed resolving remaining comments
* Expect to recirculate next week

Motion: *802.15 requests conditional approval from the EC to submit 802.15.4k revision draft amendment to Sponsor Ballot* *pending recirculation*

* Moved by Pat Kinney
* Seconded by Ben Rolfe
* Voting Results: 49/0/0, motion carries

**11:29** TG4m by Sangsung Choi

* Consolidating proposals this week

**11:30:** TG4n by Art Astrin

* Hearing proposal and application presentations

**11:32** TG4p by Jon Adams

* Hearing presentations

**11:33** TG8 (PAC) by Myung Lee

* Discussion on technical guidance document

**11:34** TG9 (KMP) by Robert Moskowitz

* Making progress on issues with 15.4 shim
* Goal is to finalize design this week

**11:35** SG-4q by Shariar Emami

* Finished comment resolutions from WGs on PAR and 5C

Motion:  *request that the PAR and 5C contained in documents 15-12-0386-05 and 15-12-0387-05, respectively, as modified per document 15-12-0644-00, 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 5C as needed to reflect EC discussion at its closing meeting.*

* Moved by Shahriar Emami and seconded by Clint Chaplin.
* Vote was taken with the result of 47/0/0, motion carries

**11:40** LED ID by Yeong Min Jang

* Modifying 802.15.7

**11:42** IG THZ by Thomas Kürner

* Heard 2 presentations
* Started discussion on the future of this IG

**11:43** IG SRU by Shoichi Kitazawa

* Heard one presentation

**11:44** IG L2R by Clint Powell

* Two meetings and tutorial went well
* Will request transition to a study group

**11:46** SC maintenance closing report by Pat Kinney (15-12-0633-00)

* Discussed 2 submissions on IEEE 802.15.4g-2012 and recommended that WG correct the errors on next revision
* Discussed 1 submission on IEEE 802.15.4-2011 and recommended that WG correct the errors on next corrigendum or revision
* Discussed request from ETSI TG28 for assignment of IEs that deal with European issues and recommended to WG to start a corrigendum to modify 802.15.4e to allow RAC to assign 802.15.4 IE IDs
* Motion: *Request that the 802.15 WG submit the 802.15.4 Corrigendum PAR (15-12-0640-00) to the EC for consideration*
* Moved by Ben Rolfe
* Seconded by James Gilb
* Vote results of 46/0/0, motion carries

**11:53** WG chair recessed the meeting until Thursday evening.

**Thursday, 15 Nov 2012**

**18:30** WG chair called the meeting to order

**18:32** 802.11 liaison report by C Chaplin (15-12-669-00)

**18:39** TG4m **(**4TV) closing report by Sangsung Choi (15-12-663-00)

**18:46** TG4n (CMB) closing report by Art Astrin (15-12-622-00)

**18:50** TG4p (PTC) closing report by Jon Adams (15-12-0661-00)

Motion: *to request the IEEE802 Wireless group treasury to fund refreshments at the closing plenary* moved by J Gilb, seconded by R Alfvin

Upon no sober discussion nor objection, the motion carries

**18:55** TG8 (PAC) closing report by Myung Lee (15-12-0665-00)

**18:57** TG9 (KMP) closing report by Peter Yee (15-12-0657-00)

**19:03** SG4q **(**ULP) by Shariar Emami (15-12-0671-00)

Motion: *to the WG to extend the SG4q for the next cycle*

Moved by Art Astrin and seconded by Rick Alfvin

Upon no discussion the vote was taken with the results of 28/0/0, motion carries

**19:04** IGLED ID by Yeong MinJang (15-12-0668-00)

**19:09** IGTerraHz by ThomasKürner(15-12-0654-00)

**19:14** IG SRU by Shoichi Kitazawa (15-12-628-00)

**19:18** IG L2R by Clint Powell (15-12-673-00)

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 documents for Layer 2 routing*

Moved by: Clint Powell

Seconded by Noriyuki Sato

Upon no discussion the vote was taken with the results of 30/0/0, motion

**19:21** Architecture by James Gilb

* Finished comment resolution

**19:25** 802.24 liaison by J Gilb

* New chair (J Gilb) and vice chair (T Godfrey)

**19:26** 802.18 liaison by J Notor (15-12-0664-01)

**19:31**  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 = 113

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

|  |  |  |
| --- | --- | --- |
| Adams | Jon | Lilee Systems |
| Ajito | Katsuhiro | Microsystem Integration Laboratories NTT |
| Alfvin | Richard | Verilan |
| Astrin | Arthur | Astrin Radio |
| Beecher | Philip | Wi-SUN Alliance |
| Beer | Frederik | University of Erlangen-Nuremberg, Fraunhofer IIS |
| Boucachard | Philippe | Canon Research Centre France |
| Britz | David | AT&T Labs Research |
| Bynam | Kiran | SAMSUNG |
| Canchi | Radhakrishna | Kyocera Communications Inc. |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| Chaplin | Clint | Samsung Information Systems America, Inc. |
| Chilton | Paul | NXP Semiconductors |
| Cho | Seungkwon | ETRI |
| Cho | Sungrae | Chung-Ang University |
| Chun | Jinyoung | LG ELECTRONICS |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dolmans | Guido | Holst Centre / IMEC-NL |
| Dotlic | Igor | NICT |
| DU | JiaDong | China Academy of Telecommunication Research (CATR) |
| Emami | Shahriar | Samsung Information Systems America, Inc. |
| Evans | David | Philips Electronics |
| Flammer | George | Silver Spring Networks Inc. |
| Funada | Ryuhei | NICT |
| Gillmore | Matthew | Itron Inc. |
| Haapola | Jussi | Centre for Wireless Communications / University of Oulu |
| Hara | Shinsuke | Osaka City University (OCU) |
| Harada | Hiroshi | NICT |
| Heile | Robert | ZigBee Alliance |
| Hernandez | Marco | NICT |
| Holcomb | Jay | Itron Inc. |
| Hosako | Iwao | NICT |
| Howard | David | On-Ramp Wireless, Inc. |
| Hsieh | Dung-Rung | Industrial Technology Research Institute (ITRI) |
| Huang | Rongsheng | Olympus Communication Technology of America, Inc. |
| Hur | Junbeom | Chung-Ang University |
| Ikegami | Tetsushi | Meiji University |
| Iwaoka | Mitsuru | Yokogawa Electric Corporation |
| Jang | Yeong Min | Kookmin University |
| Jeon | Young-Ae | ETRI |
| Jeong | Wuncheol | ETRI |
| Jillings | Steven | Semtech Corporation |
| Jin | Sunggeun | ETRI |
| Joo | SEONG-SOON | ETRI |
| Kang | Hyunduk | ETRI |
| Kang | Seok kyu |  |
| Kasamatsu | Akifumi | NICT |
| Kato | Toyoyuki | Anritsu Engineering |
| Kawamura | Masahiko | Kozo Keikaku Engineering Inc. |
| Kent | Jeritt | Analog Devices Inc. |
| Kim | Jeongki | LG ELECTRONICS |
| Kim | Jinkyeong | ETRI |
| Kim | Youngsoo | SAMSUNG |
| Kinney | Patrick | Kinney Consulting LLC |
| Kitazawa | Shoichi | ATR Wave Engineering Laboratories |
| Kohno | Ryuji | YNU/CWC-Nippon |
| Krasinski | Raymond | Philips Electronics |
| Kuerner | Thomas | TU Braunschweig |
| Lee | Anseok | ETRI |
| Lee | Jae Seung | ETRI |
| Lee | Myung | CUNY - City University of NY |
| Li | Huan-Bang | NICT |
| Li | Liang | Vinno Technologies Inc. |
| McInnis | Michael | The Boeing Company |
| Millet | Charles | Analog Devices Inc. |
| Mori | Kenichi | Pansonic Corporation |
| Moskowitz | Robert | Verizon |
| Nafie | Mohammed | Nile University |
| nasr | omar | National Telecom Regulatory Authority |
| Ngo | Chiu | SAMSUNG |
| Notor | John | Silver Spring Networks Inc. |
| Ohba | Yoshihiro | TOSHIBA Corporation |
| Park | Giwon | LG ELECTRONICS |
| Park | Seung-Hoon | Samsung |
| Park | Taejoon | ETRI |
| Powell | Clinton | PWC, LLC |
| Powell | Richard | Microsemi Corporation |
| Rajan | Reghu | Zarlink Semiconductor, Inc. |
| Roberts | Richard | Intel Corporation |
| Rolfe | Benjamin | Blind Creek Associates |
| Ryu | Cheol | ETRI |
| Ryu | Kiseon | LG ELECTRONICS |
| Salazar Cardozo | Ruben | Landis Gyr Group Worldwide |
| Sasaki | Shigenobu | Niigata University |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Schwoerer | Jean | France Telecom |
| Seibert | Cristina | Silver Spring Networks Inc. |
| Sekine | Norihiko | NICT |
| Shah | Kunal | Silver Spring Networks Inc. |
| Shao | Huairong | Samsung Information Systems America, Inc. |
| Shen | Jie | Wuxi SensingNet Industrialization Research Institute |
| Shibagaki | Nobuhiko | Hitachi, Ltd. |
| Shin | ChangSub | ETRI |
| Shin | CheolHo | ETRI |
| Shin | Wooram | ETRI |
| Song | Ho-Jin | Nippon Telegraph and Telephone Corporation (NTT) |
| Tsai | Chia-Lung | Industrial Technology Research Institute (ITRI) |
| Uno | Masahiro | ATR Wave Engineering Laboratories |
| VanPuijenbroek | Cornelis | RF Consultants BV |
| Victor | Dalton | Silver Spring Networks Inc. |
| Villardi | Gabriel | NICT |
| Waheed | Khurram | Freescale Semiconductor, Inc. |
| Wang | Xiang | Wuxi SensingNet Industrialisation Research Institute |
| Watanabe | Wataru | Mitsumi Electric Co., Ltd. |
| Xhafa | Ariton | Texas Instruments Incorporated |
| Xing | Tao | Shanghai institute of microsystem and information technology |
| Yang | Yang | Wuxi SensingNet Industrialisation Research Institute |
| Yee | Peter | NSA/IAD |
| Yokoo | Kaoru | FUJITSU |
| Yoon | Chanho | ETRI |
| Zhao | Bingxuan | Niigata University |
| Zhao | Junhui | China Mobile Communications Corporation (CMCC) |
| Zhou | Mingtuo | NICT |