**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 | [22 Mar 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 Orlando, Florida] |
| 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 #83**

**Caribe Royal, Orlando, Florida, USA**

**March 18-21, 2013**

**Monday, 18 Mar 2013**

**11:01 AM** The chair, Bob Heile, called the meeting to order (15-13-0114-01)

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

Announcements:

* Social on Wednesday at 18:30

Art Astrin moved to *approve the agenda (document IEEE 15-13-0114-01-0000)* with Ray Krasinski seconding the motion. Following no objection the agenda was approved.

Ben Rolfe moved *to approve the previous meeting minutes (document 15-13-0025-00-0000)* and Art Astrin seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes.

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 802.15-13-027-01) 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:

* 125 voting members
* 40 nearly voters
* 64 aspirants

Future Sessions

* 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 802.15-13-0141-00)

B Rolfe presented the Treasurer Report (IEEE 802.15-13-0135-02)

**Dec 31, 2012 – $599,205.26**

IEEE account: $392,765.18 + 123.43 - $7465.06 + 108.61 = $385,532.16

Face-to-Face: $64,502.51 +90,000- $14,285.23 +105,750.00 – 32,294.18 = $213,673.10

**Feb 28, 2013 -**

IEEE account: $385,532.16 + 108.05 +88.43 = $385,728.64

Face-to-Face: $213,673.10 +56,700 – 63,953.92 + 6600 -158,170.28 = 64,848.90

**Status Reports**

802.18 by John Notor

* Many regulatory items (15)
* Global Star requesting sole use of 2.4 GHz channel 14
* 470 – 512 MHz band NPRM
* FCC Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions

802.15 task group status

TG4j report by Ray Krasinski:

* Done, approved, and published

TG4k report by Pat Kinney:

The 802.15.4k Sponsor Ballot recirculation has closed with the results of:

Recirc open: 15 Feb 2013

Recirc close: 25 Feb 2013

Ballots rcv'd: 9

Vote changes: 4

Comments: 39 (4 marked as must be satisfied)

Ballot pool: 138

Responses: 116 (84%)

Affirmative: 100 (97%)

Negative: 3

Abstain: 13 (11%)

TG4m by Sangsung Choi

* WG LB has closed with 88% affirmation
* Comment resolution effort this week

TG4n CMB by Art Astrin

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

TG4p PTC by B Heile

* Finishing up proposed draft text
* Proposed title change to remove ambiguity

TG4q ULP by Shariar Emami

* Discussing applications

TG8 PAC by Myung Lee

* Editing technical guidance doc

TG9 KMP by Peter Yee

* Working on technical issues
* Text editing

IG LED by Prof Jang

* Hearing presentations on LED communications and LED ID

IG THZ by Tomas Kürner

* Plans to go to SG

IG SRU by Shoichi Kitazawa

* single meeting will be hearing presentations

IG L2R by Clint Powell

* plans to go to SG in July

SC WNG by P Kinney

* + 2 presentations, one on THz SG proposal and the other a proposal to amend 802.15.6

SC MAG by P Kinney

* focus of meeting is work on 802.15.4 corrigendum and presentation by L Taylor on TG28 request

802 Architecture by James Gilb

* ballot has been extended
* 100+ comments

TAG 802.24 by J Gilb

* joint meeting with PAP2

AoB

* Many 802 PARs to be considered this week

**11:57 PM** The chair recessed the meeting

**12:00** **PM** ad hoc on three subjects: 802 architecture, and 802 CSD

802 Architecture by James Gilb

* discussion topic was on the issue of PANs
* 4.1
	+ change to “typically over small areas but not always”
	+ on line 24 delete among and rest to end of sentence
* 4.2
	+ Action Item: Bob Moskowitz to look at where TG9 fits (i.e. which layer)
* 5.2.1
	+ discussion on SAPs but no changes proposed
* 5.2.2
	+ multiple application services and need for Ethertype or alternate LLC sublayer discussion
	+ future work problem for 802.15.4
* 6 General Requirements
	+ 6.1 requirement to support Ethertypes and bridging to other 802 protocols
		- point made that the last sentence does not apply to all networks
		- Ethertypes are assigned as 2-octet but RAC requires the user to identify subtypes which are often 2-octets
* 7 Management
	+ 7.2.2 management architecture
		- 15.4 does not support MIBs
		- Action Item: 802.15 will come up with language for new 802.15.4 PARs as to why they do not support MIBs
* Annex B.3
	+ 15.6 needs a reference model

802 CSD by James Gilb

* 14.3 compatibility
	+ - no text changes were noted

**Wednesday, 20 Mar 2012**

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

WG Chair made announcements concerning social and logistics.

**10:34** 802.18 TAG by John Notor

* PM1 will have presentations from R Marks
* there will be many conference calls after this session

**10:36** TG4j awards disbursement by R Krasinski

* Chair Awards:
	+ David Evans
	+ Suhwook Kim
	+ Shannon Park
* Certificates of Appreciation
	+ Art Astrin
	+ Kiran Bynam
	+ Paul Chilton
	+ James Gilb
	+ Liang Li
	+ Ben Rolfe
	+ Betty Zhao
	+ Ranjeet Patro
	+ Ning Li
	+ Dong Wang
	+ Bonghoe Kim

**10:41** TG4k mid-week report by Pat Kinney

* Completed resolving remaining comments
* Expect to recirculate first week in April

**10:42** TG4m by Sangsung Choi

* 551 comments to resolve
* PHY comments were done yesterday, with MAC comments today

**10:43:** TG4n by Art Astrin

* 3 presentations yesterday and 2 today

**10:44** TG4p by Jon Adams

* working to go to letter ballot by end of week

**10:45** TG4q by Shariar Emami

* working on technical guidance doc

**10:46** TG8 (PAC) closing report by Myung Lee (15-13-0187-00)

**10:49** TG9 (KMP) closing report by Peter Yee (15-13-0171-01)

**10:51** IG L2R by Clint Powell

* Working on PAR and 5C

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

* 3 presentations

**10:55** IG THZ by Thomas Kürner

* Heard presentations

**10:56** IG SRU by Shoichi Kitazawa

* Heard presentations on medium management
* Will be meeting at interim at KOA

**10:58** IG depend by R Kohno

* Looking at 15.6 amendment

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

* Changes to 802.15.4e-2012 were discussed
	+ Managed vs. unmanaged ID space
	+ Frame Type field extension
	+ changing the order of the Information Element length and type fields

**11:12** WG chair recessed the meeting until Thursday evening.

**Thursday, 21 Mar 2012**

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

**18:39** TG4k closing report by Pat Kinney (15-13-0179-00)

*802.15 requests conditional approval from the EC to submit the P802.15.4k draft amendment, with text changes as per comment resolution 15-13-0032-11, to RevCom*

Moved by Pat Kinney

Seconded by Rick Alfvin

 Upon no discussion the vote was taken as 28/0/8, motion carries

**18:41** TG4m **(**4TV) closing report by Phil Beecher (15-13-0227-01)

*Move that 802.15 WG approve start of a recirculation of WG Letter Ballot 87, edited in accordance with the instructions in document #15-13-0107-05-004m, to Sponsor Ballot.*

Moved: Phil Beecher

Seconded:  Clint Powell

Upon neither discussion nor objection the motion carries with unanimous consent

Motion: *The 802.15 WG appoint the above members as a BRC for 802.15 TG4m*

C Powell, Soo-Young Chang, H Harada, B Rolfe, K Waheed, R Salazar, C Seibert, A Petrick, M Gillmore, J Kent, F Kojima, A Liru, M Zhou, K Shah, J Gilb, Mi-Kyung Oh, CS Sum

Recommended Chair: P Beecher

Moved: Ed Callaway

Seconded: Phil Beecher

Upon neither discussion nor objection the motion carries

**18:46** TG4n (CMB) closing report by Art Astrin (15-13-202-00)

**18:49** TG4p (PTC) closing report by Ben Rolfe (15-13-0195-01)

*Move that 802.15 WG start a WG Letter Ballot requesting approval to forward document d1P802-15-4p\_Draft\_Standard.pdf, pending the completion of edits to 15-13-0097-05 in accordance with document 15-13-0217-02, to Sponsor Ballot.*

Moved by Clint Powell

Seconded by  Steve Jillings

Upon neither discussion nor objection the motion carries by unanimous consent

**18:55** TG4q **(**ULP) by Shariar Emami (15-13-0230-00)

**18:58** SGL2R closing report by Clint Powell (15-13-0216-00)

**19:01** TG4p PAR title change by Bob Heile

Motion *that 802.15 requests EC approval to submit the P802.15.4p title change PAR to NesCom*

Moved by Rick Alfvin

Seconded by Ben Rolfe

Upon no discussion the vote was taken with the results of 26/0/0, motion carries

**19:04** IGTeraHz by Katsuhiro Ajito(15-13-0214-00)

**19:07** IG SRU by Shoichi Kitazawa (15-13-0132-02)

**19:11** IGdep by Art Astrin (15-13-0223-00)

**19:15** SC closing report by Pat Kinney (15-13-0201-00)

Motion: *to approve document 15-13-0226-00 as a reply to ETSI*

Moved by James Gilb

Seconded by Rick Alfvin

Upon neither discussion nor objection the motion carries

**19:20** 802.11 liaison report by A Petrick (15-13-0228-00)

**19:24** 802.18 liaison by J Notor (15-13-0222-00)

**19:27** 802.19 liaison report by Tuncer Baykas

* finished comment resolution, ready to go to Sponsor Ballot

**19:29** 802.24 liaison by J Gilb

* Joint call with PAP2

**19:31**  Motion to adjourn was made by Rick Alfvin and seconded by Ben Rolfe. Upon hearing no objection, the motion carries; the session is adjourned.

**Annex A** Attendance = 118

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

|  |  |  |
| --- | --- | --- |
| Adams | Jon | Lilee Systems |
| Aiello | Roberto | Itron Inc. |
| Aikens | Valentine | Western Digital Corporation |
| Ajito | Katsuhiro | Microsystem Integration Laboratories NTT |
| Alfvin | Richard | Verilan |
| Amihood | Patrick | Itron Inc. |
| Astrin | Arthur | Astrin Radio |
| Aust | Stefan | NEC Corporation |
| Baykas | Tuncer | Tohoku University |
| Beecher | Philip | Wi-SUN Alliance |
| Bynam | Kiran | SAMSUNG |
| Callaway | Edgar | Sunrise Micro Devices, Inc. |
| Calvert | Chris | Landis Gyr Group Worldwide |
| Canchi | Radhakrishna | Kyocera Communications Inc. |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| Chasko | Stephen | Landis Gyr Group Worldwide |
| Chilton | Paul | NXP Semiconductors |
| Cho | Sungrae | Chung-Ang University |
| Choi | Jinsoo | LG ELECTRONICS |
| Choi | Sangsung | Electronics and Telecommunications Research Institute (ETRI) |
| Dolmans | Guido | Holst Centre / IMEC-NL |
| Doong | Mengchang | Lilee Systems |
| Dotlic | Igor | National Institute of Information and Communications Technology (NICT) |
| Eggert | Dietmar | Atmel Corporation |
| Emami | Shahriar | Samsung Information Systems America, Inc. |
| Evans | David | Philips Electronics |
| Farhadi | Golnaz | Fujitsu Laboratories of America, Inc. |
| Filin | Stanislav | National Institute of Information and Communications Technology (NICT) |
| Flynn | David | ARM, Ltd. |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Funada | Ryuhei | National Institute of Information and Communications Technology (NICT) |
| Gilb | James | Tensorcom, Inc. |
| Gillmore | Matthew | Itron Inc. |
| Gorday | Paul | Sunrise Micro Devices, Inc. |
| Gottlib | Elad | Silver Spring Networks Inc. |
| Gurtov | Andrei | Aalto University |
| Haapola | Jussi | Centre for Wireless Communications / University of Oulu |
| Heile | Robert | ZigBee Alliance |
| Herbst | Thomas | Silver Spring Networks Inc. |
| Hernandez | Marco | National Institute of Information and Communications Technology (NICT) |
| Hillman | Garth | OakTree Wireless |
| Holcomb | Jay | Itron Inc. |
| Howard | David | On-Ramp Wireless, Inc. |
| Huang | Rongsheng | Olympus Communication Technology of America, Inc. |
| Hur | Junbeom | Chung-Ang University |
| Iwaoka | Mitsuru | Yokogawa Electric Corporation |
| Jeon | Young-Ae | Electronics and Telecommunications Research Institute (ETRI) |
| Jeong | Wuncheol | Electronics and Telecommunications Research Institute (ETRI) |
| Jillings | Steven | Semtech Corporation |
| JOO | SEONG-SOON | Electronics and Telecommunications Research Institute (ETRI) |
| Kang | Hyunduk | Electronics and Telecommunications Research Institute (ETRI) |
| Kato | Shuzo | Tohoku University |
| Kato | Toyoyuki | Anritsu Engineering |
| Kent | Jeritt | Analog Devices Inc. |
| Kim | Jaehwan | Electronics and Telecommunications Research Institute (ETRI) |
| Kim | Jeongki | LG ELECTRONICS |
| Kim | Myoung Jin | Hankuk University of Foreign Studies (HUFS) |
| 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) |
| Krasinski | Raymond | Philips Electronics |
| Kuerner | Thomas | TU Braunschweig |
| Kuroda | Masahiro | National Institute of Information and Communications Technology (NICT) |
| Lan | Zhou | NICT |
| Lee | Donghun | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Myung | CUNY - City University of NY |
| Liru | Lu | National Institute of Information and Communications Technology (NICT) |
| Lynch | Michael | Nortel Networks |
| Melet | Patrick | Landis Gyr Group Worldwide |
| Millet | Charles | Analog Devices Inc. |
| Mizutani | Keiichi | National Institute of Information and Communications Technology (NICT) |
| Mori | Kenichi | Panasonic Corporation |
| Moskowitz | Robert | Verizon |
| nair | jinesh | SAMSUNG |
| Ngo | Chiu | SAMSUNG |
| Notor | John | Silver Spring Networks Inc. |
| Ogawa | Hiroyo | Association of Radio Industries and Businesses (ARIB) |
| Ohba | Yoshihiro | TOSHIBA Corporation |
| Olson | David | Landis Gyr Group Worldwide |
| Park | Giwon | LG ELECTRONICS |
| Petrick | Albert | Jones-Petrick and Associates, LLC. |
| Ping Ping | Xu | Southeast University, China |
| Powell | Clinton | PWC, LLC |
| Powell | Richard | Microsemi Corporation |
| Priebe | Sebastian | TU Braunschweig |
| Rabarijaona | Verotiana | National Institute of Information and Communications Technology (NICT) |
| Ramasastry | Jayaram | Silver Spring Networks Inc. |
| Randall | Karen | NSA/IAD |
| Reede | Ivan | AmeriSys Inc. |
| Robert | Joerg | University of Erlangen-Nuremberg |
| Roberts | Richard | Intel Corporation |
| Rolfe | Benjamin | Blind Creek Associates |
| Ryu | Cheol | Electronics and Telecommunications Research Instititute (ETRI) |
| Ryu | Kiseon | LG ELECTRONICS |
| Salazar Cardozo | Ruben | Landis Gyr Group Worldwide |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Schwoerer | Jean | France Telecom |
| 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 Instititute (ETRI) |
| Song | Chunyi | National Institute of Information and Communications Technology (NICT) |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sum | Chin-Sean | National Institute of Information and Communications Technology (NICT) |
| sumi | keita | Tokyo Institute of Technology |
| Takai | Mineo | Space-Time Engineering |
| Taylor | Larry | DTC-Telecom, Inc. |
| Tran | Khanh | Tokyo Institute of Technology |
| Waheed | Khurram | Freescale Semiconductor, Inc. |
| Wang | Xiang | Wuxi SensingNet Industrialisation Research Institute |
| Yaita | Makoto | Microsystem Integration Laboratories NTT |
| Yang | Yang | Wuxi SensingNet Industrialisation Research Institute |
| Yee | Peter | NSA/IAD |
| Zhao | Bingxuan | Niigata University |
| Zhou | Mingtuo | National Institute of Information and Communications Technology (NICT) |