**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 | [18 Sep 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 Athens, Greece] | |
| Abstract | [IEEE 802.15 Working Group Minutes] | |
| Purpose | [Official minutes of the Working Group Session] | |
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**IEEE 802.15 Interim Meeting – Session #92**

**Hilton Athens**

**Athens, Greece**

**September 14 - 18, 2014**

**Monday, 15 Sep 2014**

**8:00** 802.11, 802.15, 802.19, 802.21, 802.22, and 802.24 Chairs called the joint meeting to order. IEEE 802.15 attendance is included as Annex A.

General announcements:

* No photography, no audio recording
* Social – waiting list reservations for Acropolis social are still being taken

Straw Poll of new attendees: 9

**8:05**  IEEE patent policy

802.15 WG chair read the IEEE-SA instructions and displayed the four slides explaining patent policy and informed the attendees that additional information could be found on the PatCom web site.

802.15 WG chair read IEEE anti-trust policy.

**8:10** Financial report by Jon Rosdahl (CSR) docs 11-14-1005-00, 15-14-526-00

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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Financial Row** | | **Amount** | | | | | **ASSETS** | |  | | | | **Current Assets** | |  | | | | **Bank** | |  | | | | 74331 - 802.11/.15 CB Acct No. 556802 | | $337,059.41 | | | | | 74332 - 802.11/.15 Face-to-Face Checking | | $58,487.26 | | | | | **Total Bank** | | **$393,546.67** | | **Total Current Assets** | | **$393,546.67** | | **Total ASSETS** | | **$393,546.67** | | **LIABILITIES & EQUITY** | |  | | **Equity** | |  | | | | | Retained Earnings | | $431,159.99 | | | Net Income | | ($37,613.32) | | | **Total Equity** | | **$393,546.67** | | | | **Total LIABILITIES & EQUITY** | | **$393,546.67** | | |   **Income Statement Jan 2014 to Jul 2014** | | | | | | | | | | | |
| **Financial Row** | **Misc.** | **2014-01**  **Century City, CA** | | **2014-05**  **Waikoloa,**  **HI** | | **2014-09**  **Athens,**  **Greece** | | **Total** | |
|  | **Amount** | **Amount** | | **Amount** | | **Amount** | | **Amount** | |
| **Ordinary Income/Expense** |  |  | |  | |  | |  | | |
| **Income** |  |  | |  | |  | |  | | |
| 2.11 - Registrations | $0.00 | $294,150.00 | | $257,800.00 | | $0.00 | | $551,950.00 | | |
| 2.12 - Hotel Commissions | $0.00 | $8,738.60 | | $7,666.92 | | $0.00 | | $16,405.52 | | |
| 3.40 - IEEE CB Account Interest | $539.67 | $0.00 | | $0.00 | | $0.00 | | $539.67 | | |
| **Total - Income** | **$539.67** | | **$302,888.60** | | **$265,466.92** | | **$0.00** | | **$568,895.19** |
| **Gross Profit** | **$539.67** | | **$302,888.60** | | **$265,466.92** | | **$0.00** | | **$568,895.19** |
| **Expense** |  | |  | |  | |  | |  |
| 4.110 - Site Survey | $0.00 | | $0.00 | | $2,339.14 | | $0.00 | | $2,339.14 |
| 4.111 - Deposit | $0.00 | | $0.00 | | $0.00 | | $50,000.00 | | $50,000.00 |
| 4.113 - Venue | $0.00 | | $19,200.06 | | $10,805.03 | | $0.00 | | $30,005.09 |
| 4.12 - Financial Fees | $0.00 | | $19,396.46 | | $17,676.21 | | $20.00 | | $37,092.67 |
| 4.13 - Meeting Planner | $0.00 | | $51,061.35 | | $44,330.15 | | $0.00 | | $95,391.50 |
| 4.14 - Food & Beverage | $0.00 | | $129,456.46 | | $93,164.43 | | $0.00 | | $222,620.89 |
| 4.15 - Network Services | $0.00 | | $47,590.07 | | $49,954.69 | | $0.00 | | $97,544.76 |
| 4.16 - Social | $0.00 | | $33,673.00 | | $21,411.32 | | $0.00 | | $55,084.32 |
| 4.17 - Shipping | $0.00 | | $3,576.33 | | $10,678.59 | | $0.00 | | $14,254.92 |
| 4.18 - Misc Expense | $0.00 | | $1,016.92 | | $1,158.30 | | $0.00 | | $2,175.22 |
| **Total - Expense** | **$0.00** | | **$304,970.65** | | **$251,517.86** | | **$50,020.00** | | **$606,508.51** |
| **Net Ordinary Income** | **$539.67** | | **($2,082.05)** | | **$13,949.06** | | **($50,020.00)** | | **($37,613.32)** |
| **Net Income** | **$539.67** | | **($2,082.05)** | | **$13,949.06** | | **($50,020.00)** | | **($37,613.32)** |

**8:16** Wireless and IMAT announcements by Jon Rosdahl (15-14-035-04)

**8:20** WG15 Chair informed the group that the former 802 Wireless EC group has been formalized as the 802 EC subgroup with the authority to manage the interim finances. Yesterday’s formal motion approved moving the May 2016 Waikoloa venue to September 2016. Discussed meeting requirements, specifically in-room internet charges, e.g. at this meeting the in-room internet charge is not included in the room rate, hence the 20 euro charge. In the future, this item will be evaluated as to possible options.

**8:28** Review future sessions (document # 15-14-0500-01)

* November 2-7, 2014, Grand Hyatt San Antonio, San Antonio, TX, USA, 802 Plenary Session
* January 11-16, 2015 Hyatt Regency Atlanta, Atlanta, GA, USA Interim\*
* March 8-13, 2015 March 15-20, 2015, Estrel Hotel and Convention Center, Berlin, Germany, Plenary Session.
* May 10-15, 2015 Hyatt Regency Vancouver Interim\*
* July 12-17, 2015, Hilton Waikoloa Village, Kona, HI, USA
* September 13-18, 2015, TBD Bangkok or K-L\*
* November 8-13, 2015, Hyatt Regency Dallas, Dallas, TX, USA
* January 17-22, 2016, Hyatt Regency Atlanta, Atlanta, GA, USA\*
* March 13-18, 2016, Sands Venetian Hotel Macau, PRC (TBC)

**8:40 Working Group Updates**

802.11 by Adrian Stephens, (document 11-14-0998-01)

* 329 voters
* 802.11 revision will be published in 2016 including 802.11aa, 802.11ae, 802.11af, 802.11ac, 802.11ad

802.15 by B Heile (document 15-14-0222-02)

* 121 voters
* 802.15.4 revision will be published in2015 including 4e, 4f, 4g, 4j, 4k, 4m, 4p

TG3d -100G

TG4n: CMB

TG4q: ULP (Ultra Low Power) : heading into LB

TG4r: ranging

TG4s: spectrum resource utilization

TG8: PAC (Peer Aware Communications) - working on draft document

TG9: KMP (Key Management Protocol) draft development

TG10-L2R: Layer 2 Routing, hearing proposals

SG 7a Optical Camera Communications

IG 6tisch

IG Dependability

IG Security

802.18 by M Lynch (doc # 18-0023-00)

802.19 S Shellhammer (doc #19-14-65-01)

* 34 voters
* Coexistence Lessons Learned (CLL) Presentation preparation
  + Preparing a presentation on CLL by November Plenary for presentation at a future 3GPP meeting
  + P Nikolich will be calling in on Wednesday PM2 to give an update on a conference presentation he made a few weeks ago on this topic
* Coexistence in Unlicensed Bands (CUB) Interest Group (IG)
  + Working on specifying work for a Study Group, likely to request in November

802.21 Subir Das (doc # 21-14-0135-00)

* 19 voters
* TG21d – multicast group management – Sponsor Ballot will end on 17 September 2014
* TG21m – revision project
* TG21.1 – media independent services and use cases

802.22 Apurva Mody

* 31 voters
* TG22.1 revision project
* TG22.2 spectrum occupation sensing
* TG22b – enhancement for broadband services and monitoring applications

802.24 James Gilb (24-14-19-00)

* 37 voters
* 802.24 includes task groups
* 802.24.1 work includes logistics for new TG
* IoT work includes scope doc

Other 802 news: OMNI RAN this week is working towards consensus on reference model, WG P&P will be updated and should result in each WG rules changes

**9:00** Joint meeting adjourned

**Working group opening plenary**

**9:30** B Heile (ZigBee Alliance), WG chair called the 802.15 WG plenary to order (15-14-0500-01)

Chair reminded attendees that highlights of the IEEE-SA Standards Board Bylaws on Patents in Standards. Chair referred those who wished to review these policies that the IEEE-SA patent policy presentation slides 0-5 and reading the instructions for the WG Chair. (<http://standards.ieee.org/board/pat/pat-slideset.ppt>).

Chair asked participants 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 the use of that standard; there were no responses.

Chair reminded participants of IEEE anti-trust rules and obligations.

Approve/modify joint opening agenda (15-14-0500-02)

* Moved by J Gilb, seconded by T Godfrey. Following neither discussion nor objection the agenda was approved.

Review and approve 802.15 WG minutes from the San Diego session (15-14-0420-00-0000)

* Moved by C Powell, seconded by J Gilb. Upon neither discussion nor objection the joint minutes were approved.

**9:41** Wireless Network Updates by Rick Alfvin (15-14-0035-04)

* Rick described the attendance requirements for the week, 13 meetings must be attended to obtain credit for this session

**9:47** WG recessed

**Wednesday 14 May 2014**

**802.15 mid-session plenary meeting**

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

**TG3d (100G)** by T Kürner

* Hearing presentations

**TG4n (CMB)** by Art Astrin

* finished editing of draft 1, turns into draft 2

**TG4q (ULP)** by Shahriar Emami (15-14-0560-00)

WG Motion 1

*Move that  the 802.15 WG  start a WG Letter Ballot, requesting approval to forward document d1.0P802-15-4q\_Draft\_Standard.pdf  to sponsor Ballot.*

Moved by: Shahriar Emami

Seconded by: Art Astrin

Upon one objection to the motion, a vote was taken with the results of 28/1/3, motion carries.

Coexistence assurance document for inclusion in the letter ballot is 15-14-0565-00-004q

WG Motion 2

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the 802.15.4q draft standard with the following membership: Shahriar Emami, Allan Zhu, Frederik Beer, Hendricus De Ruijter, CHANDRASHEKHAR THEJASWI PS, Kiran Bynam and Youngsoo Kim. The 802.15.4q BRC is authorized to approve comment resolutions 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:   Shahriar Emami         Seconded by Art Astrin

Upon neither discussion nor objection the motion carries

**TG4s (SRU)** by Ben Rolfe

* reviewing TGD
* will be hearing presentations

**TG4s (SRU)** by Shoichi Kitazawa

* heard two presentations
* Motion: *802.15 affirms the appointment of Shoichi Kitazawa as chair of TG4s* Moved by P Kinney, and seconded by Art Astrin. Upon neither discussion nor objection the motion carries.

**TG8 (PAC)** by Myung Lee (CUNY)

* Discussion on harmonization is ongoing

**TG9 (KMP)** by R Moskowitz (Verizon) (15-14-0551-00)

* Closing report

**TG10 (L2R)** by C Powell

* Discussion next steps and how to start draft

**SG7a** by Yeong Min Jang (15-14-0561-00)

* closing report

WG Motion

*Request that the 802.15 WG seek 802 EC approval at the Nov 2014 Plenary to forward the PAR (dcn 15-14-0040-05) and the CSD (dcn 15-14-216-03)  to NesCom, and additionally authorize the 802.15 WG Chair to make any necessary changes to these docs required to support the submission.*

Moved by Yeong Min Jang; Seconded by James Gilb

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

**IGdep** by R Kohno (15-14-0564-00)

* closing report

**IGsec** by Tero Kivinen

* issues are being addressed in SCmaintenance

**IG6t**isch by P Kinney

* meeting at PM1 on Thursday

**SC Maintenance** by P Kinney

* 168 open comments as of this morning
* working the issues from new amendments
* 3 meetings tomorrow

**SC WNG** by P Kinney

1. 802 EC Privacy SG status and plans by Juan Carlos
2. A true low power solution for 802.15.4 by J Gilb
3. Interconnecting 802.15 WPANS with Ethernet Networks by Behcet Sarikaya

**AoB**

**11:03** Recessed until Thursday at 18:30

**Thursday, 15 May 2014**

**18:32** 802.15 WG chair called the meeting to order

**18:33** J Gilb requested to modify the agenda to allow for a motion to modify the 15.4q PAR. Chair advised J Gilb that it would be inappropriate to do so until the TG4q had reviewed this change and would respond to the WG as to its opinion on such.

**18:34** TG3d by Thomas Kürner (15-14-575-00)

**18:40** TG4n (CMB) by Art Astrin (15-14-0563-00)

*“Move that 802.15 WG approve start of a recirculation of*

*d2P802-15-4n\_Draft\_Standard.pdf to Sponsor Ballot”*

*Moved by Art Astrin, seconded by Rick Alfvin*

Upon no discussion nor objection the motion carries with unanimous consent

**18:43** TG4q (ULP) by Shariar Emami (15-14-0560-00)

**18:45** TG4s by Shoichi Kitazawa (15-14-0586-01)

**18:48** TG4r (Ranging) by B Rolfe (15-14-0582-00)

**18:53** TG8 (PAC) by Myung Lee (15-14-0588-00)

**18:58** TG10 (L2R) by Clint Powell (15-14-0578-00)

**19:01** IGsec by T Kivinen (15-14-0583-00)

* Request granted to put the IG Sec into hibernation

**19:06** IG6tisch by Pat Kinney (15-14-0593-00)

**19:10** SCclosing report by Pat Kinney (15-14-0591-00)

*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, Benjamin Rolfe, Clint Powell, Billy Verso, Kunal Shah, Phil Beecher, Fumihide Kojima, and Jeritt Kent. 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 at least 7 days in advance.*

Moved by Pat Kinney Seconded by Ben Rolfe

Upon neither discussion nor opposition, the motion carries

**19:15** 802.24 by James Gilb

* Nothing to report

**AoB**

* Par revision will be reviewed by TG4s

**19:16** Motion *to adjourn* was made by Rick Alfvin, seconded by Clint Powell, upon no objection the motion carried, this session is adjourned.

**Annex A** Attendance = 80

|  |  |  |
| --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** |
| Akiyama | Keiji | Sony Corporation |
| Alfvin | Richard | Verilan |
| Ariyoshi | Masayuki | Advanced Telecommunications Research Institute International (ATR) |
| Astrin | Arthur | Astrin Radio |
| Baron | Stephane | Canon Research Centre France |
| Beer | Frederik | University of Erlangen-Nuremberg, Fraunhofer IIS |
| Boucachard | Philippe | Canon Research Centre France |
| Bynam | Kiran | SAMSUNG |
| Calvert | Chris | Landis Gyr Group Worldwide |
| Cha | Jaesang | Seoul National University of Science and Technology(Seoul Tech) |
| Chang | Kapseok | Electronics and Telecommunications Research Institute (ETRI) |
| Cho | Sungrae | Chung-Ang University |
| 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) |
| Drude | Stefan | NXP Semiconductors |
| Emami | Shahriar | Samsung Information Systems America, Inc. |
| Estrada | Andrew | INDEPENDENT |
| Feil | Henry | OSRAM |
| Flammer | George | Silver Spring Networks Inc. |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Gilb | James | Tensorcom, Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Gottlib | Elad | Silver Spring Networks Inc. |
| Haapola | Jussi | Centre for Wireless Communications / University of Oulu |
| 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 | Seung-Eun | Electronics and Telecommunications Research Institute (ETRI) |
| Horisaki | Koji | TOSHIBA Corporation |
| Hosako | Iwao | National Institute of Information and Communications Technology (NICT) |
| Jang | Yeong Min | Kookmin University |
| Jeong | SangKwon | IMRC |
| Kang | Seok kyu | Telecommunications Technology Association (TTA) |
| Kim | Jaehwan | 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 | Jae Seung | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Myung | CUNY - City University of NY |
| Li | Huan-Bang | National Institute of Information and Communications Technology (NICT) |
| Li | Qing | InterDigital, Inc. |
| Matsumura | Hiroyuki | Sony Corporation |
| Mori | Kenichi | Pansonic Corporation |
| Moskowitz | Robert | Verizon |
| Ngo | Chiu | SAMSUNG |
| Ogawa | Hiroyo | Association of Radio Industries and Businesses (ARIB) |
| P S Bhat | Chandrashekhar | SAMSUNG |
| Perkins | Charles | Futurewei Technologies |
| Popa | Daniel | Itron Inc. |
| Powell | Clinton | PWC, LLC |
| Rabarijaona | Verotiana | National Institute of Information and Communications Technology (NICT) |
| Rolfe | Benjamin | Blind Creek Associates |
| Russell | Paul | InterDigital, Inc. |
| Salazar Cardozo | Ruben | Landis Gyr Group Worldwide |
| Sarikaya | Behcet | Huawei R&D USA |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Sekine | Norihiko | National Institute of Information and Communications Technology (NICT) |
| Shimada | Shusaku | Schubiquist Technologies Guild |
| Shimizu | Masashi | Nippon Telegraph and Telephone Corporation (NTT) |
| Stuebing | Gary | Cisco Systems, Inc. |
| Takai | Mineo | Space-Time Engineering |
| Thubert | Pascal | Cisco Systems, Inc. |
| Togashi | Kou | TOSHIBA Corporation |
| toshimitsu | kiyoshi | TOSHIBA Corporation |
| tsubaki | toshimitsu |  |
| Verso | Billy | DecaWave |
| Villardi | Gabriel | National Institute of Information and Communications Technology (NICT) |
| Yaita | Makoto | Microsystem Integration Laboratories NTT |
| Yang | Xun |  |
| Zhu | Chunhui | SAMSUNG |