IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Minutes of the IEEE P802.11 Full Working Group | | | | |
| Date: 2017-01-16 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | email |
| Stephen McCann | BlackBerry Ltd | The Pearce Building, West Street, Maidenhead,  SL6 1RL, UK | +44 1753 667099 | smccann@blackberry.com |

Abstract

This document constitutes the minutes of the IEEE 802.11 full working group for the January 2017, Atlanta, Georgia, USA meeting.

Please note that all affiliations at this meeting are shown in Annex A.

**IEEE 802 Wireless Interim Meeting – #104 Joint Opening Plenary**

**Grand Hyatt Buckhead**

**Atlanta, GA, USA**

**Jan 16 - 19, 2017**

**Monday, 16 Jan 2017**

8:07 802.11, 802.15, 802.16, 802.18, 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 – Reception on Wednesday 18:00 – 20:30
* Don’t forget, book your room and register for March’s session

Straw Poll of new attendees: 7

8:10 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: (<http://standards.ieee.org/board/pat/pat-slideset.ppt>).

802.15 WG chair read IEEE anti-trust policy.

8:14 Financial report by J Rosdahl (Qualcomm) docs [11-16-01596-00](https://mentor.ieee.org/802.11/dcn/16/11-16-1596-00-0000-),   
[15-17-0032-00](https://mentor.ieee.org/802.15/dcn/17/15-17-0032-00-0000-treasurer-report-january-2017-atlanta.pptx)

Total liabilities and equity $ 565,307.44

8:19 Wireless and IMAT announcements, 15-17-0043-00, by R Alfvin (Linespeed)

8:22 WG15 Chair informed the group that the Wireless Chairs Standing Committee (WCSC) met yesterday, Sunday at 16:00 local time. Chair noted that this is an open meeting, all are encouraged to attend. Minutes are available at [ec-17-0003-00-WCSG](https://mentor.ieee.org/802-ec/dcn/17/ec-17-0003-00-WCSG-802-wireless-chairs-minutes-2017-january-atlanta.docx)

8:23 Review future sessions (document # [15-16-0857-04](https://mentor.ieee.org/802.15/dcn/16/15-16-0857-04-0000-802-15-atl-2017-graphic-agenda.xlsx))

* March 12-17, 2017, Hyatt Regency Vancouver, *802 Plenary Session.*
* May 7-12, 2017, Daejeon Convention Center, Daejeon, Korea (TBC), *802 Wireless Interim Session.*
* July 9-14, 2017, Estrel Hotel and Convention Center, Berlin, Germany, 802 Plenary Session.
* September 10-15, 2017, Hilton Waikoloa Village, Kona, HI, USA, 802 Wireless Interim Session.\*
* November 5-10, 2017, Caribe Hotel and Convention Center, Orlando, FL, USA, 802 Plenary Session
* January 14-19, 2018, Hotel Irvine, Irvine, California, 802 Wireless Interim Session.\*
* March 4-9, 2018, Hyatt Regency O'Hare, Rosemont, IL, USA, 802 Plenary Session
* May, 2018, EMEA destination, 802 Wireless Interim Session.\*
* July 8-13, 2018, Manchester Grand Hyatt, San Diego, CA, USA, 802 Plenary Session
* September 9 - 14, 2018, Hilton Waikoloa Village, Kona, HI, USA, 802 Wireless Interim Session.\*

8:27 Working Group Updates

802.11 by Adrian Stephens (Intel), (document [11-16-1561-00](https://mentor.ieee.org/802.11/dcn/16/11-16-1561-00-0000))

* 359 voters

802.15 by B Heile (document [15-16-0857-04](https://mentor.ieee.org/802.15/dcn/16/15-16-0857-04-0000-802-15-atl-2017-graphic-agenda.xlsx))

* 94 voters
* TG3d: 100G
* TG3e: HRCP (High Rate Close Proximity)
* TG4s: SRU (Spectrum Resource Utilization)
* TG4t: High(er) rate amendment
* TG4u: India 865 Band Phy (IBP) amendment
* TG4v: Regional Sub-GHz Bands adds and updates
* TG 7m: Optical Wireless Communications
* TG8: PAC (Peer Aware Communications)
* TG10: L2R (Layer 2 Routing)
* TG12 Upper Layer Interface (ULI) for 802.15.4
* SC IETF
* IG VOC (Vehicular Optical Communications)
* IG LPWA (low power wide area)

802.18 by J Holcomb

* ETSI BRAN and ERM TG11 updates
* CEPT CPG PT-D
* EU Radio Equipment Directive Status
* ACMA Consultations
* Developing IEEE 802 positions for WRC-19

802.19 T Baykas ([19-17-0003-02-0000](https://mentor.ieee.org/802.19/dcn/17/19-17-0003-02-0000-jan-2017-opening-report.pptx))

* 3GPP Liaison - will discuss reports

802.21 S Das

* 21 voting members

802.24 Tim Godfrey ([24-17-0002-00-0000](https://mentor.ieee.org/802.24/dcn/17/24-17-0002-00-0000-january-2017-meeting-presentation.pptx))

* Task Groups
  + 802.24.1 Smart Grid TG
  + 802.24.2 IoT TG Chris DiMinico

AoB

8:42 Joint meeting adjourned

**IEEE 802.11 Interim Meeting – Session #161**

**Grand Hyatt (Buckhead), Atlanta, Georgia, USA**

**January 16th – 20th, 2017**

**IEEE 802.11 Opening Plenary, Monday 16th January 2017**

Presiding chair: Adrian Stephens (Intel) opened the meeting at 09:00 Eastern Standard Time (EST) and declared Quorum for the Session.

2nd Vice-chair (VC2): Dorothy Stanley Hewlett Packard Enterprise

1st Vice-chair (VC1): Jon Rosdahl Qualcomm

Secretary: Stephen McCann BlackBerry Ltd

There are 359 voting members and 12\*\* Ex Officio voters of IEEE 802.11

There were 182 people in the room

\*\* who ask to be recognized as such in the 802.11 voters list.

1. **Notices** (11-16-1561r0)
   1. No photographs at this meeting and please turn your mobiles to vibrate.
   2. Johnathan Goldberg is at this meeting representing the IEEE-SA.
   3. Chair: Are there any members of the press present.
      1. None
2. **Approve/modify joint opening agenda** (11-16-1559r1)
   1. Chair: This is a summary of all room allocations for the week.
   2. Chair: I suggest we approve this agenda.
   3. **Move to approve the agenda 11-16-1559r1 (“Agenda Graphic” tab and the “WG11” tab Monday agenda)**
      1. Moved: Al Petrick, 2nd: John Notor
      2. No objection to approving by unanimous consent
3. **November 2016 WG Minutes**
   1. **Move to approve the San Antonio November 2017 WG minutes document 11-16-1386r1**
   2. Moved: Stephen McCann, 2nd: Stuart Kerry
   3. Following neither discussion nor dissent the minutes were approved by unanimous consent.
4. **Attendance**
   1. Welcome to the 11 new participants in this meeting.
   2. Chair: Please note that Stephen McCann (Secretary) will be holding a newcomer’s session at 10:30.
   3. The room is Peachtree, on the third level.
5. **Call for essential Patents** (11-16-1579r0)
   1. VC2: read out the current PatCom rules and then called for essential patents information, as shown by:
   2. <http://standards.ieee.org/board/pat/pat-slideset.ppt>
      1. There were no issues raised regarding the call for essential patents. There was no response to the call for essential patents.
   3. VC2: read out other policies and procedures for the meeting.
   4. VC2: There are also several current documents which describe the policies and procedures. Note that this a new slide as shown in slide #8, resulting from the EC meeting regarding dominance allegations in November 2016. Please note other P&P changes as shown on Slide #12.
   5. No questions
6. **Announcements**
   1. **Liaisons (11-16-1561r0 slide #4)**
      1. Chair: This is a summary of the single liaison from 3GPP RAN1. This work will be passed to the IEEE 802.11 PDED ad-hoc and IEEE 802.19.
      2. IEEE 802.19 chair: There will be some presentations in Monday PM2 and throughout the week on this topic.
      3. Question (Q): I note that there’s a lot of stale documents on the server.
      4. Chair: Can you please come back to this question on Wednesday.
   2. **Other information and agendas for this meeting (slide #6)**
      1. Chair: This is information about the other IEEE 802.11 and IEEE 802 group meeting logistics for this week. Please note the joint meetings and reciprocal credit with some of the other IEEE 802 groups.
   3. **Meeting logistics (11-16-1597r0 slide #4)**
      1. VC1: this slide deck shows information about future meetings and logistics this week.
      2. Slide #5 shows a link to this week’s online room schedule. Most meetings are being held on level 2 and 3 of this hotel. Please note that as this hotel has multiple entrances, so be aware of your belongings.
      3. There is an online google IEEE 802.11 calendar which is available for most hand held devices.
      4. Q: I believe that the IEEE 802.18 chair requested that their meetings be shown on this IEEE 802.11 calendar.
      5. The next meeting is in March 2017 in Vancouver, Canada. The IEEE 802.11 will be in the Hyatt Regency, as the meeting is shared between 2 hotels. Please note that Canada now requires a new eTA, electronic visa. This also applies to US residents who are green card holders.
      6. There will be more information about the Daejeon meeting in May 2017, in a couple of weeks’ time.
      7. For this meeting there are 322 people registered.
   4. **Recording Attendance (slide #11)**
      1. VC1: Please remember to record your attendance for each 2 hour slot during the week.
   5. **WG Documents (slide #11)**
      1. VC1: If you want to synchronize all the documents on mentor, please use the local server and not the external link. The IT support company this week is Linespeed, so please note the new SSID, links and URLs. The IT support center is in Cassis A.
   6. **Social and Catering options (slide #15)**
      1. VC1: Please note that breakfast and lunch is available within the hotel. The hotel bars are provided special drinks.
      2. There is a social on Wednesday evening, here in the hotel. There may be some free drink tickets, although that has not been confirmed as of yet.
      3. Guests are also invited along, although they do require a guest badge.
      4. Within the hotel rooms, Wi-Fi is provided for free.
7. **IEEE standards board decisions** (11-16-1561r0 slide #7)
   1. Chair: These are the decisions made by the IEEE standards board. IEEE 802.11REVmv, ah and ai are now complete.
   2. The IEEE 802 EC also ratified the process of the 11ax dominance investigation and also ratified by the IEEE standards board.
   3. Chair: As of this meeting, there are no IEEE 802.11 members who are subject to 11ax special measures. There is an appeal which will be processed by the IEEE standards board regarding the decision of IEEE 802.11 on 11ax dominance.
   4. No questions.
8. **Status of all groups** (11-16-1561r0 slide #11)
   1. **Sub-Group Status**
      1. Chair: this summarizes all the IEEE 802.11 sub-groups including officers.
      2. There are two new groups this week, Wake-Up Radio (11ba) and Light Communications (LC) TIG.
      3. Slide #16 shows the updated status of the IEEE 802.11 projects. At the moment, it looks as though 11ah will be published in April 2017.
      4. The 11ax D1.0 letter ballot failed and generated about 7,000 comments.
   2. **Voting Status**
      1. Following this week’s meeting, several people will loose their voting rights as they did not vote on the 11ax letter ballot.
      2. Comment (C): There are now free copies of IEEE 802.11-2016 and IEEE 802.11ai-2016 which are available to members for the next few weeks.
      3. Q: The documents that were published do not have line numbers. Is it possible to produce a version with line numbers please?
      4. Chair: I’ll ask the IEEE-SA representative to see if this can be done.
9. **Group Summaries** (11-16-1570r1)
   1. Special notes were mentioned for the following groups:
   2. **Editor’s meeting**
      1. Tomorrow morning at 7.00am, including the ANA status, style guides and numbering situation. There is also an addition Thursday AM1 meeting dealing with the style guidelines. This is indicated as “style” on the meeting schedule.
   3. **WNG**
      1. There is 1 presentation this week for this group and possibly a second.
   4. **TGax**
      1. The initial letter ballot failed and there are 7,000 comments which will now be processed.
   5. **TGba**
      1. This group is meeting for the first time this week.
   6. **LC TIG**
      1. This group is meeting for two sessions this week.
10. **Recess**
    1. Meeting recessed at 10:08 EST.

**Wednesday, 18th January 2017**

**IEEE 802.11 Mid-Week Plenary**

Presiding chair: Adrian Stephens (Intel) opened the meeting at 10:30 EST.

160 people present.

1. **Approve/modify joint opening agenda** (11-16-1559r1)
   1. Chair: There are a couple of minor changes to the agenda
   2. **Move to approve the agenda 11-16-1559r2 on “WG11” tab Wednesday’s agenda.**
      1. Moved: Al Petrick, 2nd: Edward Au
      2. No objection to approving the agenda by unanimous consent.
2. **Call for Essential Patents** (11-16-1562r0)
   1. The chair read out the Potentially Essential Patents slide.
   2. No statements were made
   3. The chair also mentioned the new participation slide #5
3. **CAC**
   1. Reminder about 19.30 EST meeting on Thursday. The purpose of this meeting is to prepare for the Friday closing plenary.
4. **Announcements** (11-16-1597r0)
   1. VC1: Please note the small changes regarding the social on slide #17. I’d also like to thank the Grand Hyatt hotel for their sponsorship of some of the drinks.
   2. Chair: I would also like to recognize Phil Wilson who is attending from the IEEE board of governors
5. **Wi-Fi Alliance Liaison** (11-17-0121r0)
   1. The next meeting will be in Sydney, Australia starting on February 7th 2017.
   2. No questions
6. **IETF Liaison** (11-16-1582r0)
   1. This is report about the current IEEE 802.11 related activities within the IETF.
   2. The next meeting is at the end of March 2017 in Chicago.
   3. Q: Regarding the DiffServ topic on slide #20, is this of interest to TGmd? I ask this because the mapping is different between IEEE 802.1 and IEEE 802.11.
   4. Answer (A): Within that IETF work, there are no changes to the IEEE 802.11 use at the moment. If something does change, then it would fall within the scope of the IEEE 802.11md work.
7. **IEEE 802.18 Liaison** (11-17-0159r0)
   1. This liaison is being presented by the IEEE 802.18 vice-chair.
   2. No questions
8. **Room assignment updates** (11-16-1559r2)
   1. TGax: Please delete one of the PM1 and PM2 rooms for Wednesday.
   2. TGay: Please can we have one slot.
   3. Chair: Thurs PM1.
   4. TGba: Please can we have two more slots.
   5. Chair: Wed PM1 and Wed PM2
   6. **Motion to approve the updated room graphic in the agenda 11-16-1559r2**
      1. Moved: Mark Hamilton, 2nd: Dorothy Stanley
      2. No objection to approving by unanimous consent.
9. **AANI Liaisons**
   1. AANI Chair: As reported during the Monday plenary, there are 3 liaisons that AANI are working on for 3GPP.
   2. Hopefully there will some completed liaisons for approval at the Friday closing plenary this week:
   3. 11-16-1510 liaison to RAN2
   4. 11-16-1573 liaison to RAN
   5. VC2: Do you think you’ll require motions for these two liaisons on Friday?
   6. A: yes, assuming they are approved by the AANI ad-hoc.
10. **IEEE 802.11-2016 Revision PAR proposal** (11-17-0004r0)
    1. VC2: This is a PAR proposal for IEEE 802.11-2016 as we already have two amendments (11ai, 11ah) that can be incorporated and in addition 11aq may appear in the summer of 2017.
    2. VC2: I would like to bring this PAR for approval during the Friday closing plenary this week. The text within this document will form the PAR online submission.
    3. VC2: the plan is to start TGmd in May 2017.
    4. VC1: The PAR needs to be posted by early February to get on the EC agenda for the March plenary.
11. **Any Other Business**
    1. Meeting recessed at 11:15 EST

**Friday, 20th January 2017**

**IEEE 802.11 Closing Plenary**

Call to order at 08:00 EST by Adrian Stephens (Intel).

56 people present in the room.

1. **Agenda** (11-16-1559r3)
   1. Chair: There have been some minor changes to the agenda from earlier this week.
   2. **Adopt the changes to the agenda as shown in 11-16-1559r3**
      1. Moved: Jon Rosdahl, 2nd: Al Petrick
      2. No objection to approving by unanimous consent.
2. **Call for Essential Patents**
   1. Call for Essential Patents and Letters of Assurance (LoA)
   2. No statements
   3. No questions
3. **Announcements (11-16-1562r1)**
   1. **Participation**
      1. Please can you remember to read this slide and understand that everyone is here as an individual subject matter expert.
   2. **Chair’s minutes, reports and web pages**
      1. Please can you ensure that the sub-group minutes are on the server within 30 days after the close of this meeting. Please can you also send web-page and timeline updates to the secretary.
      2. Please be aware of the Chair’s schedule for the chair’s committee meetings (CAC), which are on 6th February and 6th March 2017 at noon ET.
      3. Q: Please note that the first CAC date is during a Wi-Fi Alliance meeting.
      4. Chair: Thanks. It may need be reconsidered.
   3. **Letters of Assurance (LoA)** (slide #11)
      1. Chair: please remember about the LoA requirements.
   4. **IEEE Store and ISO SCG** (slide #12)
      1. Chair: Please can everyone review the state of the store and drafts going to ISO SCG
      2. Please note that after 6 months, documents appear within the “Get 802” scheme.
      3. There are no drafts which have been liaised to ISO in the last 2 months, although there are some motions later in today’s meeting regarding some new drafts.
      4. No questions
4. **Current Venues** (11-16-1597r2 slide #20)
   1. **Straw Poll: How many people would like to come back to this venue?**
   2. Y: 45, N: 0
   3. **Straw Poll: How many people enjoyed the social?** 21, **Did not**: 10
   4. **Straw Poll: How many people did not attend the social?** 0
   5. **Straw Poll: How many people would prefer to come to this Hyatt hotel, as opposed to the downtown one?** 44
   6. **Straw Poll: Those who prefer the downtown Hyatt:** 3
5. **Upcoming Venues** (11-16-1597r1 slide #21)
   1. VC1: This slide shows the future wireless interim locations. There is an opportunity to return to Waikoloa there in 2021 and 2022, with a bonus rate for 2023.
   2. **Straw Poll: Should we take the offer and go to Waikoloa for these 2 years**: Y: 31, N: 9
   3. **Straw Poll: Should we take the offer for the extra 3rd year:** Y: 26, N: 9
   4. Slide #23 shows the confirmed upcoming wireless sessions.
   5. Slide #24 shows the confirmed upcoming plenary sessions and please remember about the new Canadian immigration eTA requirements that came into effect this year.
6. **Treasury Report** (11-16-1596r0)
   1. VC1: This is the treasurer’s report from 31st December 2016. The final figures for this week will be available later in the year. The number of attendees are down a little, but it looks as though we’ll break event this week.
7. **Documentation & Attendance** (11-16-1581r0 slide #2)
   1. These are the usual attendance statistics for this week and IEEE 802.11ax is by far the largest project this week, although IEEE 802.11ba is close behind.
   2. The number of document uploads per meeting is quite steady, although the trend is a slow decrease at the moment.
8. **Liaison Reports**
   1. **IEEE 802.18** (11-16-1581r0 slide #76)
      1. C: Regarding the ITU-R, some of these liaison requests are from many years ago. Therefore, it’s for updated information rather than new documentation.
      2. Chair: Are you receiving enough input from IEEE 802.11 members in IEEE 802.18
      3. IEEE 802.18 vice-chair: Yes, I think it’s ok.
      4. C: The two-hour meeting yesterday with the UK OfCom representative Andy Gowens was excellent and I would like to thank him for attending this meeting.
9. **WG Committee Reports** (11-16-1581r0)
   1. **Technical editor** (slide #8)
      1. Please note the style guide for all drafts, including creating all figures in Visio.
      2. No questions
   2. **AANI Standing Committee** (slide #16)
      1. No questions
   3. **ARC Standing Committee** (slide #20)
      1. No questions
   4. **WNG** (slide #27)
      1. There was 1 presentation this week.
      2. No questions
   5. **PDED ad-hoc** (slide #29)
      1. Chair: It was interesting to see that the meeting room was packed this week and so I suggest that this ad-hoc continues.
   6. **JTC1** (slide #32)
      1. No questions
   7. **TGaj** (slide #35)
      1. No questions.
   8. **TGak** (slide #42)
      1. No questions
   9. **TGaq** (slide #47)
      1. No questions
   10. **TGax** (slide #49)
       1. There will be an ad-hoc in March 2017 in San Diego and teleconferences nearly every week to continue with comment resolutions.
       2. No questions
   11. **TGay** (slide #55)
       1. No questions
   12. **TGaz** (slide #59)
       1. No questions
   13. **TGba** (slide #66)
       1. This week was the first meeting of this group
       2. No questions
   14. **LC TIG** (slide #73)
       1. Q: How do you participate or contribute to the tutorial that was mentioned?
       2. A: I think there will be a call for contributions in the next few days.
       3. Chair: There’s also an opportunity to have a tutorial in July 2017, if March 2017 is too early.
10. **Liaison Reports** (11-16-1581r0)
    1. **IEEE 802.24** (slide #83)
       1. No questions
    2. **IEEE 802.1CF – OmniRAN** (slide #86)
       1. No questions
11. **Working Group Motions (Old Business)** (11-16-1580r0)
    1. **Teleconferences** (slide #5)
       1. **Move to approve the following teleconferences**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Group** | **Date(s)** | **Start** | **Duration** | | |
| **CAC** | **Mon Jan 30, Mar 6th** | **Noon ET** | | **1 hr** | |
| **TGaj** | **Thurs Mar 2** | **20:00 ET** | | **1 hr** | |
| **ARC** | **With 10 day notice** |  | | |  |
| **TGak** | **Mon Jan 30, Feb 13, 20, 27** | **10:00 ET** | | **1.5 hrs** | |
| **TGaq** | **Friday Feb 10, 17, 24, Mar 3, 10** | **Noon ET** | | **2 hrs** | |
| **TGax** | **Thurs Feb 2, 23, Mar 30 Thurs Feb 16, Mar 2, 23, Apr 6** | **10:00 ET**  **20:00 ET** | | **2 hrs**  **2 hrs** | |
| **TGay** | **Wed Feb 15, 22, Mar 1** | **10:00 ET** | | **1 hr** | |
| **TGaz** | **Wed Mar 8** | **10:00 ET** | | **1 hr** | |
| **TGba** | **Mon Feb 6**  **Mon Feb 13**  **Mon Feb 27** | **10:00 ET**  **17:00 ET**  **23:00 ET** | | **1.5 hrs** | |
| **LC TIG** | **Mon Feb 13, Mar 6, Apr 10, May 1** | **TBA** | | **1 hr** | |

* + 1. Moved: Dorothy Stanley, 2nd: Al Petrick
    2. No objection to approving by unanimous consent.
  1. **TGba Chair Confirmation** (slide #6)
     1. **Move to confirm Minyoung Park as TGba chair.**
     2. Moved: Dorothy Stanley, 2nd: Edward Au
     3. No objection to approving by unanimous consent.
  2. **AANI Vice Chair Confirmation** (slide #7)
     1. **Move to confirm Roger Marks as AANI Vice-chair.**
     2. Moved: Joseph Levy, 2nd: Mark Hamilton
     3. [AANI Straw Poll result: 16-0-0]
     4. No objection to approving by unanimous consent
  3. **Liaison response to 3GPP RAN2** (slide #8)
     1. **The IEEE 802.11 WG approves sending the response in 11-16-1510r2 to 3GPP RAN2 in response to their liaison in 11-16-1384, granting the WG chair editorial license**
     2. Moved: Joseph Levy, 2nd: Paul Nikolich
     3. C: This is a response liaison to 3GPP RAN2. It’s been worked on since the November 2016 meeting and is a well thought through response.
     4. [AANI Straw Poll result: 20-0-2]
     5. For: 36, Against: 0, Abstain: 5 (Motion passes)
  4. **Liaison response to 3GPP RAN TSG** (slide #9)
     1. **The IEEE 802.11 WG approves sending the response in 11-16-1573r3 to 3GPP RAN TSG in response to their actions related to the IEEE 802.11 liaison in 11-16-1101, granting the WG chair editorial license.**
     2. Moved: Joseph Levy, 2nd: Paul Nikolich
     3. [AANI Motion Moved: Paul Nikolich, Seconded: Stephen McCann Result: 16-0-3]
     4. For: 33, Against: 0, Abstain: 3 (Motion passes)
  5. **Submit new standards to ISO/IEC JTC1** (slide #10)
     1. **Motion : IEEE 802.11 WG approves the submission of**

**IEEE 802.11-2016,**

**IEEE 802.11ai-2016 and**

**IEEE 802.11ah-2016 (upon publication)**

**to ISO/IEC JTC1 for ratification as ISO/IEC/IEEE international standards under the PSDO agreement**

* + 1. Moved: Peter Yee, Seconded: Stephen McCann
    2. Chair: If this motion passes, then I will bring a subsequent motion to the Executive Committee (EC)
    3. For: 39, Against: 0, Abstain: 0 (Motion passes)
  1. **Liaise P802.11aq to ISO IEC/JTC1** (slide #11)
     1. **Liaise the following draft to ISO/IEC JTC1/SC6 under the PSDO agreement**

**P802.11aq D7.0**

* + 1. VC2: this is because documents in sponsor ballot are typically liaised to ISO
    2. Moved: Peter Yee, Seconded: Peter Ecclesine
    3. For: 37, Against: 0, Abstain: 2 (Motion passes)
  1. **TGaj Working Group LB D5.0** (slide #12)
     1. **Having approved comment resolutions for all of the comments received from LB226 on TGaj Draft D4.0 as contained in document 11-17/0158r1,**
     2. **Instruct the editor to prepare Draft D5.0 incorporating these resolutions and**
     3. **Approve a 15 day Working Group Recirculation Ballot asking the question “Should TGaj Draft\_D5.0 be forwarded to Sponsor Ballot?”**
     4. Moved: Jiamin Chen on behalf of TGaj
     5. [TG vote: Moved: Haiming Wang Seconded: Dejian Li Result: 5-0-0]
     6. For: 35, Against: 0, Abstain: 1 (Motion passes)
  2. **TGax ad-hoc** (slide #13)
     1. **Authorize TGax to hold an ad-hoc meeting on March 8-10 in San Diego, for the purpose of comment resolution.**
     2. Moved by Osama Aboul-Magd on behalf of TGax
     3. Chair: Who is hosting the meeting?
     4. TGax chair: It will be Qualcomm and there will be 2 rooms available.
     5. [TGax result: Moved: Bin Tian, Seconded: Yasu Inoue, Result: 55-0-11]
     6. For: 35, Against: 0, Abstain: 1 (Motion passes)
     7. Chair expressed thanks to Rolf de Vegt and Qualcomm for hosting the ad-hoc.
  3. **Revision PAR** (slide #14)
     1. **Believing that the PAR contained in the document referenced below meets IEEE-SA guidelines,**
     2. **Submit the revision PAR contained in 11-17/0004r1 to the IEEE 802 EC for approval and forwarding to NesCom.**
     3. Moved: Dorothy Stanley, Seconded: Guido Hiertz
     4. Chair: If approved then I will post this to the NesCom agenda for later in the year.
     5. For: 38, Against: 0, Abstain: 1 (Motion passes)
     6. Chair: I would like to thank Dorothy Stanley for organizing this PAR.

1. **Next Meeting** (11-16-1562r1 slide #15)
   1. The next meeting is at the Hyatt Regency, Vancouver, BC in March 2017. Registration is now open for this meeting and please note the new type of web-page.
   2. There will be an IEEE 802 Wireless Chairs meeting as shown in Slide #14 at the March 2017 meeting. This is an open meeting and everyone is welcome.
   3. VC1: Please note that there is a second hotel, the Fairmont, where most of the IEEE 802 wired meetings will occur. This hotel is on the opposite side of the road from the Hyatt.
2. **AoB:**
   1. **Timeline chart**
   2. This will be updated in the next few days, with the addition of a new line for TGba.
3. **Adjournment**
   1. Chair: Having completed the agenda, the chair announced that the meeting was adjourned at 09:33 EST.

**Annex A: Attendance & Affiliation**

| **Name** | **Affiliation** | **Attended >= 75%?** |
| --- | --- | --- |
| Aboulmagd, Osama | Huawei Technologies Co. Ltd | Yes |
| Adachi, Tomoko | TOSHIBA Corporation | Yes |
| Ahn, Woojin | WILUS | Yes |
| Aio, Kosuke | Sony Corporation | Yes |
| Aldana, Carlos | Intel Corporation | Yes |
| Ansley, Carol | ARRIS Group | Yes |
| Armstrong, Lee | US Department of Transportation | Yes |
| Assmann, Ralf | Marvell Semiconductor, Inc. | No |
| Asterjadhi, Alfred | Qualcomm Incorporated | No |
| Au, Kwok Shum | Huawei Technologies Co. Ltd | Yes |
| Azizi, Shahrnaz | Intel Corporation | Yes |
| baron, stephane | Canon Research Centre France | Yes |
| Batra, Anuj | Apple, Inc. | Yes |
| Berger, Christian | Marvell Semiconductor, Inc. | Yes |
| Bhandaru, Nehru | Broadcom Corporation | Yes |
| Bims, Harry | Bims Laboratories, Inc. | No |
| Brown, Alan | ADTRAN Inc. | Yes |
| Calcev, George | Huawei R&D USA | Yes |
| Cariou, Laurent | Intel Corporation | No |
| Carney, William | Sony Corporation | Yes |
| Cha, Jaesang | Seoul National University | No |
| Chang, Soo-Young | California State University, Sacramento (CSUS) | No |
| Chen, Cheng | Intel Corporation | Yes |
| Chen, Jiamin | HUAWEI | Yes |
| Chen, Peng | Huawei Technologies Co. Ltd | Yes |
| Chen, Xiaogang | Intel Corporation | Yes |
| Cheng, Gary | Peraso Technologies Incorporated | Yes |
| Cheng, Yong | Huawei Device | Yes |
| Cheong, Minho | Newracom Inc. | Yes |
| CHERIAN, GEORGE | Qualcomm Incorporated | Yes |
| Cherniavsky, Dmitry | SiBEAM, Inc. | Yes |
| Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. | Yes |
| Choi, Jinsoo | LG ELECTRONICS | Yes |
| Chu, Liwen | Marvell Semiconductor, Inc. | Yes |
| Ciochina, Dana | Sony Corporation | Yes |
| Coffey, John | Realtek Semiconductor Corp. | Yes |
| Cordeiro, Carlos | Intel Corporation | Yes |
| da Silva, Claudio | Intel Corporation | Yes |
| Dash, Debashis | Quantenna Communications, Inc. | Yes |
| Dauphinee, Leonard | MaxLinear Corp | Yes |
| de Vegt, Rolf | Qualcomm Incorporated | Yes |
| Derham, Thomas | Broadcom Corporation | No |
| Eastlake 3rd, Donald | Huawei Technologies Co. Ltd | Yes |
| Ecclesine, Peter | Self | Yes |
| Erceg, Vinko | Broadcom Corporation | Yes |
| Estrada, Andrew | Sony Corporation | Yes |
| Fang, Ping | Huawei Device Co. Ltd | Yes |
| Fang, Yonggang | ZTE TX Inc | Yes |
| Finn, Norman | Cisco Systems, Inc. | No |
| Fischer, Matthew | Broadcom Corporation | Yes |
| Fujio, Shunsuke | FUJITSU LABORATORIES LIMITED | Yes |
| Furuichi, Sho | Sony Corporation | Yes |
| Gan, Ming | Huawei Technologies Co. Ltd | Yes |
| Ghosh, Chittabrata | Intel Corporation | Yes |
| Golmie, Nada | National Institute of Standards and Technology (NIST) | No |
| Grandhe, Niranjan | Marvell Semiconductor, Inc. | Yes |
| Guo, Qiang | Huawei R&D USA | Yes |
| Guo, Yuchen | Huawei Technologies Co. Ltd | Yes |
| Hall, Robert | Johnson Controls Inc | Yes |
| Hamilton, Mark | Ruckus Wireless | No |
| HAN, Xiao | Huawei Technologies Co. Ltd | Yes |
| Han, Yunbo | HUAWEI | Yes |
| Hansen, Christopher | Peraso Technologies Incorporated | Yes |
| Harkins, Daniel | Aruba Networks, Inc. | Yes |
| Hartman, Chris | Apple, Inc. | Yes |
| Hedayat, Ahmadreza | Newracom Inc. | Yes |
| Henry, Jerome | Cisco Systems, Inc. | Yes |
| Hiertz, Guido | Ericsson AB | Yes |
| Hovaizi, Fraidoon | VLNComm | No |
| Huang, Lei | Panasonic Asia Pacific Pte Ltd. | Yes |
| Huang, Po-Kai | Intel Corporation | Yes |
| Huang, Rongsheng | MediaTek Inc. | Yes |
| Huang, Zhiyong | LitePoint Corporation/Teradyne Inc | Yes |
| Hurtarte, Jeorge | Teradyne, Inc. | Yes |
| Hwang, Sung Hyun | Electronics and Telecommunications Research Institute (ETRI) | Yes |
| Inoue, Yasuhiko | Nippon Telegraph and Telephone Corporation (NTT) | Yes |
| Iqbal, Zabed | Georgia Southern University | Yes |
| Ishizu, Kentaro | National Institute of Information and Communications Technology (NICT) | Yes |
| Iwatani, Junichi | Nippon Telegraph and Telephone Corporation (NTT) | Yes |
| Jeffries, Timothy | Huawei R&D USA | Yes |
| jiang, feng | Intel Corporation | Yes |
| Jin, Liang | Spirent Communications | Yes |
| Jones, Vincent Knowles IV | Qualcomm Incorporated | No |
| Jungnickel, Volker | Fraunhofer HHI | No |
| Kain, Carl | Noblis, Inc. | Yes |
| Kakani, Naveen | Qualcomm Incorporated | Yes |
| Kapetanovic, Dzevdan | Ericsson AB | Yes |
| Kasher, Assaf | Qualcomm Incorporated | Yes |
| Kedem, Oren | Intel Corporation | Yes |
| Kerry, Stuart | OK-Brit | Yes |
| Kim, Igor | Electronics and Telecommunications Research Institute (ETRI) | Yes |
| Kim, Jeongki | LG ELECTRONICS | Yes |
| Kim, Jin Min | LG ELECTRONICS | No |
| Kim, Sang Gook | LG ELECTRONICS | Yes |
| Kim, Suhwook | LG ELECTRONICS | Yes |
| Kim, Yongho | Korea National University of Transportation | Yes |
| Kim, Youn-Kwan | The Catholic University of Korea | Yes |
| Kitazawa, Shoichi | ATR Wave Engineering Laboratories | No |
| Kloper, David | Cisco Systems, Inc. | Yes |
| KNECKT, JARKKO | Apple, Inc. | Yes |
| Ko, Geonjung | WILUS Institute | Yes |
| Kojima, Fumihide | National Institute of Information and Communications Technology (NICT) | Yes |
| KOTO, Hajime | National Institute of Information and Communications Technology (NICT) | No |
| Kotzer, Igal | General Motors Company | Yes |
| Kumar, Manish | Marvell Semiconductor, Inc. | Yes |
| Kwon, Young Hoon | Newracom Inc. | Yes |
| Lalam, Massinissa | SAGEMCOM SAS | Yes |
| Lan, Zhou | Huawei Technologies Co. Ltd | No |
| Lanante, Leonardo | Kyushu Institute of Technology | No |
| Lansford, James | Qualcomm Incorporated | Yes |
| Lee, Hyeong Ho | Electronics and Telecommunications Research Institute (ETRI) | No |
| Lee, Jae Seung | ETRI | Yes |
| LEE, SUNGEUN | Cypress Semiconductor Corporation | Yes |
| Leicht, Suzanne | National Security Agency | Yes |
| Lepp, James | BlackBerry | Yes |
| Levy, Joseph | InterDigital, Inc. | Yes |
| Li, Dejian | Huawei Technologies Co. Ltd | Yes |
| Li, Huan-Bang | National Institute of Information and Communications Technology (NICT) | Yes |
| Li, Qinghua | Intel Corporation | Yes |
| Li, Yunbo | Huawei Technologies Co. Ltd | Yes |
| Lim, Sungkyun | Georgia Southern University | Yes |
| Lindskog, Erik | Qualcomm Incorporated | Yes |
| Liu, Jianhan | MediaTek Inc. | Yes |
| Liu, Jinnan | HUAWEI | Yes |
| Loc, Peter | Huawei Technologies Co. Ltd | Yes |
| Lomayev, Artyom | Intel Corporation | No |
| Lv, Kaiying | ZTE Corporation | Yes |
| Lv, Lily | Huawei Technologies Co. Ltd | Yes |
| Ma, Jing | National Institute of Information and Communications Technology (NICT) | Yes |
| MADHAVAN, NARENDAR | TOSHIBA Corporation | Yes |
| Malinen, Jouni | Qualcomm Incorporated | Yes |
| Maltsev, Alexander | Intel Corporation | No |
| Mano, Hiroshi | Koden Techno Info K.K. | Yes |
| MARIAPPAN, VINAYAGAM | SNUT | No |
| Marks, Roger | EthAirNet Associates; Huawei | No |
| Mccann, Stephen | BlackBerry | Yes |
| Monajemi, Pooya | Cisco Systems, Inc. | No |
| Montemurro, Michael | Research In Motion Limited | Yes |
| Montreuil, Leo | Broadcom Corporation | Yes |
| Morioka, Yuichi | Sony Corporation | Yes |
| Moseley, James | Georgia Southern University | Yes |
| Motozuka, Hiroyuki | Panasonic Corporation | Yes |
| Mueller, Robert | Ilmenau University of Technology - TU Ilmenau | Yes |
| Myles, Andrew | Cisco Systems, Inc. | Yes |
| Nandagopalan, SAI SHANKAR | Cypress Semiconductor Corporation | Yes |
| Nejatian, Alireza | Ericsson AB | No |
| Noh, Yujin | Newracom Inc. | Yes |
| Notor, John | Notor Research; ARM, Inc. | Yes |
| Oteri, Oghenekome | InterDigital, Inc. | Yes |
| Ozaki, Kazuyuki | FUJITSU LABORATORIES LIMITED | No |
| Park, Eunsung | LG Electronics | Yes |
| Park, Minyoung | Intel Corporation | Yes |
| Park, Sung-jin | LG ELECTRONICS | No |
| Parsons, Glenn | Ericsson AB | No |
| Patil, Abhishek | Qualcomm Incorporated | Yes |
| Patil, Gaurav | VLNComm | No |
| Persson, Hakan | Ericsson AB | Yes |
| Petranovich, James | ViaSat, Inc. | Yes |
| petrick, Albert | Jones-Petrick and Associates, LLC. | Yes |
| Polland, Joe | CommScope | No |
| Popper, Ambroise | Quantenna Communications, Inc. | Yes |
| porat, ron | Broadcom Corporation | No |
| Qi, Emily | Intel Corporation | No |
| Qiao, Dengyu | Huawei Technologies Co. Ltd | Yes |
| Qu, Shouxing | BlackBerry | Yes |
| Ren, Yazhen | Huawei Technologies Co. Ltd | Yes |
| Riegel, Maximilian | Nokia Networks | No |
| Robert, Joerg | University of Erlangen-Nuremberg | No |
| Rolfe, Benjamin | Blind Creek Associates | No |
| Rong, Zhigang | Huawei Technologies Co. Ltd | Yes |
| Rosdahl, Jon | Qualcomm Technologies, Inc. | Yes |
| Ryu, Kiseon | LG ELECTRONICS | Yes |
| Sadeghi, Bahareh | Intel Corporation | Yes |
| Sakamoto, Takenori | Panasonic Corporation | Yes |
| Sakoda, Kazuyuki | Sony Corporation | Yes |
| Sambasivan, Sam | AT&T | Yes |
| Sato, Naotaka | Sony Corporation | No |
| Schelstraete, Sigurd | Quantenna Communications, Inc. | Yes |
| Seaman, Michael | CONSULTANT | No |
| Segev, Jonathan | Intel Corporation | Yes |
| Seok, Yongho | Newracom Inc. | No |
| Serafimovski, Nikola | pureLiFi | Yes |
| Shah, Kunal | Silver Spring Networks Inc. | Yes |
| Shellhammer, Stephen | Qualcomm Incorporated | No |
| Sherlock, Ian | Texas Instruments Incorporated | Yes |
| Smith, Graham | SR Technologies | Yes |
| Son, Ju-Hyung | WILUS Inc. | Yes |
| Squiers, Ronald | Mentor Graphics | Yes |
| Stacey, Robert | Intel Corporation | Yes |
| Stanley, Dorothy | Hewlett Packard Enterprise | Yes |
| Stephens, Adrian | Intel Corporation | Yes |
| Suh, JUNG HOON | Huawei Technologies Co. Ltd | Yes |
| Sun, Bo | ZTE Corporation | Yes |
| Sun, Chen | Sony Corporation | Yes |
| Sun, Li-Hsiang | InterDigital, Inc. | Yes |
| sun, sheng | Huawei Technologies Co. Ltd | Yes |
| Takahashi, Kazuaki | Panasonic Corporation | Yes |
| Tamhane, Sagar | Marvell Semiconductor, Inc. | Yes |
| Tanaka, Yusuke | Sony Corporation | Yes |
| Taniguchi, Kentaro | TOSHIBA Corporation | Yes |
| Tao, Wu | Huawei Technologies Co. Ltd | Yes |
| Tian, Bin | Qualcomm Incorporated | Yes |
| Trainin, Solomon | Qualcomm Incorporated | Yes |
| Tsai, Chia-Hung | MediaTek Inc. | Yes |
| Urabe, Yoshio | Panasonic Corporation | Yes |
| Vangelista, Lorenzo | Patavina Technologies | Yes |
| Varshney, Prabodh | Nokia | Yes |
| Venkatesan, Ganesh | Intel Corporation | Yes |
| Verma, Lochan | Qualcomm Incorporated | Yes |
| VIGER, Pascal | Canon Research Centre France | Yes |
| Vreeland, Russell | Mentor Graphics | No |
| Wang, Chao Chun | MediaTek Inc. | Yes |
| Wang, Haiming | Southeast University, China | Yes |
| Wang, Hao | Fujitsu Research & Development Center | No |
| Wang, Huizhao | Quantenna Communications, Inc. | Yes |
| Wang, James June | MediaTek Inc. | Yes |
| Wang, Lei | Huawei R&D USA | Yes |
| Wang, Xiaofei | InterDigital, Inc. | Yes |
| Wang, Xu | VLNComm | No |
| Want, Roy | Google | Yes |
| Ward, Lisa | Rohde & Schwarz | No |
| Webber, Julian | Advanced Telecommunications Research Institute International (ATR) | Yes |
| Wentink, Menzo | Qualcomm Incorporated | Yes |
| Wilhelmsson, Leif | Ericsson AB | Yes |
| Wu, Tianyu | MediaTek Inc. | Yes |
| Xin, Yan | Huawei Technologies Co. Ltd | Yes |
| YAGHOOBI, HASSAN | Intel Corporation | No |
| Yamada, Akira | NTT DoCoMo, Inc. | No |
| Yang, Ou | Intel Corporation | Yes |
| YANG, RUI | InterDigital, Inc. | Yes |
| Yang, Xun | Huawei Technologies Co. Ltd | Yes |
| Yang, Yunsong | Huawei Technologies Co. Ltd | Yes |
| Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) | Yes |
| Yee, James | MediaTek Inc. | No |
| Yee, Peter | NSA/IAD | Yes |
| Yi, Su | Fujitsu Research & Development Center | No |
| Yong, Su Khiong | Apple, Inc. | No |
| Yu, Jian | Huawei Technologies Co. Ltd | Yes |
| Zeleznikar, Alan | ARRIS Group | Yes |
| Zhang, Hongyuan | Marvell Semiconductor, Inc. | Yes |
| Zhang, Xingxin | Huawei Technologies Co. Ltd | Yes |
| Zhang, Yan | Marvell Semiconductor, Inc. | Yes |
| Zhu, Chunhui | Huawei Technologies Co., Ltd | Yes |

**Annex B : Working Group Officers**

Working group

|  |  |  |
| --- | --- | --- |
| **Name (Affiliation)** | **Position** | **Contact Details** |
| Adrian Stephens  (Intel Corporation UK Ltd.) | IEEE 802.11 Working Group Chair | +44 1793 404825 (office)  [adrian.p.stephens@ieee.org](mailto:adrian.p.stephens@ieee.org) |
| Jon Rosdahl (Qualcomm) | 1st Vice Chair (Policies and Procedures) Treasurer | +1 (801) 492-4023 [jrosdahl@ieee.org](mailto:jrosdahl@ieee.org) |
| Dorothy V. Stanley  (HPE) | 2nd Vice Chair (Rules and reflectors)  IEEE 802 (LMSC) EC delegate | +1 (630) 363-1389  [dorothy.stanley@hpe.com](mailto:dorothy.stanley@hpe.com) |
| Stephen McCann (BlackBerry Ltd.) | Secretary Publicity ad-hoc Chair | +44 1753 667099 [stephen.mccann@ieee.org](mailto:stephen.mccann@ieee.org) |
| Peter Ecclesine (Self) | Co-Technical Editor | [petere@ieee.org](mailto:petere@ieee.org) |
| Robert Stacey  (Intel Corporation) | Co-Technical Editor  802.11 Assigned Numbers Authority | +1 (503) 712 4447  [robert.stacey@intel.com](mailto:robert.stacey@intel.com) |

Standing Committees

|  |  |  |
| --- | --- | --- |
| **Name (Affiliation)** | **Position** | **Contact Details** |
| Jim Lansford (Qualcomm) | Wireless Next Generation (WNG) Chair | +1-719-286-8660  [jim.lansford@ieee.org](mailto:jim.lansford@ieee.org) |
| Mark Hamilton (Ruckus Wireless) | Architecture (ARC) Chair | +1 (303) 441-7553  [mark.hamilton2152@gmail.com](mailto:mark.hamilton2152@gmail.com) |
| Andrew Myles (Cisco Systems, Inc.) | ISO/IEC/JTC1/SC6 shadow committee (JTC1) Chair | +61 2 84461010 [andrew.myles@cisco.com](mailto:andrew.myles@cisco.com) |
| Jon Rosdahl (Qualcomm ) | Project Authorization Request (PAR) review Chair | +1 (801) 492-4023 [jrosdahl@ieee.org](mailto:jrosdahl@ieee.org) |
| Joseph Levy  (InterDigital Communications Inc.) | Advanced Access Network Interface (AANI) Chair | +1.631.622.4139  [jslevy@ieee.org](mailto:jslevy@ieee.org) |

Task Groups

|  |  |  |
| --- | --- | --- |
| **Name (Affiliation)** | **Position** | **Contact Details** |
| Dorothy V. Stanley  (HPE) | TGmc Chair  (Revision mc) | +1( 630) 363-1389  [dorothy.stanley@hpe.com](mailto:dorothy.stanley@hpe.com) |
| Yongho Seok  (Newracom Inc) | TGah Chair (Sub 1 GHz Operation) | +82-10-7581-0828  [yongho.seok@gmail.com](mailto:yongho.seok@gmail.com) |
| Hiroshi Mano (Koden Techno Info K.K.) | TGai Chair (Fast Initial Link Setup) | +81-3-5436-8350 [mano@koden-ti.com](mailto:mano@koden-ti.com) |
| Jiamin Chen  (HiSilicon/Huawei Technologies) | TGaj Chair  (China Millimeter Wave) | +86-10-8282-9532  [jiamin.chen@mail01.huawei.com](mailto:jiamin.chen@mail01.huawei.com) |
| Donald Eastlake, 3rd  (Huawei Technologies) | TGak Chair  (General Link) | +1 508-333-2270  [d3e3e3@gmail.com](mailto:d3e3e3@gmail.com) |
| Stephen McCann  (BlackBerry Ltd.) | TGaq Chair  (Pre-association Discovery) | +44 1753 667099  [stephen.mccann@ieee.org](mailto:stephen.mccann@ieee.org) |
| Osama Aboul-Magd  (Huawei) | TGax Chair  (High Efficiency WLAN) | +1 (613) 287-1405  [osama.aboulmagd@huawei.com](mailto:osama.aboulmagd@huawei.com) |
| Edward Au (Huawei) | TGay Chair (Next Generation 60 GHz) | +1 773 782 6875  [edward.ks.au@huawei.com](mailto:edward.ks.au@huawei.com) |
| Jonathan Segev (Intel Corporation) | TGaz Chair (Next Generation Positioning) | +972-54-2403587  [jonathan.segev@intel.com](mailto:jonathan.segev@intel.com) |
| Minyoung Park (Intel Corporation) | TGba Chair (Wake-up Radio) | +1 (503) 712-4705  [minyoung.park@intel.com](mailto:minyoung.park@intel.com) |

Study Groups

|  |  |  |
| --- | --- | --- |
| **Name (Affiliation)** | **Position** | **Contact Details** |

Topic Interest Groups

|  |  |  |
| --- | --- | --- |
| **Name (Affiliation)** | **Position** | **Contact Details** |
| Nikola Serafimovski (pureLiFi) | Light Communication TIG | +44 131 516 1816 [nikola.serafimovski@purelifi.com](mailto:nikola.serafimovski@purelifi.com%3E) |

Liaison Officials to non IEEE 802 organizations

|  |  |  |
| --- | --- | --- |
| **Name (Affiliation)** | **Position** | **Contact Details** |
| Dorothy V. Stanley (HPE) | Liaison to IESTF (Internet Engineering Task Force) | +1( 630) 363-1389  [dorothy.stanley@hpe.com](mailto:dorothy.stanley@hpe.com) |
| Ian Sherlock (Texas Instruments Inc.) | Liaison to WFA (Wi-Fi Alliance) | +1-972-995-2011 [isherlock@ieee.org](mailto:isherlock@ieee.org) |

Liaison Officials to IEEE 802 organizations

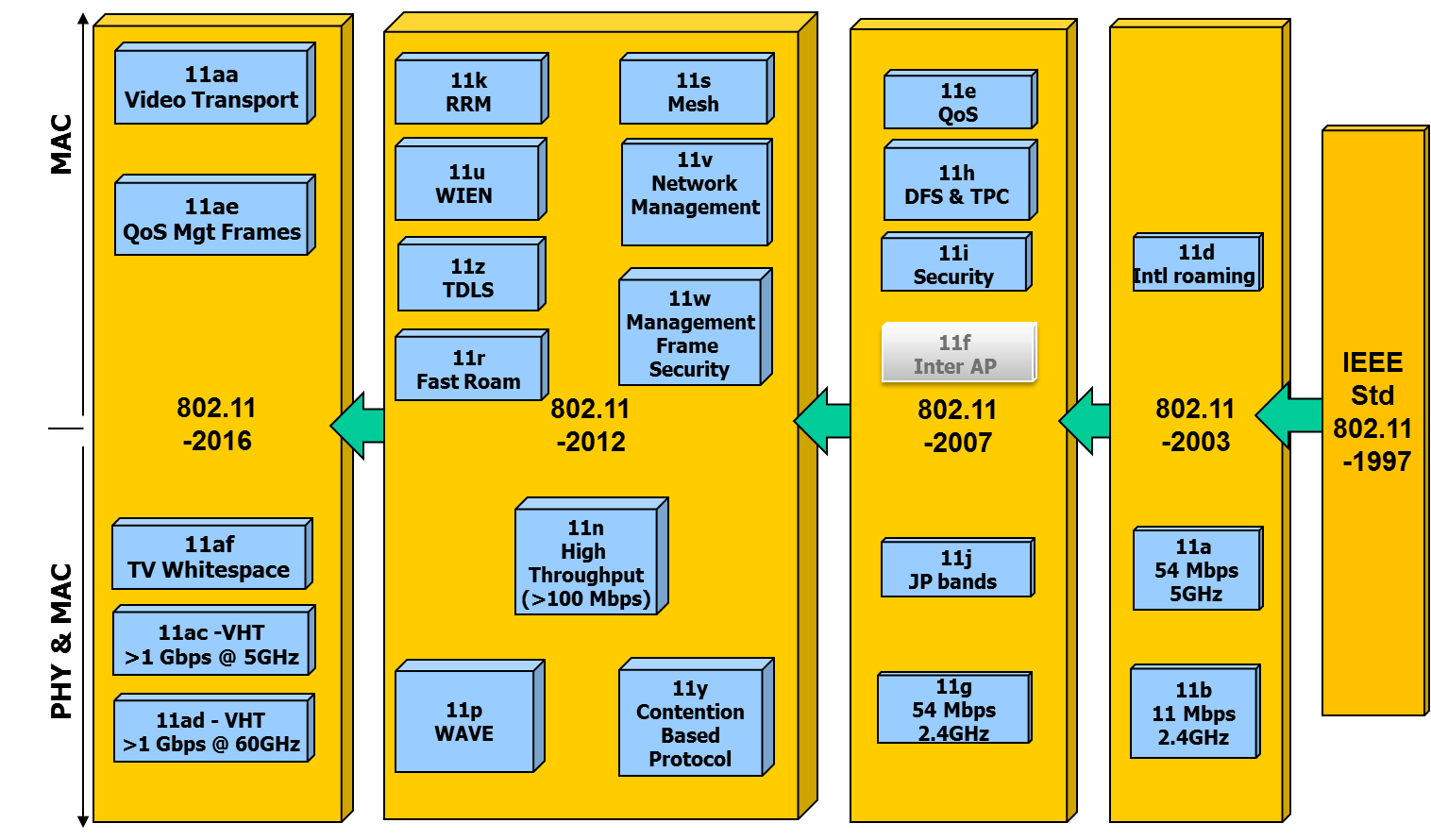
|  |  |  |
| --- | --- | --- |
| **Name (Affiliation)** | **Position** | **Contact Details** |
| Rich Kennedy  (HPE) | Liaison to IEEE 802.18 | +1 (832) 298-1114  [rkennedy1000@gmail.com](mailto:rkennedy1000@gmail.com) |
| Tim Godfrey (Electric Power Research Institute) | Liaison to IEEE 802.24 | +1 (650) 855-8584 (office) [tim.godfrey@ieee.org](mailto:tim.godfrey@ieee.org) |

**Annex C : Minutes**

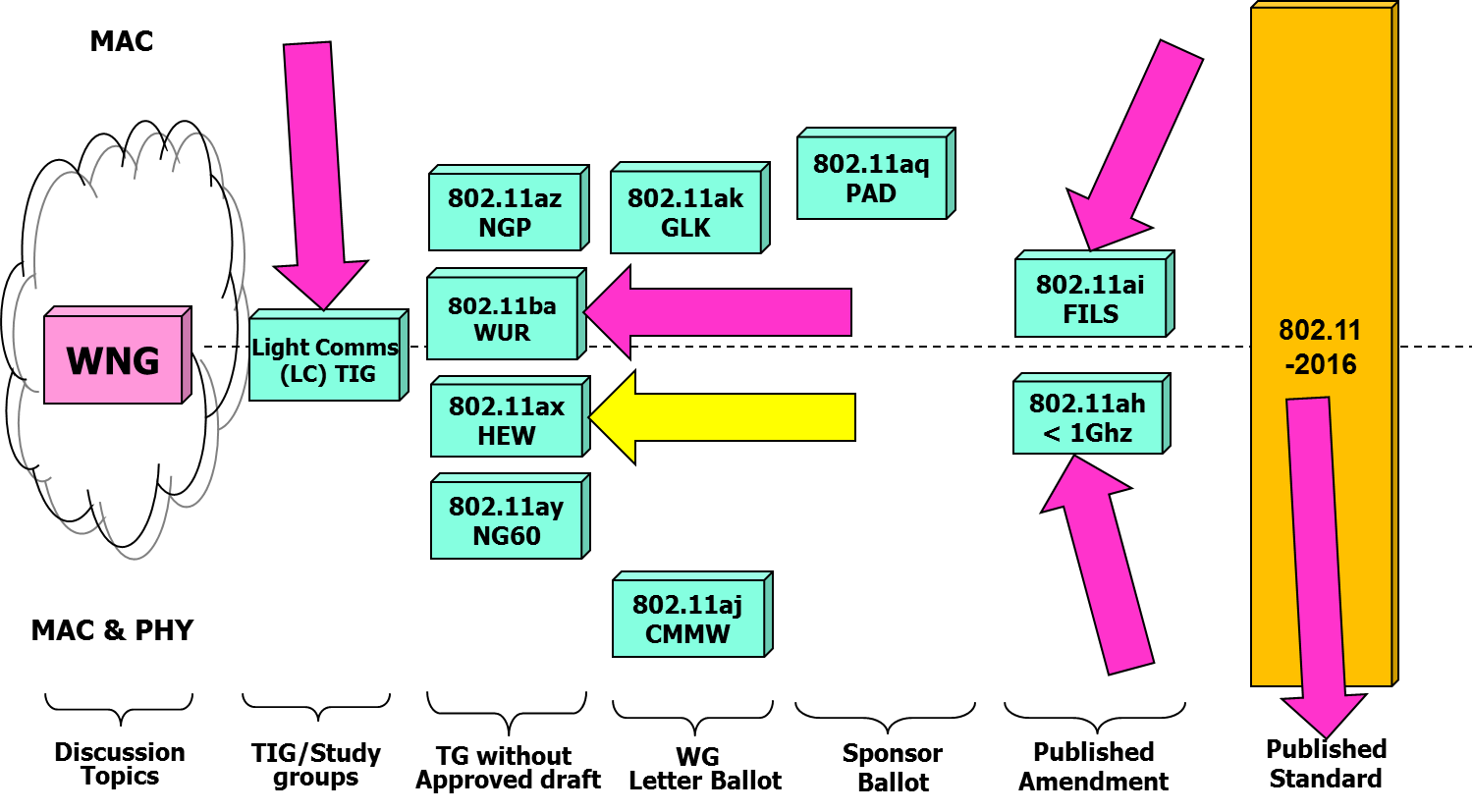
This Annex contains references to all IEEE 802.11 SC/TG/SG & Ad Hoc Committee (AHC) minutes from this meeting. Please note that they are NOT subject to the approval of these minutes, but are confirmed and approved by their individual group in the opening meeting at their next session.

|  |  |  |
| --- | --- | --- |
| WG | TE | 17-0014r1 |
| TGak | TG | 17-0xxxr0 |
| TGaj | TG | 17-0086r0 |
| TGaq | TG | 17-0098r0 |
| TGax | TG | 17-0126r0 |
| TGay | TG | 17-0177r0 |
| TGaz | TG | 17-0205r0 |
| TGba | TG | 17-0185r0 |
| LC | TIG | 17-0171r0 |
| WNG | SC | 17-0146r0 |
| ARC | SC | 17-0201r0 |
| JTC1 | SC | 17-0251r0 |
| AANI | SC | 17-0150r0 |
| PDED | Ad-Hoc | 17-0152r0 and 17-0162r0 |

**Annex D : Revisions and Standards Pipeline**

******

**IEEE 802.11 Revisions**

**

**IEEE 802.11 Standards Pipeline**

End.