

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	<b>Minutes of IEEE 802.16 Session #44</b>	
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Re:	IEEE 802.16 Session #44 Minutes (San Diego, USA)	
Abstract		
Purpose	To record the minutes of the IEEE 802.16 Working Group Opening and Closing Plenary meetings at Session #44	
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.	
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## Minutes of IEEE 802.16 Session #44

*IEEE 802.16 Working Group*

*San Diego, USA*

*17 – 20 July 2006*

### IEEE 802.16 Session #44 Opening Plenary

Monday, 17 July 2006

#### Call to Order

The meeting was called to order by Working Group (WG) Chair Roger Marks at 1:13 pm, welcoming attendees to Session #44 of the IEEE 802.16 WG. The Chair provided the URL for the opening plenary agenda. Roger introduced himself, Vice Chair Ken Stanwood and Secretary Peiying Zhu.

The slides presented by the Chair to guide the meeting during the Opening Plenary are available in document IEEE 802.16-06/039.

The Chair outlined networking, logistical and registration issues and instructed that name badges shall be worn by the attendees in the meeting area for security reasons.

#### Membership and Voting

The lists of WG Members, Potential Members, Members in Peril, and Observers were explained by the Chair.

The Attendance Log procedure was explained by Roger. No Attendance Books will be used; sign-in is electronic only. Eight attendance intervals: [Mon pm; Tue am; Tue pm; Wed am; Wed pm; Thu am; Thu pm; Thu night]. "Participation" Requirements: six intervals (75%). Members' name badges for this session were annotated with "M.16" and doubled as voting tokens.

Roger asked for any questions or concerns. No one raised any issues.

The Chair further explained that the IEEE 802.16 WG will credit members for participation in IEEE 802.18, 802.19, and IEEE 802.21. Members attending those groups' meetings should forward information to the Chair. Credits will be granted to current 802.16 members, toward retaining their memberships. This offer does not extend to non-members.

The Chair then reviewed the agenda and asked for comments or concerns on the agenda.

Ken Stanwood suggested to add the IEEE802.22 liaison item to the agenda. The Chair agreed and updated the agenda. No further comments were received.

#### Approvals

**Motion (at 1:33pm):** To approve the Opening Plenary Meeting Agenda on the 802.16 web site (<http://ieee802.org/16/meetings/mtg44/opening.html>), proposed by David Johnston, seconded by Mariana Goldhamer, approved by unanimous voice vote.

Roger reviewed the draft minutes of Session #43. No comments were received.

**Motion (at 1:40pm):** To approve the minutes of Session #43 (IEEE 802.16-06/028), proposed by Phillip Barber, seconded by David Johnston, approved by unanimous voice vote.

## Chair's Status Report

See Chair's slides (IEEE 802.16-06/039).

## Legal Announcements

Roger highlighted parts of the IEEE 802 Policies and Procedures (P&P) as shown in his opening slides in document IEEE 80216-06/039.

The following advice was provided by the WG Chair regarding IEEE Standards Association (IEEE-SA) rules regarding patents:

- The IEEE's patent policy is consistent with the ANSI patent policy and is described in Clause 6 of the IEEE-SA Standards Board Bylaws;
- Early disclosure of patents which may be essential for the use of standards under development is encouraged;
- Disclosures made of such patents may not be exhaustive of all patents that may be essential for the use of standards under development, and that neither the IEEE, the WG, nor the WG Chairman ensure the accuracy or completeness of any disclosure or whether any disclosure is of a patent that, in fact, may be essential for the use of standards under development.

Slide #1 ("IEEE-SA Standards Board Bylaws on Patents in Standards") and Slide #2 ("Inappropriate Topics for IEEE WG Meetings") were shown (slides included February 2006 revisions by Standards Board).

An opportunity was provided for WG members to identify or disclose patents that the WG member believes may be essential for the use of that standard. There were no responses to this announcement.

## IEEE-SA Actions

The Chair informed the WG of a procedural issue that may have impacts on the WG. The issue is related to the date field in the PAR application form. The Chair will update the opening slides to reflect the details. Roger mentioned that no specific PARs need to be called out at this moment.

## IEEE 802 News

Roger discussed the notes he took during the IEEE 802 Executive Committee (EC) Meeting. See Chair's slides for details.

The Chair informed the WG that Karen Kenney was assigned as IEEE 802 Ombudsman. Any concerns on IEEE 802 may be raised with her via e-mail [802ombudsman@ieee.org](mailto:802ombudsman@ieee.org).

The Chair reminded the WG that IEEE is seeking a volunteer as ITU-T liaison and suggested a response to the e-mail announcement sent on the reflector if interested. He understands that Bilel Jamoussi is the only volunteer so far.

### **IEEE 802 P&P issues**

The Chair explained the operation of the Working Group, Chair's function and IEEE 802 rules on the following topics:

- WG dominations
- Copyrights
- Contribution Procedures
- Restrictive Notices

### **Submittal of IEEE P802.16-Conformance04/D7 to RevCom**

IEEE P802.16-Conformance04/D7 was submitted to RevCom for approval on July 16 with 100% approval status. The submittal met the Aug. 4 deadline for the scheduled RevCom meeting of Sept. 15. The Chair congratulated the Conformance TG and thanked the TG chair Gordon Antonello. Special thanks were given to Herbut Ruck for his contribution as the Technical Editor as well as the Acting Chair for the TG in the last meetings to finish the document.

### **IEEE 802 PARs Under Consideration**

Seven Project Authorization Requests (PARs) have been submitted to 802 LMSC Executive Committee (EC) for approval on Friday (July 21). Roger displayed the list and asked for comments. No comments were received.

### **802 Architecture Group: meeting of 5 March**

The IEEE 802 architecture group held a meeting on July 16. Phil Barber and David Johnston are the IEEE 802.16 WG representatives. David Johnston and Scott Probasco attended the meeting. Scott provided the following meeting report.

- Clarification that the Architecture Group is not an 802.1 sub group, but a cross 802 committee setup by the EC
- Outputs
  - Not standards
  - Discussion
  - Clarification
- For each work group
  - Prioritize issues
  - Characterize the problem
  - Propose an approach to resolve
  - Identify other groups that may be affected
- Presentation: AV Time Synchronization for Wired and Wireless 802 LANs

- Discuss/Select candidates for “Known high priority issues that Architecture group should work on with view to encouraging their resolution”
- CE, 48 vs 64 bit addressing, location awareness, energy star (go green)
- 802.16 specific issues not discussed, meeting ran out of time

Roger asked why the IEEE 802.16 specific issues were not discussed during the meeting and if there was an agenda to discuss them. Phil explained that these IEEE 802.16 issues have been on the architecture group issue list for a while. However, these issues have been considered as un-reconcilable. Roger asked is there an indication that this group will deal with these issues. Phil replied that there were not any real discussions. In general, it was determined that these issues are unsolvable.

Roger asked if there were any further comments or concerns. No comments were received.

## **802 Wireless Architecture Sub Group**

Phil attended the 802 Wireless Architecture Sub Group meeting and provided the following meeting report to the WG.

- The IEEE-SA Registration Authority Committee (RAC) announced that 48 bit MAC addresses, instead of 64 bit MAC addresses, are correct use for 802 wireless groups. Ensures bridging support.
- 802.1 planning a 'common' MAC interface for all 802 groups. Little information provided. Sounds like focusing on management messaging. Not good knowledge of data, management, control separation. My personal opinion that this could be problematic and have negative impact on current 802.16g/f/i work.
- Tutorials planned to lead to project: 802-wide level solution for Location Awareness (QoS, E911 & CALEA support)  
Informative Tutorials: SAP v API presentation
- Plans to ask EC to establish the Wireless Architecture Sub Group as a Working Group? Only rationale given for need to have the Wireless Architecture Sub Group morph into a WG was to deal with failure of 802.1 to deal with 802.15's 64-bit address to 48-bit MAC Address bridging problem. Pointed-out that 802.15 will re-address this problem. My personal opinion is that this one matter does not justify creation of a Working Group, much less morphing of this body to handle that matter.

Roger raised an issue on the mandate of this Sub Group during the IEEE 802 EC Meeting. The IEEE 802 Chair, Paul Nikolich, gave Roger the action item to resolve this issue. Roger asked if anyone wishes to attend the discussion, in particular, he asked the opinion of Scott Henderson, who has been active in the Sub Group. Scott commented that he feels that the attitude expressed by the WG toward the Sub Group is hostile. Roger explained that he would like to understand its mandate and role. Phil made a similar comment. Scott agreed to have a discussion to move forward.

## IEEE-SA Awards

Award plaques from IEEE-SA were presented to Brian Kiernan and Ronald Murias for their contributions as the IEEE 802.16e Task Group Chair and Technical Editor, respectively. Ronald Murias was absent. Brian accepted the award on his behalf.

Award plaques from IEEE-SA were presented to Jonathan Labs and Itzik Kitroser for their contributions as the IEEE 802.16-2004/Corrigendum1 Task Group Chair and Technical Editor, respectively.

## Schedule for the Week

The schedule for the week was presented for the various task groups and ad-hoc groups <<http://dot16.org/calendar/week.php?date=20060720>> .

Phil announced that the NetMan TG will have a joint meeting with the IEEE 802.21 on Thursday. Roger updated the Calendar accordingly.

Roger informed the WG that there are several IEEE 802 tutorials on Monday night and encouraged people to attend.

## NetMan Task Group

The NetMan TG draft agenda for the week was presented by TG Chair Phil Barber (document IEEE 802.16netman-06/011). Phil reported the status of the P802.16g, P802.16i and P802.16k projects.

Roger commented that P802.16g and P802.16k could go to Sponsor Ballot after this meeting. Roger suggested seeking the 802 EC's conditional approval for these two documents. Roger explained how to sign up for the Sponsor Ballot pool.

## Operator ID/ Registration Authority

Scott Probasco (the Ad Hoc Committee Chair) reported the ad hoc outcome (document IEEE 802.16-06/035).

Roger commented that the IEEE-SA Registration Authority Committee (RAC) will have a meeting on Thursday evening at 6 pm. Roger asked if there were volunteers to participate the meeting. Scott Probasco, Phillip Barber, Scott Migaldi, David Holmes and Herbert Ruck said that they would attend the meeting.

David Holmes asked if Roger received a letter from the WiMAX Forum on this issue. Roger acknowledged and read the letter from Ronald Resnick (document IEEE L802.16-06/014), which states that the WiMAX Forum Board of Directors has concluded that it would best serve the 802.16 industry if the WiMAX Forum steps up to the task of being the allocation authority for the operator ID as well any other appropriate IDs for network operators or providers.

Roger commented that he did not see a role for the IEEE 802.16 WG on this issue, but he had forwarded the letter to the RAC for its consideration. Roger asked David to voice his concern directly to the RAC and offered his help if needed.

## **License-Exempt Task Group**

The TG Chair Mariana Goldhamer announced that the Vice Chair position for the License-Exempt Task Group is open, with the resignation of Barry Lewis. Paul Piggin has volunteered for the position.

Mariana presented the outcomes of the ad hoc groups and the TG's plan for the week (document IEEE 802.16h-06/017).

## **Relay Task Group**

The Relay Task Group draft agenda for the week was presented by the TG Chair Mitsuo Nohara (document IEEE 802.16j-06/009). Mitsuo noted the leadership team for the Relay TG; namely, Chair Mitsuo Nohara, Vice Chair Peiying Zhu, Technical Editor/Secretary Jung Je Son, and Technical Editor Mike Hart.

## **Maintenance Task Group**

The Maintenance TG Chair Jon Labs presented the opening report (document IEEE 802.16maint-06/013). Jon reviewed two motions approved in the last WG Closing Plenary (Session #43) and the status of the Letter Ballot #21a, in which the WG maintenance process was being established. The approval rate was 98.4%. The ballot had been declared completed and closed. A formal Maintenance Process has been established. The WG Chair will post a document reflecting the process (posted later as IEEE 802.16-06/046).

Jon asked for discussions to regarding the start of a new maintenance project.

Avi Freeman asked about the possibility of opening a document revision instead of a corrigendum, in his opinion; it is easier to have a revision than a corrigendum. Roger commented that it depends on the urgency of a corrigendum. If it is urgent, then it is much faster to create the corrigendum first, then make a revision afterward. Jon confirmed the point.

Ed Agis commented that it is premature to open a corrigendum project. There are many comments in discussion; it is better to have more discussions first on these comments and discuss the issue in the next Session. Roger commented that, normally, a PAR will need to be approved during the IEEE 802 Plenary Session. Traditionally, a PAR needs to be submitted 60 days ahead of time. For the maintenance project, it is possible to submit the PAR with 48 hour notice. Roger also commented that Aug. 4 is the submission deadline for mid-Sept IEEE-SA approval.

Jon said he would add this item to the TG agenda.

Phil Barber spoke in favour of opening the corrigendum project and suggested to discuss it this week. He also indicated that he is preparing few slides to suggest language to use for the PAR. Roger explained the usual procedure; i.e., authorizing the TG to prepare the draft by mid-Wednesday and have the WG confirm it on Thursday.

Wonil Roh commented that the TG may not have enough time to prepare the PAR by mid-Wednesday. Roger commented that it is a good idea to be cautious; however, for a corrigendum project, the scope is very limited, so the language choice is limited. Roger believed that there is enough time to prepare the PAR. However, it is up to the WG to decide. Wonil commented that most people did not have the expectation that a PAR would be discussed in this session and asked if the TG will also make a recommendation on the schedule of the project. Roger commented that this is open for discussion. Wonil supported to have such a discussion.

Jim Carlo reminded the WG of the 48 hour submission window. His recommendation was to submit a draft PAR before the deadline with the assumption that the WG will either withdraw or update the PAR based on the outcome of the WG decision.

Motion (at 3:40pm): To empower the Maintenance Task Group to take necessary and reasonable action to initiate a new Corrigendum project, including completing and forwarding a PAR form to the 802 EC if necessary, no later than Wednesday, July 19 at noon, subject to WG review, at the Closing Plenary, of the decision to forward the PAR to the EC, proposed by Phillip Barber (friendly amendments by Naftali Chayat and Roger Marks), seconded by Lei Wang.

Motion passed 86/0/0.

Jon asked volunteers for the editor position. No one stepped up during the meeting. Jon advised people to contact him if interested in the position.

## **Schedule for the Week**

Roger showed the updated agenda for the week <<http://dot16.org/calendar/week.php?date=20060720>>.

## **Charge to Task Groups**

The TG Chairs were asked to ensure that minutes are recorded, previous minutes are approved, start and finish times are recorded for their meetings, motions are posted in advance and motion times are recorded.

## **Liaisons**

### **ITU-R Ad Hoc**

[José Costa](#) discussed the ITU-R liaisons documents (documents IEEE L802.16-06/010 and IEEE L802.16-06/011) and encouraged the WG to review the documents.

Roger reminded the WG that IEEE is seeking a volunteer for the ITU-T liaison position.

### **ETSI BRAN**

Mariana Goldhamer gave an ETSI BRAN liaison report.

Wonil Roh asked for a correction to indicate that only part of TSS&TP from ESTI BRAN will be used by the WiMAX Forum. Phil Barber asked for clarification on the meaning of “correction on standard” and commented that ETSI should bring changes to the IEEE. Marianne explained the ETSI wants one standard and explained that HIPERMAN’s intention is to reference to the IEEE 802.16 documents.



Roger asked for an explanation on HIPERMAN's new work item. Mariana explained that it is an interim document. Ed Agis commented that it is not ETSI driving IEEE, rather it is IEEE driving ETSI; ETSI will work with IEEE to follow these changes.

Sea Cai commented that ETSI should not reference any unpublished documents. Marianne explained that HIPERMAN can reference any available documents, not necessarily standards.

Roger commented that there are concerns that ETSI is trying to edit IEEE Std 802.16 and we need to aware this.

## **IEEE 802.22**

Ken Stanwood reported the findings related to establishing a liaison with the IEEE 802.22 WG (see IEEE L80216-06/009).

## **ETSI/ITU-R**

Roger reviewed the letter from Bernd Friedrichs (the Chairman of ETSI TC on Broadband Radio Access Networks) on the Liaison Statement to ITU-R WP8A regarding Radio Interface Standards for Broadband Wireless Access Systems, including Mobile and Nomadic Applications, in the Mobile Service Operating Below 6 GHz (document IEEE L80216-06/012).

## **IETF**

Roger reviewed email from IETF on the formation of the IETF's new "16ng" Working Group, to define the operation of IP over IEEE 802.16. Roger had raised the concern that the WG was created without notifying the 802.16 WG. The organizers had apologized, as they had been under the false assumption that the 802.16 WG had been notified. Roger had circulated the proposed WG charter to the 802.16 WG reflector for comments. No substantive issues were raised, and IETF had initiated the 16ng activity.

Roger indicated that this is an important issue for 802.16. He had sent out an email to the 802.16 WG reflector to seek a volunteer as a liaison to IETF. No formal response had been received. David Johnston volunteered for the position.

Roger appointed David Johnston as the liaison officer to IETF and will inform IETF by a statement to be reviewed and approved at the Closing Plenary.

## **Future Sessions**

Regarding Session #45, Frank Draper will report details in the WG Closing Plenary.

Roger commented that people should start to plan for Session #47. The registration and hotel costs will be high.

Locations, dates, and hosts for Session #49 will be selected in the WG Closing Plenary. Jose Puthenkulam indicated that Intel will make a proposal to host the meeting. Roger encouraged attendees to submit proposals. The guideline on how to make a proposal is available in the IEEE 802.16 Interim Session Guidelines (see <http://ieee802.org/16/meetings/mtg49>>).

[Session #45](#): 25-28 Sept 2006: Mont Tremblant, Quebec, Canada

[Session #46](#): 13-16 November 2006: Dallas, TX, USA with [IEEE 802 Plenary Session](#)

[Session #47](#): 15-18 January 2007: London, UK with [IEEE 802 Joint Interim Session](#)

[Session #48](#): 12-15 March 2007: Orlando, FL, USA with [IEEE 802 Plenary Session](#)

[Session #49](#): May 2007: IEEE 802 Interim Session

## **Election for Vice Chair**

Ken Stanwood explained that he had announced this resignation as WG Vice Chair in order to prevent a perception of undue influence due to the fact that he and the Working Group Chair currently have the same employer. He was congratulated for his three years of service in the position.

Roger displayed and reviewed the Vice Chair election process (IEEE 802.16-03/28). There were five declared candidates: Panyuh Joo, Jonathan Labs, Herbert Ruck, Jose Puthenkulam and Brian Kiernan. Ken distributed the paper ballots.

Jon Labs announced that he was withdrawing his candidacy. Roger expressed his appreciation for Jon's candidacy. Roger instructed the WG that the same ballot will be used for voting and reminded the WG member to respect Jon's wish to withdraw his candidacy when casting the ballots.

Each candidate was given three minutes to state his vision and qualification for the position. Panyuh, Herbert, Jose and Brian gave their speeches.

Roger asked if there were other nominations. No other nomination was received. Roger thanked for all the candidates for their willingness to help the group and asked the candidates to leave the room.

The floor was opened for discussion.

Candidates were invited back into the room after the discussion. 156 blank ballots were issued. 153 ballots were casted. The results were:

Panyuh: 39

Herbert: 5

Jose: 37

Brian: 71

There was no clear majority. A runoff election will be held in the WG Closing Plenary between Panyuh, Jose and Brian.

## **New Business**

Phil Barber requested a structured activity to open discussions for potential new major projects. Several people made comments on the suggestion. Roger suggested discussing it in the Closing Plenary due to the difficulty of finding an official meeting room.

José Costa suggested using part of the ITU-R liaison meeting time to start discussion, particularly regarding the IMT-Advanced activity in ITU-R WP 8F. Roger supported the suggestion and asked José to summarise the report and finding in the Closing Plenary.

## Closing

A **Motion** to adjourn the Opening Plenary was proposed by David Johnston, seconded by Frank Draper and approved by unanimous voice vote. The meeting adjourned at 5:46pm.

## IEEE 802.16 Session #44 Closing Plenary

20 July 2006

## Call to Order

Roger Marks called the meeting to order at 7:11 pm.

## Approval of Agenda

The Closing Plenary agenda was published at <http://wirelessman.org/16/meetings/mtg44/closing.html>. Agenda was reviewed by the WG chair Roger Marks. A **Motion (at 7:41pm)** to approve the agenda as presented and amended by the Chair was proposed by Frank Draper and seconded by Brian Kieran and approved by unanimous voice vote.

## Liaisons

### 802.21

A report was presented by the liaison official Peretz Feder for IEEE 802.21 (document IEEE L802.16-06/018) .

### IETF

A report was presented by David Johnston (document IEEE L802.16-06/018).

A draft liaison statement to IETF from IEEE 802.16 was reviewed (document IEEE L802.16-06/017)

Motion (at 7:31pm): To approve the liaison letter to IETF, proposed by Phil Barber, seconded by Peretz Feder, passed by 74/0/0.

## Election of Vice Chair

Roger reviewed the IEEE Working Group 802.16 officer election process document (IEEE 802.16-03/28) and announced that Panyuh Joo, Jose Puthenkulam and Brian Kiernan were the valid candidates. Ballots were handed to the WG members.

The candidates were invited to give their candidate statements (3 minutes per candidate). Panyuh requested to delay his speech. Jose delivered his speech, followed by Brian.

Panyuh announced that he was withdrawing his candidacy. The chair instructed the WG that there were two valid candidates at this moment. Ballot marked candidates other than Brian and Jose will be invalid. The chair requested the candidates to leave room and closed the door, then provided opportunities for the WG members to make any statements regarding the candidates.

The candidates were invited back to the meeting room. Ballots were counted. The results were:

Jose Puthenkulam: 61

Brian Kiernan: 58

Roger announced that Jose Puthenkulam was elected as the Vice Chair and expressed his appreciation for all the candidates.

## Maintenance Task Group

A report was presented by the TG Chair Jon Labs (document IEEE 802.16maint-06/025r1). Jon thanked Itzik Kitroser for serving as the interim editor for this session.

Motion (at 8:04pm): “To request the WG to approve the forwarding of the PAR, IEEE 802.16maint-06/021r1 to the IEEE 802 EC”, proposed by Jon Labs, seconded by Itzik Kitroser.

Roger commented that the document to be forwarded is IEEE 802.16maint-06/021r1, not IEEE 802.16maint-06/021. He had made a few editorial modifications. Jon reviewed the changes.

Motion passed 97/0/1.

John reviewed the proposed schedule for a Cor2 corrigendum project.

**Motion (at 8:20pm):** “Pending PAR approval by the IEEE Standards Association and pending consideration and disposition of all Maintenance Change Requests at Session #45, to authorize the IEEE 802.16 Working Group at the Session #45 Closing Plenary (with or without a quorum) to approve the initiation of an IEEE 802.16 WG Letter Ballot on each of the change requests that have been approved by the WG for balloting.”, proposed by Jon Labs, seconded by Ed Agis.

There were discussions on the floor for clarifications on the motion and the proposed project schedule.

A question was raised regarding when a WG draft will be reviewed for sponsor ballot and when to make a mandatory revision, considering the fact that IEEE Std 802.16-2004 has already been amended by 802.16g and 802.16f. Roger clarified that we can make amendments up to June 2007.

Motion passed 88/0/1.

**Motion (at 8:27 pm):** “To approve 22 September, 2006 as the final date for submission of change requests to the IEEE 802.16 Maintenance Process for consideration for the Cor2 Corrigendum project, pending successful

approval of the Cor2 Corrigendum PAR by the Standards Board on 16 September, 2006”, proposed by Jon Labs, seconded by Wonil Roh. There was no discussion. Motion passed 83/1/1.

**Motion (at 8:31 pm):** “To open a Call for Reply Comments on all Change Requests received by 22 September, 2006 and close the call by end of 25 September”, proposed by Jon Labs, seconded by John Humbert.

There were discussions on the appropriateness of the originally proposed dates since they fell on the weekend in the original motion. A friendly amendment was proposed by Naftali Chayat and accepted by Jon and John.

Motion passed by unanimous voice vote.

### **License-Exempt Task Group**

A report was made by the TG Chair Mariana Goldhamer (document IEEE 802.16h-06/018).

**Motion (at 8:54pm):** “Adopt the document IEEE 802.16h-06/015, modified as reflected by the 802.16h database 802.16h-06/012r3, as the first 802.16h draft and submit it for Working Group Letter Ballot”, proposed by Mariana Goldhamer, seconded by Xuyong Wu.  
{Note: 802.16h-06/012r3 was misnumbered. It was later posted as 802.16h-06/020r2.}

There were discussions on the readiness of the document IEEE 802.16h-06/015 and on potential changes based on a possible PAR change adding mobility to the title.

Question was called by Carl Eklund, passed 34/8.

Phil Barber asked for a ruling whether the motion was out of order on the grounds that the document IEEE 802.16h-06/015 was not on the server. Roger commented that there was no hard rule in the WG; however, it is always announced that documents should be posted ahead of time. The Chair instructed the members to vote with their own judgment.

Motion failed 26/10 for lack of 75% majority. There were significant number of abstains.

**Motion (at 9:15 pm):** “To authorize the WG at Session #45 (with or without a quorum) to adopt IEEE 802.16h draft and initiate a Working Group Letter Ballot.”, proposed by Mariana Goldhamer, seconded by Jose Puthenkulam, passed 42/0.

### **Relay Task Group**

A report was made by Relay TG Chair Mitsuo Nohara (document 802.16j-06/011).

Roger suggested that, as the TG progresses, he hopes to see more real documents and fewer PowerPoint charts as contributions.

### **NetMan Task Group**

A report on the P802.16g, P802.16k, and P802.16i projects was made by the TG Chair Phillip Barber (document 802.16netman-06/013r2). Phil noted that WG Letter Ballot #20 and #22 had each met the 75% approval ratio.

**Motion (at 9:33 pm):** “To develop and issue the Working Group Draft P802.16g/D4, and initiate a Working Group Letter Ballot recirculation, in which the entire document is available for comment, to close around September 13, 2006”, proposed by Phil Barber, seconded by David Johnston,

A question was raised that why the entire document is open for the recirculation ballot. Phil explained that the TG felt that many editorial issues related to primitives may needed to be fixed.

Motion passed by the unanimous voice vote.

**Motion (at 9:44 pm):** “To develop and issue the Working Group Draft P802.16k/D2, and initiate a Working Group Letter Ballot recirculation to close around August 11, 2006”, proposed by Phillip Barber, seconded by David Johnston, passed by unanimous voice vote.

**Motion (at 9:46 pm):** “To empower the WG Chair to investigate and take whatever reasonable action is required to resolve the issue of IANA ifType number and transmission OID number assignment for IEEE 802.16f and 802.16i, prior to Session #45.”, proposed by Phillip Barber, seconded by Per Elmdahl, passed by the unanimous voice vote.

**Motion (at 9:47 pm):** “To authorize the WG chair to request conditional approval to forward the 802.16g and 802.16k drafts for Sponsor Ballot”, proposed by Phillip Barber, seconded by Panyuh Joo, passed by 47/0/0.

Roger warned the WG that if the supporting documentation for the conditional approval requests was not ready by tomorrow morning, or if that documentation did not demonstrate that a conditional approval request was appropriate, he reserved the right to not make the motions to the EC.

## Registration Authority Issue

The following report was made by Scott Probasco:

- Attending the RAC meeting from the 802.16 WG were Roger Marks, Ken Stanwood, Scott Probasco, Scott Migaldi, David Holmes, John Humbert, Phillip Barber, and David Maez.
- The meeting began at 6 pm tonight, It was a good meeting. The RAC was very helpful and even rearranged their agenda to handle this issue before the 802.16 Closing Plenary.
- We presented the overall issue to the RAC. The asked good questions & understood the Operator ID (OID) issue.
- The RAC reviewed the liaison statement from the WiMAX Forum (IEEE L802.16-06/014) offering to administer the OID space. The RAC noted that the IEEE can administer the space. It has the needed skills, and whoever administers the space must be "in business" for many years. The RAC believes the IEEE meets this requirement. Also, the 802.16 standard is not used exclusively by the WiMAX Forum.
- The RAC has agreed to allocate and administer a new number space for the 802.16 Operator ID. Target is to be able to allocate OIDs by end of 2006.
  - Details still need to be determined.

- Action is for Angela Weaver from the RAC to provide to Roger a timeline and what information the RAC needs from 802.16 (e.g., the application, any usage requirements, the update to the 802.16 standard, the tutorial, etc.).

## ITU-R Liaison

A report was presented by the ITU-R liaison official José Costa (document IEEE L802.16-06/016).

**Motion (at 10:09 pm):** “To approve IEEE L802.16-06/015d0 and authorize the WG Chair to submit it to the IEEE 802 Executive Committee for approval, with the intent to submit to ITU-R as an IEEE contribution”, proposed by José Costa, seconded by Panyuh Joo, passed 33/0.

Based on the discussion that took place in the WG Opening Plenary about future activities and potential contributions to IMT-Advanced, there were some discussions within the ITU Ad Hoc group about the standardization process in ITU-R WP 8F for IMT-Advanced, with a view to future potential contributions by IEEE 802.16 to that process. José presented the IMT-Advanced Standardization Process overview charts for information (see the embedded pdf document in the section 2.3 IEEE L802.16-06/016)

## WG Issues

Roger recommended the creation of a standing Project Planning Committee, following the suggestion by Phil Barber at the Opening Plenary and the presentation by José Costa. He indicated that the Committee would be assigned to track the progress of existing projects and to develop and maintain a timeline of future projects.

John Humbert and Panyuh Joo supported the suggestion. They both agreed that it is important to have some vision on future projects.

## Future Sessions

Frank Draper gave an update on Session #45, including detailed logistics (document C802.16-06/009r1), to be held 25-28 Sept 2006 in Mont Tremblant, Canada, co-hosted by Frank Draper (Wavesat), Brian Kiernan (InterDigital), Keith Doucet (Redline). It has been confirmed that Nortel will provide network connection and support. The hotel registration is open now until 25 Aug.

**Motion (at 10:49 pm):** “To authorize the WG to act at Session #45 with or without a quorum.” proposed by Phil Barber, seconded by David Johnston, passed by 41/0.

A straw poll was conducted to indicate the potential attendance. A large number of members indicated that they will attend the meeting.

Session #45: 25-28 Sept 2006: Mont Tremblant, Quebec, Canada

Session #46: 13-16 November 2006: Dallas, TX, USA with IEEE 802 Plenary Session

Session #47: 15-18 January 2007: London, UK with IEEE 802 Joint Interim Session

Session #48: 12-15 March 2007: Orlando, FL, USA with IEEE 802 Plenary Session

Session #49: May 2007: IEEE 802 Interim Session. Site selection process was held.

Jose Puthenkulam made a proposal (document IEEE C802.16-06/010) for Session #49 to be held in Portland, USA. Intended dates are 21-24 May 2007.

**Motion (at 11:04 pm):** To propose the selection of Portland for the Session #49 site, proposed by Jose Puthenkulam, seconded by David Johnson, carried by unanimous voice vote.

### **Publicity**

Roger Marks was authorised without objection to prepare a Session #44 Report.

### **New Business**

No new business.

### **Closing**

A **Motion (at 11:06 pm)** to adjourn the meeting was made by David Johnson, seconded by Frank Draper, and carried by unanimous voice vote. The meeting was adjourned at 11:07 pm on 20 July 2006.



## IEEE 802.16 Session #44 Report



### Session #44 Venue

IEEE 802.16's Session #44 was held 17-20 July at the Grand Hyatt Manchester in San Diego, CA, USA. This was an [IEEE 802 LMSC Plenary Session](#) and co-located with sessions of the other IEEE 802 Working Groups and Technical Advisory Groups. The [attendance list](#) includes 309 names.

### Network Management (NetMan) Task Group

The [NetMan Task Group](#) met from Monday through Thursday, addressing the three project issues below. The Task Group issued a [closing report](#) and [minutes](#).

#### *P802.16g Project*

The NetMan Task Group addressed comments arising during 802.16 WG [Letter Ballot Recirculation #20b](#) regarding the draft [P802.16g/D3](#) on "Management Plane Procedures and Services." Comment resolutions were incorporated in a new draft [P802.16g/D4](#) for [Recirculation #20c](#), closing 13 September AOE.

#### *P802.16i Project*

The Task Group addressed responses to a Call for Comments regarding the P802.16i Baseline Document, on the "Mobile Management Information Base." The [updated P802.16i Baseline Document](#) was completed. A new [Call for Comments](#) was issued, with a deadline of 22 September AOE.

#### *P802.16k Project*

In the P802.16k Project project to amend IEEE 802.1D for support of 802.16 bridging, the NetMan Task Group resolved [comments](#) arising during 802.16 WG [Letter Ballot #22](#) on [draft P802.16k/D1](#). On 21 July, the IEEE 802 Executive Committee (EC) granted conditional approval to forward a draft to IEEE-SA Sponsor once the ballot was successfully concluded. Subsequently, a new draft, [draft P802.16k/D2](#), was approved in recirculation, subject to minor editorial changes. [Draft P802.16k/D2a](#) was then prepared for Sponsor Ballot, which runs from 23 August to 22 September.

### Maintenance Task Group

The Working Group's [Maintenance Task Group](#) reviewed a number of change requests under the Working Group's new [Maintenance Process](#), approved in [Working Group Letter Ballot #21](#). The TG also drafted a Project Authorization Request (PAR) to open a Corrigendum 2 to IEEE Std 802.16. That [PAR](#) was later approved by the IEEE 802 Executive Committee and was placed on the 14 September 2006 [NesCom](#) agenda. Pending approval of the PAR, the WG decided to specify 22 September 2006 as the final date for submission of change requests to the IEEE 802.16 Maintenance Process for consideration in the Corrigendum 2 project.

Accordingly, a [Call for Maintenance Change Requests on IEEE Std 802.16](#) was issued, specifying that deadline. The TG issued a [closing report](#) and [minutes](#).

### Relay Task Group

The Working Group's [Relay Task Group](#) reviewed comments and contributions on TG reference documents related to Usage Model, Terminology, Evaluation Methodology, and Technical Requirements. As a result of the work, several documents were produced. A [Closing Report](#) was issued, with [minutes](#) to follow. A [Call for Comments](#) was announced, with a deadline of 19 September.

### License-Exempt Task Group

The Working Group's [Licensed-Exempt Task Group](#) reviewed responses collected during the second Working Group Review of its Working Document. The [third Working Group Review](#) was opened on 10 August, through 17 September, to review the [latest working document](#). A [closing report](#) and the [minutes](#) were issued.

### Conformance Task Group

The [Conformance Task Group](#) did not meet. The [P802.16/Conformance04](#) project on PICS Proforma for fixed operation below 11 GHz has been submitted to IEEE-SA's [RevCom](#) and scheduled for review on 14 September.

### Registration Authority Issue

The Working Group continued to work with the IEEE-SA Registration Authority Committee (RAC) to address the assignment of the 24-bit 802.16 Operator ID that serves as the operator-unique subset of the 48-bit Base Station ID. The WG delivered to the RAC a [document outlining the problem and possible solutions](#). It also delivered a [proposed tutorial](#) on the topic, as developed by the WG's Operator ID Ad Hoc Committee. At its meeting of 20 July, the RAC agreed to administer the new number space for the 802.16 Operator ID. A [Report and Call for Comments](#) provides more details and solicits input so that the WG may conclude its work on this topic during Session #45.

### Liaison Activities

- The WG's ITU-R ad hoc committee met to a draft contribution (closely coordinated with an ETSI BRAN position communicated by [liaison statement](#)) to ITU-R WP 8A regarding broadband wireless access standards in the mobile service. Following approval by the IEEE 802.16 WG, the IEEE 802.18 Radio Regulatory Technical Advisory Group, and the IEEE 802 EC, the [contribution](#) was submitted to WP 8A by IEEE. The [ad hoc committee report](#) includes a presentation by the committee chair on the IMT-Advanced Standardization Process, view a with toward future contributions to that process.
- The WG submitted a [liaison statement to IETF](#), acknowledging some earlier informal coordination regarding the new IETG "16ng" Working Group and appointing David Johnston (who presented an [IETF Liaison Report](#)) as the WG's liaison official to IETF.
- The Working Group reviewed a [liaison report regarding the IEEE 802.21 WG](#) on media-independent handover.
- The Working Group received a [Liaison Statement from 3GPP SA5](#).
- The Working Group received a [Statement from the WiMAX Forum](#) on the 802.16 Operator ID issue.
- On 4 September, after Session #44, ITU published [Recommendation F.1763](#) ("Radio interface standards for broadband wireless access systems in the fixed service operating below 66 GHz"), which recommends the use of IEEE Std 802.16.

### Working Group Issues

- IEEE 802.16 Working Group Vice Chair Ken Stanwood resigned in order to prevent a perception of undue influence due to the fact that he and the Working Group Chair currently have the same employer. He was congratulated for his three years of service in the position.
- In a five-candidate race, with a runoff election required, Jose Puthenkulam was elected as WG Vice Chair, until March 2008.
- Peiyong Zhu agreed to remain serving as WG Secretary on a continuing basis.
- The [Working Group Membership](#) declined to 227, with a number of membership lost due to failure to participate in recent WG letter ballots. At least 69 other individuals will, as [Potential Members](#), be eligible for membership by attending Session #46.
- At the WG Opening Plenary, Brian Kiernan, Ron Murias, Jonathan Labs, and Itzik Kitroser were presented with award plaques in recognition of their roles as the Task Group Chairs and Technical Editors of IEEE Std 802.16e, published along with Corrigendum 1.

### **Future Meetings**

- IEEE 802.16's [Session #45](#) will take place in Mont Tremblant, Quebec, Canada on 25-28 September 2006. The Member Hosts will be Frank Draper, Brian Kiernan, and Keith Doucet, with Corporate Hosts Wavesat Inc., InterDigital Communications, and Redline Communications. Please see the session web page for information on registration, hotel reservations, and visas.
- IEEE 802.16's [Session #46](#) will take place on 13-16 November 2006 in Dallas, TX, USA in conjunction with the [IEEE 802 Plenary Session](#).
- IEEE 802.16's [Session #47](#) will take place on 15-18 January 2007 in London, UK in conjunction with an [IEEE 802 Joint Interim Session](#).
- IEEE 802.16's Session #48 will take place on 12-15 March 2007 in Orlando, FL, USA in conjunction with the [IEEE 802 Plenary Session](#).
- The Working Group accepted a [proposal by Jose Puthenkulam](#) to host IEEE 802.16's Session #49 in Portland, OR, USA on 21-24 May 2007.
- IEEE 802.16's Session #50 will take place on 16-19 July 2007 in San Francisco, CA, USA in conjunction with the [IEEE 802 Plenary Session](#).
- IEEE 802.16's Session #51 will take place in September 2007, preferably on 24-27 September. Proposals are solicited; please see the [IEEE 802.16 Interim Session Guidelines](#).

### **Minutes and Motions**

The Working Group minutes are available as [IEEE 802.16-06/041](#).

### **IEEE 802 Executive Committee Actions**

The Working Group's [requests at the 802 LMSC Executive Committee meeting](#) of 21 July were approved.

### **Documents**

The [Session #44 document list](#) includes references to all session documents. Draft standards are available with a working group password or by purchase from IEEE-SA. Most IEEE 802.16 standards are available for free download via the [Get IEEE 802®](#) program. See the [802.16 publication list](#) for details of published standards and drafts.

### **All Current Components of IEEE Std 802.16 Now Freely Downloadable**

IEEE Std 802.16e, which is published along with Corrigendum 1, has entered the [Get IEEE 802](#) program and is now freely downloadable. IEEE Std 802.16f has also entered the program. Both IEEE 802.16e and IEEE 802.16f are amendments to IEEE Std 802.16-2004. The operative version of IEEE Std 802.16 is now IEEE Std 802.16-2004, as modified by the corrigendum IEEE 802.16-2004/Cor1 and amended by IEEE 802.16e

and 802.16f. All of these documents all available through Get IEEE 802. For additional clarification on the naming of 802.16 documents, and other clarifications regarding the standard, you may refer to the views of the WG Chair in his contribution [IEEE 802.16 WirelessMAN Standard: Myths and Facts](#).

### **IEEE Publishes IEEE 802.16 Book**

IEEE has announced the publication of a 400-page book entitled [WirelessMAN: Inside the IEEE 802.16 Standard for Wireless Metropolitan Area Networks](#). The book primarily addresses the standard through IEEE Std 802.16-2004, without significantly coverage of IEEE 802.16e.

### **About IEEE 802.16**

The IEEE 802.16 Working Group on Broadband Wireless Access Standards has developed and is enhancing the **WirelessMAN®** Standard for wireless metropolitan area networks. IEEE 802.16 is a unit of the [IEEE 802 LAN/MAN Standards Committee](#), the premier transnational forum for wired and wireless networking standardization. A [list of IEEE 802.16 standards and drafts](#) is available on-line, as is a [project milestone summary](#) and an archive of previous [Session Reports](#). The [IEEE 802.16 Interactive Calendar](#) includes sessions and deadlines.

### **"802.16 News" Mailing List**

The "802.16 News" mailing list ("stds-802-16-news") has the sole purpose of distributing major announcements related to the Working Group. Those interested in following the progress of the group but not in the day-to-day details may wish to [subscribe](#). Only the Working Group Chair is eligible to post to the list, and mailings will be rare: once after each bimonthly session and additionally for major news, such as the approval of a new standard. Those subscribing to the stds-802-16 mailing list, for active Working Group participants, need not subscribe to stds-802-16-news since the postings will be redundant.

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With the approval of the IEEE 802.16 Working Group, this report (21 September 2006 edition) was drafted and edited by:

Roger Marks ([r.b.marks@ieee.org](mailto:r.b.marks@ieee.org))

Chair, IEEE 802.16 Working Group on Broadband Wireless Access Standards

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## Registration List: IEEE 802.16 Session #44

Updated 06/08/03, 08:13 PM (MT)

309 attendees, including 278 with "participation" credit (based on a minimum of six intervals, using the [participation logs](#)).

Participation Credit	Name\Given	Name\Family	Company	City	State\Province	Country
Yes	Youssef	Abdelilah	Sandbridgetech	White Plains	NY	USA
Yes	Ray	Abrishami	Fujitsu Microelectronics America	Sunnyvale	CA	USA
Yes	Edward	Agis	Intel Corp.	Newbury Park	CA	USA
Yes	Sassan	Ahmadi	Intel Corporation	Hillsboro	OR	USA
Yes	Dong Hyun	Ahn	ETRI	Daejeon		Korea
Yes	Jae Young	Ahn	ETRI			Korea
Yes	Junbae	Ahn	SOLiD Technologies	Seoul		Korea
Yes	Murtaza	Ali	Texas Instruments	Dallas	TX	USA
Yes	Dov	Andelman	Intel Corp.	Raanana		Israel
Yes	Reza	Arefi	Intel Corp.	Hillsboro	OR	USA
Yes	Masahito	Asa	Motorola Japan Ltd.	Tokyo		Japan
Yes	Sanjeev	Athalye	Qualcomm Inc.	San Diego	CA	USA
Yes	Mark	Austin	Ofcom	London		UK
Yes	Soma	Bandyopadhyay	Tata Consultancy Svcs.	Kolkata		India
Yes	Phillip	Barber	Huawei	Plano	TX	USA
Yes	Dharma	Basgeet	Toshiba Research Europe Ltd			UK
Yes	Kevin	Baum	Motorola Inc.	Schaumburg	IL	USA
Yes	Adrian	Boariu	Nokia	Irving	TX	USA
Yes	Eckard	Bogenfeld	Deutsche Telekom	Darmstadt		Germany
Yes	Dale	Branlund	BeamReach Networks, Inc.			USA
Yes	Sean	Cai	ZTE Communications	San Diego	CA	USA
Yes	Rickhard	Camarillo	KTRC	San Diego	CA	USA
No	Radhakrishna	Canchi	Kyocera Telecom. Research	San Jose	CA	USA
Yes	James	Carlo	Consultant (for Huawei)	Dallas	TX	USA
Yes	James	Chamberlin	Jacket Micro Devices			USA

Yes	Henry	Chang	Kyocera	San Diego	CA	USA
Yes	Sungcheol	Chang	ETRI	Daejeon		Korea
Yes	Naftali	Chayat	Alvarion Ltd.	Tel Aviv		Israel
Yes	Rèmi	Chayer	Wavesat Inc.	Dorval	PQ	Canada
Yes	David	Chen	Motorola	Arlington Heights	IL	USA
Yes	Wei-Peng	Chen	Fujitsu Labs of America			USA
Yes	Zhu	Chenxi	Fujitsu Labs of America	College Park	MD	USA
Yes	Naoki	Chiba	Sanyo Technology Center	San Jose	CA	USA
No	Aik	Chindapol	Siemens	Princeton	NJ	USA
Yes	Jaehee	Cho	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Jaeweon	Cho	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Kihyoung	Cho	LG Electronics Inc.	Anyang	Gyeonggi-do	Korea
Yes	Minhee	Cho	Samsung Electronics	Suwon		Korea
Yes	Seokheon	Cho	ETRI	Daejeon		Korea
Yes	Seungkwon	Cho	ETRI	Daejeon		Korea
Yes	Hyoung-Jin	Choi	TTA	Seongnam	Gyeonggi-do	Korea
Yes	Hyung-Nam	Choi	Comneon GmbH	Salzgitter		Germany
Yes	Joonyoung	Choi	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Yang-Seok	Choi	Intel	Hillsboro	OR	USA
Yes	Yeongha	Choi	Solid Technologies, Inc.	Seoul		Korea
Yes	Yong Seouk	Choi	ETRI			Korea
Yes	Yun	Choi	Intel Corporation	Seoul		Korea
Yes	Joey	Chou	Intel Corp.	Chandler	AZ	USA
Yes	Jin Young	Chun	LG Electronics Inc.	Anyang	Gyeonggi-do	Korea
Yes	Yun Won	Chung	Soongsil University	Seoul		Korea
Yes	Erik	Colban	Nextwave Broadband Inc	San Diego	CA	USA
Yes	David	Comstock	Huawei Technologies			USA
Yes	Jose	Costa	Nortel	Ottawa	ON	Canada
Yes	Mark	Cudak	Motorola	Schaumburg	IL	USA
Yes	George	Cummings	Motorola	Chandler	AZ	USA
No	Donnacha	Daly	Xerenet Ltd.	Cork		Ireland
Yes	Pranav	Dayal	Qualcomm, Inc.	San Diego	CA	USA
Yes	Carlos	De Segovia	France Telecom R&D	Cesson Sevigne		France

No	Upkar	Dhaliwal	Future Wireless Technologies	San Diego	CA	USA
Yes	Mi-Sun	Do	Samsung AIT	Yongin	Gyeonggi-do	Korea
Yes	Frank	Draper	Wavesat	Dorval	PQ	Canada
Yes	Krzysztof	Dudzinski	Airspan Communication Ltd	Uxbridge		UK
Yes	Lester	Eastwood	Motorola Inc.	Schaumburg	IL	USA
Yes	Tomas	Edler	Ericsson AB	KISTA		Sweden
Yes	Carl	Eklund	Nokia Inc.	Helsinki		Finland
Yes	Per	Elmdahl	Ericsson	Linkoping		Sweden
Yes	Torsten	Fahldieck	Alcatel	Stuttgart		Germany
Yes	Peretz	Feder	Lucent Technologies	Whippany	NJ	USA
No	Dazi	Feng	ZTE San Diego	San Diego	CA	USA
Yes	Thierry	Fernaine	SITA	Atlanta	GA	USA
Yes	Mo-Han	Fong	Nortel Networks	Ottawa	ON	Canada
Yes	Avraham	Freedman	Hexagon System Engineering Ltd.	Petah-Tikva		Israel
Yes	Randy	Frei	SkyPilot Networks	Santa Clara	CA	USA
Yes	I-Kang	Fu	National Chiao Tung University	Hsinchu		Taiwan
Yes	Dan	Gal	Lucent Technologies	Whippany	NJ	USA
Yes	Mike	Geipel	Axxcelera	Richmond	VA	USA
Yes	Pieter-Paul	Giesberts	Motorola	Utrecht		Netherlands
Yes	Mariana	Goldhamer	Alvarion	Tel Aviv		Israel
Yes	Reza	Golshan	Fujitsu Microelectronics America, Inc.	Sunnyvale	CA	USA
Yes	Danling	Gong	CATR	Beijing		China
No	Jeremy	Gosteau	Motorola	Gif sur Yvette		France
Yes	David	Grandblaise	Motorola	Gif sur Yvette		France
No	Michelle	Gu	PMC-Sierra	Santa Clara	CA	USA
Yes	Jung Ho	Han	Samsung Electronics Co., Ltd.	Suwon-City	Gyeonggi-do	Korea
Yes	Seishi	Hanaoka	Hitachi, Ltd.	Tokyo		Japan
Yes	Jeff	Harrang	SR Telecom	Redmond	WA	USA
Yes	Mike	Hart	Fujitsu	Hayes		UK
Yes	Gregory	Henderson	Research In Motion	Irving	TX	USA
Yes	David	Holmes	Clearwire	Kirkland	WA	USA
Yes	Ching-Tarng	Hsieh	ITRI	Hsinchu		Taiwan
Yes	Rose Qingyang	Hu	Nortel	Richardson	TX	USA
Yes	Teck	Hu	Siemens Communications		FL	USA

No	John	Humbert	Sprint	Overland Park	KS	USA
Yes	Yerang	Hur	Posdata	Santa Clara	CA	USA
Yes	Inseok	Hwang	Samsung Electronics	Suwon	Gyeonggi-do	Korea
No	Luke	Ibbetson	Vodafone Group	Newbury	Berk	UK
Yes	Bin-Chul	Ihm	LG Electronics Inc.	Anyang	Gyeonggi-do	Korea
Yes	Tetsu	Ikeda	Motorola Japan Ltd.	Tokyo		Japan
Yes	Tetsushi	Ikegami	Meiji Univ.			Japan
Yes	Dae Young	Jang	Sk Telecom	Sungnam	Gyeonggi-do	Korea
No	Junghoon	Jee	ETRI	Daejeon	Chungcheongnam-do	Korea
Yes	Hyung Joon	Jeon	POSDATA Co. Ltd	Seongnam-city, Kyeonggi-do		Korea
Yes	Moo Ryong	Jeong	DoCoMo USA Labs	San Jose	CA	USA
No	Seong-Ho	Jeong	Hankuk University of FS	Yongin, Kyungki-Do		Korea
Yes	Younghwan	Jin	Chungnam National Univ.	Daejeon		Korea
Yes	Brian	Johnson	Texas Instruments	Germantown	MD	USA
Yes	Kerstin	Johnsson	Intel	Palo Alto	CA	USA
Yes	David	Johnston	Intel Corp.	Hillsboro	OR	USA
Yes	Panyuh	Joo	Samsung Electronics	Suwon	Gyeonggi-do	Korea
No	Souhwan	Jung	Soongsil University	Seoul	Gyeonggi-do	Korea
Yes	Sunghun	Jung	Samsung Thales	Yongin		Korea
No	Youiti	Kado	Oki Electric Industry Co., Ltd.	Osaka	Osaka	Japan
Yes	Takeo	Kanai	Softbank BB Corp.	Tokyo		Japan
Yes	Chung G.	Kang	Korea University	Seoul		Korea
Yes	Hyunjeong	Kang	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Ted	Kaplan	RKF Engineering, LLC	Washington	DC	USA
Yes	Ofer	Kelman	Airspan	Lod		Israel
Yes	Brian	Kiernan	InterDigital Communications Corp.	King of Prussia	PA	USA
Yes	Beomjoon	Kim	Keimyung University	Daegu	Gyeongsangbuk-do	Korea
Yes	Bong Ho	Kim	Posdata	San Jose	CA	USA
Yes	Byoung-Jo	Kim	AT&T Research	Middletown	NJ	USA
Yes	Dae-Joong	Kim	Posdata	Seongnam-si	Gyeonggi-do	Korea
Yes	Eunkyung	Kim	ETRI	Daejeon		Korea



Yes	Hyeon Soo	Kim	Samsung Electronics			Korea
Yes	Hyung Kee	Kim	Samsung Thales			Korea
Yes	Hyunjae	Kim	ETRI	Daejeon		Korea
Yes	Kyeongsoo	Kim	STMicroelectronics			USA
Yes	Kyungsoo	Kim	ETRI			Korea
Yes	Namgi	Kim	Samsung			Korea
Yes	Ronny (Yong-Ho)	Kim	LG Electronics Inc.	Anyang-shi	Gyeonggi-do	Korea
Yes	Sang Youb	Kim	Nortel	Richardson	TX	USA
Yes	Sung Kyung	Kim	ETRI	Daejeon		Korea
Yes	Young-Il	Kim	ETRI			Korea
No	Younghan	Kim	Soong Sil University	Seoul		Korea
Yes	Youngho	Kim	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	YoungKyun	Kim	Samsung Electronics Co., Ltd.			Korea
Yes	Takuya	Kitamura	Fujitsu Labs. of America	Sunnyvale	CA	USA
Yes	Itzik	Kitroser	Runcom Technologies Ltd.	Rishon Le Zion		Israel
Yes	Young-Bae	Ko	Ajou University	Suwon		Korea
Yes	Peng-Yong	Kong	Institute for Infocomm Research			Singapore
Yes	Changhoi	Koo	Samsung Telecommunication America	Richardson	TX	USA
Yes	Havish	Koorapaty	Ericsson Inc.			USA
Yes	Toshiyuki	Kuze	Mitsubishi Electric	Kamakura, Kanagawa		Japan
Yes	Byung-Jae	Kwak	Samsung Electronics Co., Ltd.	Sungnam-Si	Gyeonggi-do	Korea
Yes	Dongseung	Kwon	ETRI	Daejeon		Korea
Yes	Kim	Kyungtae	NEC Labs. America	Princeton	NJ	USA
Yes	Jonathan	Labs	Wavesat	Dorval	PQ	Canada
No	Kari	Laihonen	TeliaSonera	Helsinki		Finland
Yes	Cristian	Lambiri	IDT	Ottawa	ON	Canada
Yes	Geon Yong	Lee	Samsung Thales			Korea
Yes	Geunho	Lee	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Heesoo	Lee	ETRI			Korea
Yes	Hyojin	Lee	ETRI	Daejeon		Korea
Yes	Hyun	Lee	ETRI	Daejeon		Korea
Yes	Hyunjeong	Lee	Intel	Hillsboro	OR	USA
No	Jaehwoon	Lee	Dongguk University			Korea

Kyu Ha	Lee	Samsung Thales	Yongin, Gyeonggi-do		Korea	
Yes	Meejeong	Lee	Ewha Womans University			Korea
Yes	Sang-Ho	Lee	ETRI	Daejeon	Chungcheongnam-do	Korea
Yes	Sook-Jin	Lee	ETRI	Daejeon		Korea
Yes	Sung-Won	Lee	Samsung	Yongin	Gyeonggi-do	Korea
Yes	Sungjin	Lee	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Yong Su	Lee	ETRI	Daejeon		Korea
Yes	Youn-Tai	Lee	Institute for Information Industry	Taipei		Taiwan
Yes	Yung-Ting	Lee	Institute for Information Industry	Taipei		Taiwan
Yes	Matty	Levanda	WiNetworks			Israel
Yes	Jia-Ru	Li	Extreme Networks	Santa Clara	CA	USA
Yes	Jiang	Li	Huawei	Shanghai		China
Yes	Jun	Li	Nortel Networks	Richardson	TX	USA
Yes	Thomas	Li	Huawei Technologies Co.	Santa Clara	CA	USA
Yes	Gaspare	Licitra	Siemens	Milan		Italy
Yes	Azman-Osman	Lim	NICT			Japan
Yes	Geunhwi	Lim	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Hyoung Kyu	Lim	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Sun Ju	Lim	LG Electronics inc.	Anyang-shi	Gyeonggi-do	Korea
Yes	Jiezhen	Lin	Siemens	Beijing		China
No	Meg	Lin				USA
Yes	Tzu-Ming	Lin	ITRI	Hsingchu		Taiwan
Yes	Zhibin	Lin	Huawei Technologies CO., Ltd.	Shanghai		China
Yes	Terrance	Lingren	Kyocera Telecom Research Corp.	San Diego	CA	USA
No	Valentino	Liva	EuramNet	Los Altos	CA	USA
Yes	Michael	Livschitz	Schema	Givat Zeev		Israel
Yes	Kanchei	Loa	Institute for Information Industry (III)	Taipei		Taiwan
Yes	Heinz	Lycklama	ADAPTIX, Inc.	Arlington	WA	USA
Yes	Steve	Ma	Freescale Semiconductor	Austin	TX	USA
Yes	David	Maez	Navini Networks	Richardson	TX	USA
Yes	Shashikant	Maheshwari	Nokia	Irving	TX	USA

Yes	David	Maidment	picoChip	Bath		UK
Yes	Ben	Manny	Intel	Hillsboro	OR	USA
Yes	Ronald	Mao	Huawei Technologies	San Diego	CA	USA
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# The IEEE 802.16 Working Group on Broadband Wireless Access Standards

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