

Project	IEEE 802.16 Broadband Wireless Access Working Group <a href="http://ieee802.org/16">http://ieee802.org/16</a>
Title	Minutes of IEEE 802.16 Session #42
Date Submitted	2006-03-27
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Re:	IEEE 802.16 Session #42 Minutes (Denver, CO, USA)
Abstract	
Purpose	To record minutes of the IEEE 802.16 Working Group Opening and Closing Plenary meetings at Session #42
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Patent Policy and Procedures	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures < <u>http://ieee802.org/16/ipr/patents/policy.html</u> >, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair < <u>mailto:chair@wirelessman.org</u> > as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site < <u>http://ieee802.org/16/ipr/patents/notices</u> >.

# Minutes of IEEE 802.16 Session #42

IEEE 802.16 Working Group Denver, CO, USA 6 – 9 March 2006

# IEEE 802.16 Session #42 Opening Plenary

Monday, 6 March 2006

## **Call to Order**

Meeting was called to order by Working Group (WG) Chair Roger Marks at 1:12 pm, who welcomed attendees to Session #42 of the IEEE 802.16 WG. Roger introduced himself, Ken Stanwood (Vice Chair) and Andy Sago (Acting Secretary), and stated that he would welcome offers of volunteers for the post of standing Secretary, following the resignation of Dean Chang.

The slides presented by the Chair to guide the meeting during the Opening Plenary are available in document IEEE 802.16-06/012.

The Chair outlined networking, logistical and registration issues.

## **Membership and Voting**

Name badges for this session were annotated with "V.16" for voting members and doubled as voting tokens. The lists of WG Members, Potential Members, Members in Peril, and Observers were explained by the Chair. Phil Barber asked if any members had lost membership through lack of participation in the two Letter Ballots held since the last session. Roger replied that, since WG Letter Ballot #20 had closed less than one week ago, he had not calculated lost membership due to lack of participation in letter ballots at this time but would do so when updating the membership following Session #42.

The Attendance Log procedure was explained by Ken Stanwood. 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%). As a bonus, attendees could also sign in to the Mobile Multihop Relay Tutorial Monday night (6:30-8pm), if they attend the entire tutorial. This will count as an extra interval. The requirement remains as six intervals.

Attendance credit will be granted to 802.16 members for participation in IEEE 802.18, 802.19, and 802.21; attendees are responsible to record this in the IEEE 802.16 electronic attendance log and forward proof of participation to WG Chair by Friday 10 March.

During the Opening Plenary, an problem was identified with electronic recording of attendance credits. This was fixed at 2:15 pm during the Opening Plenary, and attendees were asked to resubmit any attendance requests made before this time.

# Approvals

**Motion:** To approve the Opening Plenary Meeting Agenda as presented, proposed Phil Barber, seconded David Johnson, approved with no objections. See <a href="http://ieee802.org/16/meetings/mtg42/opening.html">http://ieee802.org/16/meetings/mtg42/opening.html</a>.

**Motion:** To approve Minutes of Session #41 (IEEE 802.16-06/008) and decisions therein, proposed Brian Kiernan, seconded Lei Wang, approved by unanimous voice vote.

# **Chair's Status Report**

## Legal Announcements

Roger highlighted parts of the IEEE 802 Policies and Procedures (P&P) as shown in his opening slides in document IEEE 80216-06/012. He also reiterated the information presented at the 802 Opening Plenary regarding disclosure when requested of affiliations of those in WG leadership positions.

A question from the floor asked for clarification of the term "when requested", could anyone make this request? Roger stated that this is ambiguous in the P&P, but it is his understanding that individuals should not ask for a statement of affiliation of other individual WG members during a meeting.

The following advice was provided by the WG Chair regarding IEEE Standards Association (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 802 P&P issues

There are proposed rules changes regarding quorum rules. Current rules specify that the WG is not required to track the quorum when part of an IEEE 802 LMSC Plenary Session, but at interim sessions a 50% quorum is required. The proposed new rules state that announcing the interim meetings 11 months in advance will serve as sufficient notice so as not to require quorum to be tracked.

## IEEE 802 Working Group Issues

Following publication of IEEE Std. 802.16f-2005 on 1 Dec 2005, the meeting recognised the achievements of Phil Barber as NetMan Task Group (TG) Chair and Joey Chou as NetMan TG Editor, and Roger presented them each with a Standards Association (SA) plaque.

Also, following publication of IEEE 802.16e and IEEE 802.16-2004/Cor 1 as a single document IEEE Std. 802.16e-2005 on 28 Feb 2006, Roger took the opportunity to recognise the hard work of the TG Chairs (Brian Kiernan and Jon Labs) and Editors (Ron Murias and Itzik Kitroser). IEEE SA have not yet produced plaques, but Roger was able to show the appreciation of the WG by presenting 802.16 Tee Shirts to each of them. Lei Wang also presented additional gifts to the 802.16e TG officials and Phil Barber presented an "I Am Procedure" glass plaque to Brian Kiernan. Finally Roger presented the IEEE SA Standards Medallion to Brian Kiernan for "steadfast and exemplary leadership of the Task Groups developing the IEEE 802.16a and 802.16e WirelessMAN standards specifying wireless metropolitan area networks for fixed and mobile broadband wireless access systems".

### IEEE 802 PARs Under Consideration

Six Project Authorisation Requests (PARs) have been submitted to LMSC Executive Committee (EC). WG comments were due by 5pm Tuesday of the session and PAR revisions allowed until 5pm Wednesday. There were questions from the floor over the 802.20 PAR extension, in view of potential overlap with the 802.16e standard. Roger said that the issue of whether the 802.16 WG should vote at the Friday EC meeting in favour or against the 802.20 PAR extension could be addressed at the Closing Plenary, and this will be added to the Closing Plenary agenda.

Without objection, Roger delegated authority to the Licence Exempt (LE) TG to examine the 802.19 PAR and submit any comments to the 802.19 TAG.

Discussion of the IEEE 802.16 PARs was deferred to within the relevant TG report later in the agenda.

## **IEEE 802 Architecture Group**

Phil Barber gave a verbal report on the IEEE 802 Architecture Group meeting of 5 March which had been looking at whether architecture issues currently dealt with in each wireless WG could be formally brought together, perhaps under 802.1. It has been concluded that this would be extremely difficult to do, but a coordinated approach does already occur where market requirements demand, e.g. 802.21.

Also Phil reported that the "802 Wireless Architecture Sub Group" met Monday to discuss wireless QoS, location awareness and mesh. Some people present at this sub group had wanted to bring together all the work on mesh and relay and introduce a formal structure to enforce collaboration for mesh and relay solutions. Roger had raised an issue with the EC about the status of the "802 Wireless Architecture Sub Group", since it had no published agenda and met with less than 24 hours notice. It was noted that another meeting of this sub group has been announced for Thursday night and will clash with the WG Closing Plenary, meaning that IEEE 802.16 WG members will be unable to attend both meetings.

### Schedule for the Week

The schedule for the week was presented for the various task groups, study groups and liaison ad hoc group. There were no IEEE 802 Tutorials scheduled for Tuesday evening, so this time is available for TGs.

# Netman Task Group

NetMan TG draft agenda for the week was presented by Phil Barber (document IEEE 802.16netman-06/004r1). The TG will work on IEEE 802.16 WG Letter Ballot #20 (on 802.16g), 802.16i contributions, and the draft 802.16k PAR (IEEE 802.16-06/003) and related contributions. Approval for 802.16g stands at 55% after LB#20. There is an option to hold a recirculation with an open scope, not just restricted to previous comments, and the NetMan TG may decide to do this. Roger pointed out to the WG that there were a large number of duplicate comments which led to a lot of work for the WG Chair and the TG, and he urged participants to look at other ways of indicating where several people have agreement on the same comment.

**Motion:** To delegate to the NetMan Task Group the authority and responsibility to respond to comments received on the proposed 802.16k PAR, preparing a suitable response and ensuring its timely submittal to the 802 EC by 5 pm on Wednesday, proposed Phil Barber, seconded David Johnston, approved by unanimous voice vote.

# **Conformance Task Group**

Conformance TG opening report was made by Gordon Antonello. The Sponsor Ballot has not closed because there are insufficient voters (55%, 28 voters short), although the approval ratio is current 94%. The ballot closing has been extended in an effort to attain the 75% return ratio. WG members in the Sponsor Ballot who have not yet voted were encouraged to cast their votes.

# License-Exempt Task Group

Mariana Goldhamer presented the plan for the week for the License-Exempt TG. A motion is expected at the Closing Plenary for the WG to adopt the current IEEE 802.16h Working Document as a WG draft.

# Mobile Multihop Relay Study Group

A report was presented by Mitsuo Nohara (document 802.16mmr-06/008). Apart from the tutorial on Monday evening, the plan is to address only comments on the draft 802.16j PAR (IEEE 802.16mmr-06/002).

**Motion:** To delegate to the Mobile Multihop Relay Study Group the authority and responsibility to respond to comments received on the proposed 802.16j PAR, preparing a suitable response and ensuring its timely submittal to the 802 EC by 5pm on Wednesday, proposed Mitsuo Nohara, seconded Mike Hart, approved by unanimous voice vote.

# Maintenance Task Group

Maintenance TG Chair Jon Labs updated the meeting regarding the 802.16 Maintenance Process using document IEEE 80216maint-06/008.

# Charge to Task Groups

TG and SG Chairs were asked to ensure that minutes are recorded, previous minutes are approved, and start and finish times are recorded for their meetings.

# Liaisons

José Costa gave the ITU-R liaison report. It is intended to prepare liaisons to Working Parties 8A and 8F this week.

Roger reminded the meeting that there are vacancies for 802.21 liaison officer and CCSA liaison officer. Offers to fill these posts were requested to be made to WG Chair before the Closing Plenary.

# **Future Sessions**

Session #43: 8-11 May 2006: Tel Aviv, Israel A video presentation on this session was made by Mariana Goldhamer on behalf of Naftali Chayat

Session #44: 17-20 July 2006: San Diego, CA, USA with IEEE 802 Plenary Session

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. There were no objections to holding the 802.16 session in London with the other 802 groups.

## Election

Document IEEE 802.16-03/028 states the WG procedures for the required biennial elections of officers. The important points were read out by Roger, who then handed over chairmanship of the meeting to the Vice Chair to run the next part of the meeting. Roger Marks had declared his candidacy for WG Chair and his name was printed on the ballot paper (IEEE 802.16-06/013). A space on the ballot paper allowed for any additional candidates to be written in, and the Vice Chair asked if anyone wished to offer themselves for this position. There were no responses. Roger was invited to make a statement, after which he left the room. Discussions were invited from the floor.

With chairmanship of the meeting passed back to the WG Chair, the three candidates for WG Vice Chair were read out, namely Ken Stanwood, Jon Labs and Panyuh Joo. Those present were asked if anyone else wished to offer themselves for this position. There were no responses. Each candidate was invited to make a statement, after which they left the room, and discussions were invited from the floor. The candidates were then allowed back to the meeting.

A secret ballot was held using paper ballot papers. 95 ballot papers were issued to WG members on presentation of their membership token, and 94 ballot papers were returned including 1 spoilt paper and 1 late paper (not accepted). Votes were counted by the Chair, Vice Chair and Acting Secretary in full view of the WG participants who were invited to monitor counting. The results were:

- Chair: Roger Marks 92 votes
- Vice Chair: Ken Stanwood 36 votes, Jon Labs 20 votes, Panyuh Joo 36 votes

Roger Marks was duly elected as WG Chair for the coming two-year period ending March 2008. A run off vote between Ken and Panyuh for the Vice Chair position was scheduled for the Closing Plenary.

## **New Business**

There was no new business from the floor.

# Closing

A **Motion** to adjourn the Opening Plenary was proposed by David Johnson, seconded by Phil Barber and approved by unanimous voice vote. The meeting adjourned at 4:02pm.

# IEEE 802.16 Session #42 Closing Plenary

10th March 2006

# **Call to Order**

Roger Marks called the meeting to order at 7:15pm.

## **Approval of Agenda**

The Closing Plenary agenda was published at http://www.wirelessman.org/16/meetings/mtg42/closing.html. A **Motion** to approve the agenda as presented and amended by Chair was proposed Jon Labs, seconded David Johnston and approved by unanimous consent.

## Maintenance Task Group

Report on Maintenance Process Development was presented by Jon Labs (document IEEE 80216maint-06/010). It was noted that, without a PAR, WG can review and discuss maintenance issues but cannot vote on resolving those issues.

**Motion:** to request a WG letter ballot be opened on accepting 802.16 maint-06/003r1 as the maintenance process for 802.16, proposed Jon Labs, seconded Gordon Antonello. There was no discussion, Motion passed 71/0/0.

**Motion:** to open a call for comments/requests on the maintenance of the published 802.16 standards for review at Session #43, proposed Jon Labs, seconded Brian Kiernan. There was no discussion, Motion approved by unanimous consent.

The WG Chair expressed thanks to David Law (Vice Chair of IEEE 802.3) for his extensive help with regard to the maintenance process.

## **Conformance Task Group**

Report was presented by TG Chair Gordon Antonello, document IEEE 802.16-06/006. Return ratio conditions were met to finally close the Sponsor Ballot on March 8 at 11:59pm.

**Motion**: To accept the commentary database 802.16-06/015r1 as the resolution of the comments on P802.16-Conformance04/D6 received during the sponsor ballot and to authorize the editor to create the resulting P802.16-Conformance04/D7. Motion proposed Gordon Antonello, seconded Scott Probasco. There was no discussion. Motion approved by unanimous voice vote.

**Motion**: To request conditional approval to forward P802.16-Conformance04/D7 to RevCom pending successful recirculation, proposed Gordon Antonello, seconded Brian Kiernan. There was no discussion. Motion approved 63/0/0.

There was some discussion over the remaining five disapprove voters, some of whom are not WG members. All should be encouraged to send their changed votes to Roger Marks, Gordon Antonello and Herbert Ruck by email, as myBallot does not allow votes to be changed after a ballot is closed.

## License-Exempt Task Group

A report was made by TG Chair Mariana Goldhamer, document IEEE 802.16h-06/008. The TG decided not to request promoting the working document to Draft Standard status and deferred this decision to Session #43.

**Motion**: To authorise the 802.16 WG to start a Letter Ballot on P802.16h/D1, during Sesson #43, even without a quorum, proposed Mariana Goldhamer, seconded Jose Puthenkulam. Motion approved 50/0/0. Roger said he would highlight this decision with the EC to avoid any misunderstandings.

Mariana raised a concern over the level of participation in the TG and asked for ideas. Barry Lewis put forward the suggestion of a Working Group Review, and proposed the **Motion**: To initiate a Working Group Review of the P802.16h Working Document arising from Session #42. This was seconded by Paul Piggin and approved by unanimous voice consent.

## Mobile Multihop Relay Study Group

A report was made by SG Chair Mitsuo Nohara, document IEEE 802.16mmr-06\_009. Comment resolution on the PAR and 5C for 802.16j had resulted in several changes, including a change of title to Multihop Relay Specification.

**Motion**: To forward the P802.16j PAR and 5 Criteria in IEEE 802.16mmr-06/002r1 to the 802 EC for approval, proposed Mitsuo Nohara, seconded Roger Peterson. A question from Jose Puthenkulam was satisfied by Roger Marks regarding process for submitting the PAR changes using the electronic PAR forms. Motion was approved 82/0/0.

In case there is a problem with timely agreement of the PAR, there was a further motion to extend the SG: **Motion** to renew the MMR SG through the July 2006 802 Plenary Session, proposed Mitsuo Nohara, seconded Sean Cai. A point of clarification from the floor was satisfied by the Chair. Motion was approved by unanimous consent. Participants were thanked by Roger for their efforts in resolving the comments and in making the tutorial session so successful. Also he mentioned that the SG has expressed a willingness to coordinate with 802.11 and 802.15.3 where appropriate.

Roger stated he intends to name Mitsuo Nohara as Chair of the Task Group. Volunteers for the other posts in the TG are welcome.

## **NetMan Task Group**

A report was made by Phil Barber (document IEEE 802.16netman-06/005).

**Motion**: To accept 802.16-06/003r1 as the revised 802.16k PAR and authorise forwarding the revised PAR to the 802 EC, proposed Phil Barber, seconded David Johnston. The PAR form was displayed to the meeting, and Roger explained a correction to an error that had been made in referencing 802.1D-2004 rather than 802.1D, since the latter allows the changes to apply to all versions of the document. Motion approved 72/0/0.

**Motion**: to develop and issue the WG Draft P802.16g/D2, and initiate a WG Letter Ballot recirculation, in which the entire document is available for comment, to close around April 28<sup>th</sup> 2006, proposed Phil Barber, seconded Lei Wang. Jose Puthenkulam made the point that disapprove voters should be contacted now to see if they are satisfied, otherwise, based on past experience there could be a lot of work to track down these voters and seek their opinions at the point at which the document goes to Sponsor Ballot. Motion was approved 71/0/0.

**Motion**: to empower the WG Chair to investigate and take whatever reasonable action is required to resolve the issue of IANA ifTypenumber and transmission OID number assignment for IEEE 802.16f and 802.16i, prior to Session #43, proposed Phil Barber, seconded Per Elmdahl, approved by unanimous consent.

## **Registration Authority Issues**

The IEEE Registration Authority Committee (RAC) has been contacted by the WG Chair regarding acting as registration authority for operator IDs for 802.16 equipment, since the standard does not have an assignment process or prescribe how uniqueness of operator IDs is ensured. Roger Marks, Ken Stanwood, and Phil Barber had held a meeting on 8 March with representatives from the RAC. Two possible options for allocations of Operator Unique Identifiers (OUIs) have been discussed, one using OUIs from the pool of allocations currently available to manufacturers, and one where an entirely new name space is developed by the RAC. The RAC meets only once per year, in July, and the WG needs to be clear on its use of the Operator ID (and any amendments in P802.16g) by then. In response to questions from the floor, the Chair agreed to issue a call for comments on the registration issue, especially to gather operator comments.

## Liaisons

### 802.21

No offers have been received to act as Liaison Official for this Group.

#### **3GPP**

Jörg Schmidt has offered to act as 3GPP Liaison Officer and explained where he felt liaison activities would be useful, which at present is between NetMan and 3GPP TSG SA5. A **Motion** was made to send a liaison letter to SA5, copied to 3GPP SA, informing them of the appointment of Jörg Schmidt as Liaison Officer, proposed Jose Puthenkulam, seconded Brian Kiernan, approved 65/0/0. Roger Marks will write the liaison letter and post it to the server.

### ITU-R

A report was made by José Costa, document IEEE L802.16-06/005.

**Motion:** to approve IEEE L802.16-06/003d2 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 José Costa, seconded Mariana Goldhamer. There was no discussion, Motion approved 57/0/0.

**Motion**: to approve IEEE L802.16-06/004d3 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 José Costa, Seconded Mariana Goldhamer, no discussion, 64/0/0.

José noted that there is no requirement for any meeting time for the ITU ad hoc at Session #43.

## **IEEE 802 Issues**

### Other 802 PARs

There was a query from David Johnson that a comment regarding the 802.1AS PAR has not been addressed in the revised PAR, and he requested the WG Chair to raise this issue with the Chair of 802.1.

No comments were made on the 802.15.3a PAR withdrawal.

Barry Lewis reported on the results of the comments made by the WG (through the Licence Exempt TG) regarding the 802.19 PAR on Recommended Practice on Methods for Assessing Coexistence of Wireless Networks. The comments made by the 802.16 WG resulted in a change to the 802.19 PAR.

Concerns were raised by the WG Chair that it is not clear that the 802.20 PAR extension was approved by the 802.20 WG. Despite assurances from the 802.20 Chair that WG approval of the PAR document was not necessary, Roger stated that he is inclined to vote against this PAR extension on procedural issues.

# **Election of Vice Chair**

The WG Chair Roger Marks reiterated the process for the runoff election for WG Vice Chair, there being two remaining candidates, Ken Stanwood and Panyuh Joo. Each candidate made a short statement. The candidates were invited to leave the room while comments were invited from the floor.

With the candidates back in the room, the election took place by secret ballot. 103 ballot papers were issued to WG members on presentation of their membership token, and 101 ballot papers were returned in the ballot. Results were counted by Brian Kiernan and Andy Sago and checked by Roger Marks in full view of the WG participants who were invited to monitor the count. The result of the run off election for WG Vice Chair was: Ken Stanwood 52 votes, Panyuh Joo 49 votes, and Ken Stanwood was duly elected WG Vice Chair for the coming two year period ending March 2008.

## WG Issues - Secretary position

Andy Sago was thanked as Acting Chair for the last three sessions but he has reiterated that he is unable to fulfil this role on a standing basis. Peiying Zhu has come forward to act as Secretary for Session #43 and may continue in the role for later sessions, she was thanked for volunteering to take on this task.

## **Future Sessions**

Session #43: 8-11 May 2006: Tel Aviv, Israel: Mariana Goldhamer updated the meeting on arrangements for this meeting on behalf of Naftali Chayat and encouraged participants to make early bookings, submitting their visa request forms (even if no visa is required) so that the hosts can be updated on numbers attending.

The WG discussed whether to consider a motion for authorisation to proceed without a quorum on certain issues at Session #43, for instance, a WG Letter Ballot for P802.16k was identified as a possibility.

**Motion**: to authorise the WG to conduct WG business without a quorum at Session #43. Proposed Phil Barber, seconded David Johnston, Motion approved 48/0/0.

**Motion**: to authorise the WG at the May session without a quorum to adopt a P802.16k draft and issue a Letter Ballot conditional on the 802.16k PAR being approved by IEEE-SA Standards Board beforehand, proposed David Johnston, seconded by Wen Tong. Friendly amendments were not accepted from Peiying Zhu and others relating to issuance of a call for contributions. There was no discussion. Motion was approved 29/0/2.

A non-member proposed a Motion asking for a call for contributions but this was ruled out of order by the Chair since Motions can be made only by members. The Chair stated that a Call for Contributions will be issued if and when the 802.16k PAR is approved.

Three further Motions were made as follows:

**Motion:** To authorize the Working Group, at Session #43, to authorize the editor to revise P802.16g/D2, in accordance with the WG Letter Ballot comment resolutions made at Session #43, and reissue the document as P802.16g/D3

**Motion:** To authorize the Working Group, at Session #43, to initiate a Working Group Letter Ballot recirculation on P802.16g/D3

**Motion:** To authorize the Working Group, at Session #43, to authorize the editor to revise 802.16i-06/001r1, in accordance with the comment resolutions at Session #43, and reissue the document as 802.16i-06/001r2.

The above three Motions were proposed by Phil Barber, seconded Jose Puthenkulam and voted en bloc, Motions passed 45/0/0.

Session #44: 17-20 July 2006: San Diego, CA, USA with IEEE 802 Plenary Session

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

In a straw poll at the meeting 33 people indicated that they are likely to attend the London session, and three indicated that they are unlikely to attend.

## Publicity

Roger Marks was authorised without objection to prepare a Session #42 Report.

## **New Business**

Thanks were expressed to Steve Schroedl and his team from VeriLAN following feedback from the meeting that they experienced no unresolved issues with regard to the on-site wireless network which has operated more smoothly than at any plenary session to date.

# Closing

A **Motion** to adjourn the meeting was made by Brian Kiernan, seconded by David Johnston, and carried by unanimous voice vote. The meeting was adjourned at 10:45pm on 9 March 2006.

# IEEE 802.16 Session #42 Report



#### Session #42 Venue

IEEE 802.16's Session #42 took place on 6-9 March 2006 at the *Hyatt Regency Denver at Colorado Convention Center* in Denver, Colorado, USA. This was an <u>IEEE 802 LMSC Plenary Session</u> and co-located with sessions of the other IEEE 802 Working Groups and Technical Advisory Groups. The <u>attendance list</u> includes the names of 218 individuals.

#### Publication of IEEE Std 802.16e-2005 for Mobile WirelessMAN®

IEEE Std 802.16e-2005 was published on 28 February 2006, following its IEEE-SA approval on 7 December 2005. Prior to publication, the standard was fully integrated with the corrigendum IEEE 802.16-2004/Cor1, which was approved on 8 November 2005. The operative version of IEEE Std 802.16 is now IEEE Std 802.16-2004, as amended by IEEE 802.16e-2005 (and the co-published corrigendum IEEE 802.16-2004/Cor1-2005) as well as by IEEE 802.16f-2005. You may follow the links for further information on obtaining the standards. IEEE Std 802.16-2004 is freely downloadable via the "Get IEEE 802" program. The others will be added to the program approximately six months after their publication date.

#### Mobile Multihop Relay Study Group

The Working Group's <u>Mobile Multihop Relay Study Group</u> met and reviewed comments on the P802.16j project authorization request (PAR) it had drafted in January. A <u>revised PAR 802.16j</u> was submitted to the IEEE 802 EC, which agreed to forward it to IEEE-SA's NesCom. Formal approval of the draft PAR by the IEEE-SA Standards Board is expected on 30 March. A <u>closing report</u> was issued, with minutes to follow. *Update:* The <u>P802.16j</u> PAR was approved by the IEEE-SA Standards Board on 30 March 2006. A <u>Call for</u> <u>Contributions</u> was issued on 6 April.

#### Network Management (NetMan) Task Group

The <u>NetMan Task Group</u> met from Monday through Thursday, addressing the three project issues below. The Task Group issued a <u>closing report</u> and <u>minutes</u>.

#### 802.16g Project

The NetMan Task Group addressed comments arising during 802.16 WG Letter Ballot #20 regarding the draft P802.16g/D1 that was adopted by the WG in February. Comment resolutions will be incorporated in a new draft, for recirculation prior to Session #43.

Update: Working Group Letter Ballot Recirc #20a, on P802.16g/D2, runs from 5-30 April 2006.

The NetMan Task Group addressed responses to a Call for Comments regarding the P802.16i Baseline Document. A revised version will be prepared for further review prior to Session #43. **Update:** The <u>updated P802.16i Baseline Document</u> was completed on 27 March 2006. A <u>Call for</u>

Comments was issued on 10 April.

#### New 802.16k Project

The 802 Executive Committee (EC) agreed to forward, to IEEE-SA's NesCom, a PAR P802.16k, to initiate a project to amend IEEE 802.1D for support of 802.16 bridging.

*Update:* The <u>P802.16k PAR</u> was approved by the IEEE-SA Standards Board on 30 March 2006. A <u>Call for Contributions</u> was issued on 10 April.

#### Licensed-Exempt Task Group

The Working Group's Licensed-Exempt Task Group met again to develop the P802.16h draft. After reviewing about responses to a Call for Comments, the group agreed to issue a new working document, which will be subject to a Working Group Review. A <u>closing report</u> was issued, with minutes to follow. The Task Group also prepared a <u>summary of the 802.16h Working Document</u> for presentation.

*Update:* A <u>Working Group Review</u> was opened on 7 April, through 2 May, to review the <u>new working</u> <u>document</u>.

#### **Conformance Task Group**

The <u>Conformance Task Group</u>, addressing the <u>P802.16/Conformance04</u> project on PICS Proforma for fixed operation below 11 GHz, met to resolve comments received in IEEE-SA Sponsor Ballot, where the initial approval stood at 96%. Subsequently, the IEEE 802 EC granted <u>conditional approval</u> to forward the draft to IEEE-SA's RevCom, provided that the ballot closes successfully. A new draft is in preparation for recirculation, to close prior to Session #43. The Task Group issued a <u>closing report</u> and <u>minutes</u>.

**Update:** Based on <u>comment resolutions</u> approved at Session #42, a new <u>Draft 7</u> was developed and submitted for Sponsor Ballot recirculation.

#### Maintenance Task Group

The <u>Maintenance Task Group</u> met to review responses to a Call for Comments regarding the proposed 802.16 Maintenance Process drafted at Session #41. The group heard a presentation from 802.3 Vice Chair David Law on the well-developed <u>802.3 Maintenance Process</u>. Following comment resolution, an updated <u>draft</u> <u>Maintenance Process</u> was completed. However, the work was not finalized. The WG decided to open a Working Group Letter Ballot #21 to consider the process in more detail. Simultaneously, the TG plans to open, prior to Session #43, a centrallized system for the reporting of maintenance requests. The Task Group issued a <u>closing report</u> and <u>minutes</u>.

Update: Working Group Letter Ballot #21, on the draft Maintenance Process, runs from 11 April - 4 May 2006.

#### **Liaison Activities**

• The WG's ITU-R ad hoc committee met to complete two draft contributions to ITU-R Working Parties 8A and 8F. The documents were approved by the IEEE 802.16 WG, by the IEEE 802.18 Radio Regulatory Technical Advisory Group, and by the IEEE 802 EC. The IEEE submitted these two documents, <u>one to WP 8A</u> and <u>one to WP 8A and WP 8F</u>. The ad hoc prepared an <u>activity report</u>. It will not meet during Session #43.

• Jörg Schmidt volunteered and was appointed to serve as the 802.16 WG's liaison to 3GPP TSG-SA5 (Telecom Management). A letter regarding the appointment is planned.

#### **Registration Authority Issue**

The WG Chair has opened discussions with the Chair of the IEEE-SA Registration Authority Committee (RAC) concerning the use of the IEEE-SA Registration Authority for assignment of the 24-bit 802.16 Operator ID that

serves as the operator-unique subset of the 48-bit Base Station ID. The Chair sent a <u>draft letter</u> for review by RAC. As a followup, the WG Chair and Vice Chair, along with the NetMan TG Chair, met with the RAC Chair and the two IEEE 802 representatives to the RAC on 8 March. The consensus of the meeting was that the existing IEEE OUI number space might be appropriate for this purpose. The details will be considered prior to the next RAC meeting, in July 2006. This will require documentation for the RAC, including language that would be added to IEEE P802.16g.

#### **Working Group Issues**

Roger Marks was re-elected as Chair of the Working Group until March 2008. In a three-candidate race, Ken Stanwood was re-elected as Vice Chair for the same term.

Dean Chang announced his resignation after serving as WG Secretary since 2001. His resignation was accepted with regret. Andy Sago, serving as Acting WG Secretary for the third consecutive session, declined to continue in that role on a standing basis. Peiying Zhu will serve as Acting WG Secretary for Session #43 and may agree to continue.

The <u>Working Group Membership</u> declined to 249. At least 87 other <u>Potential Members</u> will be eligible for membership by attending Session #44.

#### Awards

At the WG Opening Plenary of 6 March 2006, the <u>IEEE-SA Standards Medallion</u> was presented to Brian G. Kiernan "For steadfast and exemplary leadership of the Task Groups developing the IEEE 802.16a and 802.16e WirelessMAN standards specifying wireless metropolitan area networks for fixed and mobile broadband wireless access systems." Phil Barber and Joey Chou were presented with award plaques in recognition of their roles as the Task Group Chair and Technical Editor of the 802.16f project.

#### **Future Meetings**

- IEEE 802.16's <u>Session #43</u> will take place on 8-11 May 2006 in Tel Aviv, Israel. The Member Host will be <u>Naftali Chayat</u> of Corporate Host Alvarion. Please see the session web page for information on registration, hotel reservations, and visas.
- IEEE 802.16's <u>Session #44</u> will take place on 17-20 July 2006 in San Diego, CA, USA in conjunction with the <u>IEEE 802 Plenary Session</u>.
- IEEE 802.16's <u>Session #45</u> 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.
- IEEE 802.16's <u>Session #46</u> will take place on 13-16 November 2006 in Dallas, TX, USA in conjunction with the <u>IEEE 802 Plenary Session</u>.
- IEEE 802.16's <u>Session #47</u> will take place on 15-18 January 2007 in London, UK in conjunction with an <u>IEEE 802 Joint Interim Session</u>.
- 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 venue for IEEE 802.16's Session #49 will determined during Session #44. Proposals are solicited; please see the <u>IEEE 802.16 Interim Session Guidelines</u>.

#### **Documents**

The <u>Session #42 document list</u> 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 <u>Get IEEE 802®</u> program. See the <u>802.16 publication list</u> for details of published

standards and drafts.

#### **Minutes and Motions**

The Working Group minutes will be available as IEEE 802.16-06/019.

The Working Group's requests at the 802 LMSC Executive Committee meeting of 10 March were approved.

#### 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 <u>IEEE 802</u> <u>LAN/MAN Standards Committee</u>, the premier transnational forum for wired and wireless networking standardization. A <u>list of IEEE 802.16 standards and drafts</u> is available on-line, as is a <u>project milestone</u> <u>summary</u> and an archive of previous <u>Session Reports</u>.

#### "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 <u>subscribe</u>. 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.

With the approval of the IEEE 802.16 Working Group, this report was drafted and edited (11 April 2006 update) by:

Roger Marks (<u>r.b.marks@ieee.org</u>) Chair, IEEE 802.16 Working Group on Broadband Wireless Access Standards tel: +1-303-497-7837

IEEE 802.16 Session #42 Page

# Registration List: IEEE 802.16 Session #42 6-9 March 2006 in Denver, Colorado, USA

Updated 06/03/16, 08:20 AM (MT) to show 218 attendees, including 178 with "participation" credit.

Participation Credit	Name\Given	Name\Family	Company	City	State \Province	Country
Yes	Ray	Abrishami	Fujitsu Microelectronics America	Sunnyvale	СА	USA
No	Hossam	Afifi	INT	Evry		France
No	Edward	Agis	Intel Corp.	Newbury Park	CA	USA
Yes	Sassan	Ahmadi	Intel Corporation			
No	Telma	Alencar	cmr consulting			USA
Yes	Gordon	Antonello	Wi-LAN Inc.	Calgary	AB	Canada
Yes	Larry	Arnett	Renesas Technology America, Inc.	San Jose	СА	USA
Yes	Masahito	Asa	Motorola Japan Ltd.	Tokyo		Japan
No	Mark	Austin	Ofcom	London		UK
Yes	Phillip	Barber	Huawei	Plano	TX	USA
No	Dharma	Basgeet	Toshiba Research Europe Ltd			
Yes	Rajesh	Bhalla	ZTE Communications	San Diego	СА	USA
Yes	Eckard	Bogenfeld	Deutsche Telekom	Darmstadt		Germany
No	Walter	Buga	Proximetry	Davis	CA	USA
No	Sean	Cai	ZTE Communications	San Diego	СА	USA
No	Jim	Carlo	Consultant (for Huawei)	Dallas	ТХ	USA
Yes	Jaesun	Cha	ETRI	Daejeon		Korea
Yes	James	Chamberlin	Jacket Micro Devices			
Yes	Jae Hwan	Chang	Samsung Electronics	Suwon-si	Gyeonggi- do	Korea
Yes	Sungcheol	Chang	ETRI	Daejeon		Korea
Yes	Yong	Chang	Samsung Electronics	SuwonSi		Korea

No	Youngbin	Chang	Samsung Electronics Co. Ltd			
Yes	David	Chen	Motorola			
Yes	Aik	Chindapol	Siemens	Princeton	NJ	USA
Yes	Hua (Mary)	Chion	ZTE Communications	San Diego	СА	USA
Yes	Jaehee	Cho			Gyeonggi- do	Korea
Yes	Jaeweon	Cho	Samsung Electronics	Suwon	Gyeonggi- do	Korea
Yes	Seokheon	Cho	ETRI	Daejeon		Korea
No	Soonmi	Cho	Samsung Electronics	Seoul		Korea
Yes	Hyoung-Jin	Choi	ТТА	Seongnam	Gyeonggi- do	Korea
Yes	Joonyoung	Choi	Samsung Electrinics			
No	Wook	Choi	Samsung Electronics			
Yes	Yun	Choi	Intel Corporation	Seoul		Korea
Yes	Jaehong	Chon	Samsung Electronics			
Yes	Joey	Chou	Intel Corp.	Chandler	AZ	USA
Yes	David	Choukroun	Sequans Communications	Paris		France
No	Thomas	Cook	Troicom Inc	Tustin	CA	USA
Yes	JosÈ	Costa	Nortel	Ottawa	ON	Canada
Yes	Mark	Cudak	Motorola	Schaumburg	IL	USA
Yes	George	Cummings	Motorola	Chandler	AZ	USA
Yes	Carlos	de Segovia	France Telecom R&D			
Yes	Lester	Eastwood	Motorola Inc.	Schaumburg	IL	USA
Yes	Carl	Eklund	Nokia Inc.	Helsinki		Finland
Yes	Per	Elmdahl	Ericsson	Linkoping		Sweden
No	Luis	Escobar Sanz	France Telecom	Issy-les- Moulineaux	Paris	France
Yes	Torsten	Fahldieck	Alcatel	Stuttgart		Germany
Yes	Yonggang	Fang	ZTE San Diego	San Diego	CA	USA
Yes	Frank	Favichia	Intel			
Yes	Peretz	Feder	Lucent Technologies	Whippany	NJ	USA

Yes	Avraham	Freedman	Hexagon System Engineering Ltd.			Israel
No	Randy	Frei	SkyPilot Networks	Santa Clara	СА	USA
No	Vladimir	Friedman	Analog Devices Inc.			USA
Yes	I-Kang	Fu	National Chiao Tung University	Hsinchu		Taiwan
Yes	Nikhil	Goel	ADC	Bangalore		India
Yes	Mariana	Goldhamer	Alvarion	Alvarion Tel Aviv		Israel
Yes	Daning	Gong	China Academy of Telecommunication Research, MII			China
Yes	David	Grandblaise	Motorola	Gif sur Yvette		France
Yes	Daqing	Gu	Mitsubishi Electric			
Yes	Ajay	Gummalla	SDRC	San Diego	СА	USA
Yes	Qiang	Guo	Motorola, Inc.	Libertyville	IL	USA
Yes	Jung Ho	Han	Samsung Electronics Co., Ltd.	Suwon-City	Gyeonggi- do	Korea
No	Seishi	Hanaoka	Hitachi, Ltd.	Tokyo		Japan
Yes	Mike	Hart	Fujitsu		Middx	UK
No	Gregory	Henderson	Research In Motion	Irving	ТХ	USA
No	Michael	Hoghooghi	Freescale Semiconductor, Inc.	Austin	ТХ	USA
Yes	David	Holmes	Clearwire	Kirkland	WA	USA
Yes	Songnam	Hong	Samsung	Suwon	Gyeonggi- do	Korea
Yes	Rose Qingyang	Hu	Nortel	Richardson	ТХ	USA
Yes	Haiming	Huang	Walbell Technologies, Inc.	Bellevue	WA	USA
Yes	Yerang	Hur	Posdata	Santa Clara	СА	USA
Yes	Inseok	Hwang	Samsung Electronics	Suwon	Gyeonggi- do	Korea
No	Jiho	Jang	Samsung Electronics	Suwon	Gyeonggi- Do	Korea
Yes	Kerstin	Johnsson	Intel Corporation			
Yes	David	Johnston	Intel Corp.	Hillsboro	OR	USA
Yes	Panyuh	Joo	Samsung Electronics Suwon		Gyeonggi- do	Korea
Yes	Youiti	Kado	Oki Electric Industry Co., Ltd.	Osaka	Osaka	Japan

Yes	Takeo	Kanai	Softbank BB Corp.	Tokyo		Japan
Yes	Hyunjeong	Kang	Samsung Electronics	Suwon	Gyeonggi- do	Korea
Yes	Ted	Kaplan	RKF Engineering, LLC			
No	Brian	Kiernan	InterDigital Communications Corp.	King of Prussia	PA	USA
Yes	Bong Ho	Kim	Posdata	San Jose	СА	USA
Yes	Eunah	Kim	ETRI	Daejeon		Korea
No	Haelyong	Kim				_
Yes	Sang Youb	Kim	Nortel	Richardson	TX	USA
No	Taeyoung	Kim	Samsung	Suwon	Gyeonggi- do	Korea
Yes	Youngho	Kim	Samsung Electronics	Suwon	Gyeonggi- do	Korea
Yes	YoungKyun	Kim	Samsung Electronics Co., Ltd.			Korea
Yes	Peng-Yong	Kong	Institute for Infocomm Research			
Yes	Changhoi	Коо	Samsung Telecommunication America	Richardson	ТХ	USA
Yes	Тео	Koon Hoo	Mitshubishi Electric	Cambridge	MA	USA
Yes	Havish	Koorapaty	Ericsson Inc.			USA
Yes	Toshiyuki	Kuze	Mitsubishi Electric	Kamakura, Kanagawa		Japan
No	Dongseung	Kwon	ETRI	Daejeon		Korea
Yes	Jonathan	Labs	Wavesat	Dorval	PQ	Canada
No	Kari	Laihonen	TeliaSonera	Helsinki		Finland
Yes	Hyunjeong	Lee	Intel Corp			
Yes	Jicheol	Lee	Samsung Eletronics	Suwon	Gyeonggi- do	Korea
Yes	Jong Sik	Lee	КТ			
No	Logan	Lee	SkyPilot Networks Inc.		CA	USA
Yes	Mihyun	Lee	Samsung Electronics suwon-si		Gyeonggi- do	Korea
Yes	Sung-Won	Lee			Gyeonggi- do	Korea
Yes	Sungjin	Lee	Samsung Electronics	Suwon	Gyeonggi- do	Korea

Yes	Youn-Tai	Lee	Institute for Information Industry	Taipei		Taiwan
Yes	Barry	Lewis	Redline Communications	Lightwater	Surrey	UK
Yes	Jun	Li	Nortel Networks	Richardson	ТХ	USA
Yes	Gaspare	Licitra	Siemens	Milan		Italy
Yes	Aeri	Lim			Gyeonggi- do	Korea
Yes	Geunhwi	Lim			Gyeonggi- do	Korea
Yes	Hyoung Kyu	Lim			Gyeonggi- do	Korea
Yes	Zhibin	Lin	Huawei Technologies Co., Ltd.	Technologies Co., Shanghai		China
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No	Hui-Ling	Lou	Marvell	Sunnyvale	CA	USA
Yes	Heinz	Lycklama	Adaptix, Inc.	Arlington	WA	USA
Yes	Steve	Ма	Freescale Semiconductor	Austin	ТХ	USA
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Yes	Scott	Migaldi	Motorola	Schaumburg	IL	USA
Yes	James	Mollenauer	Technical Strategy Associates	Newton	MA	USA
Yes	Roland	Muenzner	Alcatel SEL AG	Stuttgart		Germany
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No	Bhaskar	Nallapureddy	Marvell			
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Yes	Mitsuo	Nohara	KDDI	Kamifukuoka	Saitama	Japan
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Yes	Radu	Oprea	Redline Communications	Markham	ON	Canada
Yes	David	Paranchych	Nortel	Richardson	ТХ	USA
No	Chul	Park	ETRI	Daejeon		Korea
Yes	DS	Park	Samsung			Korea
Yes	Jeongho	Park	Samsung Electronics Co.			
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Yes	Michael (Scott)	Probasco	Nokia	Irving	TX	USA
Yes	Jose	Puthenkulam	Intel Corporation	Hillsboro	OR	USA
Yes	Nanjian (Jeff)	Qian	ZTE Communications	San Diego	СА	USA
Yes	Xiaoshu	Qian	Intel	Santa Clara	CA	USA
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Yes	Anthony	Reid	Nokia	Irving	TX	USA
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Yes	Maximilian	Riegel	Siemens	Munich		Germany
No	Harold	Roberts	ADC			
Yes	Wonil	Roh	Samsung Electronics	Suwon-city	Gyeonggi- do	Korea
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Yes	Charles	Rush	TMG	Arlington	VA	USA
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Yes	Yousuf	Saifullah	Nokia	Irving	ТХ	USA
Yes	Kenji	Saito	KDDI R&D Laboratories Inc.			Japan
Yes	J–rg	Schmidt	Motorola	Chandler	AZ	USA
Yes	Joseph	Schumacher	Motorola	Arlington Heights	IL	US
Yes	Christian	Seagren	Sprint Nextel	Overland Park	KS	USA
No	Ariel	Sharon	Motorola	Schaumburg	IL	USA
No	Wern Ho	Sheen	National Chiao Tung University	Hsinchu		Taiwan
Yes	Matthew	Sherman	BAE Systems	Wayne	NJ	USA
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Yes	Floyd	Simpson	Motorola, Inc.	Plantation	FL	USA
Yes	Kathiravetpillai	Sivanesan			Gyeonggi- do	Korea
Yes	Clare	Somerville	picoChip Designs Limited	Bath		UK
Yes	Jung Je	Son	Samsung Electronics	Seoul		Korea
No	Yeong Moon	Son	Samsung Electronics	Suwon-si	Gyeonggi- do	Korea
Yes	Seth	Spoenlein	RDECOM, CERDEC, S&TCD			
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Yes	Jaroslaw	Sydir	Intel Corporation			
Yes	John	Sydor	Communications Research Center	Ottawa	ON	Canada
Yes	Hitoya	Tachikawa	Kyocera	Yokohama		Japan
Yes	Mineo	Takai	Scalable Network Technologies	Los Angeles	CA	USA
Yes	Rakesh	Taori	Samsung	Yongin	Gyeonggi- do	Korea
Yes	Shawn	Taylor	Cygnus	San Marcos	CA	USA
No	Yongjoo	Tcha	КТ	Seoul		Korea

No	Lai King (Anna)	Тее	Samsung	Richardson	тх	USA
Yes	Mihir	Thaker	France Telecom			
Yes	Wen	Tong	Nortel	Ottawa	ON	Canada
No	Chih	Tsien	PMC-Sierra	Burnaby	BC	Canada
Yes	David	Urban	Comcast	Philadelphia	PA	USA
Yes	Frederick	Vook	Motorola Labs	Schaumburg	IL	USA
Yes	Eero	Wallenius	Nokia	Tampere		Finland
Yes	Guo Qiang	Wang	Nortel	Ottawa	ON	Canada
Yes	Jing	Wang	VIA Telecom, Inc.	San Diego	CA	USA
Yes	Lei	Wang	Cygnus Communications Inc.	Carlsbad	СА	USA
Yes	Michael	Wang	Nortel			
Yes	Shu-Shaw	Wang	Nokia	Irving	ТХ	USA
Yes	Stanley	Wang	Quanta Computer, Inc.			Taiwan
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No	Fujio	Watanabe	DoCoMo USA Labs	San Jose	CA	USA
No	Eric	Whitehill	ITT A/CD			
Yes	Alfred	Wieczorek	Motorola, Inc.	Plantation	FL	USA
Yes	Geng	Wu	Nortel Networks	Richardson	TX	USA
Yes	Xuyong	Wu	Huawei	Shenzhen	Guangdong	China
Yes	David	Xiang	Huawei Technologies Co.	San Diego	СА	USA
Yes	Kaixin	Xu				
Yes	Ling	Xu	ZTE	Shenzhen	Guangdong	China
Yes	Akiyoshi	Yagi	Mitsubishi Electric	Kamakura	Kanagawa	Japan
No	Choong-II	Yeh	ETRI	Deajeon		Korea
Yes	Chulsik	Yoon	ETRI	Daejeon		Korea
Yes	Soon Young	Yoon	Samsung Electronics	Suwon	Gyeonggi- do	Korea
Yes	Jungnam	Yun	Posdata	Santa Clara	CA	USA
Yes	Masaaki	Yuza	NEC infrontia Co.	Kawasaki	Kanagawa	Japan
Yes	Nader	Zein	NEC	London		UK
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Yes	Peiying	Zhu	Nortel	Ottawa	ON	Canada

Yes	Yongjin	Zhu	Huawei Technologies Co., Ltd.	Shenzhen	Guangdong	China
Yes	Lan	Zou	Huawei Technologies Co., Ltd.	Shanghai		China

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# The IEEE 802.16 Working Group on Broadband Wireless Access Standards

# **IEEE 802.16 Members**

## Updated: 2006-04-10

Number of members: 249 Next scheduled update: following <u>Session #44</u>

See also:

- Rights of Membership
- Acquiring and Retaining IEEE 802.16 Membership
- Potential Members
- those recently losing membership
- Members in Peril
- Observers
- Update your contact information

Name\Given	Name\Family	Company	City	State\Province	Country
Ray	Abrishami	Fujitsu Microelectronics America	Sunnyvale	СА	USA
Edward	Agis	Intel Corp.	Newbury Park	СА	USA
Aditya	Agrawal	Beceem Communications	Santa Clara	СА	USA
Siavash	Alamouti	Intel	Hillsboro	OR	USA
Murtaza	Ali	Texas Instruments	Dallas	ТХ	USA
Mario	Aliotta	Siemens Mobile Communication	Cassina de Pecchi (MI)		Italy
Dov	Andelman	Intel Corp.	Raanana		Israel
Gordon	Antonello	Wi-LAN Inc.	Calgary	AB	Canada
Masahito	Asa	Motorola Japan Ltd.	Tokyo		Japan
Sanjeev	Athalye	Qualcomm Inc.	San Diego	СА	USA
Mark	Austin	Ofcom	London		UK
Phillip	Barber	Huawei	Plano	ТХ	USA
Kevin	Baum	Motorola Inc.	Schaumburg	IL	USA
Rajesh	Bhalla	ZTE Communications	San Diego	СА	USA
Eckard	Bogenfeld	Deutsche Telekom	Darmstadt		Germany

Achim	Brandt	Siemens	Muenchen		Germany
Terri	Brooks	Consultant	Trophy Club	TX	USA
Sean	Cai	ZTE Communications	San Diego	CA	USA
Jim	Carlo	Consultant (for Huawei)	Dallas	ТХ	USA
David	Castelow	Airspan Communications Ltd	Uxbridge		UK
Giulio	Cavalli	Siemens Mobile Communication	Cassina de' Pecchi (MI)		Italy
Jaesun	Cha	ETRI	Daejeon		Korea
Dean	Chang	Aperto Networks	Milpitas	CA	USA
Jae Hwan	Chang	Samsung Electronics	Suwon-si	Gyeonggi-do	Korea
Sungcheol	Chang	ETRI	Daejeon		Korea
Yong	Chang	Samsung Electronics	SuwonSi		Korea
Naftali	Chayat	Alvarion Ltd.	Tel Aviv		Israel
Rémi	Chayer	Wavesat Inc.	Dorval	PQ	Canada
Jennifer	Chen	ZTE San Diego	San Diego	CA	USA
Yuehua (Lucy)	Chen	Huawei Technologies Co., Ltd.	Beijing		China
Aik	Chindapol	Siemens	Princeton	NJ	USA
Hua (Mary)	Chion	ZTE Communications	San Diego	CA	USA
Jaehee	Cho	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Jaeweon	Cho	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Kihyoung	Cho	LG Electronics Inc.	Anyang	Gyeonggi-do	Korea
Seijei	Cho	Samsung Electronics	suwon-city	Gyeonggi-do	Korea
Seokheon	Cho	ETRI	Daejeon		Korea
Hyoung-Jin	Choi	TTA	Seongnam	Gyeonggi-do	Korea
Yang-Seok	Choi	Intel	Hillsboro	OR	USA
Yun	Choi	Intel Corporation	Seoul		Korea
Joey	Chou	Intel Corp.	Chandler	AZ	USA
Jin Young	Chun	LG Electronics Inc.	Anyang	Gyeonggi-do	Korea
Kyuhyuk	Chung	LG Electronics Inc.	Anyangsi	Gyeonggi-do	Korea
Thomas	Cook	Troicom Inc	Tustin	CA	USA
José	Costa	Nortel	Ottawa	ON	Canada
Guy	Cote	Wavesat Inc.	Dorval	PQ	Canada
Mark	Cudak	Motorola	Schaumburg	IL	USA
Shujun	Dang	Huawei Technologies Co., Ltd.	Beijing		China

Joël	Demarty	Sequans Communications	Paris 19		France
Wim	Diepstraten	Motorola	Nieuwegein	Utrecht	Netherlands
Frank	Draper	Wavesat	Dorval	PQ	Canada
Krzysztof	Dudzinski	Airspan Communication Ltd	Uxbridge		UK
Lester	Eastwood	Motorola Inc.	Schaumburg	IL	USA
Tomas	Edler	Ericsson AB	Kista	_	Sweden
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