

2005-11-29



DRAFT

IEEE 802.16-05/087

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Minutes of IEEE 802.16 Session #40	
Date Submitted	2005-11-29	
Source(s)	Andy Sago BT	Voice: +44 1473 644383 mailto:andy.sago@bt.com
Re:	IEEE 802.16 Session #40 Minutes (Vancouver, Canada)	
Abstract		
Purpose	To record minutes of the IEEE 802.16 Working Group's Opening and Closing Plenary meetings.	
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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Patent Policy and Procedures	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures < http://ieee802.org/16/ipr/patents/policy.html >, 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 < mailto:chair@wirelessman.org > 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 < http://ieee802.org/16/ipr/patents/notices >.	

Minutes of IEEE 802.16 Session #40

IEEE 802.16 Working Group

Vancouver, Canada

14-17 November 2005

IEEE 802.16 Session #40 Opening Plenary

14 November 2005

Call to Order

Approximately 100 people present. Roger Marks called the meeting to order at 1:03pm on 14 November 2005, welcomed the attendees and introduced the working group officers:

Chair: Roger Marks

Vice Chair: Ken Stanwood

Secretary: Andy Sago (acting) in the absence of Dean Chang.

Roger took the meeting through networking information for reaching the on-site server for the 802.16 WG.

Slides covering the Opening Plenary topics are available at document IEEE 802.16-05/081.

Membership and Voting

Attendees were invited to read the membership page on the server, and check their status on the lists of members, observers, potential members and members in peril. There are 304 members and 121 potential members, who can gain membership through attendance at this session. Members were reminded that their registration badge acts as their voting token in all groups, except in the MMR Study Group where anyone present is entitled to vote.

The Attendance Sign-In log procedure was demonstrated. There are 8 attendance intervals (Mon pm; Tue am; Tue pm; Wed am; Wed pm; Thu am; Thu pm; Thu night), and the "Participation" Requirement is 6 intervals (75%). No Attendance Books; electronic only. Attendance credit is not granted without on-line registration.

Attendance credit is granted to 802.16 members for participation in IEEE 802.18, 802.19, and 802.21; members are responsible to record this in the IEEE 802.16 attendance log and forward proof of participation to WG Chair by Friday 18 November.

Approvals

Comments were invited on the Agenda at <http://ieee802.org/16/meetings/mtg40/opening.html>. A request was made to allow time for discussion on the consolidation of 802.16 amendments. Chair stated that there is the intention to undertake such a discussion as part of Maintenance TG report.

Motion #1: To approve the Opening Plenary Meeting Agenda as presented. Proposed Phil Barber, seconded Jon Labs, approved by unanimous voice vote.

Motion #2: Proposed Brian Kieran, to approve the minutes of Session #39 (IEEE 802.16-05/077r1) and decisions therein, seconded Phil Barber. Approved by unanimous voice vote.

Chair's Status Report

Legal Announcements

The Chair reviewed copyright procedures and referred to the following link, which covers information regarding copyrights for documents submitted to IEEE 802.16:

<http://iee802.org/16/ipr/copyrights>

The following advice was provided by the Chair regarding IEEE-SA Rules (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.

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. No responses were provided regarding this announcement.

IEEE-SA Actions

Meeting was informed by Roger that IEEE Standards Association Standards Board approval was gained September 22nd for amendment IEEE 802.16f, and on November 8 for IEEE 802.16-2004/Cor1. Amendment 802.16e is scheduled for RevCom recommendation vote on December 6.

IEEE-SA News

None.

IEEE 802 LMSC News

Attendance is welcome at the closing Executive Committee (EC) meeting on Friday.

IEEE 802 P&P issues

The WG Chair had been requested by the EC to conduct a straw poll at the WG regarding two options for retention of membership rights. For the first line of the 'Loss' clause, do members prefer:

(1) "Membership is lost if a person fails to meet the participation requirements of the Working Group at two out of the last THREE Plenary sessions."

(2) "Membership is lost if a person fails to meet the participation requirements of the Working Group at two out of the last FOUR Plenary sessions."

Both options are changes to the existing rules. Looking at the wider text, comments were made from the floor that the option to count interims is ambiguous. It was also commented that the changes require more attendance at plenary sessions which historically are held in North America, so may be disadvantageous to non-North American participants.

Motion #3 that the WG not conduct a straw poll on the P&P changes on the grounds that the changes are ambiguous:

Proposed: Phil Barber

Seconded: Phil Lamoureux

In favour: 37

Against: 2

Motion carried.

Naftali Chayat asked for a straw poll on whether the WG wish for rule changes to make it more difficult to retain membership. Straw poll result was 7 in favour, 38 against tightening the rules for retention of membership. Roger will communicate this to the EC.

There was a suggestion that quorum requirements could be relaxed as an alternative. These only apply at interims. It was pointed out that this does not help with requirements for Letter Ballots, where non-participant members can cause a low return.

IEEE 802 Working Group Issues

IEEE 802 PARs Under Consideration were submitted to LMSC EC, with WG comments due by 5 pm Tuesday to the relevant WG. There was a call for any comments to be raised. PAR revisions are allowed until 5 pm Wednesday.

802.11y: Comments proposed by Barry Lewis and Mariana Goldhamer to point out the role of 802.16h in the PAR section 17. Mariana asked for the work to be delegated to an ad hoc group after the plenary, and for the LE Task Group to approve the output of the ad hoc. Barry and Mariana summarized the proposed comments. Without objection, the **WG authorises** the LE TG to approve and submit comments on the 802.11y PAR proposal. Avi Freedman, Naftali Chayat, Roger, Barry and Mariana to form the ad hoc group.

802.22 PAR: Avi and Mariana wished for the WG to submit comments. Avi explained his concerns, and suggested waiting for the Monday evening tutorial before formulating PAR comments. Mariana and Phil Barber also raised concerns, including that the proposal is out of scope for IEEE 802. Avi agreed to coordinate an ad hoc group to develop comments. Without objection the **WG authorises** an ad hoc committee (including Avi, Phil, MG, Naphtali, Ken, Roger) to submit comments on behalf of the WG regarding the 802.22.1 PAR proposal.

802 Architecture Standing Committee

Phil Barber presented document L802.16-05/058 regarding the meeting of 13 November. Committee had addressed 802.3 QoS rate control and 802.3 power conservation.

Wireless Architecture subgroup met on 14 November (see same document, L802.16-05/058) and were struggling to identify scope of common wireless interest. Also discussed mesh networks, Energy Star compliance and location information.

Roger noted that there had previously been an 802 QoS SG, which was terminated without producing a PAR.

Schedule for the week

Outlined by Roger with reference to <http://ieee802.org/16/meetings/mtg40/schedule.html>, including the IEEE 802 Tutorials.

Maintenance Task Group

Jon Labs, Chair presented his report, 802.16maint-05/024. The first Corrigendum Cor1 was approved by RevCom on October 27th and SA Standards Board on November 8th. There will be no meetings this week.

Motion #4 to approve the minutes of Maintenance TG at Session #39 in document 802.16maint-05/20r1 was proposed by Phil Barber, seconded by Brian Kiernan, approved by unanimous voice vote.

Roger congratulated the Maintenance TG officers and group on completing their work.

TGe

Brian Kiernan, Chair presented “the Sordid Saga of sixteen e”. There will be no meetings this week.

Roger thought the situation looked favourable for RevCom approval on December 6th and SA Board approval on December 7th.

Roger said that original intent by IEEE was to merge the Cor1 and 16e documents, and IEEE have assigned an Editor to merge the documents and publish the result as 16e. Usually publication is two months after SA Board approval, but longer for merged documents. In this case, they have already started work, and publication should occur before the end of the year.

Mariana Goldhamer queried whether Cor1 and 16e changes would remain obviously separate. They would not, they will all be merged in amendment 802.16e.

Naftali Chayat asked if we could have a composite document, rather than having to read 802.16-2004, 16f and 16e. Roger replied that this would require a revision, which the group is not ready for. IEEE could also produce a compilation, which might be simpler, and is a process which is already undertaken in groups such as 802.11. This will be discussed with IEEE-SA staff.

Minutes of TGe at Session #39 in document 802.16e-05/021r1 **were approved** without objection.

NetMan Task Group

Phillip Barber presented the NetMan TG proposed agenda in document 802.16netman-05/019.

Motion #5 by Phil Barber: To delegate to the NetMan Task Group the authority and responsibility to respond to comments received on the proposed 802.16i PAR, preparing a suitable response and ensuring its timely submittal to the 802 EC by 5 pm on Wednesday. Seconded: Gordon Antonello. Approved by unanimous voice vote.

Expected Closing Plenary Motions – none.

Conformance Task Group

Gordon Antonello, Chair presented his report in document IEEE 802.16C-05/006 on Working Group Letter Ballot Recirc #18c. Approval ratio is 76%, disapprove voters to be contacted to improve ratio.

Motion expected at Closing Plenary to forward for Sponsor Ballot (conditional approval).

License-Exempt Task Group

Mariana Goldhamer, Chair presented the LE TG plan for the session in document 802.16h-05/024. Working document now constructed, First Draft expected January.

Mobile Multi-hop Relay Study Group

Mitsuo Nohara, Chair presented his opening report in document 802.16mmr-05/022. PAR and 5C will be discussed at this session and completed in January New Delhi meeting.

Phil Barber asked whether it will be necessary to extend the life of the SG. Yes, according to schedule, and Roger will request this from EC on Friday.

Mitsuo Nohara will try to coordinate with Tony Jeffree of 802.1 to avoid later questions over PAR, since 802.1 are interested in Mesh and Multihop.

Charge to Task Groups

Actions and Reporting: TG and SG Secretaries advised of necessary procedures for recording of minutes. Meeting chairs were advised of security arrangements for AV equipment.

Liaison

Statement from ETSI BRAN (L802.16-05/053). Deferred for time reasons to closing plenary, along with an additional presentation from Mariana.

José Costa presented statements from ITU-R 8A (L802.16-05/055) and 8F (L802.16-05/056). These will be addressed at the ITU ad hoc meeting on Wednesday.

Report on CCSA TC5/WG3 from Dong Xiaolu (L802.16-05/057). Several equipment test specifications based on 802.16 to be produced in Q1 2006. Roger suggested that our existing recommended practice 802.16.2 on coexistence may be relevant to their work on coexistence of 802.16 systems in the 3.4 GHz band.

Future Sessions

Session #41: 9-12 January 2006 in New Delhi, India, hosted by Aditya Agrawal of Beceem Communications. Presentation from Sunil Kumar of Beceem (IEEE C802.16-05/016). Visa invitation letters to be handled by Beceem by return email, and will be faxed to your embassy too for added credibility when you make your visa application.

Session #42: 6 – 9 March 2006, with IEEE 802 Plenary Session in Denver, CO, USA with IEEE 802 Plenary Session.

Session #43: in David Intercontinental Hotel Tel Aviv, Israel 8-11 May 2006, hosted by Naftali Chayat of Alvarion. \$155/175 standard single/double rooms. Hotel cutoff will be 30-40 days before.

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

Session #45: site to be determined at Closing Plenary: call for indications of interest for presentation at Closing Plenary. Mont Tremblant, 80 miles NE of Montreal is only proposal so far, from Frank Draper and Phil Lamoureux. Point made from floor that technically this is another North American venue, and we should aim to move elsewhere for interim sessions. This requires offers for hosting.

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

Session #47: 15-18 January 2007 at London Metropole, 802 Joint Interim Session – suggested by Chair that we should meet along with the other 802 groups on this occasion.

New Business

None.

Closing

Motion #6: proposed by Phil Barber, to adjourn the Opening Plenary meeting, seconded Jon Labs. Motion carries by unanimous voice vote.

The meeting was adjourned at 16:59 on 14 November 2005.

IEEE 802.16 Session #40 Closing Plenary

Thursday, 17 Nov 2005

Call to Order

Roger Marks called the meeting to order at 7:08 pm, 17 November 2005. 80 – 100 people were present. Due to network problems at the start of the session, participants were invited to submit retrospective electronic attendance for two meetings (Monday afternoon and Tuesday morning) if they had been in attendance but unable to submit.

Approval of Agenda

The agenda at <http://iee802.org/16/meetings/mtg40/closing.html> was presented by Roger.

Motion #7: proposed by Phil Barber, to approve the Closing Plenary Meeting Agenda as presented, 2nd Jose Puthenkulam, Motion carries by unanimous voice vote.

Document consolidation

Roger had received advice regarding compilations of standards plus amendments, sometimes called consolidations or editions. As an example, IEEE Wireless LAN Edition is published in the 802.11 section of the IEEE Standards CD. Since 802.16e will be our last amendment to the standard for some time, this would be a good time to request a compilation. Itzik Kitroser offered to help with this compilation process. Roger had a view that the WG should consider working on production of profiles in due course in order to help vendors in choosing relevant features from the standard for their purpose.

Maintenance Process Development

WG Chair noted that 802.3 has a specific maintenance process and suggested that 802.16 develop something similar. Jon Labs has agreed to start working on this procedure in the Maintenance TG. Gordon asked if this process could be used to request an interpretation. Roger said that the 802.3 process includes characterization of interpretation requests, which are handled in a procedure specified by IEEE-SA.

Conformance Task Group

Gordon Antonello, Chair presented his closing report in document IEEE 802.16C-05/007. The two new comments received were resolved. Approval ratio is now 84%.

The names of the remaining disapprovers were read out, and a call was made for any changes to voting positions. The following people changed their vote from Disapprove to Approve:

Panyuh Joo
Changhoi Koo

Jose asked whether the remaining Disapprove voters are really maintaining that position, or are just not contactable. This is not known.

Motion #8 to request conditional approval from EC to move IEEE 802.16/Conf/D5 to Sponsor Ballot

Proposed: Gordon Antonello

Seconded: Herbert Ruck

For: 38

Against: 0

Abstain: 0

Motion carries unanimously.

License-Exempt Task Group

Mariana Goldhamer, Chair presented her closing report in document IEEE 802.16h-05/025. There will be a call for comments on the current working document.

There was a question from Jim Carlo asking when a Draft can be expected. This will be at the January meeting, when a TG review will be undertaken.

Roger asked about the usefulness of the joint session NetMan/LE. Phil replied that it had been useful in identifying security issues and requirements on NetMan.

Mobile Multihop Relay Study Group

Mitsuo Nohara, Chair presented his closing report (802.16mmr-05/023) and presented the current discussions on the PAR and 5 Criteria. Goal is submission of the PAR in March, with a tutorial in March, which should be prepared at the January session.

Motion #9: To renew the Mobile Multihop Relay Study Group through the March 2006 IEEE 802 Plenary Session

Proposed: Mitsuo Nohara

Seconded: Jose Puthenkulam

Approved by unanimous voice vote

Network Management Task Group

Phillip Barber, Chair presented his closing report in document 802.16netman-05/021. The TG decided not to go to draft, even though schedule says this is due. To do so would require a first circulation at beginning of December, requiring reply comments over the holiday period. It would be more productive to continue into Session #41 and then approve a WG LB at that time.

Motion #10: To forward the P802.16i PAR in IEEE 802.16-05/074

Proposed: Phil Barber

Seconded: Jim Carlo

For: 50

Against: 0

Abstain: 1

Motion carries.

802.21 are invited and encouraged to meet with NetMan in interims (at our location) to facilitate working together.

Roger congratulated the working group on very effective working during the week.

Liaison

802.21

Ronny Kim gave a verbal report saying that the 802.21 members were very appreciative of the joint meeting with NetMan.

ITU-R

Report from José Costa in document L802.16-05/060.

Motion #11: from José Costa "To approve IEEE L802.16-05/059 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". Seconded Mariana Goldhamer. Approved, 44 in favour, 0 Against, 0 Abstain.

Motion #12: from José Costa "To task the ITU-R Liaison Official, with the assistance of volunteer IEEE 802.16 members, to coordinate the development of the draft contributions to ITU-R WP 8A (on BWA standards) and WP 8F (on IP applications over mobile systems), for further consideration by the WG at the March 2006 meeting". Seconded Mariana. Carried by unanimous voice vote.

A report on the history and positioning of ITU-R work in relation to IEEE was made by José to the EC on Monday, and will be made available on the WirelessMAN web site (L802.16-05/064).

ETSI BRAN

Report from the ETSI BRAN Liaison Officer Mariana Goldhamer, who presented document L802.16-05/062. ETSI BRAN has received permission from IEEE to copy up to 10% of 802.16-2004, its corrigendum and 802.16e for use in the HiperMAN standard.

ETSI BRAN has sent a liaison to IEEE (L802.16-05/053), part of which requests that the 802.16-2004 Corrigendum Drafts D3 and D5 should be made available for sale to assist referencing issues in certain ETSI documents. Roger offered to send a liaison to say that the issue would be looked at in due course, but Mariana was happy with conveying this verbally to the BRAN meeting in December, and awaiting a formal reply with a solution. In the mean time, BRAN should also search for a solution. Gordon pointed out that there is a wider issue not just involving ETSI but equipment certification, so it is essential that a resolution is found.

Also, the ETSI/IEEE co-op agreement has expired (maybe as long as four years ago). Roger stated that he is in a group who are working to renew this agreement, and Mariana pointed out that the current level of technical co-operation shows how well the two groups work together even without a formal agreement.

CCSA

Roger had drafted a letter to CCSA, which he displayed (later sent as L802.16-05/063), and he will be meeting with the CCSA delegation in Washington in December.

Motion #13: to approve sending this letter to CCSA, proposed by Jon Labs and seconded by Phil Barber, 37 in favour 0 against and 0 abstentions, approved unanimously.

IEEE 802 Issues

Rules change ballot: membership

Roger had passed our request not to tighten the membership retention rules to the EC. Also he told them that the language used in the proposed changes is defective and can be read two ways. At the Friday closing EC Roger will argue that the changes should not be accepted at all unless some additional corrections can be made.

PARs

PAR 802.11y – comments received from 802.16 WG in document 802.16-05/084, Barry Lewis (as ad hoc group Chair) had been invited to attend the CBP SG, and as a result the PAR and 5C have been updated to reflect most of our comments. Jose Puthenkulam asked whether our work in LE group needed explicitly address coexistence assurance. Roger noted that the LE TG predates the CA document requirement.

PAR 802.16i – no comments received, no changes made.

PAR 802.22.1 – comments received from 802.16 WG in doc 802.16-05/083, and responses received from 802.21 WG. Also, Roger had met with the chair of 802.22 for about one hour. Roger asked if the WG wanted to have discussion on this issue. Phil Barber spoke in favour of discussion as there is some concern with the process, and there were several comments from the floor. The 802.22 Study Group formed at the July meeting was specific to 802.22 devices, whereas the PAR produced for 802.22.1 is of concern to all 802 wireless groups. This is confirmed in the 802.22 reply to our comments. Second concern, the PAR has been submitted to the EC from the 802.22 Chair, not the SG itself, and it is not clear that the SG has met to approve the submission. As well as the procedural concerns, the work requested is not a network so may possibly not fall under the remit of 802, but belong in the work of another SDO.

The only change made to the PAR this week that we are aware of is a change to the title and scope to replace “Part 74 devices” with low power licensed devices” to make it more international.

Straw poll on whether WG Chair should vote in favour of the PAR.: 0 in favour, 35 against.

Motion #14: proposed by Phil to delegate Phil Barber to craft a letter indicating the displeasure of the 802.16 WG with the apparent lack of adherence to process in the production of the 802.22.1 PAR and Five Criteria, and to optionally comment on the 802.22 responses to the 802.16 questions. Jose seconded. 33 in favour, 0 against, 1 abstention.

802.19 Study Group Proposal

For information, this new SG (if approved tomorrow) will be chartered to develop a PAR and 5C for a Recommended Practice or IEEE Guide for predicting coexistence of wireless networks.

Future Sessions

Session #41: 9-12 January 2006: New Delhi, India. Hosted by Aditya Agrawal, Beceem Communications. Presentation made (IEEE C802.16-05/016), updating on previous presentations to the group, and demonstrating detailed arrangements for visas, hotel bookings etc.

Session #42: 6-9 March 2006: Denver, CO, USA with IEEE 802 Plenary Session

Session #43: 8-11 May 2006: Tel Aviv, Israel, hosted by Naftali Chayat

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

Session #45: Sept 2006: site selection. Mont Tremblant, 80 miles NE of Montreal is only proposal, presentation documents C802.16-05/018 and C802.16-05/019 from Pierre Lamoureux of Wavesat. We would have the use of the convention center. 11-15 September was proposed, but this clashes with the other wireless groups. Exact dates will be organized later.

Motion #15 from Gordon Antonello, seconded Lei Wang to accept the proposal for Mont Tremblant, carried by unanimous voice vote.

Publicity

Chair to prepare a Session #40 Report, agreed, there being no objection from the working group.

New Business

None.

Closing

Motion #16 Gordon Antonello, to adjourn the meeting, seconded by Lei Wang: carries by unanimous voice vote.

The meeting was adjourned at 11:03pm on 17 November 2005.

**Registration List: IEEE 802.16 Session #40
14-17 November 2005 in Vancouver, BC, Canada**

Updated 2005/11/28, 11:05 PM (MT) to show 192 attendees, including 132 with "participation" credit.

Participation Credit	Name\Given	Name\Family	Company	City	State\Province	Country
No	Youssef	Abdelilah	Sandbridgetech	White Plains	NY	USA
No	Edward	Agis	Intel Corp.	Newbury Park	CA	USA
No	Siavash	Alamouti	Intel	Hillsboro	OR	USA
No	Steinar	Andresen	NTNU, Dep of Telematics			Norway
Yes	Gordon	Antonello	Wi-LAN Inc.	Calgary	AB	Canada
Yes	Masahito	Asa	Motorola Japan Ltd.	Tokyo		Japan
No	Sanjeev	Athalye	Qualcomm Inc.	San Diego	CA	USA
No	Mark	Austin	Ofcom	London		UK
Yes	Phillip	Barber	Huawei	Plano	TX	USA
Yes	Eckard	Bogenfeld	Deutsche Telekom	Darmstadt		Germany
Yes	Achim	Brandt	Siemens	Muenchen		Germany
No	Sean	Cai	ZTE Communications	San Diego	CA	USA
No	Jim	Carlo	Consultant (for Huawei)	Dallas	TX	USA
Yes	David	Carman	JHU/APL			USA
Yes	Jaesun	Cha	ETRI	Daejeon		Korea
No	Naftali	Chayat	Alvarion Ltd.	Tel Aviv		Israel
No	Hua (Mary)	Chion	ZTE Communications	San Diego	CA	USA
No	Fabio	Chiussi	Airvana			
Yes	Jaehee	Cho	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Jaeweon	Cho	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Yes	Joonyoung	Choi	Samsung Electricns			
No	Yang-Seok	Choi	Intel	Hillsboro	OR	USA
Yes	Yun	Choi	Intel Corporation	Seoul		Korea
Yes	Thomas	Cook	Troicom Inc.	Tustin	CA	USA
Yes	José	Costa	Nortel	Ottawa	ON	Canada
Yes	Mark	Cudak	Motorola	Schaumburg	IL	USA
No	George	Cummings	Motorola	Chandler	AZ	USA

No	Hui	Deng	Hitachi (China) Research & Development Corporation			China
Yes	Shiqiang	Deng	Shanghai Huawei Technologies			
No	Allen	Dixon	Corning Cable Systems	Hickory	NC	USA
Yes	Xiaolu	Dong	CATR	Beijing		China
Yes	Krzysztof	Dudzinski	Airspan Communication Ltd	Uxbridge		UK
Yes	Lester	Eastwood	Motorola Inc.	Schaumburg	IL	USA
Yes	Per	Elmdahl	Ericsson			
No	Peretz	Feder	Lucent Technologies	Whippany	NJ	USA
No	Mo-Han	Fong	Nortel Networks	Ottawa	ON	Canada
Yes	Avraham	Freedman	Hexagon System Engineering Ltd.	Petah-Tikva		Israel
Yes	I-Kang	Fu	ITRI	Hsinchu		Taiwan
Yes	Yan	Fu	Huawei Technologies	Shenzhen	Guangdong	China
No	Vafa	Ghazi	CoWare	Seattle	WA	USA
Yes	Mariana	Goldhamer	Alvarion	Tel Aviv		Israel
Yes	Reza	Golshan	Fujitsu Microelectronics America, Inc.	Sunnyvale	CA	USA
No	Daning	Gong	China Academy of Telecommunication Research, MII	Beijing		China
Yes	David	Grandblaise	Motorola	Gif sur Yvette		France
Yes	Paul	Gray	TrellisWare Technologies	San Diego	CA	USA
No	Robert	Gross	TruePosition			
Yes	Herman	Haisch	Proxim	Alpharetta	GA	USA
Yes	David	Halasz	Cisco Systems, Inc	Richfield	OH	USA
Yes	Seishi	Hanaoka	Hitachi, Ltd.	Tokyo		Japan
Yes	Jeff	Harrang	SR Telecom	Redmond	WA	USA
Yes	Mike	Hart	Fujitsu Laboratories of Europe Ltd	Hayes	Middx	UK
Yes	Peng	He	CTTL of CATR	Beijing		China
No	Gregory	Henderson	Research In Motion	Irving	TX	USA
Yes	Michael	Hoghooghi	Freescale Semiconductor, Inc.	Austin	TX	USA
Yes	Chang-Lung	Hsiao	ITRI	Hsinchu		Taiwan
Yes	Yerang	Hur	Posdata	Santa Clara	CA	USA

Yes	Raj	Jain	Washington University in Saint Louis	Saint Louis	MO	USA
No	Junghoon	Jee	ETRI	Daejeon	Chungcheongnam-do	Korea
No	Thomas	Jelle	NTNU	Trondheim		Norway
No	Moo Ryong	Jeong	DoCoMo USA Labs	San Jose	CA	USA
No	Brian	Johnson	Texas Instruments	Germantown	MD	USA
Yes	Panyuh	Joo	Samsung Electronics	Suwon	Gyeonggi-do	Korea
No	Woo Young	Jung	DGIST			
Yes	Youiti	Kado	Oki Electric Industry Co., Ltd.	Osaka	Osaka	Japan
Yes	Farideh	Khaleghi	Nextwave	San Diego	CA	USA
No	Brian	Kiernan	InterDigital Communications Corp.	King of Prussia	PA	USA
No	Beomjoon	Kim	LG Electronics Inc.	Anyang	Gyeonggi-do	Korea
Yes	Byoung-Jo	Kim	AT&T Research	Middletown	NJ	USA
Yes	Eunah	Kim	ETRI	Daejeon		Korea
Yes	Sang Youb	Kim	Nortel Networks	Richardson	TX	USA
Yes	Young	Kim	Samsung Electronics Co., Ltd.	Suwon	Gyeonggi-do	Korea
Yes	Youngho	Kim	Samsung Electronics	Suwon	Gyeonggi-do	Korea
No	Changhoi	Koo	Samsung Telecommunication America	Richardson	TX	USA
No	Jayong	Koo	Intel Corporation			
No	Sunil	Kumar	Beceem Communications Inc			India
Yes	Toshiyuki	Kuze	Mitsubishi Electric	Kamakura, Kanagawa		Japan
Yes	Jonathan	Labs	Wavesat	Dorval	PQ	Canada
No	Hans	Lackner	QoSCom	Stutensee	BW	Germany
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Kyungjoo	Suh	Samsung	Suwon	Gyeonggi-do	Korea
Chunhui	Tang	ZTE	Brooklyn	NY	USA
Xiangguo	Tang	FutureWei Technologies	Santa Clara	CA	USA
Yongjoo	Tcha	KT	Seoul		Korea
Mark	Thomas	Airspan Networks	Uxbridge		UK
Wen	Tong	Nortel	Ottawa	ON	Canada
Shiau-He (Shawn)	Tsai	Ericsson	San Deigo	CA	USA
Rainer	Ullmann	Wavesat Inc.	Dorval	PQ	Canada
Sunil	Vadgama	Fujitsu Laboratories of Europe Ltd	Hayes	Middlesex	UK
Mano	Vafai	Aperto Networks	Milpitas	CA	USA
Lucia	Valbonesi	Motorola	Schaumburg	IL	USA
Richard	van Leeuwen	Motorola	Nieuwegein		Netherlands
Eyal	Verbin	Airspan	Airport City		Israel
Dorin	Viorel	Wi-LAN Inc.	Calgary	AB	Canada
Frederick	Vook	Motorola Labs	Schaumburg	IL	USA
Mathys	Walma	Intel	Hillsboro	OR	USA
Arthur	Wang	BeyondSpot	Buena Park	CA	USA
Fan	Wang	Motorola Inc.	Arlington Heights	IL	USA
Guo Qiang	Wang	Nortel	Ottawa	ON	Canada

Irving	Wang	ZTE Communications	San Diego	CA	USA
Lei	Wang	Cygnus Communications Inc.	Carlsbad	CA	Canada
Stanley	Wang	CyberTAN Technology	Hsinchu		USA
Lisa	Ward	RSA	Beaverton	OR	USA
Xuefei	Wei	ZTE Communications	Richardson	TX	USA
Mattias	Wennstrom	Huawei Technologies Co., Ltd.	Kista	Stockholm	Sweden
Alfred	Wieczorek	Motorola, Inc.	Plantation	FL	USA
Geng	Wu	Nortel Networks	Richardson	TX	USA
Jun	Wu	ZTE San Diego	San Diego	CA	USA
Xuyong	Wu	Huawei	Shenzhen	Guangdong	China
Janice	Wunsch	Lucent Technologies	Naperville	IL	USA
David	Xiang	Huawei Technologies Co.	San Diego	CA	USA
Ling	Xu	ZTE	Shenzhen	Guangdong	China
Shanshan	Xu	Intel	Hillsboro	OR	USA
Hassan	Yaghoobi	Intel Corp.	Santa Clara	CA	USA
Weidong	Yang	Navini Networks	Richardson	TX	USA
Yunsong	Yang	ZTE San Diego, Inc.	San Diego	CA	USA
Ran	Yaniv	Alvarion Ltd.	Tel Aviv		Israel
Vladimir	Yanover	Alvarion Ltd.	Tel Aviv		Israel
Choong-II	Yeh	ETRI	Daejeon		Korea
Sang-Kuk	Yeh	LG Electronics	Anyang Shi		Korea
Hujun	Yin	Intel Corp.	Santa Clara	CA	USA
Chulsik	Yoon	ETRI	Daejeon		Korea
Soon Young	Yoon	Samsung Electronics	Suwon	Gyeonggi-do	Korea
Aeran	Youn	LG Electronics Inc.	Anyang	Gyeonggi-do	Korea
Jungnam	Yun	Posdata	Santa Clara	CA	USA
Mi-Young	Yun	ETRI	Daejeon	Chungcheongnam-do	Korea
Masaaki	Yuza	NEC Infrontia Co.		Tokyo	Japan
Nader	Zein	NEC	London		UK
Jianzhong	Zhang	Nokia	Irving	TX	USA

Wenfeng	Zhang	ZTE San Diego Inc. (ZiMax)	San Diego	CA	USA
Wenzhong	Zhang	ZTE Communications	San Diego	CA	USA
Zhijian	Zhang	ZTE San Diego	San Diego	CA	USA
Ruobin	Zheng	Huawei Technologies, Co., Ltd.	Shenzhen		China
Qun	Zhou	ZTE San Diego	San Diego	CA	USA
Keqiang	Zhu	ZTE San Diego	San Diego	CA	USA
Peiyang	Zhu	Nortel	Ottawa	ON	Canada
Ilan	Zohar	Intel Corp.	Givatatym		Israel