
Project	IEEE 802.16 Broadband Wireless Access Working Group	
Title	Minutes of 802.16 Session #6	
Date Submitted	2000-04-06	
Source	George Fishel (Acting Secretary) Communications Consulting Services Shermans Dale PA	Voice: (717) 582-2507 Fax: (717) 582-3637 E-mail: grfishel@pa.net
Re:	IEEE 802.16 Session #6 (6-9 March 2000, Albuquerque, New Mexico, USA)	
Abstract	Minutes of IEEE 802.16 Session #6	
Purpose	This document records the events of IEEE 802.16 Session #6 in Albuquerque, New Mexico, USA.	
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.	
Release	The contributor acknowledges and accepts that this contribution may be made public by 802.16.	
IEEE Patent Policy	The contributor is familiar with the IEEE Patent Policy, which is set forth in the IEEE-SA Standards Board Bylaws < http://standards.ieee.org/guides/bylaws > and includes the statement: “IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing the standard.”	

Minutes of IEEE 802.16 Session #6

6-10 March 2000, Albuquerque, NM, USA

Acting Secretary: George Fishel
Communications Consulting Services

IEEE 802.16 Opening Plenary, 06 March 2000

1. Meeting opened by Roger Marks at 1:10 PM George Fishel, acting secretary, ready to take notes.
2. Review of agenda IEEE 802.16 Session #6 for the week.
3. Brian Kiernan indicated that no meeting room was assigned for Sub 10 Study Group. Roger Marks said he would make sure that we had a room assigned.
4. **Motion #1:** to approve overall agenda for the week by Jim Mollenauer and seconded by Ray Sanders. Motion carries; agenda approved by unanimous voice vote.
5. Roger Marks reviewed the rules of the meeting according to agenda.
6. George Fishel presented information on the sign-in book, voting tokens and how you receive credit for participating in the meeting: you must attend 75% or 6 of the 8 sessions.
7. Roger made some additional comments on the following:
 - Signing the Book
 - membership status
 - voting status
 - Meeting fees paid to IEEE 802: you must pay a \$250 meeting fee (if you were pre-registered) or a \$300 meeting fee on location.
 - How to become a voting member in 802.16
 - Potential members please give the Secretary a business card stating that you want to become a member by Tuesday afternoon so we can submit a member count to IEEE 802.
 - Document distribution via flash card and CD. Please give documents to the Secretary on a 1.44 floppy so they can be put on the flash card and the CD
 - Membership in 802.16 is by individual member not by company.
 - Sponsor ballot process and how to become a sponsor ballot member.
 - Antitrust notice: we should avoid talking about the validity or cost of a patent and avoid discussing any item that may be considered a violation of US Antitrust laws.
 - Legal notice to members on IEEE patent policy.
 - Some of the IEEE information in the patent policy is not understood or in conflict. An IP committee will meet for a short time at this meeting to discuss this topic.
8. Roger Marks requested a show of hands for volunteers to serve on the intellectual property committee. Roger Durand, Fareed Sepehry-Fard, Philip Whitehead, John Liebetreu, Demosthenes Kostas, Brian Petry and Chet Shirali agreed to serve on the committee along with current members. The current members of the 802.16 Intellectual Property Committee are: Roger Marks (Chair), Brian Kiernan, Fred Lucas, Scott Marin, and Ray Sanders
9. Roger stated that no quorum count was needed in 802.16 meetings conducted in conjunction with 802 plenary.
10. The 2000 edition of CD from IEEE 802 containing all 802 standards is available to all voting members that did not receive one at the last meeting in Hawaii.
11. Approval of minutes from Session #5

Motion #2 to approve the Session #5 minutes by: Carl Eklund and seconded by Brian Kiernan

Roger added that the revised minutes appeared on the Web on 01/27/00. Discussion followed on the meeting minutes as amended. The minutes contained some spelling errors and some confusion on the topic of the new PAR. Roger asked for a friendly amendment to include these two changes. The maker and second accepted the changes.

Motion #2 passes. Session #5 minutes approved by voice vote.

16. Consent agenda to confirm items approved at Session #5
 - **Motion #3** to approve the consent agenda by Brian Kiernan and second by Ray Sanders. Motion carries by voice vote.
17. Roger gave the attendance status of recent meetings and the current status of the group coming into this meeting.
18. Issues coming out of the SEC meeting.
 - Renumbering of PAR 802.16 to 802.16.1 approved.
 - Voted to delete the international participation fee, 100 dollars per person per meeting.
 - The possible free distribution of IEEE 802 standards.
 - The possibility of electronic voting.
 - Notice on recording of the meeting: acceptable if notification is made.
 - Elimination of 802 Closing Plenary: not a single member spoke in favor of the 802 Closing Plenary on Friday morning.
 - The 802.14 Working Group will be eliminated at this meeting.
19. Brian Petry requested that we consider access to the private section of the Web site and requested it be placed on the agenda for later in the meeting.
20. Roger turned the meeting over to Louis Olsen, the Chair of 802.16.1, for a report on progress.
21. One of the things decided at the last meeting was that the MAC and PHY scoring minimum for moving forward would be dropped.
22. Roger added that the scoring process is still in place and will be used to show presenters how well they did.
23. Thursday 12:30 PM will be the final voting deadline for submission to Brian Petry of MAC and PHY ballots via floppy disk.
24. Break at 2:25 PM
25. The meeting reconvened at 2:55 by Louis Olsen.
26. The floor was given to John Montague to talk about 802 Technical Plenary on Wednesday. He invited members of 802.16 to attend and present technical issues that may be of concern between 802.16 and other 802 Working Groups.
27. Jay Klein presented current status of PHY group and reviewed the agenda for the PHY meeting. Two PHY proposals will be made at the meeting.
28. Proposal to separate MAC and PHY times.
29. **Motion #4:** Jay Klein motions to accepted PHY agenda as modified for Tuesday.
30. Discussion on motion followed. A question was asked on presentation time from PHY and how time was allocated. Jay noted a typographical error and modified agenda times accordingly.
31. Voice vote on Motion #4, PHY agenda approved by voice vote.
32. Jung Yee presented the current status of the MAC group and reviewed MAC agenda. Two MAC proposals will be made at this meeting.
33. **Motion #5:** by Jung Yee to accept MAC agenda.
34. Some suggestions were made to change the agenda and make it fit better with the PHY agenda. Changes accepted by Jung Yee and made to agenda.

35. Motion #5 Vote on amended agenda passes by unanimous voice vote.
36. 802.16.2: Keith Doucet gave the presentation for Leland Langston for the Coexistence Group.
37. Presented a list of contributions for the week.
38. Keith didn't have an agenda. He said that Leland would present it later.
39. The Group is working on the comment resolution on the report this week and completing the draft of coexistence document.
40. Keith presented a timeline plan for the document and Roger commented that he thought the plan was unworkable. The draft document had recently been completed and was only out for comment for a short time.
41. Roger further started that a logistical plan for sending the document was not in place and he wasn't sure that the document was ready for letter ballot. He expressed concern about sending it out. He suggested that the Working Group work on a revised timeline at this meeting.
42. Roger asked how many people were participating in project and about 10 people raised their hands. He asked how many people were interested in the outcome of that group. About 30 people raised their hands.
43. Brian Kiernan presented the status of the Sub 10 Study Group. Two contributions are on the agenda for PAR wording changes to be incorporated in the PAR. Other 820 working groups have until tomorrow afternoon to submit comments on PAR. Comment resolution on the PAR is scheduled for Wednesday, followed by a vote to accept and present PAR and forward to ExCom for approval. Thursday the group will review the proposed functional requirements document and other presentations. The major goal for this meeting is to submit the final PAR to ExCom by Wednesday at 5 pm for approval on Thursday evening.
44. ETSI BRAN HIPERACCESS: Andrea Nascimbene made a presentation (802.161-00/08) on the status of HIPERACCESS <http://iee802.org/16/liaison/docs/802161-00_08.pdf>.
45. Future meetings: presentation by Yunsang Park on May meeting in Gaithersburg MD. A city tour was proposed; a straw poll indicated 27 in favor and 18 opposed. Please make reservations at Gaithersburg Hilton ASAP. Question on renovations at the hotel arose. Yunsang said he would check on renovation status.
46. Election of Chair and Vice Chair of IEEE 802.16. Roger Marks stated that he would stand for reelection, then turned the floor over to the Secretary to manage the elections. Request from the secretary for additional nominations from the floor. No additional nominations for the office of Chairman were made from the floor.
47. **Motion #6:** by Jim Mollenauer and seconded by Ray Sanders to close nomination. Voice vote to close nominations passes. Nominations for Chairman closed.
48. Lou Olsen will stand for reelection as Vice Chairman. The Secretary requested nominations from the floor for Vice Chairman position. No nominations from the floor were received for the office of Vice Chairman.
49. **Motion #7:** to close nominations by Carl Eklund and seconded by Ray Sanders. Voice vote and nominations for Vice Chairman closed.
50. Call for show of hands by the Secretary for Roger Marks as Chairman, result 33-0-0. Roger Marks reelected as Chairman of IEEE 802.16.
51. Call for show of hands by the Secretary for Lou Olsen for Vice Chairman, result 33-0-0. Lou Olsen reelected as Vice Chairman of IEEE 802.16. Roger Marks returned to Chair session.
52. **Motion # 8:** by Brian Petry and Seconded by Brian Kiernan to have: Any non-member may examine the votes of members. This amends 802.16 rules. Discussion follows. Roger Marks suggests a friendly amendment to specify application to only future votes carried out by 802.16. Amendment accepted by maker and seconder.
53. **Motion #9:** to table Motion #8 until closing plenary on Thursday by Demos Kostas and seconded by Brian Petry. Discussion followed and the motion was changed by friendly amendment to table until the Wednesday Plenary.
54. Vote on motion # 9 tables Motion #8 until Wednesday Plenary by 18-3-1 vote.

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55. **Motion # 10:** to adjourn for the day by Brian Kiernan and seconded by Carl Eklund. Meeting adjourned by voice vote.

56. The meeting adjourned at 5:55.

IEEE 802.16 Midweek Plenary, 08 March 2000

1. Roger Marks called the meeting to order at 3:34 PM with George Fishel, Acting Secretary, standing by to take meeting minutes.
2. Review of the meeting agenda.
3. **Motion # 11:** to approve meeting agenda by Paul Struhsaker seconded Brian Petry. Agenda approved by unanimous voice vote.
4. Brian Kiernan presented the PAR of the Sub 10 Study Group, 5 Criteria and some recommendations from the study Group
 - Introduced 5 recommendations from the Study Group
 - Introduced the PAR that was unanimous vote by the study group. The PAR addresses only licensed bands. from 2 to 11 GHz. These were the major changes with some additional minor editing.
5. **Motion # 12:** by Jim Mollenauer and seconded Brian Petry to approve the PAR. Discussion on the motion follows.
6. **Motion # 13:** to amend PAR by deleting "2 to 6 GHz" by Jay Klein and seconded by Jim Mollenauer. Motion carries by 25-8-1 vote.
7. **Motion # 14:** to amend PAR by lowering the lower limit to 400 MHz by Zion Hadad and seconded by Yigal Leiba. Motion fails by 1-28-7 vote.
8. Vote on original motion # 12 to approve the amended PAR passes 37-0-1
9. Brian Kiernan reviews the 5 Criteria.
10. **Motion #15:** to accept the 5 Criteria and forward to ExCom by Brian Petry and seconded by Demos Kostas. Discussion followed.
11. **Motion #16:** to amend 5 Criteria by adding the line "in licensed bands" by Jay Klein and seconded by Jim Mollenauer. Motion # 16 carries by voice vote.
12. **Motion # 17:** to change "LMDS" to "higher frequencies" by Roger Marks and seconded by Lou Olsen. Motion # 17 carries by voice vote.
13. Vote on original motion # 15 to accept the 5 criteria as amended and forward to ExCom 34-0-0. Motion carries.
14. **Motion # 18:** to forward liaison letters, with explanation of how the PAR was changed, to 802.11 and 802.15 by Roger Marks and seconded by Lou Olsen. Motion carries by voice vote with one abstention.
15. **Motion # 19:** to accept recommendation 4. Motion by Brian Petry and seconded by Ray Sanders. Motion # 19 passes by voice vote.
16. Brian Kiernan Introduces recommendation 5. A presentation was made by Sanjay Moghe with a proposal to have a study group on public access in license exempt bands. A motion will be crafted at a meeting after this meeting and all interested parties should attend.
17. Brian Petry requested a motion to withdraw motion # 8 tabled Monday.
18. **Motion # 19:** was made to withdraw motion # 8 by Amarpal Khanna and seconded by Demos Kostas. Motion to withdraw carries by voice vote. Brian Petry will proposed a new motion at the closing plenary.
19. Brian Petry gave an explanation of how the voting procedure was to work for evaluation of the current MAC and PHY proposals. The deadline for voting will be 12:30 PM on Thursday.
20. Roger gave a summary of some meetings conducted this week.
 - Meeting with BRAN HIPERACCESS
 - Report on IPR meeting. Much of the IPR information on the Web is not correct and IEEE is in the process of updating the information. The IEEE IPR process is being updated.
 - Review of tomorrow's agenda

21. **Motion # 20:** to adjourn at 5:47 by Brian Kiernan and seconded by Demos Kostas. Motion carries by voice vote.

IEEE 802.16 Closing Plenary, 09 March 2000

1. Meeting called to order by Roger Marks at 1:10 PM. George Fishel, acting secretary, ready to take notes.
2. Roger reviewed the modified final plenary agenda.
3. **Motion # 21:** to approve the modified agenda by Brian Petry and seconded Chet Shirali. Agenda approved with modifications by voice vote.
4. Report by the secretary on voting membership status. 26 people were eligible for membership at the beginning of this meeting. 18 people claimed membership. At the beginning we had 58 voting members and 18 additional members were added for a total of 76 voting members.
5. Please give all documents to the secretary via floppy disk so they can be filed on the flash card and the web.
6. At the request of 802, Roger conducted a survey on 802 document distribution. 802 is interested in making 802 documents freely available on the Web. Roger asked how many people would support using \$100 from each person's registration fee at each LMSC Plenary Session to support this endeavor. 49 said yes and 0 no. The second question concerned whether 802 should ask companies to pay \$10K to support 802. Approximately 12 people raised their hands.
7. Brian Petry presented the results of the vote on the MAC and PHY documents. 26 members voted.
8. A count of voting members indicated that 46 voting members were present.
9. Jay Klein made the presentation on the events of the PHY Group. Have notes.
10. Jung Yee made a presentation on the events of the MAC Group. Need notes.
11. **Motion # 22:** to invite joint MAC and PHY proposals for Session #7 by Naftali Chayat and seconded by Ken Lazaris-Brunner. Discussion followed. Motion fails. 14-23-0
12. Editing was conducted on the Invitation to Contribute.
13. **Motion # 23:** to adopt the invitation to contribute for session # 7 by Ray Sanders and seconded by Gene Robinson. Motion # 23 carries by voice vote with one NO vote.
14. Brian Kiernan made the Sub 10 Working Group report. Brian reported that "WE ARE DONE".
 - Revised PAR and Five Criteria completed and forwarded to ExCom
 - Initial Discussions on Functional Requirements Document
 - Final Action: Motion Request to 802.16
 - Sub10 Study Group motion for 802.16 working group:
 - Intent: The Sub10 Study Group would like to accelerate the process of adopting Functional Requirements for 802.16.3.
 - Sub10 has a substantial contribution from George Fishel that is a Functional Requirements Document based on the 802.16.1 Functional Requirements with many changes and amendments.
 - The Sub10 Study Group has already made several modifications to George's contribution.
 - To make progress between the end of the Sub10 study group and the first meeting of an 802.16.3 task group, Sub10 would like to accept formal comments against this contribution.
 - Sub10 editors will provide a report of the differences between the original 802.16.1 Functional Requirements and George's contribution.
15. Motion #24: That the 802.16 Working Group permit George Fishel's contribution (802.16sub10c-00/06), as modified by the Sub10 study group, to be carried over from the Study Group to the 802.16.3 task group, retaining the "contribution status" of the document, and

- That prior to the next 802.16 session, 802.16 working group appointees accept comments from the 802.16 working group members and observers, and
- That the working group appointees be authorized to issue a call-for-comments against George's contribution, and
- That the 802.16.3 task group resolve comments by 50% majority, without requiring 75% majority votes even for technical comments, until such time as the 802.16.3 task group approves the document as "baseline".
- Motion by Brian Kiernan and seconded by Demos Kostas. Motion carries by voice vote.
16. Sub 10 GHz Study Group proposal to form a new study group.
 17. **Motion # 25:** to create a study group called WirelessHUMAN to study the possibility of wireless unlicensed metropolitan area networks made by Brian Kiernan and seconded by Demos Kostas. Motion carries 31-1-0.
 18. **Motion # 26:** that Durga Satapathy be chair of new Study Group by Roger Marks and seconded Demos Kostas. Motion carries by voice vote.
 19. Yunsang Park made a presentation on next meeting in Gaithersburg MD. Roger will determine how many meeting rooms we will need.
 20. Leland Langston gave a report on the progress of the Coexistence group.
 21. Roger showed some information from ExCom about discontinuing Friday 802 closing plenary meetings and asked the group opinion. The majority of members present were in favor of discontinuing the Friday meetings. No one indicated support for the 802 Closing Plenary,
 22. Roger also mentioned the possibility of electronic balloting.
 23. Issues for Thursday ExCom meeting:
 - a. New 802.16.3 PAR
 - b. 64 bit MAC addresses
 - c. Election of 802 Chair; likely appointment of Vic Hayes as 802 International and Regularity Affairs official.
 24. Roger announced creation of a new 802.16 Regulatory Affairs Committee. Roger Marks appointed Gene Robinson as Chair of the committee. The following people will be participants: Stan Reibold, James C. Cornelius, Rebeca Chen, Phil Whitehead, Marianna Goldhammer, Arun Arunachalam, Demosthenes Kostas, and Barry Lewis.
 25. Brian Petry presented a proposal regarding the private area of the 80.16 Web site.
 - **Motion # 27:** Access to private web site areas and ballots is restricted to people in one of three categories:
 - 802.16 members
 - participants in current session
 - participated in at least one recent 802.16 session.

Member, participation and recent defined at <http://ieee802.org/16/membership.html>.
Motion #27 by Brian Petry and seconded by Roger Durand. Motion # 27 carries 20-1-4.
 26. IPR status review: Roger reads patent information from IEEE Standards Companion as it appears on the Web and said, "this information is all wrong". Next he showed an edited version that he received by Fax from IEEE. The duty of a member of a working group is to advise the committee and the Chair of any patents that he or she knows of that may be relevant to the practice of the component standard. This includes knowledge of patent applications as well. Patented items may be included in a standard as long as the patent holder provides a letter of assurance. The Chair should contact the company that holds patents requesting a letter of assurance. A sample of a letter of assurance was shown. Many questions followed.
 27. ETSI BRAN HIPERACCESS, it is expected that ETSI will be coming to the next meeting in Gaithersburg MD. It is expected that an agreement will come out of that meeting. Roger proposed to form an ad hoc to draft a process of how 802.16 should proceed.
 28. Motion to adjourn at 5:50 PM by Roger Durand and seconded by Ken Lazaris-Brunner. Motion carries by voice vote.

Voting Members of 802.16 at close of Session #7

1. Reza Arefi	WFI
2. Donald Arnstein	Hughes Network Systems
3. Jori Arrakoski	Nokia Research Center
4. Arun V. Arunachalam	Nortel Networks
5. Paolo Baldo	Siemens Information and Communication Networks spa
6. Luc Boucher	Industry Canada
7. Naftali Chayat	BreezeCOM
8. Rémi Chayer	Harris Corporation
9. Skyler W. Child	Mitsubishi Electronics America, Inc.
10. James C. Cornelius	Hardin & Associates, Inc.
11. José M. Costa	Nortel Networks
12. Bruce Curriuan	Broadcom Corp.
13. Keith Doucet	Newbridge Networks Corporation
14. Robert Duhamel	Telcordia Technologies
15. Roger Durand	Cabletron Systems
16. Carl Eklund	Nokia Research Center
17. Allan Evans	Netro Corporation
18. David D. Falconer	Carleton University
19. George R. Fishel	Communications Consulting Services
20. Jeffrey R. Foerster	Newbridge Networks Corporation
21. G. Jack Garrison	Wavtrace, Inc.
22. Richard Germon	Nottingham Trent University
23. Marianna Goldhammer	BreezeCOM
24. Phil Guillemette	Spacebridge Networks Corp.
25. Zion Hadad	Runcom Ltd.
26. Baya Hatim	WFI
27. Wayne Hunter	Crosspan, A Raytheon Company
28. Vladan Jevremovic	U S WEST Advanced Technologies
29. Jacob W. Jorgensen	Malibu Networks
30. Amarpal Khanna	Agilent Technologies
31. Brian G. Kiernan	InterDigital Communications Corp.
32. Jay Klein	Ensemble Communications Inc.
33. Thomas J. Kolze	ComStar Communications, Inc.
34. Demosthenes Kostas	Adaptive Broadband Inc.
35. J. Leland Langston	Raytheon Telecommunications Co.
36. Ken Lazaris-Brunner	Gennum Corporation
37. Allan Lee	SpaceBridge Networks Corp.
38. Yigal Leiba	BreezeCOM
39. Gregg Levin	BridgeWave Communications, Inc.
40. Barry Lewis	Radiocommunications Agency
41. John Liebetreu	SiCOM, Inc.
42. Lars Lindh	Nokia Research Center
43. Willie Lu	Infineon Technologies Corp.
44. Fred Lucas	3Com Corp.
45. Mohan Maghera	Infineon Technologies Corp.
46. J. Scott Marin	SpectraPoint Wireless LLC
47. Roger B. Marks	NIST
48. Marcus Mertsching	ComTier, Inc.
49. James F. Mollenauer	Technical Strategy Associates
50. Anton Monk	Conexant Systems, Inc.
51. William K. Myers	SpectraPoint Wireless LLC
52. Louis Olsen	Teligent, Inc.
53. Yunsang Park	Hughes Network Systems
54. Brian Petry	3Com Corp.
55. Patrick Quinn	World Access Inc.

56. Moshe Ran	TelesciCOM Ltd.
57. Gene Robinson	E. A. Robinson Consulting, Inc.
58. Ray W. Sanders	CircuitPath Network Systems
59. David Schafer	Wavtrace, Inc.
60. Menashe Shahar	Phasecom, Ltd.
61. Chet Shirali	Phasecom Inc.
62. Karl Stambaugh	Motorola Inc.
63. Paul F. Struhsaker	World Access Inc.
64. Polychronis Tzerefos	University of Sheffield
65. Jack Van der Star	Belstar Systems Corp.
66. Nico van Waes	Nokia Telecommunications, Inc.
67. Subir Varma	BNA Systems
68. Chao-Chun Wang	Malibu Networks
69. Robert M. Ward	SciCom
70. Philip Whitehead	Radiant Networks PLC
71. Steve Winslow	Alcatel USA
72. Jung Yee	Newbridge Networks Corporation
73. Erol Yurtkuran	Integrity Communications, Inc.
74. Genzao Zhang	Nortel Networks
75. Wei Zhang	NIST
76. Juan Carlos Zuniga	Harris Corporation

Yellow Highlight members are new as of Session #6.

IEEE 802.16 Meeting #6 Attendance

All attendees registered and paid. 802.16 meeting #6 was a plenary meeting for 802. 126 people attended the 802.16 meeting. Attendance of at least 6 of 8 meeting intervals was required for the 75% criteria. Those marked with * met the 75% criteria. Please contact the 802.16 secretary if you feel your attendance has been recorded incorrectly.

NAME:	COMPANY:	SESSIONS ATTENDED:
1. *Adnan Abu-Dayya	AT&T Wireless Services	7
2. *Mohammad Akhter	Centre for Wireless Communications	7
3. *Jori Arrakoski	Nokia Research Center	6
4. *Arun V. Arunachalam	Nortel Networks	7
5. *Paolo Baldo	Siemens Information and Communication Networks spa	8
6. *Jay Bao	Mitsubishi Electric ITA	7
7. *Ian Baragar	Nortel Networks	6
8. *Behshad Baseghi	Malibu Networks	6
9. *Adam Bednarczyk	Alcatel USA	7
10. *Anader Benyamin-Seevar	Harris Corporation	7
11. *Lamar Bishop	GartnerGroup	7
12. *Luc Boucher	Industry Canada	7
13. *Matt Brandt	Motorola	6
14. *Carl Bushue	Sprint	8
15. *Rebecca S.M. Chan	Industry Canada	6
16. *Dean S.K. Chang	BNA Systems Inc.	7
17. *Naftali Chayat	BreezeCOM	7
18. *Remi Chayer	Harris Corporation	7
19. Todor Cooklev	Aware Inc.	5
20. *James C. Cornelius	Hardin & Associates	8
21. *George Cummings	Motorola Inc.	6
22. *Amos A. Dotan	WaveIP LTD	6
23. *Keith Doucet	Newbridge Networks Corporation	7
24. *Steve Duncan	PipingHot Networks	7
25. *Roger Durand	Cabletron Systems	7
26. *Carl Eklund	Nokia Research Center	7
27. *Allan Evans	Netro Corporation	7
28. *David D. Falconer	Carleton University	8
29. *George R. Fishel	Communications Consulting Services	8
30. Reed Fisher	Oki America	1
31. *Jeffrey R. Foerster	Newbridge Networks Corporation	7
32. *Avraham Freedman	ECI Telecom - InnoWave Wireless Systems	8
33. *G. Jack Garrison	Wavtrace Inc.	7
34. *Richard Germon	Nottingham Trent University	7
35. *Marianna Goldhammer	BreezeCOM Ltd.	7
36. *Conrad Grell	TurboNet Communications	6
37. *Phil Guillemette	Spacebridge Networks Corp.	7
38. *Itzhak Gurantz	Conexant Systems Inc.	7
39. *Zion Hadad	Runcom Ltd.	8
40. *Baruch Halachmi	RADWIN	7
41. *Roger Hammons	Hughes Network Systems	8
42. *Baya Hatim	Wireless Facilities Inc.	8

43. *Wayne Hunter	Crosspan Network Access Technologies	7
44. *Eric Jacobsen	Intel Corp.	7
45. *Hamadi Jamali	Canon Research Center America Inc.	7
46. *Jacob W. Jorgensen	Malibu Networks	7
47. Srinivas Kandala	Sharp Laboratories of America	1
48. *Inchul Kang	Malibu Networks	6
49. *Mika Kasslin	Nokia Research Center	7
50. N. Patrick Kelly	Level One Communications Inc.	2
51. *Amarpal Khanna	Agilent Technologies	7
52. *Brian G. Kiernan	InterDigital Communications Corp.	8
53. *Jay Klein	Ensemble Communications Inc.	7
54. *Thomas J. Kolze	Broadcom Corp.	8
55. *Demosthenes Kostas	Adaptive Broadband Inc.	8
56. *J. Leland Langston	Crosspan Network Access Technologies	6
57. *Phil Lau	Toshiba America Information Systems Inc.	6
58. *Ken Lazaris-Brunner	Gnum Corporation	7
59. *Yigal Leiba	BreezeCOM	8
60. *Gregg Levin	BridgeWave Communications Inc.	6
61. *Barry Lewis	Radiocommunications Agency	7
62. *John Liebetreu	SiCOM Inc.	8
63. *Lars Lindh	Nokia Research Center	7
64. *Fuyan Ling	QUALCOMM Inc.	7
65. *Fred Lucas	3Com Corp.	7
66. *Roger B. Marks	NIST	8
67. *Shawn McCann	Agilent Technologies	6
68. *Andy McGregor	Nortel Networks	8
69. *Sanjay Moghe	RF Solutions	8
70. *James F. Mollenauer	Technical Strategy Associates	7
71. *Anton Monk	Conexant Systems Inc.	7
72. John Montague	NCR Corporation	4
73. *Yutaka Morikawa	NEC Corporation	8
74. Christopher Moritz	Spike Technologies Inc.	5
75. *Brett Moser	ComDev Wireless Group	7
76. Andrea Nascimbene	Ericsson	5
77. *Ryutaro Ohmoto	Nippon Telegraph and Telephone Corporation	8
78. *Louis Olsen	Teligent Inc.	7
79. Jim Ormond	Maker Communications	1
80. *Yunsang Park	Hughes Network Systems	7
81. *Brian Petry	3Com Corp.	7
82. *Wayne Pleasant	Telaxis Communications Corporation	7
83. *Patrick Quinn	World Access Inc.	6
84. *Moshe Ran	TeleSciCOM Ltd.	7
85. Joel Raymond	REMEC Magnum	4
86. Javad Razavilar	3Com Corp.	3
87. *Stanley Reible	Proxim Inc.	8
88. *Valentine Rhodes	Intel	8
89. *David B. Ribner	Analog Devices Inc	7
90. Randy Rich	Home Wireless Networks	3
91. *Gene Robinson	E. A. Robinson Consulting Inc.	7
92. P. Taylor Salman	Opnet	2
93. *Ray W. Sanders	CircuitPath Network Systems	7
94. *Durga P. Satapathy	Sprint	8

95.	*Glen E. Sater	Motorola Inc.	7
96.	David Schafer	Wavtrace Inc.	2
97.	*Vaia Sdralia	University of Sheffield	7
98.	*Fareed Sepehry-Fard	GitiCom	6
99.	*Menashe Shahar	Vyyo Ltd.	6
100.	*Chet Shirali	Vyyo Inc.	7
101.	*Tetsuya Shirouzu	Nippon Telegraph and Telephone Corporation	8
102.	*Shaul Shohat	GIGANET	7
103.	Tony Stajcer	ComDev Wireless Group	5
104.	*George Stamatelos	Nortel Networks	8
105.	*Karl Stambaugh	Motorola Inc.	7
106.	*Michael Stewart	Escape Communications	6
107.	*Paul F. Struhsaker	World Access Inc.	8
108.	*Andrew Sundelin	iSKY Inc.	7
109.	Hitoshi Takanashi	NTT Wireless Communications Systems Laboratories	5
110.	*Kimiya Tateishi	NEC America Inc.	8
111.	*Paul Thompson	Paul Thompson Associates	7
112.	*David Trinkwon	Transcomm Inc.	6
113.	*Andre Van Houwelingen	Ericsson Radio Systems AB	8
114.	*Nico van Waes	Nokia Telecommunications Inc.	6
115.	*Subir Varma	BNA Systems	6
116.	Mark Vogel	3Com Corp.	4
117.	*Muya Wachira	Nortel Networks	8
118.	*Chao-Chun Wang	Malibu Networks	6
119.	*Robert M. Ward	SciCom	7
120.	*Philip Whitehead	Radiant Networks PLC	7
121.	Robert R. Whiting	Gabriel Electronics	3
122.	Steve Winslow	Alcatel USA	3
123.	Waldemar Wojdak	Performance Technologies Inc.	1
124.	*Jung Yee	Newbridge Networks Corporation	7
125.	*Wei Zhang	NIST	8
126.	*Juan Carlos Zuniga	Harris Corporation	7

IEEE 802.16 Chairman's Opening Presentation
By Roger Marks

IEEE 802.16
Working Group on
Broadband Wireless Access
(BWA)

Session #6
Opening Plenary
March 6, 2000
1:00-5:30 pm

Session Opening

- **Schedule of meetings for the week**
- **Presentation of 802.16 Opening and Closing Plenary Agendas**
- **Motion to Approve 802.16 Opening and Closing Plenary Agendas**
- **Motion to Approve Document IEEE 802.16-00/06r1 (Minutes of Session #5)**

Welcome

- **Large crowd (possible record)**
- **Many new participants**
- **802.16 Culture (ala IEEE 802 culture)**
 - **Engineering Membership**
 - **Seeking Technical Consensus**
 - **Open (even by 802 standards)**
 - **Procedural and Fair**
 - **Contribution-Driven**
- **802 is extremely successful**
 - **802 is following the model**
 - **excellent record of progress**

Basic Process

- **PAR: Project Authorization Request**
 - **Guiding document for IEEE standards development project**
 - **First 802.16 PAR written in Jan. 1999**
- **IEEE 802 Oversees Our Work**
- **Working Group produces Draft in accordance with PAR**
 - **Working Group Letter Ballot**
- **Sponsor Letter Ballot**
 - **Reviews draft**
 - **Open to interested individuals**

Resources

- **<http://ieee802.org/16/>**
- **Reflector**
 - **Sign up on web**
 - **Read archives on web**

Secretary's Announcements

- **George Fishel, Acting**
- **Membership**
- **Voting tokens**
- **Attendance list**
- **Document distribution**
 - **Flash ROM**
 - **CD ROM**

Attendance List

- **Participation recorded at each “meeting interval”** (morning/afternoon/evening)
 - Self-declared; “substantially all” of meeting
 - Session “Participation” requires participation at 75% of meeting intervals
 - No dual-Working Group credit allowed
- **Attendance recorded in parallel meetings**
 - voting credit for presence at either
- **Attendance is public record**
 - attendance will be reported on web
 - contact info will not be posted (just company)

Rights of All

- **To receive meeting notices and minutes.**
- **To subscribe to the 802.16 Email Reflector.**
- **To examine documents, unless copyright concerns prohibit it.**
- **To contribute documents in response to a Call for Contributions in accordance with rules therein.**
- **To attend and participate in 802.16 meetings, if registered.**

Exclusive Rights of Membership

- **To make or second a motion at any meeting of 802.16 or its subsidiaries.**
- **To vote, if and only if present, at any meeting of 802.16 or its subsidiaries.**
- **To vote by email on any issue involving 802.16 or its subsidiaries.**
- **To examine the votes of other Working Group members**
- **To examine the member contact database.**
- **To examine draft standards.**
- **To lodge complaints about Working Group operation with the Executive Committee.**
- **To petition the Executive Committee in writing.**

Acquiring Membership

- Membership is granted at each 802.16 LMSC Plenary Session to those in attendance who have participated in at least two recent 802.16 Sessions, one of which was an 802.16 LMSC Plenary Session. At that time, full membership rights begin immediately upon the request of the qualifying potential member.
- At the end of each 802 LMSC Plenary Session, membership is lost by those who have not participated in at least two recent 802 Sessions, one of which was an 802 LMSC Plenary Session.

Definitions (in brief)

- **Participation:** attended at least 75% of the meetings held during in Session
- **802.16 LMSC Plenary Session:** 802.16 Session coinciding with an 802 LMSC Plenary Session (March, July, and November)
- **Recent 802.16 Session:** one of the previous four 802.16 LMSC Plenary Sessions, excluding the current one, or another 802.16 Session that took place with the period of time spanned by those four sessions

Current Membership

- 58 Members
 - Quorum Requirement: 29 Members
 - 39 Members preregistered for Session #5
- 26 Potential Members
 - Become members immediately upon request

Individuality

- In IEEE standards meetings, participation is by individual
 - you do not represent a company or organization
- Membership belongs to the individual, not an organization, and may not be transferred.

IEEE and IEEE SA Membership

- Members are encouraged to join IEEE, IEEE Standards Association, and IEEE Computer Society
- Such membership is not required for Working Group membership or voting

Sponsor Ballot Pool

- Initiating Balloting **Pool**
- Future 802.16 draft standards will be balloted by a Balloting **Group** drawn from members of the 802.16 Balloting **Pool**.
- To join the 802.16 Balloting **Pool**, use the form on the web.
- Membership in IEEE Standards Association [IEEE or CS + \$10] required to participate in Ballot **Group**

802.16 Rules

- Subject to 802 Rules [“OPERATING RULES OF IEEE PROJECT 802 LAN MAN STANDARDS COMMITTEE (LMSC)”]
- Detailed WG Rules under construction
- 802.3 Rules will apply in case of ambiguity

802.16 Patent Procedures

Intend to work on these this week.

See Intellectual Property Page on 802.16 Web site

802.16 Mission

- "to develop standards and recommended practices to support the development and deployment of fixed broadband wireless access systems"

802.16 Projects

- **802.16.1 (Standard)**
 - Air Interface for Fixed Broadband Wireless Access Systems
 - 10-66 GHz
- **802.16.2 (Recommend Practice)**
 - Coexistence of Broadband Wireless Access Systems
- **Sub10 Study Group**
 - Fixed Broadband Wireless Access
 - Below 10 GHz

802.16.2

- **Coexistence of Broadband Wireless Access Systems**
- **Timeline: (IEEE 802.16.2-00/01r2)**
- **Draft due to Working Group Letter Ballot, March 2000**
 - **Will seek 802.16 approval for letter ballot at Closing Plenary**
- **Leland Langston, Chair**

802.16.1

- Air Interface for Fixed Broadband Wireless Access Systems
 - Request to renumber (from 802.16) approved by 802 SEC at Session #4
 - IEEE-SA approval: 30 January 2000
- Lou Olsen: Chair
- Brian Petry and Jim Mollenauer: editors
- Jung Yee/Carl Eklund: MAC Task Group
- Jay Klein/John Liebetreu: PHY Task Group

802.16.1 (cont.)

- Following “Development Plan for 802.16.1 Air Interface Standard” (IEEE 802.16-99/05)
 - [approved by Letter Ballot #1]
- First proposals at Session #4
 - 18 PHY, 14 MAC
- Massive Consolidation down to:
 - 2 Merged MAC Proposals
 - 2 Merged PHY Proposals

Sub10 Study Group

- Approved by 802.16/802 on November 11 Session #4 (expires 9 March 2000)
- Charter is "to investigate establishing air interface specifications for fixed point to multi-point Broadband Wireless Access systems operating in frequency bands below 10 GHz."
- Chair: Brian Kiernan (appointed by 802.16 Chair/confirmed by 802.16)

Sub10 Study Group Issues

- All present can vote in Study Group
- PAR written at Session #5
- This week:
 - Consider comments of other 802 Working Groups (due 5 pm Wednesday)
 - Modify
 - Approve by vote
 - Approval at 802.16 Midweek Plenary
 - Due to 802 SEC: Wednesday, 5 pm

Charge to Task Groups

- Complete the task on your agenda
 - Update agenda on bulletin board
- Prepare for next meeting
 - Call for Contributions, etc.
- Prepare for Closing Plenary
 - All motions to be in writing
- Document everything
 - submit documents to Secretary before you leave
 - provide document index (update on bulletin board)

Future 802.16 Sessions

- May 1-5, 2000: Session #7
 - Gaithersburg, MD (Washington DC area)\
 - Host: Yunsang Park/Hughes Network Systems
- July 10-13, 2000: Session #8
 - La Jolla, California with 802
- September 11-15, 2000: Session #9
 - Denver, Colorado, with RAWCON2000
- November 6-9, 2000: Session #10
 - Tampa, Florida with 802

Adjournment

- Motion to Adjourn

- Resume at 8 am tomorrow
 - 802.16.1
 - 802.16.3
 - Sub10 Study Group

IEEE 802.16 Chairman's Opening Plenary Status Report
Presented by Roger Marks

802.16 Status Report

- Broadband Wireless Access Working Group
- Large and growing interest and attendance
 - November 1999: 107 sign-ins, 90 “participants”
 - January 2000: 118 sign-ins, 92 “participants”
- This meeting:
 - 802.16.1
 - 802.16.2
 - “Sub10” Study Group
 - Visitors
 - Andrea Nascimbene: ETSI BRAN HIPERACCESS
 - Tetsuya Shirouzu: Association of Radio Industries and Businesses (ARIB)

802.16.1

- “Air Interface for Fixed Broadband Wireless Access Systems” {10-66 GHz}
- November 1999
 - 19 PHY Proposals
 - 15 MAC Proposals
- January 2000
 - 3 PHY Proposals (2 consolidated)
 - 2 MAC Proposals (2 consolidated)
- March 2000
 - 2 PHY/MAC Proposals
- Selection set for May2000

802.16.2

- “Coexistence of Broadband Wireless Access Systems”
- Intend to request Working Group Letter Ballot to begin after this meeting

802.16 PAR Request

- 802.16.3: “Air Interface for Fixed Broadband Wireless Access Systems Operating Below 11 GHz”
- Drafted by 802.16’s “Sub10” Study Group
 - chartered by the 802 SEC on 11 November 1999 “to investigate establishing air interface specifications for fixed point to multi-point Broadband Wireless Access systems operating in frequency bands below 10 GHz”
 - Brian Kiernan, Chair
 - Met 10-11 January 2000 during 802.16 Session #5
 - 101 people from 72 companies attended
 - approved PAR by vote of 47-0-1
 - 802.16 approved submission of PAR by a vote of 18-1

Plans

- **Study Group Meetings:**
 - **Tuesday (day time)**
 - **Tuesday evening (without 802.16 conflicts)**
 - **Wednesday**
- 802.16 Plenary to consider PAR
 - Wednesday, 3:30-5:00 pm
- **Study Group Meets again:**
 - **Thursday a.m. to consider Functional Requirements**

MAC Opening Plenary Report and Agenda
Presented by: Jung Yee

**802.16.1 MAC
Task Group Session #6**

Jung Yee
Newbridge Networks Corporation

Report

- 2 MAC proposals to be analyzed
 - Informal meetings between groups supporting each proposal to define areas of commonality and difference
- Decide on how or should the 2 MAC proposals be merged
- Decide on simulation tools
- Decide on performance criteria for simulations
- How and if the 802.16.1 MAC may be used for 802.16.3
- Few submissions to assist the task group progress

Agenda for Tuesday, March 7

- 1330 Call to order
- 1331 Presentation of 802.16.1mc-00/10, "MAC Proposal for IEEE 802.16.1"
- 1415 Discussion of 802.16.1mc-00/10
- 1500 Break
- 1515 Presentation of 802.16.1mc-00/09, "Media Access Control Layer Proposal for the 802.16 Air Interface Specification"
- 1600 Discussion of 802.16.1mc-00/09
- 1645 General discussion
- 1800 Adjourn

Agenda for Wednesday, March 8

- 1230 Call to order
- 1231 Presentation of 802.16.1mc-00/11, "Fault Recovery of the DOCSIS Protocol",
- 1300 Discussion of 802.16.1mc-00/11
- 1315 Discussion on evaluation criteria as applied to 802.16.1mc-00/09
- 1345 Discussion on evaluation criteria as applied to 802.16.1mc-00/10
- 1415 Discussion on improvements to to 802.16.1mc-00/09 and 802.16.1mc-00/10 for a common MAC.
- 1500 Adjourn

Agenda for Thursday, March 9

- 0800 Call to order
- 0801 Presentation of 802.16.1mc-00/12, "802.16 MAC Layer Modeling: A Common Simulation Framework"
- 0830 Discussion of 802.16.1mc-00/12
- 0900 Discussion on simulation tools and models
- 0945 Vote on choice of simulation tools and models
- 1000 Break
- 1015 Planning for session #7
- 1130 Adjourn

IEEE 802.16 Midweek Plenary Report

Presented by: Roger Marks

**IEEE 802.16
Working Group on
Broadband Wireless Access
(BWA)**

**Session #6
Midweek Plenary
March 8, 2000
3:30-5:00 pm**

Session Opening

- **Approval of 802.16 Midweek Plenary Agenda**

Sub10 Study Group

- Report
- Recommendations
- Motions

ETSI BRAN Meeting

- Monday, March 6, 7:30-9 pm
- Roger Marks, Jay Klein, Jung Yee, Jamshid Khun-Jush Andrea Nascimbene
- Outcomes:
 - ETSI BRAN HIPERACCESS (HA) has accepted an invitation to meet along with 802.16 Session #7 in Gaithersburg, Maryland, USA.
 - Session #7 will be an opportunity for 802.16 and HA to approve an Annex to the “Co-operation Agreement between ETSI and IEEE-SA” (21 April 1999) to describe a procedure for joint work.
 - The goal is an interoperable standard, possibly with initial emphasis on the physical layer.

IPR Meeting

- Tuesday, March 7, 11:00-12 am
- Roger Marks, Fred Lucas, Jim Carlo, Denise Pribula, Gary Robinson
- Outcomes:
 - Much of the IPR information on the IEEE-SA Web Site is inconsistent, but much of it is also obsolete.
 - Our procedures are generally good.
 - Our procedures should be candidates for adoption by IEEE-SA.
 - Marks will attend IEEE-SA Patent Committee Meeting in late March to review rules.

Charge to Task Groups

- Prepare for next meeting
 - Call for Contributions, etc.
- Prepare for Closing Plenary
 - All motions to be in writing
- Document everything
 - submit documents to Secretary before you leave

Adjournment

- 8-12 am tomorrow
 - 802.16.1 MAC
 - 802.16.1 PHY
 - 802.16.2
 - Enchantment
 - Sub10 Study Group
 - Enchantment
- 1-5 pm tomorrow
 - 802.16 Closing Plenary
- Motion to Adjourn

IEEE 802.16 Closing Plenary Report

Presented by: Roger Marks

IEEE 802.16
Working Group on
Broadband Wireless Access
(BWA)

Session #7
Closing Plenary
March 9, 2000
1:00-5:00 pm

Session Opening

- **Approval of 802.16 Closing Plenary Agenda**

IEEE Patent Policy

- The patent policy is set forth in clause 6 of the IEEE Standards Board Bylaws
- “IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing the standard. This assurance shall be provided without coercion and prior to approval of the standard (or reaffirmation when a patent becomes known after initial approval of the standard).”

IEEE Patent Policy (cont.)

This assurance shall be a letter that is in the form of either

- A general disclaimer to the effect that the patentee will not enforce any of its present or future patent(s) whose use would be required to implement the proposed IEEE standard against any person or entity using the patent(s) to comply with the standard or
- A statement that a license will be made available to all applicants without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination

IEEE Patent Policy (cont.)

Clause 6.3.2 of the IEEE Standards Operations Manual

Through the Working Group, the sponsor chair shall request that known patent holders submit a statement either that the patent does not apply to the standard or that licenses will be made available without compensation or under reasonable rates, terms, and conditions. This assurance shall be obtained without coercion and submitted to the IEEE at the earliest practical time prior to the approval of an IEEE standard. The IEEE encourages early disclosure to the working group of patent information that might be relevant to the standard.

IPR Meeting

- Tuesday, March 7, 11:00-12 am
- Roger Marks, Fred Lucas, Jim Carlo, Denise Pribula, Gary Robinson
- Outcomes:
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 - Our procedures are generally good.
 - Our procedures should be candidates for adoption by IEEE-SA.
 - Marks will attend IEEE-SA Patent Committee Meeting in late March to review rules.

ETSI BRAN Meeting

- Monday, March 6, 7:30-9 pm
- Roger Marks, Jay Klein, Jung Yee, Jamshid Khun-Jush
Andrea Nascimbene
- Outcomes:
 - ETSI BRAN HIPERACCESS (HA) has accepted an invitation to meet along with 802.16 Session #7 in Gaithersburg, Maryland, USA.
 - Session #7 will be an opportunity for 802.16 and HA to approve an Annex to the "Co-operation Agreement between ETSI and IEEE-SA" (21 April 1999) to describe a procedure for joint work.
 - The goal is an interoperable standard, possibly with initial emphasis on the physical layer.

Adjournment

- Motion to Adjourn

IEEE 802.16 Closing Plenary MAC Report
Presented by: Jung Yee

802.16.1 Session #6 MAC
Task Group Report

Jung Yee
Newbridge Networks Corporation

Report

- Session #5 minutes approved
- Opnet will be used for simulations, along with CSF
 - unanimously approved
- Adhoc committee (Jim Mollenauer, Glen Sater) on MAC performance recommendations
 - Traffic models and performance criteria by March 31, 2000
 - Call for contributions on MAC evaluation by March 31, 2000
- 2 MAC contributions, authored by group effort, presented
 - unofficial meetings planned between now and session #7 to consider merge options

OPNET Offerings

- 802.14 CSF
- Use of C4 Center with access to model development support
 - For 3rd party CSF development
 - License holders for MAC development
 - Free training
 - If sufficient interest
 - Free licenses and Grant for University participation
 - CSF development
 - Use of web site for model sharing
 - Mac Model Verification???

Evaluation Criteria for
Session #6

- **“By what mechanism does the proposed MAC protocol meet requirements as described in the current version of the System Requirements...”**

Motions to Issue Invitation for
Session #6

- ⟨ Motion: Approve the MAC criteria for inclusion in session #7 802.16.1 Invitation to Contribute

Session #7 Planning

- Encourage 2 MAC proposals to merge
- Proposals need more quantifiable reasoning
- Invitation for MAC proposals to session #7, with performance details
- Adhoc committee recommendations
 - Traffic Models and Performance
 - Call for Contributions on MAC Evaluation

IEEE 802.16 Closing Plenary PHY Report
Presented by: Jay Klein

802.16.1 TG PHY
Meetings Summary

Jay Klein
Ensemble Communications
March 2000

Meetings

- Tuesday (1/2 day)
 - Proposals; Presentations
- Wednesday (1/2 day)
 - Amendments discussions
 - CQPSK, FEC
 - Provide feedback to proposes
- Thursday (1/2 day)
 - Modeling
 - Derive call for contributions

Feedback to Proposes

- Turbo Codes
- TFM/Constant Envelope Modulation
- Adaptive Modulation

Invited Contributions

- Approve list
- Motion:
 - Invite the PHY contributors to Session #7 for detailed presentation

Call for contributions

- Refer to document

Motion

- Approve TG-PHY Call for Contributions (subject to editorial revisions) for Session #6

General

- The group feels that for the next meeting PHY and MAC proposals should be united into a single proposal

Agenda for Next meeting

- Invited contributions
 - Presentation(s)
 - Group Discussion & Analysis
- Solidify models
 - Evaluate parameter/performance Justification
 - Process additional input from radio system vendors
- Joint PHY meeting with ETSI-BRAN HIPERACCESS if process approved by the group

IEEE 802.16 Coexistence Task Group Closing Plenary Report

Presented by: Leland Langston

802.16.2 Coexistence Task Group Report

802 Meeting
Albuquerque, NM
7-9 March 2000

802.16.2 Coexistence Task Group Report 7-9 March 2000

- 15 People Participated
- 5 Contributions Presented/Discussed
- Updated Coexistence Practice Doc
- Major Hole in document: Section 5 Prop Model
- Interim Meeting planned for April 19-20, 2000
- Timeline changed: Release for IEEE 802 approval now scheduled for Nov 2000.
- Latest practice document will be posted 3-10-2000
- Comments on draft solicited
- Letter to ETSI TM-4 will be sent next week.

IEEE 802.16 Sub 10 GHz Study Group Closing Plenary Report

Presented by: Brian Kiernan

802.16 Sub10 Study Group

- **We're DONE!!!**
(We hope)
- Revised PAR and Five Criteria completed and forwarded to ExCom
- Initial Discussions on Functional Requirements Document
- Final Action: Motion Request to 802.16

802.16 Sub10 Study Group

- Sub10 Study Group motion for 802.16 working group:
- Intent: The Sub10 Study Group would like to accelerate the process of adopting Functional Requirements for 802.16.3. Sub10 has a substantial contribution from George Fishel that is a Functional Requirements Document based on the 802.16.1 Functional Requirements with many changes and amendments. The Sub10 Study Group has already made several modifications to George's contribution. To make progress between the end of the Sub10 study group and the first meeting of an 802.16.3 task group, Sub10 would like to accept formal comments against this contribution. Sub10 editors will provide a report of the differences between the original 802.16.1 Functional Requirements and George's contribution.

802.16 Sub10 Study Group

- Motion:
- That the 802.16 Working Group permit George Fishel's contribution (802.16sub10c-00.06), as modified by the Sub10 study group, to be carried over from the Study Group to the 802.16.3 task group, retaining the "contribution status" of the document, and
- That prior to the next 802.16 session, 802.16 working group appointees accept comments from the 802.16 working group members and observers, and
- That the working group appointees be authorized to issue a call-for-comments against George's contribution, and
- That the 802.16.3 task group resolve comments by 50% majority, without requiring 75% majority votes even for technical comments, until such time the 802.16.3 task group approves the document as "baseline."