Project	**IEEE 802.16 Broadband Wireless Access Working Group**
Title	**Minutes of 802.16 Session #4 [Approved]**
Date Submitted	**1999-11-26 [Revised and approved 2000-01-10]**
Source	Scott Marin Voice: 972-852-7109 Fax: 972-852-6760 802.16 Secretary E-mail: smarin@spectrapoint.com
Re:	**802.16 Session #4 (Kauai, Hawaii, U.S.A., 8-11 November 1999)**
Abstract	
Purpose	
Notice	This document has been prepared to assist the 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 802.16 Session #4
A Plenary Session of the IEEE 802.16
Working Group on Broadband Wireless Access
Hyatt Regency, Kauai Hawaii, U.S.A.
8-11 November, 1999

Monday, November 08, 1999

Opening of Session #4 and of Opening Plenary Meeting

Call To Order

13:05 call to order by Roger Marks, Chairman of 802.16

Roger Marks' opening plenary presentation is in Appendix A.

Roger Marks urged adherence to the schedule especially for the protection and fairness of the presenters.

Schedule of meeting for the week

Roger Marks introduced the schedule and meeting locations for the week.

When asked, nobody commented on the schedule.

Agenda Approval for opening and closing plenary

Roger Marks introduced the weekly and plenary agendas (Appendix A).

When asked for comments, Tom Kolze pointed out that the closing agenda items for PHY and MAC invitations should be for meeting #5 and not meeting #4. The chair agreed. (The closing agenda, which was later revised at the beginning of the closing plenary, is contained in Appendix C).

Motion #1, Tom Kolze, 2nd Carl Eklund, to approve the agenda as amended.

By voice vote, all for, 0 against, 0 abstain. Motion #1 passes.

Announcements

Registration

Roger Marks said if you haven't registered, please do so for several reasons including voting rights. The fee is $300.

Logistics

Roger Marks reviewed logistics.

Rules and Procedures

Roger Marks read the IEEE rules about membership rights.

Roger Marks presented the 802.16 rules and procedures.

Attendance Book and Voter Stickers

Scott Marin introduced the attendance book and voter sticker (token) processes and noted that including the Monday (11/08) and Tuesday (11/09) evening sessions that attendance at 7 of 9 sessions would be required to meet the 75% criteria. The report on attendance for meeting #4 is in Appendix D.

Legal

Roger Marks read the IEEE patent policy.

Status Updates

Roger Marks announced that Letter Ballot #1 had passed.

802 Executive Committee Report

Roger Marks announced that at a meeting earlier in the day the 802 Executive Committee approved the re-designation of the 802.16 Air Interface PAR from 802.16 to 802.16.1. The change request will be submitted to the IEEE-SA Standards Board.

Roger Marks also said that 802.14 is working to disband and withdraw its PAR by March 2000.

Roger Marks noted that the 802 plenary meeting format allows working groups to start at 13:00 on Mondays.

Regarding the International Program Fee (IPF), Roger Marks commented that the 802 Executive Committee plans to terminate payment because 802 is now working directly with ISO/IEC JTC1/SC6 to internationalize its standards.

Roger Marks commented that the issue of making 802 standards freely available is being discussed by the 802 Executive Committee.

Roger Marks announced that a CD containing the current 802 standards will be distributed (on Wednesday, 11/10) to voting members who are attending the meeting. The disk includes the new 1000Base-T standard.

Approval of Minutes

Motion #2, John Liebetreu, 2nd George Fishel, to approve the minutes of session #3 (doc. IEEE 802.16-99/08r0)

By voice vote, all for, 0 against, 1 abstain, Motion #2 passes.

Consent Agenda

Motion #3, Chet Shirali, 2nd Carl Eklund, to approve the 802.16.2 Coexistence Milestone Plan (doc. IEEE 802.16-99/05) and minutes of session #1 (doc. IEEE 802.16-99/04).

By voice vote, all for, 0 against, 0 abstain. Motion #3 passes.

802.16.2 Report

Leland Langston, chairman of the coexistence task group, said that an outline was prepared at the last meeting. Volunteers agreed to draft various sections of the document. Twelve contributions have been received. The presentation are scheduled for the task group meetings (11/09, 11/10, and 11/11). Each contributor with present and discuss their contribution. The plan is to get consensus if possible.

Motion #4, Leland Langston, no 2nd required, to adopt the proposed agenda co-existence agenda (… 802/16/meetings/mtg04/coexistence.html).

Motion #5, Jay Klein, 2nd Naftali Chayat, To amend Motion #4 to delay the coexistence meeting until Wednesday, 11/10, so as to not conflict with Tuesday's PHY meeting.

Motion #6, Jung Yee, no 2nd required, to call Motion #5.

None against, Motion #6, passes.

By show of hands, 8 for, 20 against, 5 abstain, Motion #5 fails.

Return to Motion #4

Motion #7, Gene Robinson, 2nd Jung Yee, to allow the coexistence chairman to make minor adjustments to the agenda.

By voice vote, All for, 0 against, Motion #7 passes.

Roger Marks calls for a vote on Motion#4

Voice vote, 1 against, Motion #4, passes.

802.16.1 reports

System Requirements Task Group. George Fishel

George Fishel presented the proposed agenda.

Motion #8, George Fishel, no 2nd required, to accept the proposed agenda for the System Requirements Task Group (doc. IEEE 802.16s-99/02)

By voice vote, all for, 0 against, 0 abstained. Motion #8 passes.

George Fishel introduced the minutes for meeting #2 (Denver), which was an 802.16 interim meeting at which only the systems requirements task group met.

Motion #9, George Fishel, no 2nd required, to approve session #2 minutes (Doc IEEE 802.16s-99/01)

By voice vote, all for, 0 against, 0 abstain, Motion #9 passes.

Flash Memory Card

Scott Marin introduced the flash memory card as the process for distributing and collecting documents. Roger Marks has put the 802.16 web page (http://grouper.ieee.org/groups/802/16/index.html) and e-mail reflector archives on the card. As usual, document distribution for the meeting will be via the flash memory card and not hardcopy.

802.16.1 Proposal Evaluation Form and Scoring Process

Roger Marks introduced the scoring process, which is on the 802.16 web page as doc. IEEE 802.16-99/07.

Roger Marks announced that the MAC and PHY files from 802.16 voters must be turned in on a floppy disk by 12:30p Thursday (11/11) to Brian Petry.

802.16.1 PHY Report

Jay Klein, introduced the agenda for Tuesday (11/9) and noted that two submissions (/18 and /24) had been combined.

Motion #10, Jay Klein, 2nd Jung Yee, to approve the agenda document 802.16p-99/2 as Tuesday's (11/09) agenda for PHY task group

By token vote, 25 for, 0 against, 1 abstain, Motion #10 passes.

802.16.2 MAC task group

Jung Yee, chair of MAC group for meeting #4, presented agenda for Wednesday

Motion #11, Jung Yee, 2nd Jay Klein, to accept the agenda for the MAC session per doc. 802.16m-99/02.

By token vote, 32 for, 0 against, 0 abstain, Motion #11 passes.

<u>Charge to Task Groups</u>

Roger Marks charged the task groups to stick to the approved schedules and not to accelerate if someone misses a slot. Others are counting on specific people presenting at specific times.

Roger Marks commented that all presentation files should be turned in on the flash card with descriptive names and doc numbers.

Roger Marks reviewed the room assignments for the meetings during the week.

Adjournment

Motion #12, Jung Yee, 2nd Brian Kiernan, to adjourn.

By voice vote, all for, no against, no abstains. Motion#12 passes.

14:45.

For the rest of the day, the System Requirements Task Group met.

Tuesday, November 09, 1999

The PHY and Coexistence Task Groups met separately.

Wednesday, November 10, 1999

The MAC and Coexistence Task Groups met separately.

Thursday, November 11, 1999

Discussion of call for papers and next meeting

Roger Marks conducted a joint MAC and PHY session to plan for next meeting. The discussion centered around time allocation for individual versus merged proposals.

Opening of Closing Plenary

<u>Call to Order</u>

13:10

Roger Marks called the closing plenary to order. (The agenda and foils for the closing plenary are contained in Appendix C)

<u>Approval of 802.16 Closing Plenary Agenda</u>

Roger Marks presented an agenda, which was slightly modified from the agenda that was approved at the opening plenary.

Motion # 13, Jim Mollenauer, 2nd Carl Eklund, to approve the revised agenda with an amendment to allow for the score compilation presentation after the break.

By voice vote, all for, 0 against, Motion #13 passes.

(See Appendix C for the revised agenda).

Roger Marks announced that he plans to impose Robert's Rules of Order, which doesn't count abstentions.

Announcements

Legal (Individual and Anti-Trust; IEEE Patent Copyright Policies)
Roger Marks read the rights of attendees and voting members.

Interpretation of Attendance
Scott Marin reported that attendance for the Tuesday evening session (11/09) will be interpreted as optional because only the PHY task group held a short meeting after dinner. The change in interpretation means that 75% attendance at meeting#4 requires attendance at 6 of 8 instead of 7 of 9 sessions as announced during the opening plenary. Some people may have attended 9 sessions. The report on meeting attendance is in Appendix D.

IDU/ODU (IF) Interface Committee Report (IEEE 802.16-99/10)

Jack Van der Star reported on the results of the ad hoc group.

The report recommended that 802.16 reassess standardization issues surrounding the ODU/IDU IF interface in one year.

Roger Marks declared that the IDU/ODU (IF) Ad Hoc committee has expired but encouraged Jack Van der Star to bring up the issue at a later date if appropriate.

802.16.2 Coexistence Task Group

Report
Leland Langston reported on the progress of the coexistence task group. The accomplishments include agreement in principle on a coordination process and definition of a set of recommended limits. Leland Langston reported good progress on a set of masks for antenna patterns and recommended limits for out-of-block emissions. Progress was also made in other areas of the document such as stability. Leland Langston reported disappointment in that the group did not reach agreement on a reference band plan. Leland Langston noted that good contributions on propagation models with rain fall and buildings effects had been received.

Leland Langston recommended that 802.16 establish liaison to ETSI TM4 and recommended scheduling a joint work session between the coexistence and the PHY task groups. The meeting should be as early as possible such as Tuesday at Session #5.

Timeline
Leland Langston stated a due day of about 21 Dec. for Session #5 contributions to allow time for posting and commenting.

Leland Langston indicated that the plan is to widen the frequency range for contributions, downstream power control, repeaters, and cell-to-cell links and that the group is still working toward a June 30, 2000 release date for the practice. He indicated that the call for contributions would be separate from the call for comments.

Leland Langston indicated that the coexistence group unanimously supported considering frequencies below 10 GHz. He indicated that frequencies below 10 GHz are certainly within the scope of coexistence studies and will be easy to include in the task group's scope.

Marianna Goldhammer volunteered to be a liaison from 802.16 to TM4 and indicated that she plans to attend the December '99 TM4 meeting.

Plans for next meeting
Leland Langston plans to update the coexistence timeline and post on the 802.16 web page.

802.16.1 System Requirements Task Group

Reports

George Fishel reported on the results of the system requirements task group. Since Session #2 in Denver, the group accepted two rounds of comments and created drafts 4 and 5. On Monday (11/8), the group completed comment resolution on all comments that had been submitted by the due date and voted to present draft 6 (preliminary) for approval at the 802.16 plenary. The document (currently numbered IEEE 802.16s-99/00r0) was placed the on flash card on Tuesday (11/9) morning for review.

The group voted to approve draft 6 and to forward the document to the 802.16 plenary. Two voting members, Naftali Chayat and Marianna Goldhammer, opposed forwarding the document to the 802.16 plenary and their comments are posted in doc. IEEE 802.16sc-99/**40**. They suggested delaying acceptance of the document until the document places more emphasize on certain aspects that include: the telecommuter and small-office/home-office market, the option for larger uplink capacity, asynchronous data traffic, and other points. George Fishel noted that the opposing comments will be posted on the web site.

Plans

Motion to Approve System Requirements Document

Motion #14, George Fishel, no 2nd required, to accept 802.16s0-99/6 {currently numbered IEEE 802.16s-99/00r0} as a binding document for development of the 802.16.1 air interface standard.

Motion #15, Nico van Waes, no 2nd required, to call the question.

No objection, Motion #15 passes.

Vote by token: 30 for, 2 against, Motion#14 passes.

Other motions

Motion # 16, George Fishel, no 2nd required, to maintain the system requirements task group.

Roger Marks, as the 802.16 chair, ruled that motion#16 was out of order (a motion was unnecessary) and that the chair rules that the system requirements task group will continue to exist.

Roger Marks indicated that some people have requested that the functional requirements document (IEEE 802.16s0-99/00) be sent out for a letter ballot. George Fishel indicated that he expected that the document would withstand a letter ballot and opened the floor for discussion. After some discussion, Roger Marks accepted the comments and agreed to not open the document for a letter ballot.

802.16.1 Letter of Invitation

Roger Marks read the Invitation to Contribute to session#5 (http://grouper.ieee.org/groups/802/16/docs/99/80216-99_14.pdf) with a due date of 24 December, 1999 and asked for comments.

Roger Marks asked the PHY and MAC task group chairs if the evaluation criteria fit their plans. Both task group chairs indicated yes.

802.16.1 Score Compilation Committee Report

15:05 call to order by Roger Marks.

Brian Petry presented the results. He showed the list of who responded and asked if anyone had submitted a ballot that was not on the list. Nobody indicated that their input was missing.

Brian Petry showed the MAC and PHY scores and read off the passing and failing proposals as follows:

MAC: 6,12,15 failed; 4, 5, 7, 8, 9, 10, 11, 13, 14, 16, 17 passed.

PHY: 8,13,14, 18/24, 22, 27 failed; 7,9,10,11,12,16,17,19,20,21,23,25 passed.

Brian Petry recalled that, to provide feedback for their next submissions, voting members will be able so see the detailed votes of all voters.

The reports of the evaluation are contained in the following documents:

(1) Report of MAC and PHY proposal evaluation results at Session #4, 802.16-99/12 (Brian Petry), http://grouper.ieee.org/groups/802/16/private/docs/80216-99_12.pdf.

(2) Summary of MAC and PHY proposal evaluation results at Session #4, 802.16-99/13 (Brian Petry), http://grouper.ieee.org/groups/802/16/docs/99/80216-99_13.pdf.

802.16.1 PHY Task Group

Report

Jay Klein reported on the work of the PHY Task Group and displayed the invitation to contribute to Session #5.

Motion to issue invitations for Session #5 (IEEE 802.16s0-99/6)

Motion #17, Jay Klein, no 2nd required, to invite PHY contributors (as pointed out by the scoring committee) to Session#5 for detailed presentations.

Motion #17, Jay Klein, no 2nd required, to invite PHY contributors (as pointed out by the scoring committee) to Session#5 for detailed presentations.

By Voter Token, 33 for, 0 against, Motion #17 passes.

Motion #18, Jay Klein, no 2nd required, to approve PHY Call for Contributions for Session #5

By voice, all for, 0 against, Motion #18 passes.

802.16.1 MAC Task Group

Report

Jung Yee reported that the MAC task group reviewed 14 submissions and that one submission (IEEE 802.16mc-99/15) was not presented because the authors were not present. In addition, a late submission (IEEE 802.16mc-99/18) was presented but not scored. Jung Yee presented an evaluation table for Session #5.

Motion to issue invitation for Session#5

Motion #19, Jung Yee, no 2nd required, to approve the MAC evaluation table for inclusion in session #5 802.16.1 invitation to contribute.

By voice vote, all for, 0 against, Motion#19 passes.

Motion#20, Jung Yee, no 2nd required, to invite MAC contributors (as pointed out by the scoring committee) to session #5 for a detailed submission.

By voting token, 29 for, 0 against, Motion#20 passes.

ETSI BRAN Liaison Report (IEEE 802.16lb-99/04)

Barry Lewis reported on work of ETSI TM4 and CEPT SE19, whose work is similar to the work of the IEEE 802.16 coexistence task group. The comments are contained in doc. IEEE 802.16lb-99/04 and the associated presentation (IEEE 802.16lbp-99/04).

Barry Lewis recommended an exchange of ideas between ETSI TM4 and IEEE 802.16 by appointment of liaisons both ways. Roger asked for volunteers. Jay Klein volunteered as liaison from 802.16 to ETSI BRAN. Roger Marks accepted Jay Klein's offer.

Rules Overview

Study Group Procedures

Roger Marks presented a slide titled, "Study Group Formation." Roger Marks asked for people interested in forming a study group to come forward.

> Motion#21, Brian Keirnan, 2nd Leland Langston, to create an 802.16 Working Group Study Group (WGSG) to investigate establishing air interface specifications for fixed point to multi-point Broadband Wireless Access systems operating in frequency bands below 10GHz.

Brian Keirnan displayed a slide containing the above motion and containing the following text:

The output of the study group would be a recommendation to proceed or not proceed with this effort and, if the recommendation is to proceed, a draft PAR for presentation and vote at the January 802.16 Working Group interim meeting.

Work Plan:

> Determination of appropriate frequency bands

> Establishment of community interest

> Preparation of draft PAR and Five Criteria

> Suggestions for integrating the work into the 802.16 WG

> Informal liaison with other SDOs

Roger Marks, as chair, calls the question.

By voter token, 29 for, 2 against, Motion #21 passes.

Roger Marks commented that he plans to present the idea of forming a study group at tonight's 802 Executive Committee meeting.

Roger Marks, as 802.16 chair, nominated Brian Kiernan as chair of the proposed study group and asked for such a motion.

> Motion #22, Jim Mollenauer, 2nd Ray Sanders, to approve the nomination of Brian Kiernan as chairman of the 802.16 study group on BWA below 10 GHz.

By voting token, 31 for, 1 against, Motion#22 passes.

The chair asked for any other issues regarding study groups. None came forward.

Patent policy

Fred Lucas presented and discussed the following as possible "check box" items on the document submission template:

- The individual preparing this contribution knows of patents, the use of which may be essential to the standard resulting in whole or part from this contribution.
- The individual prepares this contribution agrees to abide by the IEEE patent Policy.

> Motion #23, Fred Lucas, 2nd Brian Petry, to include the above on the cover page of the contribution to 802.16 conditional on approval by the IEEE-SA patent committee.

Motion#24, Rémi Chayer, 2nd Marianna Goldhammer, to amend Motion#23 by deleting the first check box paragraph.

Roger Marks, as chair, calls the question

By voting token, 2 for, 15 against, Motion#24 fails.

Back to discussion on Motion #23.

By voting token, 10 for, 15 against, Motion#23 fails.

Roger Marks asked that the patent procedures committee look for a successful resolution of the issue.

Call for volunteers

Roger Marks presented the list of volunteers for various positions (Appendix E). Naftali Chayat volunteered to be a liaison from 802.16 to 802.11.

Future Meetings

Leland Langston reported on the plans for Session #5, which will be an interim session held in Richardson (Dallas area), Texas on January 10 to 14, 2000. Raytheon has agreed to be the short-term banker for collection of fees. Fees must be paid in advance by check (not credit card). The fee of $140 remains firm with Raytheon planning to subsidize shortfalls if necessary. Leland Langston asked if anyone has a problem with paying in advance by check. Nobody commented. Leland Langston also indicated that Raytheon is planning to provide dinner on Wednesday night. A receipt will be provided on-site.

New Business

Cookies

Motion#25, Brian Petry 2nd Jung Yee, to request that 802 provide cookies during coffee breaks at 802 plenary meetings.

All for. 0 against, Motion #25 passes.

FCC Docket 99-327, 24 GHz NPRM

Gene Robinson announced that the FCC had released Docket 99-327 (FCC Doc. # 99-333) titled "Notice of Proposed Rulemaking – Amendment to Parts 1, 2, and 101 of the Commission's Rules to License Fixed Services at 24 GHz" and comments are due to the FCC by December 10, 1999.

Adjournment of Closing Plenary and Session#4

Motion#26, George Fishel, 2nd Rémi Chayer, to adjourn.

All for, 0 against, Motion #26 passes.

Respectfully Submitted,

Scott Marin

802.16 Secretary

Appendix A, Agendas and Chairman's Opening Plenary Presentation

Agenda for the Week

IEEE 802.16 Session #4 Agenda

Roger B. Marks, NIST

Chair, 802.16

IEEE 802.16 Working Group on Broadband Wireless Access
Session #4
November 8-11, 1999
Koloa, Kauai, Hawaii, USA

Schedule

Monday 99/11/08

08:00 - 10:30	802 Executive Committee Meeting	Kauai 2/3/4
11:00 - 12:00	802 Opening Plenary Meeting	Grand 1/2/6/7
13:00 - 14:30	**802.16 Opening Plenary**	Grand 6/7
14:30 - 22:00	**802.16 System Requirements Task Group**	Grand 6/7
18:30 - 20:00	802 Tutorial #1: Power Line Communications	Grand 2
20:00 - 21:30	802 Tutorial #2: 10 GigaBit Ethernet	Grand 2

Tuesday 99/11/09

08:00 - 20:00	**802.16.1 PHY**	Grand 6
08:00 - 18:00	**802.16.2 Coexistence**	Grand 6
18:30 - 20:00	802 Tutorial #3: Using Bluetooth v1.0A	Grand 2
20:00 - 21:30	802 Tutorial #4: not currently scheduled	Grand 2

Wednesday 99/11/10

08:00 - 18:00	**802.16.1 MAC**	Grand 6
08:00 - 18:00	**802.16.2 Coexistence**	Grand 7
18:30 - 21:30	802 Social Reception	Shipwreck Beach

Thursday 99/11/11

08:00 - 12:00	**802.16.1 PHY**	Grand 6
08:00 - 12:00	**802.16.1 MAC**	Grand 7
08:00 - 12:00	**802.16.2 Coexistence**	Kauai 1
13:00 - 17:00	**802.16 Closing Plenary**	Grand 6/7
19:00 - 23:59	802 Executive Committee Meeting	Kauai 2/3/4

Friday 99/11/12

8:00 - 12:00	802 Closing Plenary	Grand 2

Meeting shown in **Bold Face** are 802.16 meetings.
Other meetings are 802 meetings of general interest to which all 802 registrants are invited.

Opening Plenary Agenda

802.16 Session #4: Opening Plenary Meeting Agenda

Monday, November 8, 1999, 13:00-14:30

Opening of Session #4 and of Opening Plenary Meeting	Marks	13:00	
Call to Order			I
Schedule of meetings for the week			I
Presentation and Approval of 802.16 Opening and Closing Plenary Agendas			I, V
Announcements	Marks	13:10	
Registration			I
Logistics: rooms, breaks, lunches, CD-ROM distribution, etc.			I
Voting membership designation	Marin		I
Attendance list	Marin		I
Document distribution and flash ROM	Marin		I
802.16 Rules and Procedures			
Legal			
Individual and Anti-Trust			I
IEEE Patent and Copyright Policies			I
Status updates			I
Letter Ballot #1 (IEEE 802.16-99/09) passed; IEEE 802.16-99/05 approved			
Draft Outline of 802.16.1 Standard (IEEE 802.16-99/06d0)			
Approval of minutes	Marks	13:20	1
Session #3 (IEEE 802.16-99/04r1)			V
Consent agenda: To approve two Working Group decisions made at Session #3	Marks	13:22	V
Motion 2: Accept the proposed 802.16.2 milestones plan (IEEE 802.16c-99/01r0)			
Motion 5: Accept the minutes of Session #1 (IEEE 802.16-99/04r1)			
802.16.2 Report		13:25	I
Approval of agenda (http://grouper.ieee.org/groups/802/16/meetings/mtg04/coexistence.html)			V
Charge to Task Group	Marks		I
802.16.1 Report			
802.16.1 System Requirements Task Group Report	Fishel	13:35	I
Approval of Session #2 Minutes (IEEE 802.16s-99/01)			V
Approval of agenda (IEEE 802.16s-99/02)			V
802.16.1 Proposal Evaluation Form and Scoring Process (802.16-99/07)	Marks	13:45	I,D
Appointment of Ad Hoc 802.16.1 Score Compilation Committee			
802.16.1 PHY Task Group	Klein	13:00	I
Approval of agenda (IEEE 802.16p-99/02)			V,
802.16.1 MAC Task Group	Yee	14:14	I
Approval of agenda (IEEE 802.16m-99/02)			V
Charge to Task Groups	Marks	14:28	I
Adjournment of Opening Plenary	Marks	14:30	V

I=Information D=Discussion V=Vote

Chairman's Opening Plenary Presentation

IEEE 802.16 Working Group on Broadband Wireless Access (BWA)

Session #4
Opening Plenary
November 8, 1999
1pm

Acquiring Membership

- **Thereafter, voting membership in a Working Group is established by participating in the meetings of the Working Group at two out of the last four Plenary sessions.**
- **Membership starts at the third Plenary session attended by the participant.**
- **One duly constituted interim Working Group or task group meeting may be substituted for the Working Group meetings at one of the two Plenary Sessions.**

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)

Logistics

- **Continental Breakfast**
  - 7:45-8:45 am
- **Coffee Breaks**
  - 10 am coffee
  - 2:30 pm coffee
  - Cookies: Tuesday pm only
- **Lunch:** On your own
- **Social:** Wednesday, 6:30-9:30 pm
  - Food and entertainment
  - Registrants and families invited

Retaining Membership

- **Membership is retained by participating in at least two of the last four Plenary session meetings.**
- **One duly constituted interim Working Group meeting may be substituted for one of the two Plenary meetings.**
- **Some Charter members may lose membership after this meeting.**

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

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.**

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.

802.16 Session #5

- **Session #5: January 10-14, 2000**
  - Dallas, Texas
  - Host: Leland Langston

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.

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**
- **Membership in IEEE Standards Association [IEEE or CS + $10] required to participate in "Sponsor Ballot" (review drafts produced by 802.16)**
- **Complete form to vote in 802 ballots**

Future 802.16 Sessions

- March 6-9, 2000: Session #6
  - Albuquerque, New Mexico with 802
- May 1-5, 2000: Session #7
  - Date and location to be determined.
- 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

Legal and Anti-Trust

- **Any discussions that relate to the validity or cost of patent use should be avoided.**
- **Any discussions or any material relating to an ongoing litigation shall be avoided.**
- **Any discussions of pricing or issues that would violate US antitrust laws shall be avoided.**

Status Update

2) Draft Outline for 802.16.1 Standard

- **published as IEEE 802.16-99/09**
- Word format
  - Task Groups can edit

IEEE Patent Policy

- **The patent policy is set forth in <u>clause 6 </u>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)."**

Charge to Task Groups

- Complete the task on your agenda
  - on schedule
- Document it

IEEE Patent Policy (cont.)

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

- **a) 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**
- **b) 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 <u>patent holders submit a statement </u>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.

Status Update

1) Letter Ballot #1 Passed
see IEEE 802.16-99/09

- 60 Approve, 1 Do Not Approve, 1 Abstain
- Approval ratio: 60/61 = 98.4%
- Voting ratio: 62 voters out of 106 members = 58.5%

=> IEEE 802.16-99/05 is the Development Plan for the 802.16.1 Air Interface Standard

Appendix B, Report from 802 Executive Committee

802.16 PAR Renumbering Request

- **Motion:**
  - To redesignate PAR 802.16 ("Air Interface for Fixed Broadband Wireless Access Systems") as "802.16.1"
- **History:**
  - Approved by 802.16, July 8 (unanimous consent)
  - Notified SEC on July 19 of motion for Nov. 1999
- **Consistent with 802.16's other PAR (802.16.2)**

- **Approved by SEC, 99/11/08**

Proposed 802 PARs for Thursday SEC

- 802.3ae: 10 Gbit/sec Ethernet

- 802.3af: power over RJ45

- 802.15: Recommended Practice on Coexistence in 2.4 GHz ISM band
  - Letter Ballot to both 802.11 and 802.15
    - Both must approve

802.14 Status

- 802.14 is voting to disband and withdraw PARs
- Virtually unanimous
- 802.14 not meeting at this Session
- 802.14 likely to disband in March 2000
- Meeting
  - Monday 5-5:30 pm

March 2000 Elections

- **LMSC Chair Elected by EC**
  - Jim Carlo is running for re-election

- **Executive Officers appointed by Chair**
  - All of the current ones want to stay

- **Working Group Chairs and Vice Chairs elected**
  - **Chair's Term Limit: 8 Years**
    - Vic Hayes (802.11 Chair)
    - Bill Lidinsky (802.1 Chair)
  - **Roger Marks will seek re-election as 802.16 Chair**

Plenary Meeting Format

- **New format at this meeting**
  - 802 meetings in morning
  - Working Groups start at 1 pm Monday
- **Old format**
  - Working Groups start at 3 pm Monday
- **Thursday: SEC will choose March 2000 format**

- **Note: March 2000 is 20th Anniversary of 802**
  - **Celebrations planned**

International Program Fee

- **Financial Support to JTC1**

- **Discussed at SEC**

- **Thursday: SEC will vote to terminate**

IEEE 802 Standards Distribution

- **Proposals for free or low-cost availability**

  - **802 (i.e., YOU) would subsidize**

- **Tuesday: 8-9:30 pm: Discussion Forum**

Distribution of 802 CD-ROM

- **All 802 standards, including new 1000Base-T**
- **For Working Group Voting Members who register and pay at this session and are not in arrears**
- **Limited personal use license**
- **No not need to trade in previous copy**

- **Distribution**
  - **Wednesday: 2 pm - 5 pm**

  - **Thursday: 8 am - 5 pm**

Appendix C, Closing Plenary Agenda and Presentation

Closing Plenary Agenda

802.16 Session #4: Closing Plenary Meeting Agenda (Nov. 8, 1999, 13:00-17:00)

Opening	**Marks**	**13:00**	
Call to Order		**I**	
Approval of modified Closing Plenary Agenda		**V**	
Announcements	**Marks**	**13:05**	
Legal (Individual and Anti-Trust; IEEE Patent Policies)		**I**	
Other		**I**	
Ad Hoc IDU/ODU (IF) Interface Committee Report (IEEE 802.16-99/10)	**Van der Star**	**13:10**	**ID**
802.16.2 Coexistence Task Group	**Langston**	**13:20**	
Report		**I**	
Plans for next meeting		**I**	
Motions		**V**	
802.16.1 System Requirements Task Group	**Fishel**	**13:40**	
Report		**I**	
Plans		**I**	
Motion to approve "802.16.1 Functional Requirements, Rev. 0" (IEEE 802.16s0-99/6)		**V**	
Other motions		**V**	
802.16.1 Letter of Invitation	**Marks**	**14:10**	**I**
BREAK		**14:30**	
802.16.1 Score Compilation Committee Report	**Petry**	**14:15**	**I**
802.16.1 PHY Task Group	**Klein**	**14:50**	
Report		**I**	
Motion to issue invitations for Session #5		**V**	
Other motions		**V**	
Plans		**I**	
802.16.1 MAC Task Group	**Yee**	**15:20**	
Report		**I**	
Motion to issue invitations for Session #5		**V**	
Other motions		**V**	
Plans		**I**	
ETSI Liaison Report (IEEE 802.16lb-99/04)	**Lewis**	**15:50**	**I**
Study Groups	**Marks**	**16:00**	**V**
Patent Procedures	**Marks**	**16:20**	**ID**
Officials and Call for Volunteers	**Marks**	**16:25**	**ID**

Chair's Closing Plenary Presentation

IEEE 802.16
Working Group on
Broadband Wireless Access
(BWA)

Session #4
Closing Plenary
November 1, 1999
1pm

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 Patent Policy (cont.)

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

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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.**

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)

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.

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.**

Legal and Anti-Trust

- **Any discussions that relate to the validity or cost of patent use should be avoided.**
- **Any discussions or any material relating to an ongoing litigation shall be avoided.**
- **Any discussions of pricing or issues that would violate US antitrust laws shall be avoided.**

Future 802.16 Sessions

- March 6-9, 2000: Session #6
  - –Albuquerque, New Mexico with 802
- May 1-5, 2000: Session #7
  - –Date and location to be determined.
- 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

Procedural Issues

⟨ **All motions in writing.**

⟨ **No abstentions**

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)."**

Appendix D, Attendance at Session #4

802.16 meeting #4 was an 802 plenary session. The 802.16 Session was attended by 107 people. Attendance of at least 6 of 8 sessions is required for the 75% criteria. The Tuesday evening session was declared optional; therefore, some people may have attended 9 sessions. Please contact the 802.16 secretary if you feel your attendance has been recorded incorrectly.

The following 90 people met the 75% criteria by attending at least 6 sessions:

Arefi, Reza
Arrakoski, Jori
Arunachalam, Arun
Bilotta, Thomas
Boucher, Luc
Chayat, Naftali
Chayer, Rémi
Child, Skyler
Currivan, Bruce
Dale, Mark
Davidow, Cliff
De, Parthapratim
Deshpande, Rahul
Doucet, Keith
Durand, Roger
Eklund, Carl
Elwailly, Farid
Evans, Allan
Falconer, David
Fishel, George
Foerster, Jeffrey
Foster, Robert
Garrison, G.
Germon, Richard
Goldhammer, Marianna
Guillemette, Phil
Hadad, Zion
Hatim, Baya
Hebsgaard, Anders
Holyoak, Joel
Huff , Ronald
Hunter, Wayne
Iizuka, Masataka
Jasper, Steve
Jevremovic, Vladan
Jones, James
Jorgensen, Jacob
Kandala, Srinivas
Kawabata, Takashi
Khanna, Amarpal
Kiernan, Brian
Kim, Namil
Klein, Jay
Kolze, Thomas
Kostas, Demosthenes
Langston, J.
Lazaris-Brunner, Ken

Leiba, Yigal
Lewis, Barry
Liebetreu, John
Lindh, Lars
Lindsey, Mark
Lindsey, Stacy
Lu, Willie
Lucas, Fred
Marin, J.
Marks, Roger
Mertsching, Marcus
Mollenauer, James
Monk, Anton
Park, Yunsang
Petry, Brian
Pleasant, Wayne
Quinn, Patrick
Ran, Moshe
Ribner, David
Robinson, Gene
Sanders, Ray
Santacesaria, Claudio
Schafer, David
Shahar, Menashe
Shirali, Chet
Stambaugh, Karl
Struhsaker, Paul
Triebes, Karl
Tzerefos, Polychronis
Unal, Fatih
Van der Star, Jack
van Waes, Nico
Varma, Subir
Wang, Chao-Chun
Wang, Judith
Ward, Robert
Whitehead, Philip
Williams, Tom
Winslow, Steve
Yee, Jung
Zhang, Genzao
Zhang, Wei
Zuniga, Juan

The following 17 people attended at least 1 but less than 6 sessions:

Asami, Shigeyuki
Baseghi, Behshad
Blasing, Ray

Copeland, Greg
Fake, Steve
Fijolek, Jack
Fisher, John
Fukuzawa, Keiji
Izadpanah, Hossein
Kang, Inchul
Kasslin, Mika
Kemper, Ron
Koren, Doron
Kowalski, John
Serizawa, Mutsuma
Takanashi, Hitoshi
Woodhead, David

The following person entered a business card but did not initial attendance at any session

Bandali, Bruce

Appendix E, 802.16 Officials as presented by Roger Marks at the closing plenary
802.16 Officials

      802.16

Chair:	Roger Marks
Vice Chair:	Lou Olsen
Secretary:	Scott Marin

802.16.1

Chair:	Roger Marks
Co-Editor:	Jim Mollenauer
Co-Editor:	Brian Petry

      MAC

Chair:	Jung Yee
Vice Chair:	Carl Eklund
Secretary:	Baya Hatim
Editor:	Phil Guillemette

      PHY

Chair:	Jay Klein
Vice Chair:	John Liebetreu
Secretary:	Nico van Waes
Editor:	[candidate identified]

802.16.2

Chair:	Leland Langston
Vice Chair:	Keith Doucet
Secretary:	Reza Arefi
Co-Editor:	Erol Yurtkuran
Co-Editor	Rémi Chayer

802.16.3 (Study Group)

Chair:	Brian Kiernan

Liaison

ITU-R	José Costa
ETSI BRAN	?
802.11	?
802.15	?