



Project	IEEE 802.16 Broadband Wireless Access Working Group	
Title	Minutes of 802.16 Session #5	
Date Submitted	2000-01-26 (Rev. 1: 2000-01-26; Rev. 2: 2000-03-06)	
Source	Scott Marin 802.16 Secretary	Voice: 972-852-7109 Fax: 972-852-6760 E-mail: smarin@spectrapoint.com
Re:	802.16 Session #5 (Richardson, Texas, U.S.A., 10-14 January 2000)	
Abstract		
Purpose		
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 802.16 Session #5
A Plenary Session of the IEEE 802.16
Working Group on Broadband Wireless Access
Clarion Hotel, Richardson, Texas
10-14 January, 2000**

Monday, January 10, 2000, Opening Plenary

Opening of Session #5 and of Opening Plenary Meeting

Call To Order

13:40 call to order by Roger Marks, Chairman of 802.16.

Roger Marks' opening plenary presentation is in Appendix A.

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).

Motion #1, George Fishel, 2 nd Brian Kiernan, to approve the agenda.

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

Approval of the Minutes from Meeting #4

Scott Marin, 802.16 secretary, noted one correction had been identified in the draft Session #4 minutes. The minutes should be amended such that the reference to 802.16sc-99/16 becomes 802.16sc-99/40.

Motion#2, Jung Yee, 2 nd Brian Kiernan, to approve the Session #4 minutes (IEEE 802.16-99/15) as amended.
--

By voice vote, no objection, Motion#2 passes.

Announcements

Welcome and Introductions

Roger Marks welcomed everyone to Richardson, Texas and the 802.16 meeting. Jim Carlo, 802 Chairman, also welcomed everyone to the meeting and noted that in the future he'd like to have a broadband wireless link into his home running over the future 802.16 standard.

Roger Marks reviewed the 802 project authorization request (PAR) process. Roger Marks also summarized the sponsor ballot process that will be used to approve a draft standard.

Registration, Logistics, and Wednesday Dinner Information

Leland Langston, meeting host, welcomed everyone to Richardson and explained registration and logistics.

Attendance Book, Voter Stickers, Flash Memory Card, Bulletin Board

Scott Marin, 802.16 secretary, introduced the attendance book and voter sticker (token) processes and noted that that attendance at 7 of 9 meeting intervals would be required to meet the 75% criteria. The report on attendance for Session #5 is in Appendix D.

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. George Fishel will keep the flash memory master configuration. Files should be submitted to George.

Voting Membership

Roger Marks pointed out that the Sub10 group is an 802 "study group" and anyone present can vote. For 802.16 working groups and subsidiaries, only members can vote, make motions, and second motions.

Roger Marks reviewed the rules to attain, retain, and lose voting membership.

Quorum

Roger Marks noted that a quorum for 802.16 requires that at least half of the 58 voting members be present (quorum requirements do not apply at 802.16 LMSC Plenary Sessions).

Legal

Roger Marks explained that within 802.16 participants represent themselves and not their companies.

The sponsor ballot pool was initiated by 802.16 a few weeks ago (see link from 802.16 web site). Anyone can join, but only members of the IEEE Standards Association are eligible to join the sponsor ballot pool.

Roger Marks noted that 802.16 doesn't have specific rules (although he's working on them) but in the case of ambiguity the 802.3 rules will apply.

Individual Anti-Trust

Roger Marks cautioned attendees to avoid discussions on the validity or cost of patents, ongoing litigation, or issues that violate U.S. antitrust laws. (See slide in Appendix A presentation)

IEEE Patent and Copyright Policy

Roger Marks read the IEEE patent policy (see slide in Appendix A presentation).

Roger Marks, as 802.16 chairman, requests that known patent holders submit a statement that either the patent does not apply to the standard or that licenses will be made available without compensation or under reasonable rates, terms, and conditions. (see slide in Appendix A presentation).

Roger Marks noted several issues with the patent policy and with implementation of the policy within 802.16. Scott Marin volunteered to work on the issues with Roger Marks and the members of the ad hoc patent committee.

Chair's Status Report

Roger Marks summarized the mission of 802.16.

802.16.2 Report on Coexistence Task Group

Leland Langston, chairman of the coexistence task group, noted plans to review the draft coexistence document (IEEE 802.16c-99/02r1) in the joint PHY/Coexistence session scheduled following the opening plenary. Only one set of comments was received on the call for comments. Leland Langston noted that the coexistence group plans to take a vote within the task group to get consensus for submission of the document to 802.16 at the March 00 meeting.

802.16.1 Report

Roger Marks reported that the motion to renumber the PAR from 802.16 to 802.16.1 was approved by the 802 executive committee and he expected IEEE -SA approval at their next meeting in late January.

Roger Marks reported that Lou Olsen has agreed to lead the 802.16.1 effort. Jim Mollenauer and Brian Petry have agreed to be editors.

Lou Olsen discussed agendas, for Thursday. John Liebetreu and Ray Sanders will present tutorial papers.

802.16.1 System Requirement

George Fishel commented that the functional requirements document (IEEE 802.16s-99/00r1) has been published due to the good work of Brian Petry as editor.

The group publicly thanked Brian Petry.

802.16.1 Proposal Evaluation Form and Scoring process.

Roger Marks commented that the web page contains the evaluation spreadsheet and explained how to fill out the spreadsheet. Brian Petry announced that the deadlines for submitting votes is 5:30 p.m. Thursday (1/13) if on floppy and 6:00 a.m. Friday (1/14) if by e-mail. Brian Petry will post the deadlines on bulletin board.

802.16.1 PHY Task Group,

Jay Klein noted that two proposals, several documents, and an agenda have been posted.

Roger Marks asked for a motion to approve the PHY task group agenda at (<http://grouper.ieee.org/groups/802/16/doc/meetings/mtg05/phy.html>)

Motion #3, Ray Sanders, Leland Langston, to approve the PHY agenda.

By voice, all for, Motion #3 passes.

802.16.1 MAC Task Group

Jung Yee reviewed the MAC agenda (IEEE 802.16.1m-00/01)

Motion#4, Brian Petry, Ray Sanders, to approve the MAC agenda.

By voice vote, all for, Motion #4 passes.

Roger Marks encouraged the groups to adhere to the approved agendas.

Sub10 Study Group Report

Roger Marks encouraged the Sub10 study group to submit a draft PAR for approval at Friday's Plenary.

Brian Kiernan, 802.16 Sub10 study group chairman, summarized the agenda for the Sub10 study group (802.16sub10-00/01).

Charge to groups.

Roger Marks charged the task groups (see foil in Appendix A)

Liaison Reports

ETSI BRAN Liaison

Jay Klein presented the status of ETSI BRAN. He mentioned but did not present a liaison letter from ETSI BRAN to IEEE 802.16. This letter was later published as 802.161-00/02.

ITU-R

Jose Costa presented a summary of document 802.16li-99/02 of the March '99 meeting of JRG8A-9B. See the report 802.161-00/02.

Other Liaison Issues

Demosthenes Kostas, whose company is a member of the Wireless Communications Association International (WCA), commented that the WCA desires to encourage liaison between 802.16 and WCA. Demosthenes Kostas read the WCA charter, which includes operators and providers. Demosthenes Kostas noted that he has been appointed by WCA as a liaison from WCA to 802.16.

Session#7 Hosting Proposal

Roger Marks summarized upcoming the 802.16 sessions (see Appendix A).

Yunsang Park from Hughes Network Systems, presented a proposal (Appendix B) to host meeting #7 in Gaithersburg Maryland.

Motion#5, Gene Robinson, 2nd Brian Kiernan, to accept the proposal made by Yunsang Park to host Meeting #7 in Gaithersburg Maryland, provided that satisfactory arrangements can be made with the hotel.

By voice, all for, Motion#5 passes.

Adjournment of Opening Plenary

Motion#6, Brian Kiernan, 2nd Gene Robinson, to adjourn the opening plenary.

By voice, all for, Motion#6 passes.

Friday, January 15, 2000, Closing Plenary

Opening Remarks

Call to order

8:10 Roger Marks, called the meeting to order.

(See Appendix C, for the closing plenary agenda and chairman's presentation.)

Approval of Closing Plenary Agenda

Roger Marks presented the agenda.

The agenda was approved without objection.

Announcements

Legal

Roger Marks read the IEEE Individual Anti-Trust and the IEEE Patent Policies.

Roger Marks, as 802.16 Chairman, declared that IEEE clause 6.3.2 is invoked at this time. The clause requests that known patent holders submit a letter that complies with clause 6.3.2.

Secretary

Scott Marin announced that the plenary is being taped to improve the accuracy of the minutes. Regarding Ethernet LAN connectivity at meetings, Naftali Chayat, Steve Winslow, Brian Petry, and George Fishel volunteered to help.

Other

Regarding the Session #5 logistics, Roger Marks proposed resolutions (1) "To thank Leland Langston and Crosspan, A Raytheon Company for hosting IEEE 802.16 Session #5" and (2) "To authorize the Chair to send a letter of thanks to Leland Langston." The resolutions were approved without objection.

Roger Marks summarized the schedule for upcoming meetings (See Appendix C).

Roger Marks, ask for volunteers who are interested in a BWA conference in London, 16-17 May 2000. Jay Klein and Scott Marin noted interest. Roger Marks will send information to the interested people.

802.16.2 Coexistence Task Group

Leland Langston, chairman of the coexistence task group, discussed a revised timeline that submits the draft practice to the IEEE by about 14 July 2000. Jim Carlo, 802 chairman, commented on the importance of the letter ballot process, highlighting the importance of Session #6 and the importance of the sponsor ballot approval by the 802 executive committee.

Roger Marks commented about the ballot pool process. Interested people are required to register per the instruction on the web page [<http://www.ieee802.org/16/involve.html>].

Leland Langston commented that the coexistence group completed and approved a set of minutes that will be submitted to the 802.16 secretary.

802.16.1 Report

Lou Olsen, chairman of the 802.16.1 group, present a summary and thanked all the participants.

802.16.1 Score Compilation Committee Report

Brian Petry presented the results of the MAC and PHY proposal evaluation. Brian Petry showed the list of files he received and asked if anybody's file was missing. No one indicated that files were missing. Brian Petry commented that the results were partially complete because e-mail problems prevented receipt of evaluations after 10:00 p.m. on 1/13. E-mail ballots from two peoples he knew of had been left out the partial results but they will be included in the final results.

Partial MAC averages:

/02(Sater) average 7.1, and /09 Mollenauer 7.3, Both proposals met the criteria.

Partial PHY averages:

/05 Williams 3.6, /02 Foerster 7.1, /04 Klein 7.4, The Foerster and Klein proposals met the criteria.

Brian Petry will post the final results as quickly as possible.

Based on partial results, two MAC (/02 and /09) and two PHY (/02 and /04) proposals will be invited back for Session #6.

Lou Olsen noted that the two groups representing the surviving proposals have agreed to meet together before the next meeting in an attempt to resolve differences.

Lou Olsen noted that the plan for the next meeting is to pull together a draft working document.

802.16.1 Letter of Invitation

Roger Marks showed a draft invitation for Session #6 that was based on the invitation for Session #5. (The final approved version for Session #6 is document 802.16-00/04).

Motion#7, Jung Yee, 2nd Carl Eklund, to issue the letter of invitation as presented.

Bill Myers suggested a friendly amendment that clarified the date for voting as "*scores due on March 9*". Jung Yee and Carl Eklund accepted the amendment.

Jay Klein proposed a delay of 1 week for contribution due date. Jung Yee and Carl Eklund accepted the amendment.

Brian Petry proposed a revision that allowed modifications to the outline as proposers deem necessary. Jung Yee and Carl Eklund accepted the modifications.

Glen Sater proposed a revision to the deadline for proposal improvement contributions. Jung Yee and Carl Eklund agreed.

Roger Hammons proposed to add the word "slightly" in front of the word "outline". Jung Yee and Carl Eklund accepted the amendment.

Brian Kiernan, proposed to add text that changed the invitation to add a note as follows "[note: this category is not an average over other categories but is specified directly by the scorer]. Jung Yee and Carl Eklund accepted.

Motion#8, Carl Stambaugh, 2nd Phil Guillemette proposed to do delete the sentence, '*Submitters receiving an average score of 7 or better (out of 10) in the category entitled "Overall" [note: this category is not an average over other categories but is specified directly by the scorer] will be invited to submit a detailed contribution for Session #7 (May 1-5, 2000, Washington, DC, USA).*'

By voting token, 10 for , 5 against, Motion#8 passes.

To re-cap, the paragraph in the invitation letter changed from:

Each of the Voting Members of 802.16 is eligible to participate in the evaluation, if and only if present, with scores due on March 9. Submitters receiving an average score of 7 or better (out of 10) in the category entitled "Overall" [note: this category is not an average over other categories but is specified directly by the scorer] will be invited to submit a detailed contribution for Session #7 (May 1-5, 2000, Washington, DC, USA). Scores in the remaining categories will be used for feedback to the proposers but will not directly affect the outcome.

to:

Each of the Voting Members of 802.16 is eligible to participate in the evaluation, if and only if present, with scores due on March 9. Scores will be used for feedback to the proposers but will not directly affect the outcome.

By voting token 19 for, 1 against, Motion#7 as amended passes.

Resolution

Roger Marks proposed a resolution “To express 802.16’s appreciation for the hard work and dedication of all those who cooperated to present consolidated 802.16.1 proposals and to offer thanks and congratulations on their continued spirit of openness.” The resolution carried without objection.

802.16.1 PHY Task Group

Jay Klein, PHY task group chairman, presented a summary of the meetings.

Jay Klein presented a draft call for contributions on modeling, unwanted emissions, and other parameters with submission due by 29 February 2000.

Motion#9, Jay Klein, 2nd Jung Yee, to approve PHY call for contribution for Session #6 subject to editorial corrections.

By voice, all for, Motion#9 passes.

802.16.1 MAC Task Group

Jung Yee, MAC task group chairman, reported on the progress of the MAC task group.

Jung Yee presented a draft call for contributions on MAC modeling.

Motion#10, Jung Yee, 2nd Jay Klein, to approve the draft call for contributions on MAC modeling subject to editorial revisions.

By voice, all for, Motion#10 passes.

Sub 10 Study Group

Report

Brian Kiernan, chairman of the Sub10 study group, noted that draft minutes are on the flash card. About 90 people participated. Presentations were made by Andrew Kreig, WCA President, and by Industry Canada representatives.

The study group reviewed and approved the draft PAR by 47 for, 0 against, and one negative comment. A similar vote was recorded for the Five Criteria. The negative comment, which is included in the Sub 10 Study Group minutes, has to do with the scope of the PAR being too nebulous and too broad.

Brian Kiernan reviewed the proposed PAR and Five Criteria (80215sub10-00_02r2) and noted that the PAR is for a new standard rather than an amendment to 802.16.1.

Brian Kiernan also showed an appendix that lists all participants (123 people representing 79 companies) who were at the meeting or have shown interest.

Motion to Forward PAR

Motion #11, Brian Kiernan, 2nd Demosthenes Kostas, that the IEEE 802.16 Working group establish air interface specifications for fixed point to multi-point broadband wireless access systems operating in frequency bands as specified in the proposed PAR (802.16sub10-00/02r2).

Motion #12, Brian Petry, 2nd Erol Yurtkuran, moved to withdraw motion #11.

By token, 10 for, 7 against, Motion passes#12 passes and Motion#11 is withdrawn.

Motion #13, Brian Kiernan, 2nd Demosthenes Kostas, that the PAR described in contribution 820.16sub10-00/02r2 be accepted and forwarded to the IEEE 802 executive committee.

Motion#14, Jay Klein, 2nd Nico van Waes, to amend the draft PAR to change the upper frequency from 11 GHz to 10 GHz.

After discussion, Jay Klein and Nico van Waes withdrew Motion#14.

By token, 18 for, 1 against, Motion#13 passes.

Charge to task groups.

Roger Marks asked that all participants that intend to submit documents related to Session #5 should submit them to the secretary before leaving the meeting.

Liaison

ETSI TM4

802.16 has received a liaison letter from TM4. Marianna Goldhammer is the liaison from 802.16 to TM4. Leland Langston and Marianna Goldhammer will work with Roger Marks to draft a liaison letter indicating that 802.16 is happy to exchange information.

ETSI BRAN

Roger Marks presented a liaison letter from ETSI BRAN (802.16-00/02). Jay Klein has been appointed by ETSI BRAN as liaison to 802.16. (802.16 had previously appointed Jay Klein as liaison from 802.16 to ETSI BRAN). Roger Marks proposed that an ad hoc committee draft a reply to be sent to voting members for comment within two weeks. Gene Robinson, Demosthenes Kostas, Jay Klein, Naftali Chayat, Jung Yee, Carl Eklund volunteered on the ad hoc committee.

Patent Procedures

Roger Marks displayed a paper by Thomas Wettach, an IEEE lawyer, about the IEEE Patent Policy and highlighted several points. Jim Carlo, 802 Chairman, had cautioned Roger Marks that the Wettach paper is personal opinion and not necessarily the official view of the IEEE.

Roger Marks noted that there are several problems that need to be solved.

The following people volunteered on the Patent Procedures Committee: Demosthenes Kostas, Scott Marin, Brian Kiernan, Ray Sanders, and Fred Lucas.

Roger Marks will to distribute Mr. Wettach's paper provided Jim Carlo agrees. Anyone who wants to can send Roger Marks an e-mail requesting the paper.

Brian Kiernan introduced issues of copyrights on contributions.

Adjournment of Closing Plenary and Session #5

Roger Marks commented that everything is going extremely well in the working group. So far every meeting has set a new record for how well 802.16 is doing and Roger Marks challenged the group to keep on that track.

Motion#15, Brian Kiernan, 2nd Gene Robinson, to adjourn

By voice, all for, Motion#15 passes.

12:06

Respectfully,

Scott Marin

802.16 Secretary

Appendix A, Agendas and Chairman’s Opening Plenary Presentation

Agenda for the Week

	Morning	Afternoon	Evening
Mon		802.16 Opening Plenary <i>Enterprise IV/V</i> 13:30-15:45 Chair: Roger Marks PHY/Coexistence Joint Session <i>Enterprise IV/V</i> 16:00-17:30	<u>Sub10 Study Group</u> <i>Enterprise IV/V</i> 19:00-22:00 Chair: Brian Kiernan
Tue	802.16.1 PHY <i>Enterprise I</i> Topic: Evaluation and Modeling 08:00-12:00 Chair: Jay Klein	802.16.1 MAC <i>Enterprise I</i> Topic: Evaluation and Modeling 13:00-16:30 Chair: Jung Yee	<u>Sub10 Study Group</u> <i>Enterprise IV/V</i> 19:00-22:00 Chair: Brian Kiernan
	<u>802.16.2 Coexistence</u> <i>Meyer Room</i> 08:00-17:00 Chair: Leland Langston		
	<u>Sub10 Study Group</u> <i>Enterprise IV/V</i> 08:30-17:30 Chair: Brian Kiernan		
Wed	802.16.1 PHY <i>Enterprise IV/V</i> Topic: Proposal Presentations 08:00-12:30 Chair: Jay Klein	802.16.1 MAC <i>Enterprise IV/V</i> Topic: Proposal Presentations 13:30-17:30 Chair: Jung Yee	<u>Dinner</u> hosted by Crossspan, A Raytheon Company Javier’s 6:30 pm (buses leave at 6 pm)
		<u>802.16.2 Coexistence</u> <i>Meyer Room</i> 08:00-17:00 Chair: Leland Langston	
Thurs		802.16.1 PHY+MAC <i>Enterprise IV/V</i> Topic: Proposal Discussion and Suggestions 08:00-17:00 Chair: Lou Olsen 802.16.2 Coexistence <i>Meyer Room</i> 08:00-17:00 Chair: Leland Langston	<u>Tutorial Open Forum</u> <i>Enterprise IV/V</i> 19:00-21:30 Chair: Roger Marks
Fri		802.16 Closing Plenary <i>Enterprise IV/V</i> 08:00-11:30 Chair: Roger Marks	

802.16 Session #5: Opening Plenary Meeting Agenda

Monday, January 10, 2000, 13:30-15:15

Opening of Session #5 and of Opening Plenary Meeting	Marks	13:30	
Call to Order			I
Schedule of meetings for the week			I
Presentation and Approval of 802.16 Opening and Closing Plenary Agendas			I, V
Approval of Minutes	Marks	13:39	
Session #4 (IEEE 802.16-99/15)			V
Announcements		13:40	
Welcome & Introduction	Marks		I
Registration	Langston		I
Logistics: rooms, breaks, etc.	Langston		I
Wednesday dinner information and count	Langston		I
Voting tokens	Marin		I
Attendance list	Marin		I
Document distribution and flash ROM	Marin		I
Administrative Announcements	Marks		I
Voting membership	Marks		I
Quorum	Marks		I
Legal	Marks		I
Individual and Anti-Trust	Marks		I
IEEE Patent and Copyright Policies	Marks		I
Rules and Procedures	Marks		I
Chair's Status Report	Marks		I
802.16.2 Report	Langston	14:10	I
Approval of agenda			V
802.16.1 Report	Olsen	14:25	
802.16.1 System Requirements Task Group Report	Fishel	14:28	I
Publication of Functional Requirements (IEEE 802.16s-99/00r1)			
Plans			
802.16.1 Proposal Evaluation Form and Scoring Process	Marks	14:30	I
Ad Hoc 802.16.1 Score Compilation Committee			
Scoring procedures	Petry		I
802.16.1 PHY Task Group	Klein	14:35	I
Final approval of agenda			V
802.16.1 MAC Task Group	Yee	14:50	I
Final approval of agenda			V
Sub10 Study Group Report	Kiernan	15:05	I
Agenda Approval			V
Charge to Task Groups	Marks	15:18	I
Liaison Reports			
ETSI BRAN	Klein	15:20	I
ITU-R	Costa	15:25	I
Session #7 Hosting Proposal	Park	15:35	I,V
Adjournment of Opening Plenary	Marks	15:45	V

I=Information D=Discussion V=Vote

Chairman's Opening Plenary Presentation

<p>IEEE 802.16 Working Group on Broadband Wireless Access (BWA)</p> <p>Session #5 Opening Plenary January 10, 2000 1:30 pm</p>	<p>Resources</p> <ul style="list-style-type: none"> • Web Site: <ul style="list-style-type: none"> • http://grouper.ieee.org/groups/802/16/ • Awaiting: <ul style="list-style-type: none"> – http://www.ieee802.org/16 • http://nwest.nist.gov • Reflector <ul style="list-style-type: none"> – Sign up on web – Read archives on web
<p>Session Opening</p> <ul style="list-style-type: none"> • 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 IEEE 802.16-99/15 (Minutes of Session #4) 	<p>Host Company</p> <ul style="list-style-type: none"> • Crosspan, A Raytheon Company • Leland Langston, Host <ul style="list-style-type: none"> – Registration – Logistics – Dinner
<p>Welcome</p> <ul style="list-style-type: none"> • Large crowd (possible record) • Many new participants • 802.16 Culture (ala IEEE 802 culture) <ul style="list-style-type: none"> • Engineering Membership • Seeking Technical Consensus • Open (even by 802 standards) • Procedural and Fair • Contribution-Driven • 802 is extremely successful <ul style="list-style-type: none"> – 802 is following the model – excellent record of progress 	<p>Secretary's Announcements</p> <ul style="list-style-type: none"> • J. Scott Marin • Voting tokens • Attendance list • Document distribution <ul style="list-style-type: none"> – Flash ROM
<p>Basic Process</p> <ul style="list-style-type: none"> • PAR: Project Authorization Request <ul style="list-style-type: none"> – 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 <ul style="list-style-type: none"> – Working Group Letter Ballot • Sponsor Letter Ballot <ul style="list-style-type: none"> – Reviews draft – Open to interested individuals 	<p>Attendance List</p> <ul style="list-style-type: none"> • Participation recorded at each "meeting interval" (morning/afternoon/evening) <ul style="list-style-type: none"> – 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 <ul style="list-style-type: none"> – voting credit for presence at either • Attendance is public record <ul style="list-style-type: none"> – 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
- 8 Potential Members
 - Become members if attending Session #6
- 80 Prospective Potential Members
 - Will become potential members if participating in Session #5
 - 20 preregistered for Session #5

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
 - Hope to debut this week
- 802.3 Rules will apply in case of ambiguity

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.

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.

802.16 Patent Procedures

Intend to work on these this week.

Call for interest.

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 802.16c-99/01r1)**
- **Draft due to Working Group Letter Ballot, March 2000**
- **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: January 27 (exp.)
- Functional Requirements Published
- Lou Olsen appointed to lead 802.16.1
- Brian Petry and Jim Mollenauer: editors
- Jung Yee: MAC Task Group
- Jay Klein: 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 MAC Proposals (both merged)
 - 3 PHY Proposals (2 merged)

Sub10 Study Group

- Approved by 802.16 on November 11 Session #4.
- Formally created by IEEE 802 SEC
- 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 Kieman (appointed by 802.16 Chair/confirmed by 802.16)

Sub10 Study Group Issues

- All present can vote in Study Group
- Write a PAR
 - Approve by vote
 - Present for vote at Closing Plenary
 - Due to 802 SEC: Feb. 4
- Key issues:
 - Will this be a new standard or an amendment (supplement) to 802.16.1?
 - Will there be a new 802 Working Group?
 - Will it share the 802.16.1 MAC?

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

- March 6-9, 2000: Session #6
 - Albuquerque, New Mexico with 802
- May 1-5, 2000: Session #7
 - Washington DC area
- 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

802.16 Session#7 Proposal

- May 1-5, 2000: Session #7
 - Washington DC area
- Proposal by Yunsang Park
 - Gaithersburg, Maryland
 - Hughes Network Systems to host

Adjournment

- Motion to Adjourn
- PHY/Coexistence Joint Session beginning in 15 minutes
- Sub10 Study Group at 7:00 pm

Appendix B, Session#7 Meeting Proposal, Yunsang Park, Hughes Network Systems

Proposal for the location of the Session 7

Yunsang Park
Hughes Network Systems

Hotel and Location

- Location: Hilton Gaithersburg
 - About 30 min. distance from Washington National Airport (airport shuttle: \$25)
 - About 35 min. distance from Washington Dulles Airport (airport shuttle : \$30)
- Room Rate: \$59 per day
 - same for single, double, or triple occupancy
 - continental breakfast will be included

Reservation

- 80 guest rooms are reserved on April 30-May 4, 2000.
- Each individual will be responsible for making their own reservation by calling
- Reservation dead line:
- Any reservation received after this date will be honored on a space available basis (same rate)
- 24 hours prior cancellation required

Registration

- Need more negotiation with hotel
- Estimated registration fee (100 basis):
 - 4*(morning breaks)+4*(afternoon break)=\$4000
 - 5 days meeting rooms = \$750*5 = \$3750
 - Projections and etc. (business center) = \$2250
 - So, probably, about \$100 per person (?)
- Surplus or shortfall will be managed with the same way with session 5

Host

- One night dinner will be served by HNS
 - Wednesday or Thursday according to the schedule

Appendix C, Closing Plenary Agenda and Presentation

802.16 Session #5: Closing Plenary Meeting Agenda

Friday, January 14, 2000, 08:00-11:30

Opening Marks	08:00		
Call to Order			I
Approval of modified Closing Plenary Agenda			V
Announcements	Marks	08:05	
Legal (Individual and Anti-Trust; IEEE Patent Policies)			I
Secretary	Marin		I
Other			I
802.16.2 Coexistence Task Group	Langston	08:10	
Report			I
Plans			I
Motions			V
802.16.1 Report	Olsen	08:30	I
802.16.1 Score Compilation Committee Report	Petry		I
802.16.1 Letter of Invitation	Marks		I
Resolution	Marks		D,V
802.16.1 PHY Task Group	Klein	08:45	
Report			I
Plans			I
802.16.1 MAC Task Group	Yee	09:00	
Report			I
Plans			I
Sub 10 Study Group	Kiernan	09:15	V
Report			I
Motion to forward PAR			V
Other motions			V
Plans			I
Schedule for Session #6	Marks	09:45	D
Break		10:00	
Liaison	Marks	10:15	
ETSI BRAN Liaison Letter & Response	Marks/Klein		I,D,V
ETSI TM4 Liaison Response	Marks/Langston		D,V
Patent Procedures	Marks	10:45	D,V
New Business		11:15	I,D
Adjournment of Closing Plenary and Session #5	Marks	11:30	V

I=Information D=Discussion V=Vote

Chair's Closing Plenary Presentation

<p>IEEE 802.16 Working Group on Broadband Wireless Access (BWA)</p> <p>Session #5 Closing Plenary January 14, 2000 8:00 am</p>	<p style="text-align: center;">IEEE Patent Policy</p> <ul style="list-style-type: none"> - 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)."
<p style="text-align: center;">Session Opening</p> <ul style="list-style-type: none"> • Motion to Approve 802.16 Closing Plenary Agenda 	<p style="text-align: center;">IEEE Patent Policy (cont.)</p> <p>This assurance shall be a letter that is in the form of either</p> <ul style="list-style-type: none"> 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
<p style="text-align: center;">Individuality</p> <ul style="list-style-type: none"> • 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. 	<p style="text-align: center;">IEEE Patent Policy (cont.)</p> <p>Clause 6.3.2 of the IEEE Standard's Operations Manual Through the Working Group, the sponsor chair shall request that known patent holders submit a <u>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.</p>
<p style="text-align: center;">Legal and Anti-Trust</p> <ul style="list-style-type: none"> • 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. 	<p style="text-align: center;">Secretary's Announcements</p> <ul style="list-style-type: none"> • Scott Marin

Hosts

- **Leland Langston**
- **Crosspan, A Raytheon Company**

Resolution (Proposed)

- **To thank Leland Langston and Crosspan, A Raytheon Company for hosting IEEE 802.16 Session #5**
- **To authorize the Chair to send a letter of thanks to Leland Langston**

Future 802.16 Sessions

- **March 6-9, 2000: Session #6**
–Albuquerque, New Mexico with 802
- **May 1-5, 2000: Session #7**
–Washington DC area
- **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

Speaking Invitation

- **Broadband Wireless Access conference**
- **16-17 May, 2000**
- **London**
- **Volunteers?**
–Scott Marin, tentatively

802.16.2

- Coexistence of Broadband Wireless Access Systems**
- Leland Langston, Chair**

802.16.1

- Lou Olsen
- Score Compilation Report
 - Brian Petry
- Letter of Invitation
 - Roger Marks

802.16.1

- Letter of Invitation
- Move: To issue the Letter of Invitation to the authors of:
 - 802.16.1mc-00/01
 - 802.16.1mc-00/07
 - 802.16.1pc-00/02
 - 802.16.1pc-00/09

Resolution (proposed)

- **To express 802.16's appreciation for the hard work and dedication of all those who cooperated to present consolidated 802.16.1 proposals and to offer thanks and congratulations on their continued spirit of openness.**

802.16.1 Task Groups

- PHY
 - Jay Klein
- MAC
 - Jung Yee

Sub10 Study Group

- Brian Kiernan

Charge to Task Groups

- Document everything
 - submit documents to Secretary before you leave
 - include document index

Adjournment

- Motion to Adjourn

Liaison- ETSI TM4

- Response Letter

Liaison- ETSI BRAN

- Response Letter

Patent Procedures

- Discussion

New Business

- Discussion

Appendix D, Attendance at Session #5

802.16 meeting #5 was an interim meeting. The 802.16 Session was attended by 118 people. Attendance of at least 7 of 9 meeting intervals was required for the 75% criteria. Please contact the 802.16 secretary if you feel your attendance has been recorded incorrectly.

The following 92 people attended 7 or more meeting intervals and met the 75% attendance criteria		
Abu-Dayya, Adnan Akhter, Mohammad Anne, Ramakrishna Arefi, Reza Arrakoski, Jori Arunachalam, Arun Baldo, Paolo Baseghi, Behshad Belfiore, Chaoming Bensen, Paul Bushue, Carl Chan, Rebecca Chayat, Naftali Chayer, Rémi Cherkaoui, Omar Cornelius, James Costa, José Doucet, Keith Durand, Roger Eklund, Carl Elwailly, Farid Etemad, Kamran Evans, Allan Falconer, David Fishel, George Foerster, Jeffrey Garrison, G. Goldhammer, Marianna Grell, Conrad Guillemette, Phil Hadad, Zion	Hammons, Jr., A. Holyoak, Joel Hunter, Wayne Jevremovic, Vladan Jorgensen, Jacob Kang, Inchul Kasslin, Mika Kiernan, Brian Klein, Jay Kolze, Thomas Kostas, Demosthenes Kumagai, Tomoaki Langston, J. Leiba, Yigal Licardie, Sergio Liebetreu, John Lindh, Lars Lu, Willie Maghera, Mohan Marin, J. Marks, Roger McCann, Shawn McGregor, Andy Moayeri, Nader Monk, Anton Morikawa, Yutaka Myers, William Olsen, Louis Pan, Jianping Park, Yunsang Petry, Brian	Ran, Moshe Razavilar, Javad Rhodes, Valentine Robinson, Gene Rouault, Lucille Sanders, Ray Sater, Glen Shirali, Chet Shtrom, Victor Stamatelos, George Stambaugh, Karl Sturm, Patricia Sundelin, Andrew Tateishi, Kimiya Thompson, Paul Trinkwon, David van Waes, Nico Varma, Subir Verbaere, Benoit Vu, Phuong Wang, Chao-Chun Whitehead, Philip Williams, Tom Winslow, Steve Xenakis, Bill Yee, Jung Yurtkuran, Erol Zeng, Chaoming Zhang, Wei Zuniga, Juan
The following 26 people attended from 1 to 6 meeting intervals and did not meet the 75% attendance criteria		
Arviv, Eli Blasing, Ray Bourlas, Yair Carlo, Jim Chang, Dean Dabak, Anand Froelich, Stu Gatherer, Alan Hatim, Baya Jacobsen, Eric	Kreig, Andrew Lau, Phil Meyer, Ronald Moghe, Sanjay Mollenauer, James Mortensen, Duane Myers, Gregory Oros, Nicholas Schaefer, Marcus	Schafer, David Shan, Tie-Jun Struhsaker, Paul Sumi, David Trumpis, Bruce Vigneron, François Whiting, Robert