

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	IEEE 802.16.3 Session #10 Minutes	
Date Submitted	2000-11-14	
Source	Dean Chang, 802.16.3 Secretary Aperto Networks, Inc. 1637 S. Main Street Milpitas CA 95035	Voice: 408 719-9977 Fax: 408 719-9970 mailto: dchang@apertonet.com
Re:	IEEE 802.16.3 Session #10 (Tampa, Florida, Nov 6-10, 2000)	
Abstract		
Purpose	To record the meeting events	
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 grants a free, irrevocable license to the IEEE to incorporate text contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.	
IEEE Patent Policy	<p>The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures (Version 1.0) <http://ieee802.org/16/ipr/patents/policy.html>, including 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."</p> <p>Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <mailto:r.b.marks@ieee.org> as early as possible, in written or electronic form, of any patents (granted or under application) that may cover technology that is under consideration by or has been approved by IEEE 802.16. The Chair will disclose this notification via the IEEE 802.16 web site <http://ieee802.org/16/ipr/patents/notices>.</p>	

**Minutes of 802.16.3 Session #10
A Task Group of IEEE 802.16
Tampa, Florida
6-9 November, 2000**

Call to order

Brian Kiernan called the meeting to order at 4:20pm, Nov 6, 2000.

Agenda for the week

Brian discussed the agenda for the week.

Motion 1 Naftali Chayat to move TG3 comments to the morning 2nd Marianna Goldhammer.

Motion 1 withdrawn by Naftali Chayat.

Some edits were made to the agenda. The agenda was approved by a unanimous voice vote.

PHY Evaluation Criteria

Anader Benyamin-Seeyar (PHY Criteria Ad Hoc chair) presented a weighted method to score the 20 different PHY proposals reviewed during the week. This document is a baseline starting point and the PHY ad hoc group will develop weighted criteria.

Motion 2 Michael Stewart, to accept the document as it stands and eliminate the weighting numbers, 2nd By Bakri Aboukarr

Friendly Amendment – To put in 3.1 and 3.2 items David Trinkwon accepted.

Friendly Amendment – To add a section 3.3, by Demos Kostas not accepted.

Motion 2a to Amend Naftali Chayat to table Motion #2 until the document is cleaned up, 2nd by Demos Kostas.

Motion 2a to Amend withdrawn by Naftali Chayat.

Call the question – David Trinkwon. 2nd Avi Freedman.

Call the question passes by unanimous voice vote

Motion 2 carries 22-5-1.

Following motions by the task group give PHY ad hoc group and indications as to which items should be included in list of PHY criteria and weighted for scoring.

Motion 3 Rick Baugh 2nd Bakri Aboukarr to include Item 1 in the document.

Motion 3 carries by unanimous voice vote.

Motion 4 Rick Baugh 2nd Bakri Aboukarr to include Item 2 in the document.

Motion 4 carries by unanimous voice vote.

Motion 5 Rick Baugh 2nd Bakri Aboukarr to include Item 3 in the document.

Call the question, Naftali Chayat, 2nd by Marianna Goldhammer– Carries 11-0.

Motion 5 carries 18-6.

Motion 6 Rick Baugh 2nd David Trinkwon to include Item 4 in the document.

Motion 6 carries 21-0.

Motion 7 Rick Baugh 2nd Demos Kostas to include Item 5 in the document.

Friendly amendment Avi, 2nd by Demos Kostas to remove section a) and b) from Item 5 – accepted.

Call the question by Michael Stewart, 2nd Demos Kostas, carries 12-0.

Motion 7 carries 18-6.

Motion 8 Rick Baugh 2nd Demos Kostas to include Item 6 in the document.
Motion 8 carries 17-0.

Motion 9 Rick Baugh 2nd Bakri Aboukarr to include Item 7 in the document.
Motion 9 carries 10-5.

Motion 10 Rick Baugh 2nd Demos Kostas to include Item 8 in the document.
Motion 10 carries 22-0.

Motion 11 David Trinkwon 2nd by Paul Struhsaker to include items 9-11 in the document.
Motion 11 carries 28-0.

Motion 12 Michael Stewart 2nd Bakri Aboukarr to delete item 12 in the document.
Motion 12 fails 10-23.

Motion 13 Demos Kostas accept item 13 and add a comment to include the existing relevant standards and regulations 2nd Chet Shirali.

Motion 13a to amend by Brian Kiernan 2nd Bakri Aboukarr to remove item 13 from the text.
Call the question carries by unanimous voice vote.

Motion 13a to amend carries 15-0.

Motion 13 carries 20-9.

Meeting adjourned at 6:00pm

Call to Order

Meeting called to order by Brian Kiernan at 8:05am, November 7th.

Channel Model Contributions

The following contributions were presented to the group.

Contribution 802.16.3c-00/47 Channel Models for Fixed Wireless Systems – Vinko Erceg.

Contribution 802.16.3c-00/49r1 Interim Channel Models for G2 MMDS Fixed Wireless Applications – K.V.S. Hari.

Contribution 802.16.3c-00/52 Propagation of 5.3 GHz through the Urban Foliated Environment: Summary of Propagation Path Loss and Signal de-Polarization Data – John Sydor

Contribution 802.16.3c-00/53 Additional enhancements to Interim Channel Models for G2 MMDS Fixed Wireless Applications – Chris Tappenden, Martin Smith, presented by Jose Costa.

Brian Kiernan requested the contributions be combined into a channel model that can be submitted to the group. A channel model ad hoc group was established and will be led by Vinko Erceg. The model should be simple enough to implement so that various PHY proposals can be compared using the model.

Traffic Models

One traffic model contribution was made.

Contribution 802.16.3c-00/51 4IPP Traffic Model for IEEE 802.16.3 – C.R. (Rick) Baugh.

TG3 comments on TG1 MAC

Subir Varma (MAC Ad Hoc Chair), Vladimir Yanover and Huanchun Ye presented the results of the MAC ad hoc group regarding these issues. There are a number of shortcomings of the MAC in the area of ARQ, link parameters and the issue of a PHY convergence layer so that the MAC is independent of the PHY.

This covers the following contributions:

Contribution 802.16.1c-00/09 MAC to PLCP sublayers interface for 802.16 – Vladimir Yanover

Contribution 802.16.1c-00/10 Some Issues of Accommodation of TG1 MAC at TG3 – Vladimir Yanover

Contribution 802.16.1c-00/11 Comments on the use of the TG1 MAC for TG3 Purposes – Subir Varma

Contribution 802.16.1c-00/13 Comments related to using the TG1 MAC for TG3 purposes – HuanchunYe.

In addition, a number of other contributions were made regarding MAC enhancements.

Contribution 802.16.3p-00/54 Proposal to MAC enhancements – George Fishel

Contribution 802.16.3p-00/55 Wireless connection Oriented Polling Protocol - Bart Shields

MAC Ad Hoc Presentation

Subir Varma and Vladimir Yanover presented the following joint contribution as a result of the MAC Ad Hoc subcommittee. This was later presented to the TG1 MAC group in an evening joint session.

Contribution 802.16.3p-00/56 Using TG1 MAC for TG3 Purposes – Vladimir Yanover, Subir Varma, and Huanchun Ye

Motion 14 Naftali Chayat, 2nd by Bakri Aboukarr - Recommends that TG 3 establishes a MAC group and it recommends to 802.16 plenary to establish a MAC group to which TG1 and TG3 MAC groups both report.

Motion to divide by David Trinkwon 2nd by Demos Kostas to divide the above motion into two separate motions. 1) Create TG3 MAC sub task group 2) TG3 to Recommend to the working group to create a MAC group to which TG1 and TG3 MAC group report.

Motion to divide carries 23-6.

Motion 14a Create TG3 MAC sub task group

Call the question – Unanimous voice vote.

Motion 14a carries 27-6.

Motion 14b TG3 to recommend to the working group to create a MAC group to which TG1 and TG3 MAC groups would report.

Call the question. Passes by unanimous voice vote.

Motion 14b fails 10-17.

PHY Contributions

The following contributions were reviewed in the afternoon session.

Contribution 802.16.3c-00/45 Enhanced Error Coding Scheme – Dave Williams

Contribution 802.16.3c-00/46 A Proposal to Standardize Directive Antennas and Highly Sectored Cellular Hub Systems For Outdoor Point to Multipoint Applications: IEEE 802.16.3 – John Sydor

Contribution 802.16.3c-00/42 OCDMA Proposal for IEEE 802.16.3 PHY – Arthur Wang

Contribution 802.16.3c-00/29 W-OFDM Proposal for the IEEE 802.16.3 PHY Bob Heise

Contribution 802.16.3c-00/30r1 OFDM-based 802.16.3 sub-11 GHz BWA Air Interface Physical Layer proposal – Naftali Chayat

Contribution 802.16.3c-00/31 PHY proposal for IEEE 802.16.3 – O. Seller

Brian Kiernan adjourned the meeting at 6:20pm.

Call to Order

Brian Kiernan called the meeting to order at 8:05am, November 8th.

PHY Contributions

The group reviewed the following PHY contributions:

Contribution 802.16.3c-00/32 Synchronous, DS-CDMA/FDMA PHY Proposal for IEEE 802.16.3-Eric Hall.

Contribution 802.16.3c-00/33 Initial OFDM/OFDMA PHY proposal for the 802.16.3 BWA - Itzik Kitroser.

Contribution 802.16.3c-00/37r1 Outline of PHY Proposal for MMDS Communications - Yonatan Manor.

Contribution 802.16.3c-00/35 802.16.3 Air Interface: An Outline PHY Proposal - Huanchun Ye.

Contribution 802.16.3c-00/36 Initial PHY Proposal for 802.16.3 - Ron McCalister.

Contribution 802.16.3c-00/34 OFDMA/OFDMA PHY proposal - Zion Hadad.

Contribution 802.16.3c-00/38 802.16.3 2G OFDM System for Broadband Wireless Access Development - Bob Ward.

Contribution 802.16.3c-00/39 A "Block" Adaptive Modulation and Coding - John Langley.

Contribution 802.16.3c-00/40 Initial PHY Layer System Proposal for Sub 11 GHz BWA - Anader Benyamin-Seeyar.

Contribution 802.16.3c-00/41 OFDM based 802.16.3 PHY Proposal - Nico van Waes.

Contribution 802.16.3c-00/28 PHY Proposal for IEEE 802.16.3 - M Sellars.

Contribution 802.16.3c-00/43 Overview of Physical Layer Proposal for IEEE 802.16.3 - A.R. Hammons.

Contribution 802.16.3c-00/44 Proposal for an OFDM-based 802.16.3 Air Interface Physical Layer - Jose Francia.

Contribution 802.16.3c-00/48 Initial PHY proposal for the IEEE 802.16.3 Air Interface Standard - Moshe Ran.

PHY Contribution Voting

Anader Benyamin-Seeyar displayed weighting criterion for the various PHY proposals that was updated by the ad hoc group. The group had a discussion on the voting process.

Motion 15 Erol Yurtkuran to delay the voting for PHY contributions one week to November 15 noon PST - submission can be made by floppy or email. 2nd by

Call the question Naftali Chayat, 2nd by Carl Bushue. Call the question carries by unanimous voice vote.
Motion 15 carries – 31-6-5.

Meeting adjourned at 4:15pm.

Call to Order

Brian Kiernan called the meeting to order at 8:05am on November 9, 2000.

PHY Contributions

The group discussed questions regarding the various PHY contributions.

ETSI BRAN FWA below 11 GHz

Motion 16 Chet Shirali to nominate a liaison from TG3 to ETSI BRAN FWA below 11 GHz, 2nd by Menashe Shahar.

Friendly Amendment by Brian Kiernan – That the TG3 chair recommend to the working group the appointment of a liaison from the working group to ETSI BRAN on the subject of FWA below 11 GHz – accepted.

Motion 16a to amend David Trinkwon to amend to change “liaison” to “contact” person, 2nd by Zion Hadad.

Motion 16a to amend fails 9-13.

Call the Question Michael Stewart, 2nd Anader Benyamin-Seeyar, passes 25-2-1.

Motion 16 passes Vote 20-4-2.

Nominations for liaison to ETSI BRAN on the subject of FWA below 11 GHz.

Demos Kostas

Marianna Goldhammer

Chet Shirali

The group voted for Marianna Goldhammer as the liaison, Demos Kostas as backup.

MAC TG1 Meeting Discussion

Motion 17 Naftali Chayat – Move that TG3 instructs the TG3 MAC group to participate in the process of restructuring the TG1 draft in order to be able to accommodate future TG3 MAC and TG3 PHY needs, 2nd by Baruch

Friendly amendment Demos to drop the word “future” – accepted. Motion as amended is Move that TG3 instructs the TG3 MAC group to participate in the process of restructuring the TG1 draft in order to be able to accommodate TG3 MAC and TG3 PHY needs.

Call the question Roger Durand, 2nd Michael Stewart

Call the question passes by unanimous voice vote

Motion 17 carries 34-0-1.

Motion 18 Chet Shirali – to call for contributions on TG3 MAC, 2nd Menashe Shahar

Motion 18a to amend Nico van Waes – to call for contributions in the form of modifications to the TG1 document, 2nd Roger Durand.

Friendly Amendment David Trinkwon – “in the form of enhancements to the TG1 MAC” - accepted

Motion 18a to amend carries 20-11

Amended Motion 18a passes as follows - “to call for contributions on TG3 MAC in the form of enhancements to the TG1 MAC.”

Motion 18b to amend – Naftali Chayat – instead of “in the form of...” – discussing the possibility of using it as an enhancement to the TG1 MAC, 2nd Marianna Goldhammer.

Call the question – Demos Kostas
Call the question passes by voice vote
Motion 18b to amend fails 3-17-8
Motion 18 carries 21-4-4.

Motion 19 Demo Kostas a call for contributions for criteria for assessing the TG3 MAC proposals, 2nd Nico van Waes.
Motion 19 carries 23-1-4.

Review of PAR Changes

The task group reviewed the PAR changes discussed at the midweek plenary meeting.

Motion 20 Tom Kolze For the TG3 chair (Brian Kiernan) to make a motion to the working group to table the PAR reviews until the next working group closing plenary. 2nd Demos Kostas.
Motion 20 carries 16-9-6.

Motion 21 to adjourn Anader Benyamin-Seeyar, 2nd Michael Stewart
Motion 21 carries by unanimous voice vote.

Meeting was adjourned at 12:50pm on November 9, 2000.