
Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	IEEE 802.16 TG3 Session #14 Minutes	
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Re:	IEEE 802.16 TG3 Session #14 (Portland, Oregon US, July 9-13, 2001)	
Abstract		
Purpose	To record the meeting events	
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**Minutes of P802.16a Session #14
A Task Group of IEEE 802.16
Portland, Oregon, US
9-13 July, 2001**

Call to order Joint P802.16a and P802.16b Session

Brian Kiernan called the meeting to order at 5:00pm Monday July 9, 2001.

Agenda for the week P802.16a

There were a number of discussions regarding the status of various documents within the group. The following table describes the current status for each area.

Item	Status	Voting Percentage for changes
802.16a PHY	Baseline	75%
802.16a and 802.16b MAC	Non-Baseline	50%
802.16b PHY	Non-Baseline as a whole, some portions Baseline (unclear)	50% for non-baseline, 75% for baseline

Baseline documents are accepted by the working group and require a 75% vote for any technical changes. Non-Baseline documents are not accepted by the working group and require a 50% vote for any technical changes.

Brian Kiernan reviewed the agenda for the week.

Motion 1 Anader Benyamin-Seeyar - To accept the agenda as modified, 2nd by Malik Audeh.

Motion 1 carries by unanimous voice vote.

The meeting was adjourned at 6:00pm.

Call to order

Brian Kiernan called the meeting to order at 8:05am on July 10, 2001.

The minutes from the last meeting were accepted by unanimous voice vote in document 802.16.3-01/19r1.

802.16a PHY Single Carrier Comments

The group then reviewed all of the single carrier PHY comments in the document. The detailed information regarding the comments and resolution is mentioned in the commentary database (modified version of 802.16ab-01/04), which is edited by Anader Benyamin-Seeyar. The minutes in this section only record motions made during comment resolution.

Motion 2 David Trinkwon to delete the entire section mentioned in comment #86 2nd by David Williams

Motion 2 Fails 6-15.

Motion 3 Malik Audeh to move the text mentioned in comment #86 to annex within SC section 2nd David Williams

Motion 3 Carries 21-0.

Motion 4 Paul Struhsaker in comment #88 to replace the entire with contribution 802.16.3c-01/74

Proposal to Add a New Section between 8.3.5.11 and 8.3.5.12 of TG3&4 Draft Document (Brian Eidson, 01/07/06), 2nd Anader Benyamin-Seeyar.

Motion 4 Carries 19-0.

Motion 5 David Trinkwon on comment 92 regarding support for 32QAM.

Motion 5 Fails 5-18.

Motion 6 Brian Eidson to accept comment #106 2nd Malik Audeh.

Motion 6 Carries 8-0.

Motion 7 Paul Struhsaker to accept comment #112 2nd Brian Eidson.

Motion 7 Carries 13-0.

Motion 8 Brian Eidson to accept comment #113 2nd Anader Benyamin-Seeyar

Motion 8 Carries 14-0.

Motion 9 Brian Eidson incorporate content of 802.16.3c-72r1 into the 8.3.5.16 subsection as informative text with an editors' note that it will be revised into normative form as the document matures (comment #117 as modified), 2nd

Anader Benyamin-Seeyar

Motion 9 Carries 17-0.

Comment #118 was superseded by a previous comment. This was approved with no objections by voice vote.

Motion 10 Anader Benyamin-Seeyar to change the roll fact in section 8.3.5.18 to “with roll factor of $a=0.25$ (mandatory), 0.15 (optional) and 0.18 (optional),” 2nd Brian Eidson.

Motion 10 Carries 12-0.

The group resolved comments #85-119 regarding single carrier PHY.

Meet adjourned at 11:45pm

Call to Order

Brian Kiernan called the meeting to order at 1:40pm

802.16a PHY OFDM Comments

The detailed information regarding the comments and resolution is mentioned in the commentary database (modified version of 802.16ab-01/04), which is edited by Nico Van Waes regarding OFDM PHY comments. The minutes in this section only record motions made during comment resolution.

Motion 11 to reject comment #128

Motion 11 carries 13-0.

Motion 12 Brian Kiernan –N used should not include the DC subcarrier regarding comment #130, 2nd Manoneet Singh

Motion 12 carries 11-0.

Comments #142, #143 are superseded by previous comments with no objections.

The following contributions were reviewed:

Contribution 802.16abc-01/13 Performance in Gaussian Noise of Proposed PN Sync Preamble for IEEE 802.16 OFDM (Charlie Cahn and Arthur W. Wang, 01/07/06)

Contribution 802.16abc-01/14 A Study of the Benefit of Concatenated Coding in IEEE 802.16 (Charlie Cahn and Arthur W. Wang, 01/07/06)

Channel Model

The following contribution was made.

Contribution 802.16.3c-01/76 Channel Models for Long Range (Avi Freeman)

Meeting adjourned at 4:30pm.

Call to Order (Joint 802.16a and 802.16b PHY Meeting)

Brian Kiernan called the meeting to order at 8:07am on Wednesday July 11, 2001.

OFDM Preamble Contributions

The following contributions on OFDM Preamble were presented in the meeting.

Contribution 802.16abc-01/16 Simple Preamble Design for OFDM/OFDMA (PanYuh Joo, JungJe Son, JaeYeol Kim, DaeEop Kang, 01/07/06)

Contribution 802.16abc-01/13 Performance in Gaussian Noise of Proposed PN Sync Preamble for IEEE 802.16 OFDM (Charlie Cahn and Arthur W. Wang, 01/07/06) (Presented a 2nd time for the joint meeting)

OFDM PHY Comments

Details regarding the comments are found in the Commentary database (modified version of 802.16ab-01/04). This section is edited by Nico Van Waes. The minutes in this section only record motions made during comment resolution.

FFT Sizes for 802.16a

The group had significant discussion regarding the reduction of the number of FFT sizes. A number of people felt that by reducing the number of options that this would simplify support for interoperability within the standard. Others had dissenting opinions. The discussion led to the following motion:

Motion 13 Nico Van Waes to delete FFT sizes 128, 512, 1024, 4096 (TG3 specific) reflected in comment #122 2nd Brian Kiernan.

Friendly Amendment Michael Stewart - accepted by original motioners.

Delete 64, 128 for OFDM.

Delete 512, 1024 for OFDMA

Maintain 256 mandatory for OFDM and 512 optional,

Maintain 2049 mandatory for OFDMA and 4096 optional

Call the Question - Anader Benyamin-Seeyer 2nd Joe Hakim

Call the Question carries 38-0

Motion 13 Carries 37-3 as follows regarding FFT Sizes:

Delete 64, 128 for OFDM.

Delete 512, 1024 for OFDMA

Maintain 256 mandatory for OFDM and 512 optional

Maintain 2049 mandatory for OFDMA and 4096 optional

OFDM Preamble

There were a number of comments and contributions regarding the OFDM preamble. Due to the technical of this issue, Brian Kiernan decided to form an ad hoc group chaired by Hikmet Sari to meet with the various people that contributed to the Preamble and then make a proposal to the group.

Coding

A number of comments were made regarding coding, comment #156 calls to reduce the number of coding options in 802.16b (TG4). Many people feel like there are too many options, which will also affect interoperability and add complexity to system implementations.

Marianna Goldhammer presented the following contribution:

Contribution 802.16abc-01/08r1 [Rev. 0 (01/07/05)] FEC performance for 802.16.3 OFDM (Tal Kaitz, 01/07/05)

Other Comments

In comment #5, it was mentioned that there are 5+ PHYs in the document and would like the group to reduce the number of PHYs. This is a good example of a comment received from a person outside of the group.

Comment #9 was accepted as modified, “Replace RF TX and antenna with text “TX”, replace RF RX and antenna

Comment #13 was withdrawn.

The meeting was adjourned at 12:15pm.

Call to Order

Brian Kiernan called the meeting to order at 1:40pm.

A number of comments were made regarding informative Table 1 Frequency Bands and Channel Bandwidths. The group made a number of edits to this section reflected in the commentary database.

Channel Model

The channel model ad hoc group completed the R3 version on the channel model in contribution 802.16.3c-01/29r3. Vinko Erceg, the chair of the ad hoc channel model group, presented the contribution.

Motion 14 David Trinkwon to adopt the 6-tap model as stated in contribution 802.16.3c-01/29r3 Channel Models for Fixed Wireless Applications, 2nd Marianna Goldhammer.

Call the Question Jori Arrakoski, 2nd Anader Benyamin-Seeayar.

Call the Question carries 24-1.

Motion 14 fails 17-21.

Motion 15 David Trinkwon to retain the additional 3 taps for NLOS models as an option, 2nd Avi Freedman.

Motion 15 fails 12-18.

Motion 16 Eric Jacobsen to accept contribution 802.16.29r3 as amended (removing the section of the document titled “Additional Paths.” as the channel model for the task group), 2nd Brian Eidson.

Motion 16 carries 31-0.

The document that reflects changes in motions 14-16 and will be reflected in document **802.16.3c-01/29r4** Channel Models for Fixed Wireless Applications.

David Trinkwon withdrew the protest by listed in contribution 802.16.3c-01/70.

Coding

Brian Kiernan nominated Garik Markarian as the ad hoc chair to review the comments on coding.

All comments regarding coding were deferred to this group.

The meeting adjourned at 3:30pm.

Call to Order (Joint 802.16a, 802.16b and 802.16ab MAC)

Brian Kiernan called the meeting to order at 9:00am.

The primary agenda for the day is to discuss the MAC. There will be an ad hoc meeting regarding the OFDM preamble as well in a separate room.

MAC

There were a few decisions made by the MAC group using motions:

- To develop a separate section covering the MAC/PHY interface to simplify discussion
- Augment the frequency band dependencies with four additional subcategories – one for common material and one each for the PHY depended aspects – SC, OFDM and OFDMA

Comments

Details regarding the comments are found in the Commentary database (modified version of 802.16ab-01/04). This section is edited by Ken Peirce. The minutes in this section only record motions made during comment resolution.

Vladimir Yanover was appointed as chair of a MAC/PHY ad hoc group to resolve MAC/PHY interface issues.

The group resolved the base structure for system timing based upon a presentation by Bob Nelson, which is described in contribution 802.16abc-01/17.

Itzik Kitroser volunteered to provide text regarding comment #82.

The meeting was adjourned at 12:00 noon.

Call to Order

Brian Kiernan called the meeting to order at 1:30pm on July 12, 2001.

MAC Comments

The group continued to review comments regarding the MAC.

The group formed an MAC ARQ ad hoc chaired by Huanchun Ye.

Ken Stanwood from the TG1 MAC group described some of the changes to the TG1 MAC that may affect comments to the TG3/TG4 MAC.

A vote was taken to reject Comment #182
Comment #182 is rejected with a vote of 15-6.

The MAC group did not approve the current draft as a baseline in session #13. However, the group needs to move forward as quickly as possible to make the MAC section baseline. A number of proposals were made on ways to address these issues and accept the document as baseline.

The result of the discussion led to the following motion:

Motion 14 Brian Kiernan - to adopt 802.16ab-01/01 including the resolutions as placeholders for the relevant future text, plus the approved comments from session #14, 2nd Paul Struhsaker.

Friendly amendment – Bob Nelson - to adopt the 802.16ab-01/01 including the resolutions as placeholders for the relevant future text, plus the approved comments from session #14 and delete the current text in ARQ sections.

Accepted.

Friendly amendment – Vladimir Yanover - to adopt 802.16ab-01/01 including the resolutions as placeholders for the relevant future text, plus the approved comments from session #14 - **Accepted**

Friendly amendment Jori Arrakoski - to adopt 802.16ab-01/01 including the session #14 resolutions as placeholders for the future text, plus the approved comments from session #14 – **Accepted.**

Friendly amendment Marianna Goldhammer - to adopt the MAC portion of the 802.16ab-01/01 document including session #14 resolutions as placeholders for the future text, plus the approved comments from session #14 adopted as straw man. **Half was accepted and the other half rejected.**

The motion is reflected as follows:

To adopt the MAC portion of the 80216ab-01/0/1 document including session #14 resolutions as placeholders for the relevant future text, plus the approved comments from session #14.

Call the Question by Paul Struhsaker, 2nd Dean Chang.

David Trinkwon had a question as to whether a motion can be tabled after the question is called.

Paul Struhsaker stated that nothing can happen after calling the question except a vote to call the question and then if it passes, a vote on the Motion.

Brian Kiernan rules that a motion cannot be tabled after the question is called.

Call the Question carries 35-3.

Motion 14 Adopt the MAC portion of the 80216ab-01/0/1 document including session 14 resolutions as placeholders for the relevant future text, plus the approved comments from session 14.

Motion 14 carries 38-6

This was adopted as baseline text for the MAC.

Roger Marks requested that all comments would be recorded in the discussion that followed.

Discussion

Huanchun Ye – Suppose the ad hoc group produces a report – what voting margin is required to approve this text at the next meeting?

Paul Strusaker – The ad hoc group can insert any text that the ad hoc group develops without a vote.

Brian Kiernan – the document is approved in two weeks

There was some exchange between David Trinkwon and Brian Kiernan

Randall Schwartz – Can the ad hoc group can put in anything into the document?

Brian Kiernan – No only the text discussed in the resolutions.

Roger Marks – Interprets the document – text that has not been written yet is not adopted as a part of this motion. The resolutions in session 14 are placeholders. There should not be any technical interpretations that have not been completed to this point - new technical decisions should not be incorporated directly into the document.

Brian Kiernan – The ad hoc groups were tasked to write the text for these sections.

Roger Marks– This is now clarified as the ad hoc was charged to develop the text in this section of the document.

Subbu Ponnuswamy – There are many ways to develop selective repeat – so any way the ad hoc develops is this a technical decision or editorial? Which interpretation is correct?

Subir Varma– I don't think there are too many choices as Subbu has implied because it also includes the block sequence numbering. In addition to this there are already a number of messages formats that the group has already worked on. Those should be used – the range of choices is limited for ARQ.

Randall Schwartz– The people that said all of the technical decisions have not been made.

Vladimir Yanover – Can we review motion 14 to get clarification on the relevant future text for this.

Brian Kiernan – This is up to the ad hoc committee.

Vladimir Yanover – is this just any text?

Brian Kiernan – Asked the following question - Is the fear that this team that any text from the ad hoc will do anything they want? Many people responded “Yes.”

Huanchun Ye – Agrees that the ad hoc group will develop a good ARQ specification. Suppose a document passes the ad hoc group by 50%, does it need to pass the MAC group as well?

Brian Kiernan – Then the MAC group needs to vote on this.

Walt Roehr – Within the ad hoc group what happens if there are three proposals and each only received 33% of the vote?

Brian Kiernan – It is up to the ad hoc to resolve this.

Roger Marks – One clear direction - editors are to put together R1 as soon as possible with whatever material we have now. For example, selective repeat is submitted as a proposed version and then goes under review and the groups can vote on this in September. Maybe the ad hocs can have two and then the MAC group decides but hopefully the ad hoc makes the decision.

Brian Kiernan – We will adopt whatever comes out in 2 weeks – rev 1 document issue

Roger Marks – It should be one week.

David Trinkwon reviewed Roberts rules and found that he can table a motion after right after a call for question is voted on. After further review, the Brian Kiernan does not interpret the rules in the same way.

Session adjourned at 6:15pm.

Call to Order

Brian Kiernan called the meeting to order at 8:10am.

Comment resolution

David Trinkwon updated information Table 1 in the document on Regulatory Channel widths. With no objections, this resolves Comments 14,15,16 and 17.

Comment #27 was rejected by vote of 23-16. This comment changed 64QAM in SC from Mandatory to Optional.

Comment #5 The PHY group decided to defer, MAC group rejected only the MAC portion because it is no longer valid – only 1 ARQ is supported vs. 3 ARQ methods.

Vote to defer the PHY portion of Comment #5 carries 22-0.

OFDM Preamble Ad Hoc

This group issued a call for contributions in 802.16.3-01/23 for OFDM Preambles.

Commentary Database

Motion 15 Eric Jacobsen to approve the commentary database as modified during session #14 2nd Bob Nelson.

Motion 15 carries with unanimous voice vote.

MAC/PHY Ad Hoc

The group described a list of issues to discuss as a part of the meeting. See details in the task group review document 802.16ab-01/06.

The group voted by unanimous voice vote to forward document 802.16ab-01/06 to the working group.

TG3/TG4 Motion to adopt MAC “document” as Baseline

David Trinkwon discussed the issue of order regarding Motion #14 to accept the MAC document as “baseline.”

Brian Kiernan described the events as they occurred and reflected in the minutes.

- The question was called
- David raised the issue if he could table the motion and at this time it was out of order, however he could have made a motion to table after the vote regarding “calling the questio

After a review of Robert’s Rules, a motion to reconsider can be made by someone that voted in favor of Motion 14. No motion was made by anyone that voted in favor of Motion 14 so the Motion 14 stands as voted on July 12, 2001.

Motion to Adjourn

Motion 16 Dean Chang to adjourn the meeting, 2nd Paul Struhsaker.

Motion 16 carries by unanimous voice vote.

The meeting was adjourned at 9:40am.