
Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	IEEE 802.16 Sub10 Session #6 Minutes	
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Source	Dean Chang 802.16 Sub 10 Secretary BNA Systems, Inc. 1637 S. Main Street Milpitas CA 95035	Voice: 408 719-9977 Fax: 408 719-9970 mailto:dchang@bnasystems.com
Re:	IEEE 802.16 Sub 10 Session #6 (Albuquerque, NM, March 6-10, 2000)	
Abstract		
Purpose		
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**Minutes of 802.16 Sub 10 Session #6
A study group of IEEE 802.16
Albuquerque, New Mexico
6-10 March, 2000**

Call to order

8:10am, March 7, 2000 call to order by Brian Kiernan Sub 10 study group chairman

Agenda for the week

Brian discussed the agenda for the week.

Call for the agenda to be approved – Unanimous by show of hands.

Meeting Minutes for Sub10 in Meeting #5

Hold off on the approval until people have a chance to review it and vote on it tomorrow afternoon. One comment regarding licensed vs. unlicensed bands.

PAR review 802.16sub10-00/02r2

There were two contributions made to the PAR

IEEE802.16sub10c-00/02 Demosthenes Kostas reviewed his contribution. Proposal is to have the work for this PAR to be developed in the 802.16 working group rather than 802.11 working group.

IEEE802.16sub10c-00/03 Brian Kiernan contained comments to add “such as MMDS/ITFS” to the par and some additions to the statement regarding IEEE 802.11.

IEEE802.16sub10c-00/04 Muya Wachira – Proposal is to restrict the groups focus to licensed bands. Muya stated that if this par is open to both licensed and unlicensed bands that the work would take to long to be useful to the market.

Motion 1, Brian Petry, 2nd by Val Rhodes to accept the changes by Nortel to accept “in licensed bands” in the scope of the project.

Favor 12, Opposed 19, Abstentions 4. Motion fails

Motion 2, Anton Monk, 2nd by Brian Petry, to change the PAR to the statement “in licensed bands and license exempt bands.”

Favor 25, Opposed 1, Abstentions 6, motion passes

At this point, the study group wanted the draft PAR to support both licensed and license exempt bands.

Contributions to the 5 Criteria

IEEE802.16sub10c-00/03 Contribution

Brian Kiernan stated that the key for us in the 5 criteria is to make a strong distinction between 802.11 and 802.16.

IEEE 802.11 addresses primarily short-range WLAN applications. This standard is specifically directed towards wireless MAN/WAN applications with large number of widely dispersed subscribers per base station.

Motion 3 Brian Kiernan 2nd by Demos Kostas, to change the above text to as follows:

IEEE 802.11 and 802.15 address primarily short-range WLAN and WPAN applications respectively. The 802.16.3 standard is specifically directed towards longer range wireless point to multipoint (note MAN/WAN) networks that provide access to core public networks with large numbers of widely dispersed subscribers per base station

Favor 28, Opposed 0 Abstentions 2, motion passes.

Miscellaneous Changes to Scope of Project in the Par

The specification enables “up to carrier grade access to” data, video, and voice services “with a specified quality of service in licensed bands and license exempt bands designated for public network access” Also changed (support data rates above T1/E1) to (e.g. support data rates above T1/E1). This was due to the fact that “carrier grade” does not have a clear definition.

5 Criteria Contributions Changes in the distinct identity section

The suggested changes made to the distinct identity section were made as follow in red.

The BWA standard occupies a distinct place in the family of standards. It is intended to provide for public access networks operated by a **service provider such a local or inter exchange carrier or an ISP**, where the user typically makes use of a **metropolitan** or wide-area network through an access network. It differs **also** from a wireless LAN, which typically is operated by a **private single** organization over **smaller short** distances and has less stringent requirements for system integrity and resistance to unauthorized usage.

Vote – Unanimous for the changes by show of hands.

The following suggested changes were made as follows to the second paragraph.

At frequencies below 11 GHz, operating distances can typically range from 3 to 50 km.

Vote – Unanimous to accept wording changes

Meeting adjourned at 11:30am.

802.16 Sub 10 Afternoon Meeting

Call to order at 12:40pm, March 7, 2000 by Brian Kiernan

Group reviewed various changes to PAR.

Favor 24, Opposed 0, Abstentions 2 to pas the PAR with various changes to the evening meeting.

Next the group reviewed the 5 criteria and made minor edits for review at 7:00pm

Favor 23, Opposed 0, Abstentions 4 to pass the 5 criteria to the evening meeting.

Meeting adjourned at 1:00pm.

IEEE 802.16 Sub 10 Evening Meeting

The meeting was called to order at 7:15pm March 7, 2000 by Brian Kiernan.

Brian Kiernan summarized that the purpose of the study group was to develop a PAR and 5 criteria to submit to the 802.16 working group.

At this point, there was discussion regarding support various license exempt bands such as the U-NII band. Many argued that by including support of the licensed exempt bands that the standard would be both sub optimal in performance for licensed bands and would cause the group to delay completion of a standard past two years. On the other hand, others argued that many providers will use the license exempt bands for broadband access so we should address these requirements in the standard. Brian Kiernan discussed changes made to the PAR and also the 5 criteria (rev3). At this time, the study group also reviewed comments from IEEE 802.11 and IEEE 802.15 regarding the PAR

IEEE 802.11 Comments to the IEEE 802.16.3 Draft PAR

Motion: 802.11 strongly objects to the inclusion of unlicensed bands in the PAR for sub 11 GHz operation by 802.16. Because 802.11 covers outdoor operation for many services.

The March 6, 2000 opening plenary of IEEE 802.11 discussed the proposed PAR 802.16.3. The group passed the following motion with 24 approving, 0 disapproving and 4 abstaining.

Motion made by Bob O'Hara, second by Harry Worstel.

IEEE 802.11 respectfully requests IEEE 802.16 to reconsider the PAR content in the light of this objection.

IEEE 802.15 Comments to the IEEE 802.16.3 Draft PAR

Moved to authorize WG Chair to vote against the 802.16.3 PAR as written and authorize a Task Group, consisting of Bruce Kraemer, Ivan Reede, Chan Rapinski and Todor Cooklev to work with 802.16 on more acceptable language prior to the submission deadline of 5pm, Wed, March 8, 2000.

Moved: Todor Cooklev, Second: Ivan Reede Passed: 19/0/4

Problem is inclusion of Unlicensed Bands in the PAR scope. It is felt that the overlap with actual available 802.11 systems is too great.

After quite a bit more discussion on the use of unlicensed or licensed bands, a number of motions were made to make changes to the draft PAR.

Edits to the draft PAR

Motion 4, Demosthenes Kostas – to state that BWA is an application based on public access – with no statement about frequency range 2nd? No second so the motion dies.

Motion 5, John Liebetreu, 2nd by Carl Bushue to remove the inclusion of the unlicensed bands “and license exempt bands” from the PAR.

Demosthenes Kostas calls the question,

Favor 28, Opposed 4, Abstentions 10, Motion 5 passes

Motion 6, Roger Marks, 2nd by George Fishel to have a lower bound in the frequency range that is not zero.

Friendly amendment to motion 6 by Brian Kiernan, 2nd by George Fishel – 500 MHz and above to 11 GHz

Brian Kiernan, the chairman, opened an amendment to vote on a different lower bound than 500 MHz.

Motion 7, Dr. Stanley Reible, 2nd by Demosthenes Kostas to amend Motion 6 to Dr Stanley Reible to change the lower limit to 2 GHz or from 2-11 GHz.

Favor – 24, Opposed 3, Abstentions 10 Motion passes

Motion 8 to change the frequency range from “below 2” to “from 2 to”

Favor 28, Opposed 4, Abstentions 4 Motion passes

Motion 9 by Roger Marks, 2nd George Fishel - to change the title of the PAR to “from 2 to 11 GHz”

Friendly Amendment – David Trinkwon to change to state licensed bands – not agreed

Vote on Motion 9 as it stands.

Favor 26, Opposed 3, Abstentions 3, motion 9 passes

Motion 10 by David Trinkwon, 2nd by George Fishel to add “in licensed bands” 2nd

Friendly amendment by Andy Mc Gregor – in any licensed bands – not accepted by David Trinkwon

Favor 23, Opposed 0, Abstentions 6, motion passes.

Motion 11 by Roger Marks, 2nd by Zion Hadad to change i.e. to e.g. – grammatical change only – adding “ing” to “supporting”

Voice vote unanimous.

Motion 12 by George Fishel – make it T1/E1 or greater – no second and dies

Motion 13 by George Fishel, 2nd by Demosthenes Kostas – data rates DS1 or greater

Friendly amendment – Andy Mc Gregor DS1/E1 or greater. - accepted

Friendly amendment by David Trinkwon – add “Fractional” to the statement – agreement

Motion 14 by Roger Marks to remove “Fractional” 2nd by many

Favor 9, Opposed 7, Abstentions 6 Motion passes

George Fishel – calls the question, no objections

Vote for Motion 12 Favor 11, Opposed 2, Abstentions 7, motion passes to state “e.g. support the data rates of DS1/E1 or greater “

The above changes resulted in Rev 4 of the PAR. In summary, a number of major changes were made to the draft PAR. First, the group voted to only support licensed bands in the PAR and second, the frequency range was revised to from 2 to 11 GHz adding the lower bound of 2 GHz.

Meeting adjourned at 9:50pm.

IEEE 802.16 Sub 10 Afternoon Meeting

Brian Kiernan called the meeting to order at 12:45 pm on March 9, 2000.

Brian summarized the changes made in the morning meeting. They are as follows:

Changed PAR to only support licensed bands rather than unlicensed.

Changed title to licensed band and changed range from 2-11 GHz

Change in Scope of proposed project - DS1 from T1. And frequency range above 2 GHz.

Motions to make changes to the Draft PAR

Motion 15 from Brian Petry, 2nd by George Fishel, to change #7 purpose in PAR to change "below 11 GHz" to "from 2 to 11 GHz"

Favor 22, Opposed 0, Abstentions 3

Motion 16 by Brian Petry, 2nd by Dean Chang to vote accept the PAR as it stands rev 4.

Brian mentioned that we should add ETSI TM4 to the coordination portion of the PAR.

Motion 17 by Avi Freedman, 2nd by David Trinkwon to add TM4 liaison

Brian Kiernan to propose a friendly amendment to replace ETSI BRAN - accepted by Avi Freedman.

Motion 17 on the floor - replace ETSI BRAN with TM4 -

Favor 19, Opposed 0, Abstentions 3 motion passes

Motion 18 Brian Petry, 2nd by Muya Wachira to accept the PAR as it stands

Favor 28 unanimous vote

Motions to make edits to the 5 Criteria

One minor edit was made to change the title to Changes made - title to make it consistent 2 to 11 GHz

Motion 19 David Trinkwon, 2nd by George Fishel to replace “rapidly emerging” to “established” under section 1a of the 5 criteria.

Favor 2, Opposed 10, Abstentions 17 motion does not pass

Motion 20, Ian Baragar, 2nd by Michael Stewart to insert “broadband” in front of access

Favor 24, Opposed 0, Abstentions 2, motion passes

Motion 21, Roger Hammonds, 2nd by George Fishel to finalize the 5 criteria as it stands.

Favor 29, Opposed 0, Absentions 1

Liaison contribution to IEEE 802.11 and IEEE 802.15

Brian made references comments made by IEEE 802.11 and IEEE 802.15 regarding the draft 802.16.3 PAR. The contribution stated that the study group accepted these changes and modified the PAR and 5 criteria to remove any references to unlicensed bands.

Motion 22 George Fishel, 2nd by Carl Bushue to forward on this liaison from the study group to the working group.

Friendly amendment to change “The” to “this” – accepted by George Fishel

Favor 30, Opposed 2, Abstentions 3 motion passes

Sub10 Minutes from Meeting #5

Motion 23, Jamie Cornelius, 2nd by George Fishel, to approve the minutes as they stand with one minor edit in the section titled “Licensed vs. Unlicensed” Bands regarding an assumption comment made by the chair, Brian Kiernan.

Favor 24, Opposed 0, Abstentions 6, Minutes approved

Presentation regarding a PAR regarding unlicensed bands

At this time, Sanjay Moghe gave a presentation to the group about creating a new PAR that addresses the unlicensed bands, in particular the 5.8 GHz band. Sanjay Moghe, Darga Satapathy, Amarpal Khanna and Demosthenes Kostas developed this presentation. This document was developed because the study group voted to only support licensed bands in the draft PAR. This group proposed to form a study group that will address public network access in license exempt bands. In addition, this group will coordinate with the other wireless working groups – IEEE 802.11 and IEEE 802.15.

Recommendations to the IEEE 802.16 Working Group

Motion 24 Stan Rieble 2nd Sanjay Moghe to approve the recommendations sent to the plenary.

Favor –35, Opposed 0, Abstentions 0

Unanimous

The meeting was adjourned at 2:30pm

IEEE 802.16 Sub10 Morning Meeting

Brian Kiernan called the meeting to order at 8:10am, March 9, 2000.

The study group agreed to forward the presentation on High-Speed Unlicensed Metropolitan Area Networks (HUMAN) to the 802.16 working group.

Sub10 Study Group functional requirements motion for 802.16 working group:

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

Motion:

-That the 802.16 working group permit George Fishel's contribution (802.16sub10c-00/06), as modified by the Sub10 study group, to be carried over from the Study Group to the 802.16.3 task group, retaining the "contribution status" of the document, and

-That prior to the next 802.16 session, 802.16 working group appointees accept comments from the 802.16 working group members and observers, and

-That the working group appointees be authorized to issue a call-for-comments against George's contribution, and

-That the 802.16.3 task group resolve comments by 50% majority, without requiring 75% majority votes even for technical comments, until such time the 802.16.3 task group approves the document as "baseline."

Favor 20, Opposed 0, Abstentions 1 – Motion passes.

Meeting adjourned at 12:00 noon.