

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	802.16.3 Air Interface : Report of inaugural ETSI BRAN "FWA below 11 GHz" Meeting (Helsinki)	
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Source(s)	David Trinkwon Transcomm Inc 6521 Arlington Blvd Falls Church, VA, 22042, USA	Voice: 972 345 5226 Fax: 602 532 7013 mailto:trinkwon@compuserve.com
Re:	802.16 ETSI BRAN Liaison Letter : Document Number: IEEE 802.16.1-00/21 URL: < http://ieee802.org/16/liaison/docs/80216l-00_21.pdf >	
Abstract	This is a brief report on my attendance as IEEE 802.16.3 observer at the inaugural ETSI BRAN meeting to discuss FWA standardization below 11GHz. The meeting was held in Helsinki, Finland on Friday 25 th August 2000.	
Purpose	To further the coordination between IEEE 802.16 and ETSI.	
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Observer Report on Inaugural ETSI BRAN meeting

David Trinkwon

Transcomm Inc

1. Introduction

Following an exchange of correspondence between the chairs of ETSI BRAN and IEEE 802.16 I was named as the IEEE 802.16 contact person and arranged to attend the inaugural ETSI BRAN "FWA below 11 GHz" work group meeting in Helsinki, Finland on Friday 25th August 2000.

The meeting was chaired by **Leiff Jansson (Ericsson Radio Systems AB)** and was attended by approximately 25 participants, including more than six IEEE 802.16.3 participants, the latter mostly visiting from North America. A list of participants has been requested, together with a copy of the formal notes of the meeting. The following report follows the agenda items and sequence.

2 - 4. Procedures and Scope of the Work item

The scope of the ETSI BRAN work group task is to produce and submit a Technical Report to ETSI BRAN to "Identify the functional requirements for interoperable FWA systems below 11 GHz; investigate the major differences/ similarities between HIPERWLL and existing and planned ETSI BRAN standards. "

The draft timetable for the activity envisages the draft report to be approved by the WG in January 2001 for submission to ETSI BRAN at its Meeting #22 during February 2001. It would then be up to ETSI BRAN to decide whether to initiate a follow-on work item to actually create a System Requirements Document leading to the creation of an ETSI standard. Unlike IEEE 802.16, ETSI customarily only standardizes coexistence items for radio systems, rather than fully interoperable air interface standards. They also concentrate on PHY and DLC layers rather than (just) the PHY and MAC.

Further discussion centered around the roadmap for completing the work through the series of meetings between now and January 2001, and the rules for voting and resolving agreement on each decision along the way. The chair then registered contributions to be discussed at the meeting and sought approval of the proposed agenda.

5. IEEE 802.16.3 Status Report

I summarized the IEEE 802.16 organization and process, and in particular presented and described the following IEEE 802.16.3 activities and documents :

- a) IEEE802.16.3 home page (includes links to all documents, contributions, meeting info / notes). Full public access - no passwords required. <http://www.ieee802.org/16/sub11/index.html>
- b) IEEE802.16.3 approved Project Authorization Request (PAR) and supporting "Five Criteria" documents.
http://www.ieee802.org/16/sub11/docs/802163-00_00.pdf
http://www.ieee802.org/16/sub11/docs/802163-00_01.pdf
- c) IEEE802.16.3 Current Development Plan, Functional Requirements Document (FRD) and Key Characteristics documents
http://www.ieee802.org/16/sub11/docs/802163-00_02r3.pdf
http://www.ieee802.org/16/sub11/docs/802163-00_03r2.pdf

http://www.ieee802.org/16/sub11/docs/802163-00_07r1.pdf

I also drew attention to the recent call for comments and contributions on various aspects of the IEEE 802.16.3 activity, including traffic and usage models, QoS ad hoc, Key Characteristics and Evaluation Criteria.

I summarized my own view that some of the specific issues still to be addressed by the IEEE 802.16.3 task group includes :

- Coexistence versus Interoperability
- ATM versus IP
- Connection Oriented versus Connectionless Services
- TDD versus FDD (including the use of TDD within "FDD" Bands)
- OFDM and "multi-carrier" modulation schemes versus single carrier
- Spatial Multiplexing / Reuse
- IEEE 802.16.1 MAC compatibility
- Industry Forums (e.g. BWIF, WDSL, OFDMF, etc)
- Multiplicity of candidate frequency bands, countries and regulatory requirements

Feedback from the participants was positive and appreciative. There was specific discussion on the Development Plan and schedule, and the implications for any corresponding ETSI BRAN activity.

6. Presentation and discussion of contributions

a) BRAN19.5d072 Liaison from 802.16 regarding FWA below 11 GHz

ETSI BRAN "FWA below 11GHz WG" will formally respond to the IEEE letter, and have appointed **Demosthenes Kostas (Adaptive Broadband)** as its formal liaison to IEEE 802.16.3

b) BRAN19.5d063 Table of Contents, System requirements "FWA below 11 GHz"

Presented by **André Van Houwelingen (Ericsson)** .

c) BRAN19.5d076 System Requirements Document Proposal for "FWA below 11 GHz"

Presented by **Nico van Waes (Nokia)** on behalf of Nokia as a member of the OFDM Forum, including several extracts from the draft IEEE 802.16.3 Functional Requirements Document (FRD) discussed earlier. An action was taken by **Leiff Jansson** to review the "legal" status of the OFDM Forum in relation to submitting proposals in its own name to ETSI BRAN.

After extensive discussion on both contributions (b) and (c), **Leiff Jansson** undertook to merge the two documents as a basis for further discussing the document contents / structure and initial text at the next meeting.

d) BRAN19.5d064 HIPERWLL Systems

This was the document submitted to the ETSI BRAN Plenary at Meeting 19 in June 2000, requesting approval to start this WG for "FWA below 11GHz" (submitted by Ericsson and Nokia). Leiff Jansson briefly reviewed the document in the context of adding to the merge process of contributions (b) and (c) above.

7 - 9. Summary and Conclusions

Leiff Jansson summarized the days discussions and decisions, and set the date of the next meeting for Wednesday / Thursday 4th/5th October in conjunction with BRAN 20, in Italy.

There was no time to coordinate / consolidate a response to the IEEE 802.16.3 calls for comments and contributions, and it was left for individuals to make their own comments. It was agreed that **Demosthenes Kostas** could present / discuss any comments or contributions on behalf of any ETSI BRAN members who were unable to attend the IEEE meetings.

I have softcopies of all the contributions mentioned above which I can make available to anyone who is interested, subject to agreement from ETSI BRAN. My email address is trinkwon@compuserve.com

The documents are also available from the ETSI server, or via Demosthenes Kostas (dkostas@adaptivebroadband.com)