Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Report of the meeting of the ITU ad hoc group during Session #40**
Date Submitted	**2005-11-17**
Source(s)	José M. Costa (ITU-R Liaison Official) Voice: +1 613 763-7574 NORTEL Fax: +1 613 765-1225 P.O. Box C-3511 costa@nortel.com Ottawa, Ontario CANADA K1Y 4H7
Re:	Preparation of liaison contributions to ITU-R.
Abstract	The activities of the ad hoc group cover four areas: 1) ITU-R WP 8A on IEEE 802.16e in Mobile Service frequency bands. 2) ITU-R WP 9B on IEEE 802.16-2004 in Fixed Service frequency bands. 3) ITU-R JTG 6-8-9 on sharing with satellites in the band 2500-2690 MHz. 4) ITU-R WP 8F on services survey and IP applications.
Purpose	Approve the proposed actions to contribute to ITU-R
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Report of the meeting of the ITU ad hoc group during Session #40
José Costa (ITU-R Liaison Official)

Introduction

The ITU ad hoc group met from 8:20 to 10:50 hours on Wednesday, 16 November 2005, in Vancouver, Canada, chaired by José Costa. Twenty-one people participated. The following agenda was adopted:

1. Introductions and approval of agenda
2. Adoption of report of the meeting in San Francisco (IEEE L802.16-05/046)
3. Brief reports on relevant ITU-R meetings
   - JTG 6-8-9 (terrestrial-satellite sharing in 2 500 – 2 600 MHz)
   - WP 8A (Land Mobile except IMT)
   - WP 8F (IMT)
   - TG 1/8 (UWB)
4. Consideration of input documents:
   4.1. IEEE L802.16-05/055: Liaison from WP 8A on BWA
   4.2. IEEE L802.16-05/056: Liaison from WP 8F on IP applications over mobile systems
5. Future ITU-R meetings
   - SG 8 (Nov 2005)
   - WP 9B (Nov 2005)
   - SG 9 (Dec 2005)
   - WP 8F (Jan 2006)
   - JTG 6-8-9 (Feb 2006)
   - WP 8A (Mar 2006)
   - WP 8F (May 2006)
6. Other business

Results

The report of the previous meeting was adopted: Document IEEE L802.16-05/046.

The chair gave a brief report of relevant recent ITU-R meetings:

- Joint Task Group 6-8-9 (terrestrial-satellite sharing in 2 500 – 2 600 MHz): The IEEE contribution (Doc. IEEE L802.16-05/044r1) was well received at the ITU-R JTG 6-8-9 meeting in Seoul (Korea, Rep. of) in August 2005. As suggested in the IEEE contribution, the column with IEEE 802.16 system characteristics was removed and the text now points to IEEE 802.16 in relation to characteristics of other systems already presented in the table (Annex 3 to ITU-R Doc. 6-8-9/66).

- Working Party 8A (Land Mobile except IMT): The IEEE contribution (IEEE L802.16-05/043r1) was well received at the ITU-R WP 8A meeting in Geneva (Switzerland) in September 2005. The updated document is now in Annex 12 to ITU-R Doc. 8A/277. Based on other contributions additional material was added to the draft, the scope is now aligned with that of Question 212/8, that is nomadic systems, and the possibility of

other standards being added to this working document was noted (see "standard[s]" in the title). Further details are in the liaison statement from WP 8A (Doc. IEEE L802.16-05/055) that will require action by IEEE 802.16 (see below).

- Working Party 8F (IMT): ITU-R WP 8F met in Helsinki (Finland) in October 2005. WP 8F is developing, jointly with WP 8A, a working document on IP applications over mobile systems (Doc. IEEE L802.16-05/056) that will require action by IEEE 802.16 (see below).

- Task Group 1/8 (UWB): The work on UWB has been completed and the results have been submitted to ITU-R Study Group 1: http://www.itu.int/md/meetingdoc.asp?lang=e&type=sfolders&parent=R03-SG01-C.

The main item of business for this meeting was the consideration of two liaison statements from ITU-R WP 8A (on BWA) and WP 8F (on IP applications over mobile systems).

IEEE L802.16-05/055: The liaison statement from WP 8A was reviewed by the ITU ad hoc group. In line with the earlier agreements in Document IEEE L802.16-05/044r1 it was agreed that IEEE 802.16 does not need to provide input to ITU-R on characteristics of BWA systems for sharing studies (see Attachment 3 to IEEE L802.16-05/055). It was noted that Attachment 1 to IEEE L802.16-05/055 is largely based on previous IEEE contributions. It was also noted that Attachment 2 to IEEE L802.16-05/055 contains multiple standards and potentially additional standards could also be added to the working document in Attachment 1. Considering the definition of "ITU-R Recommendation" provided in the liaison statement, it was noted that when multiple standards are recommended there is a need to do an evaluation and provide guidance for when to use each standard. The ad hoc group started to develop a list of tentative criteria with a view to develop a contribution to WP 8A to assist WP 8A in their work:

Tentative criteria for evaluation of BWA standards:

1. Satisfy the ITU-R definition of "broadband"
2. Be able to operate in the Mobile Service under 6 GHz
3. Be able to support MS speeds of at least [50 km/h].
4. Be able to support handover for mobility
5. Be able to support broadband services at vehicular speeds.

A contribution to WP 8A will be developed by correspondence[1] and the ITU-R Liaison Official should provide a draft to the chairman of the IEEE 802.16 WG by 1 February 2006 for distribution to the IEEE 802 Executive Committee, with the expectation that the final version of the contribution can be readily approved by the IEEE 802 Executive Committee at their meeting in Denver on 10 March 2006 after the WG approves it (Note: deadline for contributions to WP 8A is 13 March 2006).

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[1]   IEEE 802.16 members wishing to assist with the development of the contribution by correspondence please send a note to José Costa (ITU-R Liaison Official).

IEEE L802.16-05/056: The liaison statement from WP 8F was reviewed by the ITU ad hoc group. It was agreed that IEEE should provide contribution to ITU-R WP 8F with specific input material by the 19th meeting of ITU-R WP 8F in May 2006. The preliminary assessment of the ITU ad hoc group is that we will develop a description of the relevant capabilities in IEEE 802.16 based on the outline of the sections in the main body of Annex A in the working document (PDNR ITU-R M.[IP CHAR]) in IEEE L802.16-05/056. We expect to develop a proposed new attachment to Annex A, summarizing the implementation of relevant IP capabilities of IEEE 802.16 systems. Reza Arefi and Henry Taylor have kindly agreed to develop the first draft of the contribution; the other members of IEEE 802.16 members interested in assisting are invited to join the correspondence activities by sending a note to José Costa (ITU-R Liaison Official).

Since ITU-R WP 8F has requested input by 16 January 2006 for their 18th meeting and IEEE 802.16 will be unable to meet this deadline, it is proposed to send a contribution to ITU-R WP 8F with an indication of the intent to do it later (see Document IEEE L802.16-05/059).

Motion: "To approve IEEE L802.16-05/059 and authorize the WG Chair to submit it to the IEEE 802 Executive Committee for approval, with the intent to submit to ITU-R as an IEEE contribution."

In order to carry out the correspondence activities the following motion is also made:

Motion: "To task the ITU-R Liaison Official, with the assistance of volunteer IEEE 802.16 members, to coordinate the development of the draft contributions to ITU-R WP 8A (on BWA standards) and WP 8F (on IP applications over mobile systems), for further consideration by the WG at the March 2006 meeting."

The ITU ad hoc chair concluded the meeting by giving an overview of future ITU-R meetings (see list under item 4 of the agenda above).

There was no other business.