Project	**IEEE 802.16 Broadband Wireless Access Working Group**
Title	**IEEE 802.16 MAC & Task Group 1 Meeting Minutes for Session #10**
Date Submitted	**2000-11-14**
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Re:	This contribution is to provide the minutes of 802.16 MAC Task Group and 802.16 Task Group meetings at 802.16 Session #10.
Abstract	Minutes of 802.16 MAC Task Group and 802.16 Task Group meetings at 802.16 Session #10.
Purpose	
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IEEE 802.16 TG1 & MAC Meeting Minutes for Session #10

Acting Secretaries: Juan-Carlos Zuniga and Ronald Meyer
(Harris Corporation, Crosspan Network Access Technologies)

Session # 10

Tuesday, **November 7, 2000**

		TFM Discussion
16:34		Straw poll: Should we consider TFM as an option for the Upstream?: Yes 17; No 6
		What is the meaning of an option? Base Station mandatory and optional features have to be specified
18:00		Adjournment
19:30		TG3 Requirements for TG1 MAC
	Vladimir's Presentation	Concerns: Not easy to attach any other MAC than TG1. Submitted document addresses several places where this happens (i.e. 2.3.1.4 and 2.3.3.1.4). PS concept related to symbol duration (2.6.4.1). Few more are explained in the presentation and some solutions are also proposed. Implementing a "SAP" in-between MAC and PHY, and include a PHY Convergence Layer for each PHY, similarly to the concept of CL. Also a Data Contention scheme would be needed.
	Group discussion	A set of people representing TG3 specific issues will be attending TG1 MAC discussions, and they will also address specific action items related to TG3. The possibility of holding an interim MAC meeting with people from both groups was also mentioned.
21:20		Adjournment

Wednesday, **November 8, 2000**

8:05	Carl	Call to order
	George F.	Presentation of 6 desirable changes to TG1 MAC, in order to support TG3 applications.
8:10	Carl	MAC comment resolution
12:00	Carl	Break
13:00	Jay, Carl	MAC-PHY issues
13:30	MAC	MAC comment resolution
16:20		Adjournment

Thursday, **November 9, 2000**

8:10	Carl	Call to order
	Juan-Carlos	Revision of all the submitted Editorial comments has been carried out, and all the trivial Editorial changes have been identified. **Motion:** To accept all the submitted MAC-Editorial comments, except for comments number 15, 17, 90, 122, 123, 136, 150, 182, 188, 288, 374, 375, 406, 420 and 438; and to modify the Type of these fifteen comments from "Editorial" to "General". Motion carries unanimously
	Ken; second Sergio	**Motion:** To create an Ad-hoc group for restructuring the upcoming draft Air-Interface specification document (802161-00_01r5), chartered to generate a new revision of the document (802161-00_01r6). This restructuring includes a separation of the MAC and PHY, without making any technical changes to the document and simplifying the addition of other PHY layers (i.e. TG3) and MAC enhancements. This restructuring will consider the 802.11 Table of Contents as a model. Motion carries unanimously
		The Group will be formed by: Carl Eklund, Ken Stanwood, Subir Varma, Yigal Leiba, Mary Condie, Vladimir Yanover, Huanchun Ye, Glen Sater, Ron Meyer, Sergio Licardie, Ian Baragar, and Juan-Carlos Zuniga.
	Ken	Presentation of ATM Convergence Layer
		The Convergence sub-layer is responsible for packetising the data in a format that is expected by the MAC sub-layer. If classification is required, it will be carried out elsewhere including the mapping to the Service Flow.
15:00	Carl	Session adjourned

Some overall document related issues arose during the comment resolution process, these spawned the following needed changes to the document that will be implemented:

1) The document Introduction section needs to be updated to include an explanation of the interoperability between Subscriber Stations' different possible PHY types and the modes supported by Base Stations. Subscriber Stations are not required to implement all PHY modes, nor are they required to autonomously communicate with the Base Station to negotiate the PHY type over which they will communicate. Subscriber

Stations must be configured at the time they are deployed into the network to operate with the Base Station in their sector.

2) The document needs to include a section (perhaps a table) that describes the various required and optional features for each PHY type.

3) The DCD message contains, among other things, the "roll-off" factor to be used in the square root raised cosine filter in the receiver. Should a mechanism be provided to modify this after initial terminal access to allow a terminal to change it's roll-off factor to support different PHY types? If this feature is not needed for the current PHY types, should the mechanism be added to allow other PHY types to change parameters after initial terminal access?

4) The terms TDM and TDMA are confusing because they are not clearly defined, they should be clarified. The clarification should include the option that particular FEC schemes that might need to be related to the TDMA burst scheme. It is possible that Subscriber Stations might not include all PHY types. A Subscriber Station like this might need to utilize a preamble on each TDMA burst in order to take advantage of more robust modulation schemes, without stepping through the entire range of modulation schemes, if all were not implemented.

5) IUC – definition should include numbering that is in order of robustness for each of the current PHY modes.

6) Change the abbreviation for "seconds" from whatever it is to "s" everywhere in the document.

7) In the figure on page 155 address the issue of the time out value for the base station to determine that the subscriber station has a problem. There is also a need to address the issue of a "stay alive process" where terminals are queried on some periodic basis to ensure that they are still operational and/or registered. (Sergio will provide an input for this function).