



**To: Roger B. Marks, Chairman IEEE 802.16**

**From: Jamshid Khun-Jush, Chairman ETSI BRAN**

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ETSI BRAN is developing a wireless broadband standard. Harmonizing the standard between ETSI BRAN-HA and IEEE802.16 would lead to higher volumes and decreased manufacturing costs. We note that harmonization of this kind has already been achieved by the HIPERLAN group of ETSI BRAN and the IEEE802.11 concerning the PHY layer architecture. We would hope to achieve at least similar results and possibly even target a higher coordination level to define interoperable products.

This group is developing a standard that is optimized for wireless broadband access and is not derived from any established wireless or other standard. The group enjoys support from several major telecommunications operators to assist in this task. Some of recent decisions made by the group are listed below:

- (1) The first issue of the standard will be based on a point to multipoint architecture.
- (2) The equipment will use 28 MHz channels with a single carrier transmission from each station.
- (3) The down link channel will use time division multiplexing and the up link will use time division multiple access. The possibility of using some frequency division multiple access with 7 MHz sub channels, within the 28MHz up link channel, is under study.
- (4) It has also been agreed that the standard will define an adaptive modulation scheme to make full use of the variable propagation conditions that exist in real radio environments.
- (5) The DLC (MAC) layer will be connection oriented to ensure predictable quality of service.

More detailed PHY layer decisions (i.e., on modulation types and coding schemes) and DLC (MAC) layer decisions will be made in the next few months and the preferred frequency bands for HIPERACCESS systems were noted in a previous liaison statement to the IEEE802.16 group.

In order to assist with the harmonization process we propose the following:

- (1) Liaison: The group has appointed Mr. Jay Klein as the liaison of ETSI BRAN-HA for IEEE802.16. Mr. Klein is actively participating in both standardization efforts.
- (2) Joint meeting: We propose to agree on a co-located meeting sometime in the near future to facilitate coordination and exchange of views.
- (3) Synchronization of schedule process: ETSI BRAN-HA has targeted 01/06/2000 as the date for a first draft of the physical layer specification. It would be beneficial to synchronize between group schedules for efficient decision-making.

Sincerely,

Jamshid Khun-Jush