802.16.1 Medium Access Control Task Group

Evaluation Table - Session #5

#	Criterion	Discussion
1	Meets system requirements	How well does the proposed MAC protocol meet the requirements described in the current version of the 802.16.1 Functional Requirements? (See Document IEEE 802.16s-99/00 <http://grouper.ieee.org/groups/802/16/sysreq/docs/80216s-99_00.pdf>)
2	Mean access delay and variance	How effective are the mechanisms presented in controlling the delay and variance? Does it seem possible for an operator to offer a bounded delay for a prescribed offered load?
3	Payload and bandwidth efficiency	1. How well does the overhead due to the proposed MAC PDU headers allow for efficient user data transfer over the air interface? 2. Is the proposed MAC protocol designed such that the MAC signaling is efficient in terms of not requiring excessive overhead? 3. How well does the proposed MAC protocol provide the mechanisms for fair allocation and sharing of the bandwidth among users? (Please include payload example.)
4	Simplicity of implementation/low complexity	How well does the proposed MAC protocol allow for an implementation that is simple and generic enough that it is likely to be accepted by industry?
5	Scalability	Does the MAC protocol support a broad range of operational bandwidths and number of connections across all services?
6	Service Support Flexibility	1. How completely does the MAC protocol support the services mentioned in the 802.16.1 Functional Requirements? 2. How well does the MAC protocol support additional services?
7	Robustness	1. Is the MAC protocol able to recover from events such as unexpected shut down or loss of link? 2. How well does the MAC Layer react in the face of errors arising from the Physical Layer?
8	Security	How well does the MAC protocol provide security mechanisms to meet the 802.16.1 Functional Requirements?
9	Maturity	Does the proposed MAC protocol have data to demonstrate its ability to operate in an actual system that is representative of the BWA networks targeted for 802.16.1?
10	Sign-on process	1. How well does the MAC protocol resolve initial two way ranging? 2. How automatic is the sign-on process?
11	Adequacy of management functions	How well does the MAC protocol provide link management functions for subscribers' timing, power, and frequency?
12	Convergence with existing protocols	How simple is it to adapt the proposed MAC protocol to well-known LAN and WAN protocols?
13	Ability to work with physical layer variations, e.g., duplexing, constellation, etc.	How independent is the proposed MAC protocol of the PHY protocol?