Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**	
Title	**OA&M Message Requirements for 802.16g**	
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Re:	Call for Contributions	
Abstract	Review and adopt suggestion into the 802.16 draft standard	
Purpose	To propose call detail logging from the network to be included as OA&M messages that need to be supported in 802.16g	
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Some general considerations of the network management plane

1. Open interfaces: The AI shall support open interfaces between the base station and any upstream network entities. Any interfaces that may be implemented shall use IETF protocols or 3GPP/3GPP2 standardized as appropriate.
2. Complex networks shall create sufficient data that sophisticated data mining and performance management programs can perform drill down for root cause and further system optimization.

14.2.6.2 User Performance Measurements Support

Mobility creates a dynamic environment for the network that will require constant monitoring and optimization. To accomplish these tasks it is import that the network has a reasonable idea of how mobile stations are performing while moving through the network. Therefore, the air interface shall support the collection of the following metrics so that a network operator to can effectively monitor the performance of the 802.16 air interfaces.

CDLs are generally used to answer questions about a specific call that has completed, used to spot large numbers of call failures or short duration calls that are associated with specific equipment and to provide an indication as to why specific types of call failures (e.g. RF Losses) occurred. Performance management statistics provide an overall view of system performance (e.g. number of calls, equipment usage) and aggregate failures so that problem areas can be spotted. Call processing exception reports provide information about failures associated with a specific call. Information from both the CDL and from exception reports may be necessary to diagnose a call. A Call Detail Log (CDL) is generated by the access point (AP) or anchor point if soft handoff is used, when its participation in a call ends with the generation of one of a set of designated call final classes (CFCs). The CDL are sent up to the OMC periodically. These statistics should be made available via PM data forwarding mechanisms as defined by 3GPP (32-series) & 3GPP2 (S.S0028)

- Access information
  - Network details – access serving BS ID
  - RF details –
    - first MOB_SCAN-REPORT,
    - first REP-RSP,
    - total timing adjustment
  - Access system time
- Device information
  - Entry type – origination / termination, hard hand-in, cell update
  - QoS Class – Best Effort, Gaming, VoIP, …
  - CC status
  - Service level prediction
  - SS ID (mac id?)
  - IP address
- Summary call quality information
  - Forward /Reverse packet retransmission (error) rate
  - Forward / Reverse average throughput
  - Constellation usage
  - Average latency
  - Average jitter
- RF information
  - Last REP-RSP
  - Last MOB_SCAN-REPORT
- Last sector information

- BS Transmit power
- BS Reverse RSSI

Last sector vector -NOTE: not sure what to call this but with smart antennas the location of the user to build a traffic distribution map is very useful.

- Direction
- Distance
- RTT

Call release information

- Release system time
- Call final class