Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Missing Attributes in the Interface MIBs**
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Source(s)	Joey Chou
Re:	This contribution is in reply to contribution C802.16-07_004.
Abstract	
Purpose	Discuss and adopt.
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Comments to Missing Attributes in the Interface MIBs

Joey Chou

Name	**Unit**	**802.16e Section**	**Proposal**
NSP ID List	N/A	WmanIf2BsOfdmaDownlinkChannelEntry	
Max Map Pending	Table 342	WmanIf2BsConfigurationEntry (Can't find)	
Number of downlink transport CIDs supported	int	11.7.6.2	WmanIf2BsCapabilitiesConfigEntry wmanIf2BsSsReqCapDownlinkCidSupport
Maximum amount of MAC level data per DL frame	256-byte block	11.7.8.10.1	WmanIf2BsCapabilitiesConfigEntry wmanIf2BsSsReqCapMaxMacLevelDlFrame
Maximum amount of MAC level data per UL frame	256-byte block	11.7.8.10.2	WmanIf2BsCapabilitiesConfigEntry wmanIf2BsSsReqCapMaxMacLevelUlFrame
MAC Extended rtPS support	boolean	11.7.8.12	WmanIf2BsCapabilitiesConfigEntry wmanIf2BsSsReqCapExtendedRtpsSupport
MAC header and extended subheader support	bit mask	11.7.25	WmanIf2BsCapabilitiesConfigEntry wmanIf2BsSsReqCapMacHeader
OFDMA SS permutation support	bit mask	11.8.3.7.4	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapPermutation
OFDMA SS demodulator for MIMO support	bit mask	11.8.3.7.5	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapDemMimo
OFDMA SS MIMO uplink support	bit mask	11.8.3.7.6	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapUlMimo
OFDMA AAS private map support	bit mask	11.8.3.7.7	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapPrivateMap
OFDMA AAS capabilities	bit mask	11.8.3.7.8	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapAasCapability
OFDMA SS CINR measurement capability	bit mask	11.8.3.7.9	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapCinrMesurement
OFDMA SS uplink power control support	bit mask	11.8.3.7.11	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapUlPowerControl

OFDMA MAP Capability	bit	11.8.3.7.12	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapMapCapability

mask			
Uplink control channel support	bit mask	11.8.3.7.13	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapUlControlChannel
OFDMA MS CSIT capability	bit mask	11.8.3.7.14	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapCistCapability
OFDMA SS Modulator for MIMO Support	bit mask	11.8.3.7.16	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapModMimo
OFDMA Multiple Downlink Burst Profile Capability	boolean	11.8.3.7.18	WmanIf2BsOfdmaCapabilitiesConfigEntry wmanIf2BsSsOfdmaReqCapMultipleBurst
Initial Ranging Backoff Start	8 bits	6.3.2.3.3 Table 17	WmanIf2BsOfdmUplinkChannelEntry, WmanIf2BsOfdmaUplinkChannelEntry wmanIf2BsOfdmaExInitialRngBackoffStart
Initial Ranging Backoff End	8 bits	6.3.2.3.3 Table 17	WmanIf2BsOfdmUplinkChannelEntry, WmanIf2BsOfdmaUplinkChannelEntry wmanIf2BsOfdmaExInitialRngBackoffEnd
Request Backoff Start	8 bits	6.3.2.3.3 Table 17	WmanIf2BsOfdmUplinkChannelEntry, WmanIf2BsOfdmaUplinkChannelEntry wmanIf2BsOfdmaExBwRequestBackoffStart
Request Backoff End	8 bits	6.3.2.3.3 Table 17	WmanIf2BsOfdmUplinkChannelEntry, WmanIf2BsOfdmaUplinkChannelEntry wmanIf2BsOfdmaExBwRequestBackoffEnd
UL AMC Allocated physical bands bitmap	6 bits	11.3.1 Table 353	WmanIf2BsOfdmaUplinkChannelEntry wmanIf2BsOfdmaExUlAmcAlloPhyBandsBitmap
Band AMC Entry Average CINR	byte	11.3.1 Table 353	WmanIf2BsOfdmaUplinkChannelEntry wmanIf2BsOfdmaExBandAmcEntryAvgCinr
Maximum retransmission	byte	11.3.1 Table 353	WmanIf2BsOfdmaUplinkChannelEntry wmanIf2BsOfdmaExMaxRetransmission

Normalized C/N override 2	int	11.3.1 Table 353	Add WmanIf2BsOfdmaNorCOverNOverride2 in WmanIf2BsOfdmaUcdBurstProfileEntry wmanIf2BsOfdmaExNormalizedCnOverride
UpperBoundAAS_PREAMBLE	int	11.3.1 Table 353	WmanIf2BsConfigurationEntry wmanIf2BsOfdmaExAasPreambleUpperBond
LowerBoundAAS_PREAMBLE	int	11.3.1 Table 353	WmanIf2BsConfigurationEntry wmanIf2BsOfdmaExAasPreambleLowerBond
Allow AAS Beam Select Messages	boolean	11.3.1 Table 353	WmanIf2BsConfigurationEntry wmanIf2BsOfdmaExAasPreambleUpperBond
Use CQICH indication flag	byte	11.3.1 Table 353	WmanIf2BsOfdmaUplinkChannelEntry wmanIf2BsOfdmaExCqichIndicationFlag
Normalized C/N for Channel Sounding	byte	11.3.1 Table 353	WmanIf2BsOfdmaUcdBurstProfileEntry wmanIf2BsOfdmaExNormalizedCnValue
Permutation type for broadcast region in HARQ zone	byte	11.4.1 Table 358	WmanIf2BsOfdmaDcdBurstProfileEntry wmanIf2BsOfdmaExHarqZonePermutation
Maximum retransmission	byte	11.4.1 Table 358	WmanIf2BsOfdmaDcdBurstProfileEntry wmanIf2BsOfdmaExHMaxRetransmission
Default RSSI and CINR averaging parameter	byte	11.4.1 Table 358	WmanIf2BsOfdmaDcdBurstProfileEntry wmanIf2BsOfdmaExCinrAlphaAvg wmanIf2BsOfdmaExRssiAlphaAvg

DL AMC allocated physical bands bitmap	int	11.4.1 Table 358	WmanIf2BsOfdmaDcdBurstProfileEntry wmanIf2BsOfdmaExDlAmcAlloPhyBandsBitmap
ASR(Anchor Switch Report) Slot Length (M) and Switching Period (L)	byte	11.4.1 Table 358	WmanIf2BsOfdmaDcdBurstProfileEntry wmanIf2BsOfdmaExAsrSlotLength

02. Typos/Spelling/Inconsistencies:
1- The “wman2DevCommonObjects” and “wman2DevCmnEventLog” element names are inconsistent. Suggest to use Cmn as the keyword for common attributes across the MIB. Similar comments for “WmanIf2CommonObjects” and other element in the interface MIB.
2- The “WmanIf2BsOfdmaCQICHBandAMCTranaDelay” element should be named “WmanIf2BsOfdmaCQICHBandAMCTransDelay”.
3- The “WmanIf2BsOfdmaHARQAackDelayBurst” element should be named “WmanIf2BsOfdmaHARQAckDelayBurst”.
4- The “WmanIf2BsOfdmaHARQAackDelayUlBurst” element should be named

“WmanIf2BsOfdmaHARQAckDelayULBurst”.
5- The REFERENCE attribute of the “WmanIf2NumOfUplinkCid” element points to Subclause 11.7.4. It should point to Subclause 11.7.6.1 instead.

03. Handover:
There are attributes proposed to be introduced for handover support in Annex F of 802.16i. However, some attributes defined in 802.16e and required for handover support are not included. They are the following:
0- Handoff Ranging Start (Table 349) wmanIf2BsOfdmaExHandoverRangingStart
1- Handoff Ranging End (Table 349) wmanIf2BsOfdmaExHandoverRangingEnd
2- Number of Handover Ranging Codes (Table 353) wmanIf2BsOfdmaExHandoverRngCodes
3- Handover H_Add Threshold (Table 358) wmanIf2BsOfdmaExThresholdAddBsDivSet
4- Handover H_Delete Threshold (Table 358) wmanIf2BsOfdmaExThresholdDelBsDivSet
5- Handover Hysteresis Margin (Table 358) wmanIf2BsOfdmaExHytseresisMargin
6- Handover time-to-trigger Duration (Table 358) wmanIf2BsOfdmaExTimeToTrigger
74. Power Control:

The following attributes are defined in Table 20 of 802.16i, but are not defined in the MIB:
0- msUpPowerAdjStep wmanIf2BsOfdmaExUpPowerAdjStep
1- msDnPowerAdjStep wmanIf2BsOfdmaExDownPowerAdjStep
2- minPowerAdjLever (should be minPowerAdjLevel) wmanIf2BsOfdmaExMinPowerOffsetAdj
3- maxPowerAdjLever (should be maxPowerAdjLevel) wmanIf2BsOfdmaExMaxPowerOffsetAdj
4- txPwrRepThresholdCQI wmanIf2BsOfdmaExCqichTxPwrRepThreshold
5- txPwrRepIntervalCQI wmanIf2BsOfdmaExCqichTprPower