Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Proposed text and ASN.1 code to support MOB_NBR-ADV**
Date Submitted	**2007-01-11**
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Re:	
Abstract	This contribution proposes the text and ASN.1 code in wmanIf2mMib to support MOB_NBR-ADV message.
Purpose	Adoption
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1. Introduction

This contribution proposes the text and ASN.1 code in wmanIf2mMib to support MOB_NBR-ADV message.

2. NRM IRP SNMP Solution Set change Proposal

2.1 wmanIf2mMib Change

13.1.4.1 wmanIf2mBsObjects

13.1.4.1.1 wmanIf2mBsCm

[Change Figure 19 as the following:]

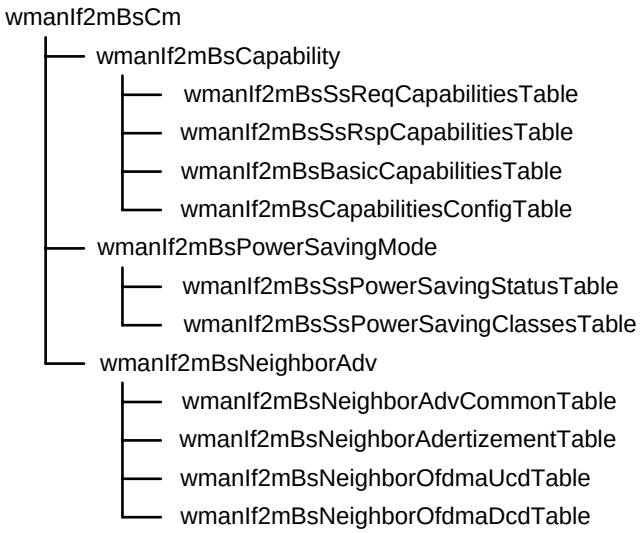

Figure 19—wmanIf2mBsCm structure

[Add the following text to subclause 13.1.4.1.1.2:]

13.1.4.1.1.3 wmanIf2mBsNeighborAdv

13.1.4.1.1.3.1 wmanIf2mBsNeighborAdvCommonTable

wmanIf2mBsNeighborAdvCommonTable This table contains the common attributes for the MOB_NBR-ADV message..

13.1.4.1.1.3.2 wmanIf2mBsNeighborAdvertizementTable

wmanIf2mBsNeighborAdvertizementTable contains the attributes specific to each neighbor BS for the MOB_NBR-ADV message.

13.1.4.1.1.3.3 wmanIf2mBsNeighborBsOfdmaUcdTable

wmanIf2mBsNeighborBsOfdmaUcdTable contains the attributes of the UCD message for the neighboring BSs. It provides one row for each neighboring BS.

13.1.4.1.1.3.4 wmanIf2mBsNeighborBsOfdmaDcdTable

wmanIf2mBsNeighborBsOfdmaDcdTable contains the attributes of the DCD message for the neighboring BSs. It provides one row for each neighboring BS.

2.2 wmanIf2Mib ASN.1 Code Change

13.2 ASN.1 Definitions of MIB Modules

13.2.4 wmanIf2mMib

[Add the following code to WMAN-IF2-MIB:]

```
WmanIf2mSkipOptBitMap ::= TEXTUAL-CONVENTION
        STATUS      current
        DESCRIPTION
            "If set to 1, its corresponding field will be omitted."
        REFERENCE
            "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
        SYNTAX      BITS {omitOperatorId(0),
                          omitNeighborBsId(1),
                          omitHoProcOptimization(2),
                          omitQosRelatedField(3)}

WmanIf2mNbrBsId ::= TEXTUAL-CONVENTION
        STATUS      current
        DESCRIPTION
            "The least significant 24 bits of the Base Station ID
             parameter in the DL-MAP message broadcast by the Neighbor
             BS. The BSID is a 6 byte number and follows the encoding
             rules of MacAddress textual convention, i.e. as if it were
             transmitted least-significant bit first. The value should
             be displayed with 2 parts clearly separated by a colon.
             Example 001DFF:00003A - 00003A is the Base Station ID. "
        REFERENCE
            "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
        SYNTAX      OCTET STRING (SIZE(3))

WmanIf2mNbrOperatorId ::= TEXTUAL-CONVENTION
        STATUS      current
        DESCRIPTION
            "The most significant 24 bits of the Base Station ID
             parameter in the DL-MAP message broadcast by the Neighbor
             BS. The BSID is a 6 byte number and follows the encoding
             rules of MacAddress textual convention, i.e. as if it were
             transmitted least-significant bit first. The value should
             be displayed with 2 parts clearly separated by a colon.
             Example 001DFF:00003A - 001DFF is the Operator ID. "
        REFERENCE
            "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
```

```
        SYNTAX      OCTET STRING (SIZE(3))

WmanIf2mPhyProfileId ::= TEXTUAL-CONVENTION
        STATUS      current
        DESCRIPTION
            "For systems using OFDM or OFDMA, the definition of the PHY
             Profile ID is shown as follows:
             bit#0: If set to 1, BS (or FA) is co-located with the
                    serving BS
             bit#1: If set to 1, the BS has the same number of FAs and
                    frequencies as the BS broadcasting the NBR-ADV
             bit#2: 0b00 = Unsynchronized
             bit#3: 0b01 = Time synchronization
                    0b10 = Time and Frequency synchronization
                    If time synchronization is indicated for the OFDMA
                    PHY, then the downlink frames transmitted by the
                    serving BS and the Neighbor BS shall be synchronized
                    to a level of at least 1/8 cyclic prefix length. If
                    frequency synchronization is indicated for the OFDMA
                    PHY, then the BS reference clocks shall be
                    synchronized to a level that yields RF center
                    frequency offset of no more than 1% of the OFDMA
                    carrier spacing of the Neighbor BS.
             bit#4: If set to 1, the BS EIRP follows the PHY Profile ID
             bit#5: 0b0- The DCD/UCD settings of this neighbor BS are
                         the same as those of the serving BS unless the
                         TLV information specifies.
                    0b1- The DCD/UCD settings of this neighbor BS are
                         the same as those of the preceding neighbor BS
                         unless the TLV information specifies.
             bit#6: If set to 1, the FA Index follows the PHY Profile ID.
                    In addition, if the FA Indicator is followed, the DL
                    center frequency shall be omitted in the DCD/UCD
                    difference TLV information.
             bit#7: The Trigger Reference Indicator is related to the
                    Neighbor BS trigger metric TLV information of this
                    neighbor BS.
                    0b0- The trigger settings of this neighbor BS are
                         the same as those provided by the serving BS
                         (via DCD).If the TLV information is present, it
                         overrides values inherited from preceding
                         neighbor BS.
                    0b1- The trigger settings of this neighbor BS are
                         the same as those of the preceding neighbor BS."
        REFERENCE
            "Table 109g in IEEE Std 802.16e-2005"
        SYNTAX      BITS {colocatedFaInd(0),
                          faConfigInd(1),
                          timeFreqSyncInd1(2),
                          timeFreqSyncInd2(3),
                          bsEirpInd(4),
                          dcdUcdRefInd(5),
                          faIndexInd(6),
                          triggRefInd(7)}


WmanIf2mHoProcOptm ::= TEXTUAL-CONVENTION
        STATUS      current
        DESCRIPTION
            "For each Bit location, a value of '0' indicates the
             associated reentry management messages shall be required,
             a value of '1' indicates the reentry management message may
             be omitted. Regardless of the HO Process Optimization TLV
             settings, the target BS may send unsolicited SBC-RSP and/ or
```

```
                REG-RSP management messages
                bit#0: Omit SBC-REQ/RSP management messages during re-entry
                       processing
                bit#1: Omit PKM Authentication phase except TEK phase during
                       current re-entry processing
                bit#2: Omit PKM TEK creation phase during reentry processing
                bit#3: Omit REG-REQ/RSP management during current re-entry
                       processing
                bit#4: Omit Network Address Acquisition management messages
                       during current reentry processing
                bit#5: Omit Time of Day Acquisition management messages
                       during current reentry processing
                bit#6: Omit TFTP management messages during current re-entry
                       processing
                bit#7: Full service and operational state transfer or
                       sharing between serving BS and target BS (ARQ, timers,
                       counters, MAC state machines, etc...)"
            REFERENCE
                "Table 109f in IEEE Std 802.16e-2005"
            SYNTAX      BITS {omitSbcReq(0),
                              omitPkmAuth(1),
                              omitPkmTek(2),
                              omitRegReq(3),
                              omitNtwkAddrAcq(4),
                              omitTimeOfDay(5),
                              omitTftp(6),
                              fullService(7)}

    WmanIf2mSchedulingSupp ::= TEXTUAL-CONVENTION
            STATUS      current
            DESCRIPTION
                "Bitmap to indicate if BS supports a particular scheduling
                 service. 1 indicates support, 0 indicates not support:
                 bit#0: Unsolicited Grant Service (UGS)
                 bit#1: Real-time Polling Service (rtPS)
                 bit#2: Non-real-time Polling Service (nrtPS)
                 bit#3: Best Effort
                 bit#4: Extended real-time Polling Service (ertPS)
                 If the value of bit 0 through bit 4 is 0b00000, it indicates
                 no information on service available."
            REFERENCE
                "Table 109f in IEEE Std 802.16e-2005"
            SYNTAX      BITS {ugs(0),
                              rtPs(1),
                              nrtPs(2),
                              be(3),
                              ertPs(4)}

    WmanIf2mMacVersion ::= TEXTUAL-CONVENTION
            STATUS      current
            DESCRIPTION
                "Version number of IEEE 802.16."
            SYNTAX      INTEGER {ieee802Dot16Of2001(1),
                                 ieee802Dot16cOf2002(2),
                                 ieee802Dot16aOf2003(3),
                                 ieee802Dot16Of2004(4),
                                 ieee802Dot16e(5),
                                 tbd(6)}

    WmanIf2mHarqAckDelay ::= TEXTUAL-CONVENTION
            STATUS      current
            DESCRIPTION
                "HARQ ACK delay for UL and DL bursts
                   1 = one frame offset
```

```
                2 = two frames offset
                3 = three frames offset"
        REFERENCE
            "Table 353 in IEEE Std 802.16e-2005"
        SYNTAX      INTEGER {oneframeoffset(1),
                             twoframesoffset(2),
                             threeframesoffset(3)}

--
-- Neighbor Base Stations Advertizement
--
wmanIf2mBsNeighborAdv OBJECT IDENTIFIER ::= { wmanIf2mBsCm 3 }

wmanIf2mBsNeighborAdvCommonTable OBJECT-TYPE
        SYNTAX      SEQUENCE OF WmanIf2mBsNeighborAdvCommonEntry
        MAX-ACCESS  not-accessible
        STATUS      current
        DESCRIPTION
            "This table contains the common attributes for the
             MOB_NBR-ADV message."
        ::= { wmanIf2mBsNeighborAdv 1 }

wmanIf2mBsNeighborAdvCommonEntry OBJECT-TYPE
        SYNTAX      WmanIf2mBsNeighborAdvCommonEntry
        MAX-ACCESS  not-accessible
        STATUS      current
        DESCRIPTION
            "This table provides one row for each BS sector, and is
             indexed by ifIndex."
        INDEX     { ifIndex }
        ::= { wmanIf2mBsNeighborAdvCommonTable 1 }

WmanIf2mBsNeighborAdvCommonEntry::= SEQUENCE {
        wmanIf2mBsSkipOptions                   WmanIf2mSkipOptBitMap,
        wmanIf2mBsOperatorId                    WmanIf2mNbrOperatorId,
        wmanIf2mBsNumOfNeighbors                Unsigned32}

wmanIf2mBsSkipOptions OBJECT-TYPE
        SYNTAX      WmanIf2mSkipOptBitMap
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "When a bit is set to 1, its corresponding field will be
             omitted."
        REFERENCE
            "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborAdvCommonEntry 1 }

wmanIf2mBsOperatorId OBJECT-TYPE
        SYNTAX      WmanIf2mNbrOperatorId
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The unique network ID shared by an association of BS.
             The 'Operator IE' field is present only if Bit #0 of
             wmanIf2mBsSkipOptions is 0."
        REFERENCE
            "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborAdvCommonEntry 2 }

wmanIf2mBsNumOfNeighbors OBJECT-TYPE
        SYNTAX      Unsigned32 (0 .. 15)
        MAX-ACCESS  read-write
        STATUS      current
```

```
            DESCRIPTION
                "The count of the unique combination of Neighbor BSID,
                 Preamble Index, and DCD."
            REFERENCE
                "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborAdvCommonEntry 3 }

    wmanIf2mBsNeighborAdvertizementTable OBJECT-TYPE
            SYNTAX      SEQUENCE OF WmanIf2mBsNeighborAdvertizementEntry
            MAX-ACCESS  not-accessible
            STATUS      current
            DESCRIPTION
                "This table contains the attributes specific to each neighbor
                 BS for the MOB_NBR-ADV message."
            ::= { wmanIf2mBsNeighborAdv 2 }

    wmanIf2mBsNeighborAdvertizementEntry OBJECT-TYPE
            SYNTAX      WmanIf2mBsNeighborAdvertizementEntry
            MAX-ACCESS  not-accessible
            STATUS      current
            DESCRIPTION
                "This table provides one row for each neighboring BSs, and
                 is indexed by ifIndex and wmanIf2mBsNeighborBsIndex."
            INDEX     { ifIndex, wmanIf2mBsNeighborBsIndex }
            ::= { wmanIf2mBsNeighborAdvertizementTable 1 }

    WmanIf2mBsNeighborAdvertizementEntry::= SEQUENCE {
            wmanIf2mBsNeighborBsIndex               INTEGER,
            wmanIf2mBsNeighborBsId                  WmanIf2mNbrBsId,
            wmanIf2mBsPhyProfileId                  WmanIf2mPhyProfileId,
            wmanIf2mBsFaIndex                       Unsigned32,
            wmanIf2mBsEirp                          INTEGER,
            wmanIf2mBsPreampleSubchIndex            Unsigned32,
            wmanIf2mBsHandoverProcOptimization      WmanIf2mHoProcOptm,
            wmanIf2mBsSchedulingService             WmanIf2mSchedulingSupp,
            wmanIf2BsNeighborAdvertizementRowStatus RowStatus}

    wmanIf2mBsNeighborBsIndex OBJECT-TYPE
            SYNTAX      INTEGER (0 .. 15)
            MAX-ACCESS  not-accessible
            STATUS      current
            DESCRIPTION
                "Index to entries in wmanIf2mBsNeighborAdvertizementTable."
            ::= { wmanIf2mBsNeighborAdvertizementEntry 1 }

    wmanIf2mBsNeighborBsId OBJECT-TYPE
            SYNTAX      WmanIf2mNbrBsId
            MAX-ACCESS  read-create
            STATUS      current
            DESCRIPTION
                "The least significant 24 bits of the Base Station ID
                 parameter in the DL-MAP message of the Neighbor BS. The
                 'Neighbor BSID' field is present only if Bit #1 of
                 wmanIf2mBsSkipOptions bitmap is 0."
            ::= { wmanIf2mBsNeighborAdvertizementEntry 2 }

    wmanIf2mBsPhyProfileId OBJECT-TYPE
            SYNTAX      WmanIf2mPhyProfileId
            MAX-ACCESS  read-create
            STATUS      current
            DESCRIPTION
                "Aggregated IDs of Co-located FA Indicator, FA Configuration
                 Indicator, FFT size, Bandwidth, Operation Mode of the
                 starting subchannelization of a frame, and Channel Number."
```

```
            REFERENCE
                "Table 109f in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborAdvertizementEntry 3 }

    wmanIf2mBsFaIndex OBJECT-TYPE
            SYNTAX      Unsigned32 (0..255)
            MAX-ACCESS  read-create
            STATUS      current
            DESCRIPTION
                "This field is present only if the faIndexInd bit in
                 WmanIf2mPhyProfileId is set to 1. Its definition shall be
                 determined by a service provider or a governmental body
                 like FCC after the licensed band is determined."
            REFERENCE
                "Table 109f in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborAdvertizementEntry 4 }

    wmanIf2mBsEirp OBJECT-TYPE
            SYNTAX      INTEGER (-128 .. 127)
            UNITS       "dBm"
            MAX-ACCESS  read-create
            STATUS      current
            DESCRIPTION
                "This field is present only if the bsEirpInd bit in
                 WmanIf2mPhyProfileId is not set. Otherwise, the BS has the
                 same EIRP as the serving BS."
            REFERENCE
                "Table 109f in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborAdvertizementEntry 5 }

    wmanIf2mBsPreampleSubchIndex OBJECT-TYPE
            SYNTAX      Unsigned32 (0 .. 255)
            MAX-ACCESS  read-create
            STATUS      current
            DESCRIPTION
                "SCa and OFDMA PHY - this field defines the PHY specific
                                     preamble.
                 OFDM PHY - the 5 LSB contain the active DL subchannel
                            index. The 3 MSB shall be Reserved and set to
                            '0b000'"
            REFERENCE
                "Table 109f in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborAdvertizementEntry 6 }

    wmanIf2mBsHandoverProcOptimization OBJECT-TYPE
            SYNTAX      WmanIf2mHoProcOptm
            MAX-ACCESS  read-create
            STATUS      current
            DESCRIPTION
                "This field is present only if omitHoProcOptimization bit in
                 WmanIf2mPhyProfileId is not set. Each bit in this field
                 indicates certain reentry message may be omitted."
            REFERENCE
                "Table 109f in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborAdvertizementEntry 7 }

    wmanIf2mBsSchedulingService OBJECT-TYPE
            SYNTAX      WmanIf2mSchedulingSupp
            MAX-ACCESS  read-create
            STATUS      current
            DESCRIPTION
                "This field is present only if omitQosRelatedField bit in
                 WmanIf2mPhyProfileId is not set."
            REFERENCE
```

```
            "Table 109f in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborAdvertizementEntry 8 }

wmanIf2BsNeighborAdvertizementRowStatus OBJECT-TYPE
        SYNTAX      RowStatus
        MAX-ACCESS  read-create
        STATUS      current
        DESCRIPTION
            "This object is used to create a new row or modify or delete
             an existing row in this table. If the implementator of this
             MIB has choosen not to implement 'dynamic assignment' of
             profiles, this object is not useful and should return
             noSuchName upon SNMP request."
        ::= { wmanIf2mBsNeighborAdvertizementEntry 9 }

wmanIf2mBsNeighborBsOfdmaUcdTable OBJECT-TYPE
        SYNTAX      SEQUENCE OF WmanIf2mBsNeighborBsOfdmaUcdEntry
        MAX-ACCESS  not-accessible
        STATUS      current
        DESCRIPTION
            "This table contains the attributes of the UCD message for
             the neighboring BSs."
        REFERENCE
            "Table 349 and Table 353, in IEEE Std 802.16-2004"
        ::= { wmanIf2mBsNeighborAdv 3 }

wmanIf2mBsNeighborBsOfdmaUcdEntry OBJECT-TYPE
        SYNTAX      WmanIf2mBsNeighborBsOfdmaUcdEntry
        MAX-ACCESS  not-accessible
        STATUS      current
        DESCRIPTION
            "This table provides one row for each neighboring BS,
             and is indexed by wmanIf2mBsNeighborBsId."
        INDEX     { wmanIf2mBsNeighborBsId }
        ::= { wmanIf2mBsNeighborBsOfdmaUcdTable 1 }

WmanIf2mBsNeighborBsOfdmaUcdEntry ::= SEQUENCE {
        wmanIf2mBsOfdmaCtBasedResvTimeout       INTEGER,
        wmanIf2mBsOfdmaUplinkCenterFreq         Unsigned32,
        wmanIf2mBsOfdmaStartOfRngCodes          INTEGER,
        wmanIf2mBsOfdmaPermutationBase          INTEGER,
        wmanIf2mBsOfdmaULAllocSubchBitmap       OCTET STRING,
        wmanIf2mBsOfdmaOptPermULAlloSubchBitmap OCTET STRING,
        wmanIf2mBsOfdmaBandAMCAllocThreshold    INTEGER,
        wmanIf2mBsOfdmaBandAMCReleaseThreshold  INTEGER,
        wmanIf2mBsOfdmaBandAMCAllocTimer        INTEGER,
        wmanIf2mBsOfdmaBandAMCReleaseTimer      INTEGER,
        wmanIf2mBsOfdmaBandStatRepMAXPeriod     INTEGER,
        wmanIf2mBsOfdmaBandAMCRetryTimer        INTEGER,
        wmanIf2mBsOfdmaHandoverRangingStart     INTEGER,
        wmanIf2mBsOfdmaHandoverRangingEnd       INTEGER,
        wmanIf2mBsOfdmaHARQAackDelayDLBurst     WmanIf2mHarqAckDelay,
        wmanIf2mBsOfdmaUlAmcAlloPhyBandsBitmap  OCTET STRING,
        wmanIf2mBsOfdmaMaxRetransmission        INTEGER,
        wmanIf2mBsOfdmaNormalizedCnOverride     OCTET STRING,
        wmanIf2mBsOfdmaSizeOfCqichId            INTEGER,
        wmanIf2mBsOfdmaNormalizedCnValue        INTEGER,
        wmanIf2mBsOfdmaNormalizedCnOverride2    OCTET STRING,
        wmanIf2mBsOfdmaBandAmcEntryAvgCinr      INTEGER,
        wmanIf2mBsOfdmaAasPreambleUpperBond     INTEGER,
        wmanIf2mBsOfdmaAasPreambleLowerBond     INTEGER,
        wmanIf2mBsOfdmaAasBeamSelectAllowed     INTEGER,
        wmanIf2mBsOfdmaCqichIndicationFlag      OCTET STRING,
        wmanIf2mBsOfdmaUpPowerAdjStep           Unsigned32,
```

```
        wmanIf2mBsOfdmaDownPowerAdjStep         Unsigned32,
        wmanIf2mBsOfdmaMinPowerOffsetAdj        INTEGER,
        wmanIf2mBsOfdmaMaxPowerOffsetAdj        INTEGER,
        wmanIf2mBsOfdmaHandoverRngCodes         INTEGER,
        wmanIf2mBsOfdmaTxPwrRepThreshold        INTEGER,
        wmanIf2mBsOfdmaTprPower                 INTEGER,
        wmanIf2mBsOfdmaAlphaPavg                INTEGER,
        wmanIf2mBsOfdmaCqichTxPwrRepThreshold   INTEGER,
        wmanIf2mBsOfdmaCqichTprPower            INTEGER,
        wmanIf2mBsOfdmaCqichAlphaPavg           INTEGER,
        wmanIf2mBsOfdmaNormalizedCnChSounding   INTEGER,
        wmanIf2mBsOfdmaInitialRngInterval       INTEGER,
        wmanIf2mBsOfdmaInitialRngBackoffStart   INTEGER,
        wmanIf2mBsOfdmaInitialRngBackoffEnd     INTEGER,
        wmanIf2mBsOfdmaBwRequestBackoffStart    INTEGER,
        wmanIf2mBsOfdmaBwRequestBackoffEnd      INTEGER}

wmanIf2mBsOfdmaCtBasedResvTimeout OBJECT-TYPE
        SYNTAX      INTEGER (1..255)
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The number of UL-MAPs to receive before contention-based
             reservation is attempted again for the same connection."
        REFERENCE
            "Table 349, in IEEE Std 802.16-2004"
        ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 1 }

wmanIf2mBsOfdmaUplinkCenterFreq OBJECT-TYPE
        SYNTAX      Unsigned32
        UNITS       "kHz"
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            " Uplink center frequency (kHz)"
        REFERENCE
            "Table 349, in IEEE Std 802.16-2004"
        ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 2 }

wmanIf2mBsOfdmaStartOfRngCodes OBJECT-TYPE
        SYNTAX      INTEGER (0..255)
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "Indicates the starting number, S, of the group of codes
             used for this uplink.All the ranging codes used on this
             uplink will be between S and ((S+N+M+L) mod 256). Where,
               N: the number of initial-ranging codes
               M: the number of periodic-ranging codes
               L: the number of bandwidth-request codes
               O: the number of handover-ranging codes"
        REFERENCE
            "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
        DEFVAL      { 0 }
        ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 3 }

wmanIf2mBsOfdmaPermutationBase OBJECT-TYPE
        SYNTAX      INTEGER (0..255)
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "Determines the UL_PermBase parameter for the subcarrier
             permutation to be used on this uplink channel.
                 UL_PermBase = 7 LSBs of Permutation base."
```

```
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16-2004"
            DEFVAL      { 0 }
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 4 }

    wmanIf2mBsOfdmaULAllocSubchBitmap OBJECT-TYPE
            SYNTAX      OCTET STRING (SIZE (9))
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "This is a bitmap describing the physical sub-channels
                 allocated to the segment in the UL, when using the uplink
                 PUSC permutation. The LSB of the first byte shall corrspond
                 to subchannel 0. For any bit that is not set, the
                 corresponding subchannel shall not be used by the SS on
                 that segment"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 5 }

    wmanIf2mBsOfdmaOptPermULAlloSubchBitmap OBJECT-TYPE
            SYNTAX      OCTET STRING (SIZE (13))
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "This is a bitmap describing the sub-channels allocated to
                 the segment in the UL, when using the uplink optional PUSC
                 permutation (see 8.4.6.2.5 in IEEE Std 802.16-2004). The
                 LSB of the first byte shall correspond to subchannel 0.
                 For any bit that is not set, the corresponding subchannel
                 shall not be used by the SS on that segment. When this TLV
                 is not present, BS may allocate any subchannels to an SS."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16-2004"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 6 }

    wmanIf2mBsOfdmaBandAMCAllocThreshold OBJECT-TYPE
            SYNTAX      INTEGER (0 .. 255)
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Threshold of the maximum of the standard deviations of the
                 individual bands CINR measurements over time to trigger
                 mode transition from normal subchannel to Band AMC"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 7 }

    wmanIf2mBsOfdmaBandAMCReleaseThreshold OBJECT-TYPE
            SYNTAX      INTEGER (0 .. 255)
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Threshold of the maximum of the standard deviations of the
                 individual bands CINR measurements over time to trigger
                 mode transition from Band AMC to normal subchannel"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 8 }

    wmanIf2mBsOfdmaBandAMCAllocTimer OBJECT-TYPE
            SYNTAX      INTEGER (0 .. 255)
```

```
            UNITS       "Frame"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Minimum required number of frames to measure the average
                 and standard deviation for the event of Band AMC triggering"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 9 }

    wmanIf2mBsOfdmaBandAMCReleaseTimer OBJECT-TYPE
            SYNTAX      INTEGER (0 .. 255)
            UNITS       "Frame"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Minimum required number of frames to measure the average
                 and standard deviation for the event triggering from Band
                 AMC to normal subchannel"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 10 }

    wmanIf2mBsOfdmaBandStatRepMAXPeriod OBJECT-TYPE
            SYNTAX      INTEGER (0 .. 255)
            UNITS       "Frame"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Maximum period between refreshing the Band CINR
                 measurement by the unsolicited REP-RSP"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 11 }

    wmanIf2mBsOfdmaBandAMCRetryTimer OBJECT-TYPE
            SYNTAX      INTEGER (0 .. 255)
            UNITS       "Frame"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Backoff timer between consecutive mode transitions from
                 normal subchannel to Band AMC when the previous request
                 is failed"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 12 }
    wmanIf2mBsOfdmaHandoverRangingStart OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Initial backoff window size for MS performing initial
                 ranging during handover process, expressed as a power
                 of 2."
            REFERENCE
                "Table 349, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 13 }

    wmanIf2mBsOfdmaHandoverRangingEnd OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
```

```
            "Final backoff window size for MS performing initial
             ranging during handover process, expressed as a power
             of 2."
        REFERENCE
            "Table 349, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 14 }

wmanIf2mBsOfdmaHARQAackDelayDLBurst OBJECT-TYPE
        SYNTAX      WmanIf2mHarqAckDelay
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "This object defines the OFDMA H-ARQ ACK delay for DL
             burst."
        REFERENCE
            "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 15 }

wmanIf2mBsOfdmaUlAmcAlloPhyBandsBitmap OBJECT-TYPE
        SYNTAX      OCTET STRING (SIZE (6))
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "A bitmap describing the physical bands allocated to the
             segment in the UL, when using the optional AMC permutation
             with regular MAPs (see 8.4.6.3). The LSB of the first byte
             shall correspond to the physical band 0. For any bit that
             is not set, the corresponding physical bands shall not be
             used by the SS on that segment. When this TLV is not
             present, BS may allocate any physical bands to an SS."
        REFERENCE
            "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 16 }

wmanIf2mBsOfdmaMaxRetransmission OBJECT-TYPE
        SYNTAX      INTEGER (1..255)
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "Maximum number of retransmission in UL HARQ."
        REFERENCE
            "Table 353, in IEEE Std 802.16e-2005"
        DEFVAL      { 4 }
        ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 17 }

wmanIf2mBsOfdmaNormalizedCnOverride OBJECT-TYPE
        SYNTAX      OCTET STRING (SIZE (8))
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "This is a list of numbers, where each number is encoded by
             one nibble, and interpreted as a signed integer. The
             nibbles correspond in order to the list define by Table
             334, starting from the second line, such that the LS
             nibble of the first byte corresponds to the second line in
             the table. The number encoded by each nibble represents
             the difference in normalized C/N relative to the previous
             line in the table."
        REFERENCE
            "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 18 }

wmanIf2mBsOfdmaSizeOfCqichId OBJECT-TYPE
        SYNTAX      INTEGER (0..7)
```

```
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Size of CQICH ID field.
                     0 = 0 bits
                     1 = 3 bits
                     2 = 4 bits
                     3 = 5 bits
                     4 = 6 bits
                     5 = 7 bits
                     6 = 8 bits
                     7 = 9 bits"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            DEFVAL      { 0 }
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 19 }

    wmanIf2mBsOfdmaNormalizedCnValue OBJECT-TYPE
            SYNTAX      INTEGER (-128..128)
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "It shall be interpreted as signed integer in dB. It
                 corresponds to the normalized C/N value in the first line
                 (counting except for header cell of table)"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 20 }

    wmanIf2mBsOfdmaNormalizedCnOverride2 OBJECT-TYPE
            SYNTAX      OCTET STRING (SIZE (7))
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "This is a list of numbers, where each number is encoded
                 by one nibble, and interpreted as a signed integer. The
                 nibbles correspond in order to the list define by Table
                 334, starting from the second line (counting except for
                 the header cell of table), such that the LS nibble of
                 the first byte corresponds to the second line in the
                 table. The number encoded by each nibble represents the
                 difference in normalized C/N relative to the previous
                 line in the table."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 21 }

    wmanIf2mBsOfdmaBandAmcEntryAvgCinr OBJECT-TYPE
            SYNTAX      INTEGER (-128..128)
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Threshold of the average CINR of the whole bandwidth to
                 trigger mode transition from normal subchannel to AMC"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 22 }

    wmanIf2mBsOfdmaAasPreambleUpperBond OBJECT-TYPE
            SYNTAX      INTEGER (-128..128)
            UNITS       "0.25 dB"
            MAX-ACCESS  read-write
```

```
            STATUS      current
            DESCRIPTION
                "Upper bound of AAS preamble."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 23 }

    wmanIf2mBsOfdmaAasPreambleLowerBond OBJECT-TYPE
            SYNTAX      INTEGER (-128..128)
            UNITS       "0.25 dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Lower bound of AAS preamble."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 24 }

    wmanIf2mBsOfdmaAasBeamSelectAllowed OBJECT-TYPE
            SYNTAX      INTEGER {notAllowed(0),
                                 allowed(1)}
            UNITS       "0.25 dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Indicate whether unsolicited AAS Beam Select messages
                (see 6.3.2.3.41 in IEEE 802.16e-2005) should be sent by
                the MS."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            DEFVAL      { allowed }
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 25 }

    wmanIf2mBsOfdmaCqichIndicationFlag OBJECT-TYPE
            SYNTAX      OCTET STRING (SIZE (1))
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "The N MSB values of this field represents the N-bit
                 payload value on the Fast-Feedback channel reserved as
                 indication flag for MS to initiate feedback on the
                 Feedback header, where N is the number of payload bits
                 used for S/N measurement feedback on the Fast-Feedback
                 channel. The value shall not be set to all zeros."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 26 }

    wmanIf2mBsOfdmaUpPowerAdjStep OBJECT-TYPE
            SYNTAX      Unsigned32
            UNITS       "0.01 dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "MS-specific up power offset adjustment step"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 27 }

    wmanIf2mBsOfdmaDownPowerAdjStep OBJECT-TYPE
            SYNTAX      Unsigned32
            UNITS       "0.01 dB"
            MAX-ACCESS  read-write
            STATUS      current
```

```
            DESCRIPTION
                "MS-specific down power offset adjustment step"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 28 }

    wmanIf2mBsOfdmaMinPowerOffsetAdj OBJECT-TYPE
            SYNTAX      INTEGER
            UNITS       "0.1 dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Minimum level of power offset adjustment"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 29 }

    wmanIf2mBsOfdmaMaxPowerOffsetAdj OBJECT-TYPE
            SYNTAX      INTEGER
            UNITS       "0.1 dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Minimum level of power offset adjustment"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 30 }

    wmanIf2mBsOfdmaHandoverRngCodes OBJECT-TYPE
            SYNTAX      INTEGER (0..255)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Number of handover ranging CDMA codes"
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 31 }

    wmanIf2mBsOfdmaInitialRngInterval OBJECT-TYPE
            SYNTAX      INTEGER
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Number of frames between initial ranging interval
                 allocation."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 32 }

    wmanIf2mBsOfdmaTxPwrRepThreshold OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Tx power report threshold.
                 wmanIf2mBsOfdmaTxPwrRepThreshold = 0b1111 means infinite."
            REFERENCE
                "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
                 Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 33 }

    wmanIf2mBsOfdmaTprPower OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
```

```
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Tx power report interval = 2 ^ wmanIf2mBsOfdmaTprPower.
                 The unit of Tx power report interval is frame.
                 wmanIf2mBsOfdmaTprPower = 0b1111 means infinite."
            REFERENCE
                "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
                 Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 34 }

    wmanIf2mBsOfdmaAlphaPavg OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Aplha p_avg parameter as shown in equation 138d in
                 IEEE 802.16e-2005 indicates the multiple of 1/16. For
                 example '0' means 1/16, 15 means 16/16. "
            REFERENCE
                "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
                 Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 35 }

    wmanIf2mBsOfdmaCqichTxPwrRepThreshold OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Tx power report threshold.
                 wmanIf2mBsOfdmaTxPwrRepThreshold = 0b1111 means infinite.
                 It shall be used when CQICH is allocated to the SS."
            REFERENCE
                "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
                 Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 36 }

    wmanIf2mBsOfdmaCqichTprPower OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Tx power report interval = 2 ^ wmanIf2mBsOfdmaTprPower.
                 The unit of Tx power report interval is frame.
                 wmanIf2mBsOfdmaTprPower = 0b1111 means infinite.
                 It shall be used when CQICH is allocated to the SS."
            REFERENCE
                "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
                 Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 37 }

    wmanIf2mBsOfdmaCqichAlphaPavg OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            UNITS       "dB"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Aplha p_avg parameter as shown in equation 138d in
                 IEEE 802.16e-2005 indicates the multiple of 1/16. For
                 example '0' means 1/16, 15 means 16/16. It shall be
```

```
                used when CQICH is allocated to the SS."
            REFERENCE
                "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
                 Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 38 }

    wmanIf2mBsOfdmaNormalizedCnChSounding OBJECT-TYPE
            SYNTAX      INTEGER
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Signed integer for the required C/N (dB) for Channel
                 Sounding."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 39 }

    wmanIf2mBsOfdmaInitialRngBackoffStart OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Initial backoff window size for initial ranging
                 contention, expressed as a power of 2."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 40 }

    wmanIf2mBsOfdmaInitialRngBackoffEnd OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Final backoff window size for initial ranging
                 contention, expressed as a power of 2."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 41 }

    wmanIf2mBsOfdmaBwRequestBackoffStart OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Initial backoff window size for contention BW requests,
                 expressed as a power of 2."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 42 }

    wmanIf2mBsOfdmaBwRequestBackoffEnd OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Final backoff window size for contention BW requests,
                 expressed as a power of 2."
            REFERENCE
                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 43 }

    wmanIf2mBsNeighborBsOfdmaDcdTable OBJECT-TYPE
            SYNTAX      SEQUENCE OF WmanIf2mBsNeighborBsOfdmaDcdEntry
            MAX-ACCESS  not-accessible
```

```
            STATUS      current
            DESCRIPTION
                "This table contains the attributes of the DCD message for
                 the neighboring BSs."
            ::= { wmanIf2mBsNeighborAdv 4 }

    wmanIf2mBsNeighborBsOfdmaDcdEntry OBJECT-TYPE
            SYNTAX      WmanIf2mBsNeighborBsOfdmaDcdEntry
            MAX-ACCESS  not-accessible
            STATUS      current
            DESCRIPTION
                "This table provides one row for each neighboring BS,
                 and is indexed by wmanIf2mBsNeighborBsId."
            INDEX     { wmanIf2mBsNeighborBsId }
            ::= { wmanIf2mBsNeighborBsOfdmaDcdTable 1 }

    WmanIf2mBsNeighborBsOfdmaDcdEntry ::= SEQUENCE {
            wmanIf2mBsOfdmaBsEIRP                     INTEGER,
            wmanIf2mBsOfdmaChannelNumber              INTEGER,
            wmanIf2mBsOfdmaTTG                        INTEGER,
            wmanIf2mBsOfdmaRTG                        INTEGER,
            wmanIf2mBsOfdmaInitRngMaxRSS              INTEGER,
            wmanIf2mBsOfdmaDownlinkCenterFreq         Unsigned32,
            wmanIf2mBsOfdmaBsId                       OCTET STRING,
            wmanIf2mBsOfdmaMacVersion                 WmanIf2mMacVersion,
            wmanIf2mBsOfdmaFrameDurationCode          INTEGER,
            wmanIf2mBsOfdmaHARQAackDelayULBurst       WmanIf2mHarqAckDelay,
            wmanIf2mBsOfdmaHarqZonePermutation        INTEGER,
            wmanIf2mBsOfdmaHMaxRetransmission         INTEGER,
            wmanIf2mBsOfdmaCinrAlphaAvg               INTEGER,
            wmanIf2mBsOfdmaRssiAlphaAvg               INTEGER,
            wmanIf2mBsOfdmaDlAmcAlloPhyBandsBitmap    OCTET STRING,
            wmanIf2mBsOfdmaHandoverSupported          BITS,
            wmanIf2mBsOfdmaThresholdAddBsDivSet       INTEGER,
            wmanIf2mBsOfdmaThresholdDelBsDivSet       INTEGER,
            wmanIf2mBsOfdmaAsrSlotLength              INTEGER,
            wmanIf2mBsOfdmaAsrSwitchingPeriod         INTEGER,
            wmanIf2mBsOfdmaHytseresisMargin           INTEGER,
            wmanIf2mBsOfdmaTimeToTrigger              INTEGER,
            wmanIf2mBsOfdmaRetartCount                INTEGER}

    wmanIf2mBsOfdmaBsEIRP OBJECT-TYPE
            SYNTAX      INTEGER (-32768..32767)
            UNITS       "dBm"
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "The EIRP is the equivalent isotropic radiated power of
                 the base station, which is computed for a simple
                 single-antenna transmitter."
            REFERENCE
                "Subclause 11.4.1, Table 358, in IEEE Std 802.16-2004"
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 1 }

    wmanIf2mBsOfdmaChannelNumber OBJECT-TYPE
            SYNTAX      INTEGER (0 .. 199)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Downlink channel number as defined in 8.5. Used for
                 license-exempt operation only."
            REFERENCE
                "Subclause 11.4.1, Table 358, in IEEE Std 802.16-2004"
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 2 }
```

```
1
2     wmanIf2mBsOfdmaTTG OBJECT-TYPE
3             SYNTAX      INTEGER (0..255)
4             UNITS       "PS"
5             MAX-ACCESS  read-write
6             STATUS      current
7             DESCRIPTION
8                 "Transmit / Receive Transition Gap. Used on TDD system only."
9             REFERENCE
10                "Subclause 11.4.1, Table 358, in IEEE Std 802.16e-2005"
11            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 3 }
12
13    wmanIf2mBsOfdmaRTG OBJECT-TYPE
14            SYNTAX      INTEGER (0..255)
15            UNITS       "PS"
16            MAX-ACCESS  read-write
17            STATUS      current
18            DESCRIPTION
19                "Receive / Transmit Transition Gap. Used on TDD system only."
20            REFERENCE
21                "Subclause 11.4.1, Table 358, in IEEE Std 802.16e-2005"
22            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 4 }
23
24    wmanIf2mBsOfdmaInitRngMaxRSS OBJECT-TYPE
25            SYNTAX      INTEGER (-32768..32767)
26            UNITS       "dBm"
27            MAX-ACCESS  read-write
28            STATUS      current
29            DESCRIPTION
30                "Initial Ranging Max. equivalent isotropic received power
31                 at BS Signed in units of 1 dBm."
32            REFERENCE
33                "Subclause 11.4.1, Table 358, in IEEE Std 802.16-2004"
34            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 5 }
35
36    wmanIf2mBsOfdmaDownlinkCenterFreq OBJECT-TYPE
37            SYNTAX      Unsigned32
38            UNITS       "kHz"
39            MAX-ACCESS  read-write
40            STATUS      current
41            DESCRIPTION
42                "Downlink center frequency (kHz)."
43            REFERENCE
44                "Subclause 11.4.1, Table 358, in IEEE Std 802.16-2004"
45            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 6 }
46
47    wmanIf2mBsOfdmaBsId OBJECT-TYPE
48            SYNTAX      OCTET STRING (SIZE(6))
49            MAX-ACCESS  read-write
50            STATUS      current
51            DESCRIPTION
52                "Defines the encoding of BSID. The BSID is a 6 byte number
53                 and follows the encoding rules of MacAddress textual
54                 convention, i.e. as if it were transmitted
55                 least-significant bit first. The value should be displayed
56                 with 2 parts clearly separated by a colon e.g:
57                 001DFF:00003A. The most significant part is representing
58                 the Operator ID."
59            REFERENCE
60                "Subclause 11.4.1, Table 358, in IEEE Std 802.16-2004"
61            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 7 }
62
63    wmanIf2mBsOfdmaMacVersion OBJECT-TYPE
64            SYNTAX      WmanIf2mMacVersion
```

```
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "This parameter specifies the version of 802.16 to which
                 the message originator conforms."
            REFERENCE
                "Subclause 11.4.1, Table 358, in IEEE Std 802.16-2004"
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 8 }

    wmanIf2mBsOfdmaFrameDurationCode OBJECT-TYPE
            SYNTAX      INTEGER {aasGap(0),
                                 duration2ms(1),
                                 duration2dot5ms(2),
                                 duration4ms(3),
                                 duration5ms(4),
                                 duration8ms(5),
                                 duration10ms(6),
                                 duration12dot5ms(7),
                                 duration20ms(8)}
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "The duration of the frame. The frame duration code values
                 are specified in Table 274."
            REFERENCE
                "Table 273, in IEEE Std 802.16-2004"
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 9 }

    wmanIf2mBsOfdmaHARQAackDelayULBurst OBJECT-TYPE
            SYNTAX      WmanIf2mHarqAckDelay
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "This object defines the OFDMA H-ARQ ACK delay for UL
                 burst."
            REFERENCE
                "Table 358, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 10 }

    wmanIf2mBsOfdmaHarqZonePermutation OBJECT-TYPE
            SYNTAX      INTEGER {pusc(1),
                                 fusc(2),
                                 optionalFusc(3),
                                 amc(4)}
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Permutation type for broadcast region in HARQ zone"
            REFERENCE
                "Table 358, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 11 }

    wmanIf2mBsOfdmaHMaxRetransmission OBJECT-TYPE
            SYNTAX      INTEGER (0..255)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Maximum number of retransmission in DL HARQ."
            REFERENCE
                "Table 358, in IEEE Std 802.16e-2005"
            DEFVAL      { 4 }
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 12 }

    wmanIf2mBsOfdmaCinrAlphaAvg OBJECT-TYPE
```

```
            SYNTAX      INTEGER (0..15)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Bit 0..3 of Default RSSI and CINR averaging parameter
                 TLV.

                 Default averaging parameter Alpha Avg for physical
                 CINR measurements, in multiples of 1/16. For example
                 '0' means 1/16, 15 means 16/16."
            REFERENCE
                "Table 358, in IEEE Std 802.16e-2005"
            DEFVAL      { 3 }
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 13 }

    wmanIf2mBsOfdmaRssiAlphaAvg OBJECT-TYPE
            SYNTAX      INTEGER (0..15)
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Bit 0..3 of Default RSSI and CINR averaging parameter
                 TLV.

                 Default averaging parameter Alpha Avg for physical
                 RSSI measurements, in multiples of 1/16. For example
                 '0' means 1/16, 15 means 16/16."
            REFERENCE
                "Table 358, in IEEE Std 802.16e-2005"
            DEFVAL      { 3 }
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 14 }

    wmanIf2mBsOfdmaDlAmcAlloPhyBandsBitmap OBJECT-TYPE
            SYNTAX      OCTET STRING (SIZE (6))
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "A bitmap describing the physical bands allocated to the
                 segment in the DL, when allocating AMC subchannels
                 through the HARQ MAP, or through the Normal MAP, or for
                 Band-AMC CINR reports, or using the optional AMC
                 permutation (see 8.4.6.3). The LSB of the first byte
                 shall correspond to band 0. For any bit that is not set,
                 the corresponding band shall not be used by the SS on
                 that segment. When this TLV is not present, BS may
                 allocate any physical bands to an SS."
            REFERENCE
                "Table 358, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 15 }

    wmanIf2mBsOfdmaHandoverSupported OBJECT-TYPE
            SYNTAX      BITS {handover(0),
                              mdHandover(1),
                              fbssHandover(2)}
            MAX-ACCESS  read-write
            STATUS      current
            DESCRIPTION
                "Indicates the types of handover supported.
                 Bit #0 = HO
                 Bit #1 = MDHO
                 Bit #2 = FBSS HO."
            REFERENCE
                "Table 358, in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 16 }
```

```
wmanIf2mBsOfdmaThresholdAddBsDivSet OBJECT-TYPE
        SYNTAX      INTEGER (0..255)
        UNITS       "dB"
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "Threshold used by the MS to add a neighbor BS to the
             diversity set. When the CINR of a neighbor BS is higher
             than H_Add_Threshold, the MS should send MOB_MSHO-REQ to
             request adding this neighbor BS to the diversity set.
             This threshold is used for the MS that is performing
             MDHO/FBSS HO. If the BS does not support FBSS HO/MDHO,
             this value is not set."
        REFERENCE
            "Table 358, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 17 }

wmanIf2mBsOfdmaThresholdDelBsDivSet OBJECT-TYPE
        SYNTAX      INTEGER (0..255)
        UNITS       "dB"
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "Threshold used by the MS to delete a neighbor BS to the
             diversity set. When the CINR of a neighbor BS is lower
             than H_Add_Threshold, the MS should send MOB_MSHO-REQ to
             request dropping this neighbor BS to the diversity set.
             This threshold is used for the MS that is performing
             MDHO/FBSS HO. If the BS does not support FBSS HO/MDHO,
             this value is not set."
        REFERENCE
            "Table 358, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 18 }

wmanIf2mBsOfdmaAsrSlotLength OBJECT-TYPE
        SYNTAX      INTEGER (0..15)
        UNITS       "Frames"
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "Bit 0..3 of ASR Slot Length and Switching Period.
             For FBSS operation, the time axis is slotted by an ASR
             (Anchor Switch Reporting) slot that is
             wmanIf2mBsOfdmaAsrSlotLength frame long."
        REFERENCE
            "Table 358, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 19 }

wmanIf2mBsOfdmaAsrSwitchingPeriod OBJECT-TYPE
        SYNTAX      INTEGER (0..15)
        UNITS       "ASR slots"
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "Bit 0..3 of ASR Slot Length and Switching Period.
             A switching period is introduced whose duration is equals
             to wmanIf2mBsOfdmaAsrSwitchingPeriod ASR slots that
             should be long enough such that certain process (e.g.,
             HARQ transmission, backhaul context transfer) can be
             completed at the current anchor BS before the MS switches
             to the new anchor BS."
        REFERENCE
            "Table 358, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 20 }
```

```
wmanIf2mBsOfdmaHytseresisMargin OBJECT-TYPE
        SYNTAX      INTEGER (0..57)
        UNITS       "dB"
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "When the CINR of a neighbor BS is larger than the sum of
             the CINR of the current serving BS and
             wmanIf2mBsOfdmaHytseresisMargin for the time-to-trigger
             duration, then the neighbor BS is included in the list
             of possible target BSs in MOB_MSHO-REQ."
        REFERENCE
            "Table 358, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 21 }

wmanIf2mBsOfdmaTimeToTrigger OBJECT-TYPE
        SYNTAX      INTEGER
        UNITS       "milliseconds"
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "Indicates the time duration for MS decides to select a
             neighbor BS as a possible target BS. It is  applicable
             only for HHO."
        REFERENCE
            "Table 358, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 22 }

wmanIf2mBsOfdmaRetartCount OBJECT-TYPE
        SYNTAX      INTEGER (0..255)
        MAX-ACCESS  read-only
        STATUS      current
        DESCRIPTION
            "The value is incremented by one whenever BS restarts
             (see 6.3.9.11). The value rolls over from 0 to 255."
        REFERENCE
            "Table 358, in IEEE Std 802.16e-2005"
        ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry  23 }
```