

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

1

2. Introduction

2

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

2. NRM IRP SNMP Solution Set change Proposal

5

2.1 wmanIf2mMib Change

6

13.1.4.1 wmanIf2mBsObjects

7

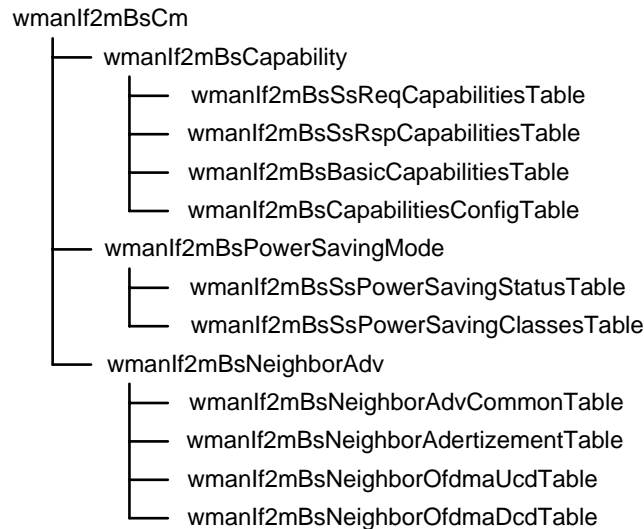
13.1.4.1.1 wmanIf2mBsCm

8

9 [\[Change Figure 19 as the following:\]](#)

10

11



12

13

Figure 19—wmanIf2mBsCm structure

14

15

16 [\[Add the following text to subclause 13.1.4.1.1.2:\]](#)

17

13.1.4.1.1.3 wmanIf2mBsNeighborAdv

18

13.1.4.1.1.3.1 wmanIf2mBsNeighborAdvCommonTable

19

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

22

13.1.4.1.1.3.2 wmanIf2mBsNeighborAdvertizementTable

1 wmanIf2mBsNeighborAdvertisementTable contains the attributes specific to each neighbor BS for
2 the MOB_NBR-ADV message.

3 **13.1.4.1.1.3.3 wmanIf2mBsNeighborBsOfdmaUcdTable**

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

6 **13.1.4.1.1.3.4 wmanIf2mBsNeighborBsOfdmaDcdTable**

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

9 **2.2 wmanIf2Mib ASN.1 Code Change**

10 **13.2 ASN.1 Definitions of MIB Modules**

11 **13.2.4 wmanIf2mMib**

12 [\[Add the following code to WMAN-IF2-MIB:\]](#)

```
13
14 WmanIf2mSkipOptBitMap ::= TEXTUAL-CONVENTION
15     STATUS         current
16     DESCRIPTION
17         "If set to 1, its corresponding field will be omitted."
18     REFERENCE
19         "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
20     SYNTAX         BITS {omitOperatorId(0),
21                     omitNeighborBsId(1),
22                     omitHoProcOptimization(2),
23                     omitQosRelatedField(3)}
24
25 WmanIf2mNbrBsId ::= TEXTUAL-CONVENTION
26     STATUS         current
27     DESCRIPTION
28         "The least significant 24 bits of the Base Station ID
29         parameter in the DL-MAP message broadcast by the Neighbor
30         BS. The BSID is a 6 byte number and follows the encoding
31         rules of MacAddress textual convention, i.e. as if it were
32         transmitted least-significant bit first. The value should
33         be displayed with 2 parts clearly separated by a colon.
34         Example 001DFF:00003A - 00003A is the Base Station ID. "
35     REFERENCE
36         "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
37     SYNTAX         OCTET STRING (SIZE(3))
38
39 WmanIf2mNbrOperatorId ::= TEXTUAL-CONVENTION
40     STATUS         current
41     DESCRIPTION
42         "The most significant 24 bits of the Base Station ID
43         parameter in the DL-MAP message broadcast by the Neighbor
44         BS. The BSID is a 6 byte number and follows the encoding
45         rules of MacAddress textual convention, i.e. as if it were
46         transmitted least-significant bit first. The value should
47         be displayed with 2 parts clearly separated by a colon.
48         Example 001DFF:00003A - 001DFF is the Operator ID. "
49     REFERENCE
50         "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
```

```

1          SYNTAX          OCTET STRING (SIZE(3))
2
3      WmanIf2mPhyProfileId ::= TEXTUAL-CONVENTION
4          STATUS          current
5          DESCRIPTION
6              "For systems using OFDM or OFDMA, the definition of the PHY
7              Profile ID is shown as follows:
8              bit#0: If set to 1, BS (or FA) is co-located with the
9              serving BS
10             bit#1: If set to 1, the BS has the same number of FAs and
11             frequencies as the BS broadcasting the NBR-ADV
12             bit#2: 0b00 = Unsynchronized
13             bit#3: 0b01 = Time synchronization
14                    0b10 = Time and Frequency synchronization
15             If time synchronization is indicated for the OFDMA
16             PHY, then the downlink frames transmitted by the
17             serving BS and the Neighbor BS shall be synchronized
18             to a level of at least 1/8 cyclic prefix length. If
19             frequency synchronization is indicated for the OFDMA
20             PHY, then the BS reference clocks shall be
21             synchronized to a level that yields RF center
22             frequency offset of no more than 1% of the OFDMA
23             carrier spacing of the Neighbor BS.
24             bit#4: If set to 1, the BS EIRP follows the PHY Profile ID
25             bit#5: 0b0- The DCD/UCD settings of this neighbor BS are
26                    the same as those of the serving BS unless the
27                    TLV information specifies.
28                    0b1- The DCD/UCD settings of this neighbor BS are
29                    the same as those of the preceding neighbor BS
30                    unless the TLV information specifies.
31             bit#6: If set to 1, the FA Index follows the PHY Profile ID.
32             In addition, if the FA Indicator is followed, the DL
33             center frequency shall be omitted in the DCD/UCD
34             difference TLV information.
35             bit#7: The Trigger Reference Indicator is related to the
36             Neighbor BS trigger metric TLV information of this
37             neighbor BS.
38                    0b0- The trigger settings of this neighbor BS are
39                    the same as those provided by the serving BS
40                    (via DCD).If the TLV information is present, it
41                    overrides values inherited from preceding
42                    neighbor BS.
43                    0b1- The trigger settings of this neighbor BS are
44                    the same as those of the preceding neighbor BS."
45          REFERENCE
46              "Table 109g in IEEE Std 802.16e-2005"
47          SYNTAX          BITS {colocatedFaInd(0),
48                              faConfigInd(1),
49                              timeFreqSyncInd1(2),
50                              timeFreqSyncInd2(3),
51                              bsEirpInd(4),
52                              dcdUcdRefInd(5),
53                              faIndexInd(6),
54                              triggRefInd(7)}
55
56
57      WmanIf2mHoProcOptm ::= TEXTUAL-CONVENTION
58          STATUS          current
59          DESCRIPTION
60              "For each Bit location, a value of '0' indicates the
61              associated reentry management messages shall be required,
62              a value of '1' indicates the reentry management message may
63              be omitted. Regardless of the HO Process Optimization TLV
64              settings, the target BS may send unsolicited SBC-RSP and/ or

```

```

1         REG-RSP management messages
2         bit#0: Omit SBC-REQ/RSP management messages during re-entry
3             processing
4         bit#1: Omit PKM Authentication phase except TEK phase during
5             current re-entry processing
6         bit#2: Omit PKM TEK creation phase during reentry processing
7         bit#3: Omit REG-REQ/RSP management during current re-entry
8             processing
9         bit#4: Omit Network Address Acquisition management messages
10            during current reentry processing
11        bit#5: Omit Time of Day Acquisition management messages
12            during current reentry processing
13        bit#6: Omit TFTP management messages during current re-entry
14            processing
15        bit#7: Full service and operational state transfer or
16            sharing between serving BS and target BS (ARQ, timers,
17            counters, MAC state machines, etc...)
18
19        REFERENCE
20            "Table 109f in IEEE Std 802.16e-2005"
21        SYNTAX      BITS {omitSbcReq(0),
22                        omitPkmAuth(1),
23                        omitPkmTek(2),
24                        omitRegReq(3),
25                        omitNtwkAddrAcq(4),
26                        omitTimeOfDay(5),
27                        omitTftp(6),
28                        fullService(7)}
29
30        WmanIf2mSchedulingSupp ::= TEXTUAL-CONVENTION
31            STATUS      current
32            DESCRIPTION
33                "Bitmap to indicate if BS supports a particular scheduling
34                service. 1 indicates support, 0 indicates not support:
35                bit#0: Unsolicited Grant Service (UGS)
36                bit#1: Real-time Polling Service (rtPS)
37                bit#2: Non-real-time Polling Service (nrtPS)
38                bit#3: Best Effort
39                bit#4: Extended real-time Polling Service (ertPS)
40                If the value of bit 0 through bit 4 is 0b00000, it indicates
41                no information on service available."
42            REFERENCE
43                "Table 109f in IEEE Std 802.16e-2005"
44            SYNTAX      BITS {ugs(0),
45                            rtPs(1),
46                            nrtPs(2),
47                            be(3),
48                            ertPs(4)}
49
50        WmanIf2mMacVersion ::= TEXTUAL-CONVENTION
51            STATUS      current
52            DESCRIPTION
53                "Version number of IEEE 802.16."
54            SYNTAX      INTEGER {ieee802Dot16Of2001(1),
55                                ieee802Dot16cOf2002(2),
56                                ieee802Dot16aOf2003(3),
57                                ieee802Dot16Of2004(4),
58                                ieee802Dot16e(5),
59                                tbd(6)}
60
61        WmanIf2mHarqAckDelay ::= TEXTUAL-CONVENTION
62            STATUS      current
63            DESCRIPTION
64                "HARQ ACK delay for UL and DL bursts
65                1 = one frame offset

```

```

1           2 = two frames offset
2           3 = three frames offset"
3 REFERENCE
4           "Table 353 in IEEE Std 802.16e-2005"
5 SYNTAX     INTEGER {oneframeoffset(1),
6             twoframesoffset(2),
7             threeframesoffset(3)}
8
9 --
10 -- Neighbor Base Stations Advertizement
11 --
12 wmanIf2mBsNeighborAdv OBJECT IDENTIFIER ::= { wmanIf2mBsCm 3 }
13
14 wmanIf2mBsNeighborAdvCommonTable OBJECT-TYPE
15     SYNTAX     SEQUENCE OF WmanIf2mBsNeighborAdvCommonEntry
16     MAX-ACCESS not-accessible
17     STATUS     current
18     DESCRIPTION
19         "This table contains the common attributes for the
20         MOB_NBR-ADV message."
21     ::= { wmanIf2mBsNeighborAdv 1 }
22
23 wmanIf2mBsNeighborAdvCommonEntry OBJECT-TYPE
24     SYNTAX     WmanIf2mBsNeighborAdvCommonEntry
25     MAX-ACCESS not-accessible
26     STATUS     current
27     DESCRIPTION
28         "This table provides one row for each BS sector, and is
29         indexed by ifIndex."
30     INDEX     { ifIndex }
31     ::= { wmanIf2mBsNeighborAdvCommonTable 1 }
32
33 WmanIf2mBsNeighborAdvCommonEntry ::= SEQUENCE {
34     wmanIf2mBsSkipOptions          WmanIf2mSkipOptBitMap,
35     wmanIf2mBsOperatorId           WmanIf2mNbrOperatorId,
36     wmanIf2mBsNumOfNeighbors       Unsigned32}
37
38 wmanIf2mBsSkipOptions OBJECT-TYPE
39     SYNTAX     WmanIf2mSkipOptBitMap
40     MAX-ACCESS read-write
41     STATUS     current
42     DESCRIPTION
43         "When a bit is set to 1, its corresponding field will be
44         omitted."
45     REFERENCE
46         "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
47     ::= { wmanIf2mBsNeighborAdvCommonEntry 1 }
48
49 wmanIf2mBsOperatorId OBJECT-TYPE
50     SYNTAX     WmanIf2mNbrOperatorId
51     MAX-ACCESS read-write
52     STATUS     current
53     DESCRIPTION
54         "The unique network ID shared by an association of BS.
55         The 'Operator IE' field is present only if Bit #0 of
56         wmanIf2mBsSkipOptions is 0."
57     REFERENCE
58         "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
59     ::= { wmanIf2mBsNeighborAdvCommonEntry 2 }
60
61 wmanIf2mBsNumOfNeighbors OBJECT-TYPE
62     SYNTAX     Unsigned32 (0 .. 15)
63     MAX-ACCESS read-write
64     STATUS     current

```

```

1      DESCRIPTION
2          "The count of the unique combination of Neighbor BSID,
3          Preamble Index, and DCD."
4      REFERENCE
5          "Subclause 6.3.2.3.47 in IEEE Std 802.16e-2005"
6      ::= { wmanIf2mBsNeighborAdvCommonEntry 3 }
7
8      wmanIf2mBsNeighborAdvertizementTable OBJECT-TYPE
9          SYNTAX      SEQUENCE OF WmanIf2mBsNeighborAdvertizementEntry
10         MAX-ACCESS  not-accessible
11         STATUS      current
12         DESCRIPTION
13             "This table contains the attributes specific to each neighbor
14             BS for the MOB_NBR-ADV message."
15         ::= { wmanIf2mBsNeighborAdv 2 }
16
17     wmanIf2mBsNeighborAdvertizementEntry OBJECT-TYPE
18         SYNTAX      WmanIf2mBsNeighborAdvertizementEntry
19         MAX-ACCESS  not-accessible
20         STATUS      current
21         DESCRIPTION
22             "This table provides one row for each neighboring BSs, and
23             is indexed by ifIndex and wmanIf2mBsNeighborBsIndex."
24         INDEX      { ifIndex, wmanIf2mBsNeighborBsIndex }
25         ::= { wmanIf2mBsNeighborAdvertizementTable 1 }
26
27     WmanIf2mBsNeighborAdvertizementEntry ::= SEQUENCE {
28         wmanIf2mBsNeighborBsIndex      INTEGER,
29         wmanIf2mBsNeighborBsId         WmanIf2mNbrBsId,
30         wmanIf2mBsPhyProfileId        WmanIf2mPhyProfileId,
31         wmanIf2mBsFaIndex             Unsigned32,
32         wmanIf2mBsEirp                INTEGER,
33         wmanIf2mBsPreambleSubchIndex  Unsigned32,
34         wmanIf2mBsHandoverProcOptimization WmanIf2mHoProcOptm,
35         wmanIf2mBsSchedulingService   WmanIf2mSchedulingSupp,
36         wmanIf2BsNeighborAdvertizementRowStatus RowStatus}
37
38     wmanIf2mBsNeighborBsIndex OBJECT-TYPE
39         SYNTAX      INTEGER (0 .. 15)
40         MAX-ACCESS  not-accessible
41         STATUS      current
42         DESCRIPTION
43             "Index to entries in wmanIf2mBsNeighborAdvertizementTable."
44         ::= { wmanIf2mBsNeighborAdvertizementEntry 1 }
45
46     wmanIf2mBsNeighborBsId OBJECT-TYPE
47         SYNTAX      WmanIf2mNbrBsId
48         MAX-ACCESS  read-create
49         STATUS      current
50         DESCRIPTION
51             "The least significant 24 bits of the Base Station ID
52             parameter in the DL-MAP message of the Neighbor BS. The
53             'Neighbor BSID' field is present only if Bit #1 of
54             wmanIf2mBsSkipOptions bitmap is 0."
55         ::= { wmanIf2mBsNeighborAdvertizementEntry 2 }
56
57     wmanIf2mBsPhyProfileId OBJECT-TYPE
58         SYNTAX      WmanIf2mPhyProfileId
59         MAX-ACCESS  read-create
60         STATUS      current
61         DESCRIPTION
62             "Aggregated IDs of Co-located FA Indicator, FA Configuration
63             Indicator, FFT size, Bandwidth, Operation Mode of the
64             starting subchannelization of a frame, and Channel Number."

```



```

1      REFERENCE
2          "Table 109f in IEEE Std 802.16e-2005"
3      ::= { wmanIf2mBsNeighborAdvertismentEntry 3 }
4
5  wmanIf2mBsFaIndex OBJECT-TYPE
6      SYNTAX      Unsigned32 (0..255)
7      MAX-ACCESS  read-create
8      STATUS      current
9      DESCRIPTION
10         "This field is present only if the faIndexInd bit in
11         WmanIf2mPhyProfileId is set to 1. Its definition shall be
12         determined by a service provider or a governmental body
13         like FCC after the licensed band is determined."
14     REFERENCE
15         "Table 109f in IEEE Std 802.16e-2005"
16     ::= { wmanIf2mBsNeighborAdvertismentEntry 4 }
17
18  wmanIf2mBsEirp OBJECT-TYPE
19      SYNTAX      INTEGER (-128 .. 127)
20      UNITS       "dBm"
21      MAX-ACCESS  read-create
22      STATUS      current
23      DESCRIPTION
24         "This field is present only if the bsEirpInd bit in
25         WmanIf2mPhyProfileId is not set. Otherwise, the BS has the
26         same EIRP as the serving BS."
27     REFERENCE
28         "Table 109f in IEEE Std 802.16e-2005"
29     ::= { wmanIf2mBsNeighborAdvertismentEntry 5 }
30
31  wmanIf2mBsPreambleSubchIndex OBJECT-TYPE
32      SYNTAX      Unsigned32 (0 .. 255)
33      MAX-ACCESS  read-create
34      STATUS      current
35      DESCRIPTION
36         "SCa and OFDMA PHY - this field defines the PHY specific
37         preamble.
38         OFDM PHY - the 5 LSB contain the active DL subchannel
39         index. The 3 MSB shall be Reserved and set to
40         '0b000'"
41     REFERENCE
42         "Table 109f in IEEE Std 802.16e-2005"
43     ::= { wmanIf2mBsNeighborAdvertismentEntry 6 }
44
45  wmanIf2mBsHandoverProcOptimization OBJECT-TYPE
46      SYNTAX      WmanIf2mHoProcOptm
47      MAX-ACCESS  read-create
48      STATUS      current
49      DESCRIPTION
50         "This field is present only if omitHoProcOptimization bit in
51         WmanIf2mPhyProfileId is not set. Each bit in this field
52         indicates certain reentry message may be omitted."
53     REFERENCE
54         "Table 109f in IEEE Std 802.16e-2005"
55     ::= { wmanIf2mBsNeighborAdvertismentEntry 7 }
56
57  wmanIf2mBsSchedulingService OBJECT-TYPE
58      SYNTAX      WmanIf2mSchedulingSupp
59      MAX-ACCESS  read-create
60      STATUS      current
61      DESCRIPTION
62         "This field is present only if omitQosRelatedField bit in
63         WmanIf2mPhyProfileId is not set."
64     REFERENCE

```

```

1         "Table 109f in IEEE Std 802.16e-2005"
2         ::= { wmanIf2mBsNeighborAdvertismentEntry 8 }
3
4 wmanIf2BsNeighborAdvertismentRowStatus OBJECT-TYPE
5     SYNTAX      RowStatus
6     MAX-ACCESS  read-create
7     STATUS      current
8     DESCRIPTION
9         "This object is used to create a new row or modify or delete
10        an existing row in this table. If the implementator of this
11        MIB has choosen not to implement 'dynamic assignment' of
12        profiles, this object is not useful and should return
13        noSuchName upon SNMP request."
14        ::= { wmanIf2mBsNeighborAdvertismentEntry 9 }
15
16 wmanIf2mBsNeighborBsOfdmaUcdTable OBJECT-TYPE
17     SYNTAX      SEQUENCE OF WmanIf2mBsNeighborBsOfdmaUcdEntry
18     MAX-ACCESS  not-accessible
19     STATUS      current
20     DESCRIPTION
21         "This table contains the attributes of the UCD message for
22        the neighboring BSs."
23     REFERENCE
24         "Table 349 and Table 353, in IEEE Std 802.16-2004"
25     ::= { wmanIf2mBsNeighborAdv 3 }
26
27 wmanIf2mBsNeighborBsOfdmaUcdEntry OBJECT-TYPE
28     SYNTAX      WmanIf2mBsNeighborBsOfdmaUcdEntry
29     MAX-ACCESS  not-accessible
30     STATUS      current
31     DESCRIPTION
32         "This table provides one row for each neighboring BS,
33        and is indexed by wmanIf2mBsNeighborBsId."
34     INDEX      { wmanIf2mBsNeighborBsId }
35     ::= { wmanIf2mBsNeighborBsOfdmaUcdTable 1 }
36
37 WmanIf2mBsNeighborBsOfdmaUcdEntry ::= SEQUENCE {
38     wmanIf2mBsOfdmaCtBasedResvTimeout      INTEGER,
39     wmanIf2mBsOfdmaUplinkCenterFreq        Unsigned32,
40     wmanIf2mBsOfdmaStartOfRngCodes         INTEGER,
41     wmanIf2mBsOfdmaPermutationBase         INTEGER,
42     wmanIf2mBsOfdmaULAllocSubchBitmap      OCTET STRING,
43     wmanIf2mBsOfdmaOptPermULAlloSubchBitmap OCTET STRING,
44     wmanIf2mBsOfdmaBandAMCAllocThreshold   INTEGER,
45     wmanIf2mBsOfdmaBandAMCReleaseThreshold INTEGER,
46     wmanIf2mBsOfdmaBandAMCAllocTimer       INTEGER,
47     wmanIf2mBsOfdmaBandAMCReleaseTimer     INTEGER,
48     wmanIf2mBsOfdmaBandStatRepMAXPeriod    INTEGER,
49     wmanIf2mBsOfdmaBandAMCRetryTimer       INTEGER,
50     wmanIf2mBsOfdmaHandoverRangingStart    INTEGER,
51     wmanIf2mBsOfdmaHandoverRangingEnd     INTEGER,
52     wmanIf2mBsOfdmaHARQAackDelayDLBurst   WmanIf2mHarqAckDelay,
53     wmanIf2mBsOfdmaULAmcAlloPhyBandsBitmap OCTET STRING,
54     wmanIf2mBsOfdmaMaxRetransmission       INTEGER,
55     wmanIf2mBsOfdmaNormalizedCnOverride    OCTET STRING,
56     wmanIf2mBsOfdmaSizeOfCqichId          INTEGER,
57     wmanIf2mBsOfdmaNormalizedCnValue       INTEGER,
58     wmanIf2mBsOfdmaNormalizedCnOverride2   OCTET STRING,
59     wmanIf2mBsOfdmaBandAmcEntryAvgCinr    INTEGER,
60     wmanIf2mBsOfdmaAasPreambleUpperBond   INTEGER,
61     wmanIf2mBsOfdmaAasPreambleLowerBond   INTEGER,
62     wmanIf2mBsOfdmaAasBeamSelectAllowed   INTEGER,
63     wmanIf2mBsOfdmaCqichIndicationFlag    OCTET STRING,
64     wmanIf2mBsOfdmaUpPowerAdjStep         Unsigned32,

```

```

1      wmanIf2mBsOfdmaDownPowerAdjStep      Unsigned32,
2      wmanIf2mBsOfdmaMinPowerOffsetAdj     INTEGER,
3      wmanIf2mBsOfdmaMaxPowerOffsetAdj     INTEGER,
4      wmanIf2mBsOfdmaHandoverRngCodes     INTEGER,
5      wmanIf2mBsOfdmaTxPwrRepThreshold     INTEGER,
6      wmanIf2mBsOfdmaTprPower              INTEGER,
7      wmanIf2mBsOfdmaAlphaPavg            INTEGER,
8      wmanIf2mBsOfdmaCqichTxPwrRepThreshold INTEGER,
9      wmanIf2mBsOfdmaCqichTprPower        INTEGER,
10     wmanIf2mBsOfdmaCqichAlphaPavg        INTEGER,
11     wmanIf2mBsOfdmaNormalizedCnChSounding INTEGER,
12     wmanIf2mBsOfdmaInitialRngInterval    INTEGER,
13     wmanIf2mBsOfdmaInitialRngBackoffStart INTEGER,
14     wmanIf2mBsOfdmaInitialRngBackoffEnd  INTEGER,
15     wmanIf2mBsOfdmaBwRequestBackoffStart INTEGER,
16     wmanIf2mBsOfdmaBwRequestBackoffEnd   INTEGER}
17
18     wmanIf2mBsOfdmaCtBasedResvTimeout OBJECT-TYPE
19         SYNTAX      INTEGER (1..255)
20         MAX-ACCESS  read-write
21         STATUS      current
22         DESCRIPTION
23             "The number of UL-MAPs to receive before contention-based
24             reservation is attempted again for the same connection."
25         REFERENCE
26             "Table 349, in IEEE Std 802.16-2004"
27         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 1 }
28
29     wmanIf2mBsOfdmaUplinkCenterFreq OBJECT-TYPE
30         SYNTAX      Unsigned32
31         UNITS       "kHz"
32         MAX-ACCESS  read-write
33         STATUS      current
34         DESCRIPTION
35             " Uplink center frequency (kHz)"
36         REFERENCE
37             "Table 349, in IEEE Std 802.16-2004"
38         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 2 }
39
40     wmanIf2mBsOfdmaStartOfRngCodes OBJECT-TYPE
41         SYNTAX      INTEGER (0..255)
42         MAX-ACCESS  read-write
43         STATUS      current
44         DESCRIPTION
45             "Indicates the starting number, S, of the group of codes
46             used for this uplink.All the ranging codes used on this
47             uplink will be between S and ((S+N+M+L) mod 256). Where,
48             N: the number of initial-ranging codes
49             M: the number of periodic-ranging codes
50             L: the number of bandwidth-request codes
51             O: the number of handover-ranging codes"
52         REFERENCE
53             "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
54         DEFVAL      { 0 }
55         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 3 }
56
57     wmanIf2mBsOfdmaPermutationBase OBJECT-TYPE
58         SYNTAX      INTEGER (0..255)
59         MAX-ACCESS  read-write
60         STATUS      current
61         DESCRIPTION
62             "Determines the UL_PermBase parameter for the subcarrier
63             permutation to be used on this uplink channel.
64             UL_PermBase = 7 LSBs of Permutation base."

```

```

1      REFERENCE
2      "Subclause 11.3.1, Table 353, in IEEE Std 802.16-2004"
3      DEFVAL      { 0 }
4      ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 4 }
5
6      wmanIf2mBsOfdmaULAllocSubchBitmap OBJECT-TYPE
7      SYNTAX      OCTET STRING (SIZE (9))
8      MAX-ACCESS  read-write
9      STATUS      current
10     DESCRIPTION
11     "This is a bitmap describing the physical sub-channels
12     allocated to the segment in the UL, when using the uplink
13     PUSC permutation. The LSB of the first byte shall correspond
14     to subchannel 0. For any bit that is not set, the
15     corresponding subchannel shall not be used by the SS on
16     that segment"
17     REFERENCE
18     "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
19     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 5 }
20
21     wmanIf2mBsOfdmaOptPermULAllocSubchBitmap OBJECT-TYPE
22     SYNTAX      OCTET STRING (SIZE (13))
23     MAX-ACCESS  read-write
24     STATUS      current
25     DESCRIPTION
26     "This is a bitmap describing the sub-channels allocated to
27     the segment in the UL, when using the uplink optional PUSC
28     permutation (see 8.4.6.2.5 in IEEE Std 802.16-2004). The
29     LSB of the first byte shall correspond to subchannel 0.
30     For any bit that is not set, the corresponding subchannel
31     shall not be used by the SS on that segment. When this TLV
32     is not present, BS may allocate any subchannels to an SS."
33     REFERENCE
34     "Subclause 11.3.1, Table 353, in IEEE Std 802.16-2004"
35     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 6 }
36
37     wmanIf2mBsOfdmaBandAMCAllocThreshold OBJECT-TYPE
38     SYNTAX      INTEGER (0 .. 255)
39     UNITS       "dB"
40     MAX-ACCESS  read-write
41     STATUS      current
42     DESCRIPTION
43     "Threshold of the maximum of the standard deviations of the
44     individual bands CINR measurements over time to trigger
45     mode transition from normal subchannel to Band AMC"
46     REFERENCE
47     "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
48     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 7 }
49
50     wmanIf2mBsOfdmaBandAMCReleaseThreshold OBJECT-TYPE
51     SYNTAX      INTEGER (0 .. 255)
52     UNITS       "dB"
53     MAX-ACCESS  read-write
54     STATUS      current
55     DESCRIPTION
56     "Threshold of the maximum of the standard deviations of the
57     individual bands CINR measurements over time to trigger
58     mode transition from Band AMC to normal subchannel"
59     REFERENCE
60     "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
61     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 8 }
62
63     wmanIf2mBsOfdmaBandAMCAllocTimer OBJECT-TYPE
64     SYNTAX      INTEGER (0 .. 255)

```

```

1      UNITS          "Frame"
2      MAX-ACCESS    read-write
3      STATUS        current
4      DESCRIPTION
5          "Minimum required number of frames to measure the average
6          and standard deviation for the event of Band AMC triggering"
7      REFERENCE
8          "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
9      ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 9 }
10
11     wmanIf2mBsOfdmaBandAMCReleaseTimer OBJECT-TYPE
12         SYNTAX      INTEGER (0 .. 255)
13         UNITS       "Frame"
14         MAX-ACCESS  read-write
15         STATUS      current
16         DESCRIPTION
17             "Minimum required number of frames to measure the average
18             and standard deviation for the event triggering from Band
19             AMC to normal subchannel"
20         REFERENCE
21             "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
22         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 10 }
23
24     wmanIf2mBsOfdmaBandStatRepMAXPeriod OBJECT-TYPE
25         SYNTAX      INTEGER (0 .. 255)
26         UNITS       "Frame"
27         MAX-ACCESS  read-write
28         STATUS      current
29         DESCRIPTION
30             "Maximum period between refreshing the Band CINR
31             measurement by the unsolicited REP-RSP"
32         REFERENCE
33             "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
34         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 11 }
35
36     wmanIf2mBsOfdmaBandAMCRetryTimer OBJECT-TYPE
37         SYNTAX      INTEGER (0 .. 255)
38         UNITS       "Frame"
39         MAX-ACCESS  read-write
40         STATUS      current
41         DESCRIPTION
42             "Backoff timer between consecutive mode transitions from
43             normal subchannel to Band AMC when the previous request
44             is failed"
45         REFERENCE
46             "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
47         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 12 }
48     wmanIf2mBsOfdmaHandoverRangingStart OBJECT-TYPE
49         SYNTAX      INTEGER (0..15)
50         MAX-ACCESS  read-write
51         STATUS      current
52         DESCRIPTION
53             "Initial backoff window size for MS performing initial
54             ranging during handover process, expressed as a power
55             of 2."
56         REFERENCE
57             "Table 349, in IEEE Std 802.16e-2005"
58         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 13 }
59
60     wmanIf2mBsOfdmaHandoverRangingEnd OBJECT-TYPE
61         SYNTAX      INTEGER (0..15)
62         MAX-ACCESS  read-write
63         STATUS      current
64         DESCRIPTION

```

```

1           "Final backoff window size for MS performing initial
2           ranging during handover process, expressed as a power
3           of 2."
4     REFERENCE
5           "Table 349, in IEEE Std 802.16e-2005"
6     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 14 }
7
8     wmanIf2mBsOfdmaHARQAackDelayDLBurst OBJECT-TYPE
9       SYNTAX      WmanIf2mHarqAckDelay
10      MAX-ACCESS  read-write
11      STATUS      current
12      DESCRIPTION
13        "This object defines the OFDMA H-ARQ ACK delay for DL
14        burst."
15      REFERENCE
16        "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
17      ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 15 }
18
19     wmanIf2mBsOfdmaUlAmcAlloPhyBandsBitmap OBJECT-TYPE
20      SYNTAX      OCTET STRING (SIZE (6))
21      MAX-ACCESS  read-write
22      STATUS      current
23      DESCRIPTION
24        "A bitmap describing the physical bands allocated to the
25        segment in the UL, when using the optional AMC permutation
26        with regular MAPs (see 8.4.6.3). The LSB of the first byte
27        shall correspond to the physical band 0. For any bit that
28        is not set, the corresponding physical bands shall not be
29        used by the SS on that segment. When this TLV is not
30        present, BS may allocate any physical bands to an SS."
31      REFERENCE
32        "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
33      ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 16 }
34
35     wmanIf2mBsOfdmaMaxRetransmission OBJECT-TYPE
36      SYNTAX      INTEGER (1..255)
37      MAX-ACCESS  read-write
38      STATUS      current
39      DESCRIPTION
40        "Maximum number of retransmission in UL HARQ."
41      REFERENCE
42        "Table 353, in IEEE Std 802.16e-2005"
43      DEFVAL     { 4 }
44      ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 17 }
45
46     wmanIf2mBsOfdmaNormalizedCnOverride OBJECT-TYPE
47      SYNTAX      OCTET STRING (SIZE (8))
48      MAX-ACCESS  read-write
49      STATUS      current
50      DESCRIPTION
51        "This is a list of numbers, where each number is encoded by
52        one nibble, and interpreted as a signed integer. The
53        nibbles correspond in order to the list define by Table
54        334, starting from the second line, such that the LS
55        nibble of the first byte corresponds to the second line in
56        the table. The number encoded by each nibble represents
57        the difference in normalized C/N relative to the previous
58        line in the table."
59      REFERENCE
60        "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
61      ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 18 }
62
63     wmanIf2mBsOfdmaSizeOfCqichId OBJECT-TYPE
64      SYNTAX      INTEGER (0..7)

```

```

1      MAX-ACCESS  read-write
2      STATUS      current
3      DESCRIPTION
4          "Size of CQICH ID field.
5              0 = 0 bits
6              1 = 3 bits
7              2 = 4 bits
8              3 = 5 bits
9              4 = 6 bits
10             5 = 7 bits
11             6 = 8 bits
12             7 = 9 bits"
13     REFERENCE
14         "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
15     DEFVAL      { 0 }
16     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 19 }
17
18 wmanIf2mBsOfdmaNormalizedCnValue OBJECT-TYPE
19     SYNTAX      INTEGER (-128..128)
20     UNITS       "dB"
21     MAX-ACCESS  read-write
22     STATUS      current
23     DESCRIPTION
24         "It shall be interpreted as signed integer in dB. It
25         corresponds to the normalized C/N value in the first line
26         (counting except for header cell of table)"
27     REFERENCE
28         "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
29     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 20 }
30
31 wmanIf2mBsOfdmaNormalizedCnOverride2 OBJECT-TYPE
32     SYNTAX      OCTET STRING (SIZE (7))
33     MAX-ACCESS  read-write
34     STATUS      current
35     DESCRIPTION
36         "This is a list of numbers, where each number is encoded
37         by one nibble, and interpreted as a signed integer. The
38         nibbles correspond in order to the list define by Table
39         334, starting from the second line (counting except for
40         the header cell of table), such that the LS nibble of
41         the first byte corresponds to the second line in the
42         table. The number encoded by each nibble represents the
43         difference in normalized C/N relative to the previous
44         line in the table."
45     REFERENCE
46         "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
47     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 21 }
48
49 wmanIf2mBsOfdmaBandAmcEntryAvgCinr OBJECT-TYPE
50     SYNTAX      INTEGER (-128..128)
51     UNITS       "dB"
52     MAX-ACCESS  read-write
53     STATUS      current
54     DESCRIPTION
55         "Threshold of the average CINR of the whole bandwidth to
56         trigger mode transition from normal subchannel to AMC"
57     REFERENCE
58         "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
59     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 22 }
60
61 wmanIf2mBsOfdmaAasPreambleUpperBond OBJECT-TYPE
62     SYNTAX      INTEGER (-128..128)
63     UNITS       "0.25 dB"
64     MAX-ACCESS  read-write

```

```

1      STATUS      current
2      DESCRIPTION
3      "Upper bound of AAS preamble."
4      REFERENCE
5      "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
6      ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 23 }
7
8      wmanIf2mBsOfdmaAasPreambleLowerBond OBJECT-TYPE
9      SYNTAX      INTEGER (-128..128)
10     UNITS       "0.25 dB"
11     MAX-ACCESS  read-write
12     STATUS      current
13     DESCRIPTION
14     "Lower bound of AAS preamble."
15     REFERENCE
16     "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
17     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 24 }
18
19     wmanIf2mBsOfdmaAasBeamSelectAllowed OBJECT-TYPE
20     SYNTAX      INTEGER {notAllowed(0),
21                  allowed(1)}
22     UNITS       "0.25 dB"
23     MAX-ACCESS  read-write
24     STATUS      current
25     DESCRIPTION
26     "Indicate whether unsolicited AAS Beam Select messages
27     (see 6.3.2.3.41 in IEEE 802.16e-2005) should be sent by
28     the MS."
29     REFERENCE
30     "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
31     DEFVAL     { allowed }
32     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 25 }
33
34     wmanIf2mBsOfdmaCqichIndicationFlag OBJECT-TYPE
35     SYNTAX      OCTET STRING (SIZE (1))
36     MAX-ACCESS  read-write
37     STATUS      current
38     DESCRIPTION
39     "The N MSB values of this field represents the N-bit
40     payload value on the Fast-Feedback channel reserved as
41     indication flag for MS to initiate feedback on the
42     Feedback header, where N is the number of payload bits
43     used for S/N measurement feedback on the Fast-Feedback
44     channel. The value shall not be set to all zeros."
45     REFERENCE
46     "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
47     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 26 }
48
49     wmanIf2mBsOfdmaUpPowerAdjStep OBJECT-TYPE
50     SYNTAX      Unsigned32
51     UNITS       "0.01 dB"
52     MAX-ACCESS  read-write
53     STATUS      current
54     DESCRIPTION
55     "MS-specific up power offset adjustment step"
56     REFERENCE
57     "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
58     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 27 }
59
60     wmanIf2mBsOfdmaDownPowerAdjStep OBJECT-TYPE
61     SYNTAX      Unsigned32
62     UNITS       "0.01 dB"
63     MAX-ACCESS  read-write
64     STATUS      current

```



```

1      DESCRIPTION
2          "MS-specific down power offset adjustment step"
3      REFERENCE
4          "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
5          ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 28 }
6
7      wmanIf2mBsOfdmaMinPowerOffsetAdj OBJECT-TYPE
8          SYNTAX      INTEGER
9          UNITS       "0.1 dB"
10         MAX-ACCESS  read-write
11         STATUS      current
12         DESCRIPTION
13             "Minimum level of power offset adjustment"
14         REFERENCE
15             "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
16             ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 29 }
17
18         wmanIf2mBsOfdmaMaxPowerOffsetAdj OBJECT-TYPE
19             SYNTAX      INTEGER
20             UNITS       "0.1 dB"
21             MAX-ACCESS  read-write
22             STATUS      current
23             DESCRIPTION
24                 "Minimum level of power offset adjustment"
25             REFERENCE
26                 "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
27                 ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 30 }
28
29         wmanIf2mBsOfdmaHandoverRngCodes OBJECT-TYPE
30             SYNTAX      INTEGER (0..255)
31             MAX-ACCESS  read-write
32             STATUS      current
33             DESCRIPTION
34                 "Number of handover ranging CDMA codes"
35             REFERENCE
36                 "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
37                 ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 31 }
38
39         wmanIf2mBsOfdmaInitialRngInterval OBJECT-TYPE
40             SYNTAX      INTEGER
41             MAX-ACCESS  read-write
42             STATUS      current
43             DESCRIPTION
44                 "Number of frames between initial ranging interval
45                 allocation."
46             REFERENCE
47                 "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
48                 ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 32 }
49
50         wmanIf2mBsOfdmaTxPwrRepThreshold OBJECT-TYPE
51             SYNTAX      INTEGER (0..15)
52             UNITS       "dB"
53             MAX-ACCESS  read-write
54             STATUS      current
55             DESCRIPTION
56                 "Tx power report threshold.
57                 wmanIf2mBsOfdmaTxPwrRepThreshold = 0b1111 means infinite."
58             REFERENCE
59                 "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
60                 Std 802.16e-2005"
61                 ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 33 }
62
63         wmanIf2mBsOfdmaTprPower OBJECT-TYPE
64             SYNTAX      INTEGER (0..15)

```

```

1      UNITS          "dB"
2      MAX-ACCESS    read-write
3      STATUS        current
4      DESCRIPTION
5          "Tx power report interval = 2 ^ wmanIf2mBsOfdmaTprPower.
6          The unit of Tx power report interval is frame.
7          wmanIf2mBsOfdmaTprPower = 0b1111 means infinite."
8      REFERENCE
9          "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
10         Std 802.16e-2005"
11     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 34 }
12
13     wmanIf2mBsOfdmaAlphaPavg OBJECT-TYPE
14         SYNTAX      INTEGER (0..15)
15         UNITS       "dB"
16         MAX-ACCESS  read-write
17         STATUS      current
18         DESCRIPTION
19             "Alpha p_avg parameter as shown in equation 138d in
20             IEEE 802.16e-2005 indicates the multiple of 1/16. For
21             example '0' means 1/16, 15 means 16/16. "
22         REFERENCE
23             "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
24             Std 802.16e-2005"
25         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 35 }
26
27     wmanIf2mBsOfdmaCqichTxPwrRepThreshold OBJECT-TYPE
28         SYNTAX      INTEGER (0..15)
29         UNITS       "dB"
30         MAX-ACCESS  read-write
31         STATUS      current
32         DESCRIPTION
33             "Tx power report threshold.
34             wmanIf2mBsOfdmaTxPwrRepThreshold = 0b1111 means infinite.
35             It shall be used when CQICH is allocated to the SS."
36         REFERENCE
37             "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
38             Std 802.16e-2005"
39         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 36 }
40
41     wmanIf2mBsOfdmaCqichTprPower OBJECT-TYPE
42         SYNTAX      INTEGER (0..15)
43         UNITS       "dB"
44         MAX-ACCESS  read-write
45         STATUS      current
46         DESCRIPTION
47             "Tx power report interval = 2 ^ wmanIf2mBsOfdmaTprPower.
48             The unit of Tx power report interval is frame.
49             wmanIf2mBsOfdmaTprPower = 0b1111 means infinite.
50             It shall be used when CQICH is allocated to the SS."
51         REFERENCE
52             "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
53             Std 802.16e-2005"
54         ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 37 }
55
56     wmanIf2mBsOfdmaCqichAlphaPavg OBJECT-TYPE
57         SYNTAX      INTEGER (0..15)
58         UNITS       "dB"
59         MAX-ACCESS  read-write
60         STATUS      current
61         DESCRIPTION
62             "Alpha p_avg parameter as shown in equation 138d in
63             IEEE 802.16e-2005 indicates the multiple of 1/16. For
64             example '0' means 1/16, 15 means 16/16. It shall be

```

```

1         used when CQICH is allocated to the SS."
2     REFERENCE
3         "Subclause 11.3.1, Table 353, and 8.4.10.3.2.1 in IEEE
4         Std 802.16e-2005"
5     ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 38 }
6
7     wmanIf2mBsOfdmaNormalizedCnChSounding OBJECT-TYPE
8         SYNTAX      INTEGER
9         MAX-ACCESS  read-write
10        STATUS      current
11        DESCRIPTION
12            "Signed integer for the required C/N (dB) for Channel
13            Sounding."
14        REFERENCE
15            "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
16        ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 39 }
17
18        wmanIf2mBsOfdmaInitialRngBackoffStart OBJECT-TYPE
19            SYNTAX      INTEGER (0..15)
20            MAX-ACCESS  read-write
21            STATUS      current
22            DESCRIPTION
23                "Initial backoff window size for initial ranging
24                contention, expressed as a power of 2."
25            REFERENCE
26                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
27            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 40 }
28
29        wmanIf2mBsOfdmaInitialRngBackoffEnd OBJECT-TYPE
30            SYNTAX      INTEGER (0..15)
31            MAX-ACCESS  read-write
32            STATUS      current
33            DESCRIPTION
34                "Final backoff window size for initial ranging
35                contention, expressed as a power of 2."
36            REFERENCE
37                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
38            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 41 }
39
40        wmanIf2mBsOfdmaBwRequestBackoffStart OBJECT-TYPE
41            SYNTAX      INTEGER (0..15)
42            MAX-ACCESS  read-write
43            STATUS      current
44            DESCRIPTION
45                "Initial backoff window size for contention BW requests,
46                expressed as a power of 2."
47            REFERENCE
48                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
49            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 42 }
50
51        wmanIf2mBsOfdmaBwRequestBackoffEnd OBJECT-TYPE
52            SYNTAX      INTEGER (0..15)
53            MAX-ACCESS  read-write
54            STATUS      current
55            DESCRIPTION
56                "Final backoff window size for contention BW requests,
57                expressed as a power of 2."
58            REFERENCE
59                "Subclause 11.3.1, Table 353, in IEEE Std 802.16e-2005"
60            ::= { wmanIf2mBsNeighborBsOfdmaUcdEntry 43 }
61
62        wmanIf2mBsNeighborBsOfdmaDcdTable OBJECT-TYPE
63            SYNTAX      SEQUENCE OF WmanIf2mBsNeighborBsOfdmaDcdEntry
64            MAX-ACCESS  not-accessible

```

```

1      STATUS      current
2      DESCRIPTION
3          "This table contains the attributes of the DCD message for
4          the neighboring BSs."
5      ::= { wmanIf2mBsNeighborAdv 4 }
6
7      wmanIf2mBsNeighborBsOfdmaDcdEntry OBJECT-TYPE
8          SYNTAX      WmanIf2mBsNeighborBsOfdmaDcdEntry
9          MAX-ACCESS  not-accessible
10         STATUS      current
11         DESCRIPTION
12             "This table provides one row for each neighboring BS,
13             and is indexed by wmanIf2mBsNeighborBsId."
14         INDEX       { wmanIf2mBsNeighborBsId }
15         ::= { wmanIf2mBsNeighborBsOfdmaDcdTable 1 }
16
17     WmanIf2mBsNeighborBsOfdmaDcdEntry ::= SEQUENCE {
18         wmanIf2mBsOfdmaBsEIRP          INTEGER,
19         wmanIf2mBsOfdmaChannelNumber    INTEGER,
20         wmanIf2mBsOfdmaTTG              INTEGER,
21         wmanIf2mBsOfdmaRTG              INTEGER,
22         wmanIf2mBsOfdmaInitRngMaxRSS    INTEGER,
23         wmanIf2mBsOfdmaDownlinkCenterFreq Unsigned32,
24         wmanIf2mBsOfdmaBsId             OCTET STRING,
25         wmanIf2mBsOfdmaMacVersion       WmanIf2mMacVersion,
26         wmanIf2mBsOfdmaFrameDurationCode INTEGER,
27         wmanIf2mBsOfdmaHARQAackDelayULBurst WmanIf2mHarqAckDelay,
28         wmanIf2mBsOfdmaHarqZonePermutation INTEGER,
29         wmanIf2mBsOfdmaHMaxRetransmission INTEGER,
30         wmanIf2mBsOfdmaCinrAlphaAvg     INTEGER,
31         wmanIf2mBsOfdmaRssiAlphaAvg     INTEGER,
32         wmanIf2mBsOfdmaDlAmcAlloPhyBandsBitmap OCTET STRING,
33         wmanIf2mBsOfdmaHandoverSupported BITS,
34         wmanIf2mBsOfdmaThresholdAddBsDivSet INTEGER,
35         wmanIf2mBsOfdmaThresholdDelBsDivSet INTEGER,
36         wmanIf2mBsOfdmaAsrSlotLength    INTEGER,
37         wmanIf2mBsOfdmaAsrSwitchingPeriod INTEGER,
38         wmanIf2mBsOfdmaHytseresisMargin INTEGER,
39         wmanIf2mBsOfdmaTimeToTrigger    INTEGER,
40         wmanIf2mBsOfdmaRetartCount      INTEGER}
41
42     wmanIf2mBsOfdmaBsEIRP OBJECT-TYPE
43         SYNTAX      INTEGER (-32768..32767)
44         UNITS       "dBm"
45         MAX-ACCESS  read-write
46         STATUS      current
47         DESCRIPTION
48             "The EIRP is the equivalent isotropic radiated power of
49             the base station, which is computed for a simple
50             single-antenna transmitter."
51         REFERENCE
52             "Subclause 11.4.1, Table 358, in IEEE Std 802.16-2004"
53         ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 1 }
54
55     wmanIf2mBsOfdmaChannelNumber OBJECT-TYPE
56         SYNTAX      INTEGER (0 .. 199)
57         MAX-ACCESS  read-write
58         STATUS      current
59         DESCRIPTION
60             "Downlink channel number as defined in 8.5. Used for
61             license-exempt operation only."
62         REFERENCE
63             "Subclause 11.4.1, Table 358, in IEEE Std 802.16-2004"
64         ::= { 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)."

```

```

1      MAX-ACCESS  read-write
2      STATUS      current
3      DESCRIPTION
4          "This parameter specifies the version of 802.16 to which
5          the message originator conforms."
6      REFERENCE
7          "Subclause 11.4.1, Table 358, in IEEE Std 802.16-2004"
8      ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 8 }
9
10     wmanIf2mBsOfdmaFrameDurationCode OBJECT-TYPE
11     SYNTAX      INTEGER { aasGap(0),
12                        duration2ms(1),
13                        duration2dot5ms(2),
14                        duration4ms(3),
15                        duration5ms(4),
16                        duration8ms(5),
17                        duration10ms(6),
18                        duration12dot5ms(7),
19                        duration20ms(8) }
20     MAX-ACCESS  read-write
21     STATUS      current
22     DESCRIPTION
23         "The duration of the frame. The frame duration code values
24         are specified in Table 274."
25     REFERENCE
26         "Table 273, in IEEE Std 802.16-2004"
27     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 9 }
28
29     wmanIf2mBsOfdmaHARQAackDelayULBurst OBJECT-TYPE
30     SYNTAX      WmanIf2mHarqAckDelay
31     MAX-ACCESS  read-write
32     STATUS      current
33     DESCRIPTION
34         "This object defines the OFDMA H-ARQ ACK delay for UL
35         burst."
36     REFERENCE
37         "Table 358, in IEEE Std 802.16e-2005"
38     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 10 }
39
40     wmanIf2mBsOfdmaHarqZonePermutation OBJECT-TYPE
41     SYNTAX      INTEGER { pusc(1),
42                        fusc(2),
43                        optionalFusc(3),
44                        amc(4) }
45     MAX-ACCESS  read-write
46     STATUS      current
47     DESCRIPTION
48         "Permutation type for broadcast region in HARQ zone"
49     REFERENCE
50         "Table 358, in IEEE Std 802.16e-2005"
51     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 11 }
52
53     wmanIf2mBsOfdmaHMaxRetransmission OBJECT-TYPE
54     SYNTAX      INTEGER (0..255)
55     MAX-ACCESS  read-write
56     STATUS      current
57     DESCRIPTION
58         "Maximum number of retransmission in DL HARQ."
59     REFERENCE
60         "Table 358, in IEEE Std 802.16e-2005"
61     DEFVAL     { 4 }
62     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 12 }
63
64     wmanIf2mBsOfdmaCinrAlphaAvg OBJECT-TYPE

```

```

1      SYNTAX      INTEGER (0..15)
2      MAX-ACCESS  read-write
3      STATUS      current
4      DESCRIPTION
5          "Bit 0..3 of Default RSSI and CINR averaging parameter
6          TLV.
7
8          Default averaging parameter Alpha Avg for physical
9          CINR measurements, in multiples of 1/16. For example
10         '0' means 1/16, 15 means 16/16."
11     REFERENCE
12         "Table 358, in IEEE Std 802.16e-2005"
13     DEFVAL      { 3 }
14     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 13 }
15
16 wmanIf2mBsOfdmaRssiAlphaAvg OBJECT-TYPE
17     SYNTAX      INTEGER (0..15)
18     MAX-ACCESS  read-write
19     STATUS      current
20     DESCRIPTION
21         "Bit 0..3 of Default RSSI and CINR averaging parameter
22         TLV.
23
24         Default averaging parameter Alpha Avg for physical
25         RSSI measurements, in multiples of 1/16. For example
26         '0' means 1/16, 15 means 16/16."
27     REFERENCE
28         "Table 358, in IEEE Std 802.16e-2005"
29     DEFVAL      { 3 }
30     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 14 }
31
32 wmanIf2mBsOfdmaDlAmcAlloPhyBandsBitmap OBJECT-TYPE
33     SYNTAX      OCTET STRING (SIZE (6))
34     MAX-ACCESS  read-write
35     STATUS      current
36     DESCRIPTION
37         "A bitmap describing the physical bands allocated to the
38         segment in the DL, when allocating AMC subchannels
39         through the HARQ MAP, or through the Normal MAP, or for
40         Band-AMC CINR reports, or using the optional AMC
41         permutation (see 8.4.6.3). The LSB of the first byte
42         shall correspond to band 0. For any bit that is not set,
43         the corresponding band shall not be used by the SS on
44         that segment. When this TLV is not present, BS may
45         allocate any physical bands to an SS."
46     REFERENCE
47         "Table 358, in IEEE Std 802.16e-2005"
48     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 15 }
49
50 wmanIf2mBsOfdmaHandoverSupported OBJECT-TYPE
51     SYNTAX      BITS {handover(0),
52                    mdHandover(1),
53                    fbssHandover(2)}
54     MAX-ACCESS  read-write
55     STATUS      current
56     DESCRIPTION
57         "Indicates the types of handover supported.
58         Bit #0 = HO
59         Bit #1 = MDHO
60         Bit #2 = FBSS HO."
61     REFERENCE
62         "Table 358, in IEEE Std 802.16e-2005"
63     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 16 }
64

```

```

1  wmanIf2mBsOfdmaThresholdAddBsDivSet OBJECT-TYPE
2      SYNTAX      INTEGER (0..255)
3      UNITS       "dB"
4      MAX-ACCESS  read-write
5      STATUS      current
6      DESCRIPTION
7          "Threshold used by the MS to add a neighbor BS to the
8          diversity set. When the CINR of a neighbor BS is higher
9          than H Add Threshold, the MS should send MOB_MSHO-REQ to
10         request adding this neighbor BS to the diversity set.
11         This threshold is used for the MS that is performing
12         MDHO/FBSS HO. If the BS does not support FBSS HO/MDHO,
13         this value is not set."
14     REFERENCE
15         "Table 358, in IEEE Std 802.16e-2005"
16     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 17 }
17
18  wmanIf2mBsOfdmaThresholdDelBsDivSet OBJECT-TYPE
19      SYNTAX      INTEGER (0..255)
20      UNITS       "dB"
21      MAX-ACCESS  read-write
22      STATUS      current
23      DESCRIPTION
24          "Threshold used by the MS to delete a neighbor BS to the
25          diversity set. When the CINR of a neighbor BS is lower
26          than H Add Threshold, the MS should send MOB_MSHO-REQ to
27          request dropping this neighbor BS to the diversity set.
28          This threshold is used for the MS that is performing
29          MDHO/FBSS HO. If the BS does not support FBSS HO/MDHO,
30          this value is not set."
31     REFERENCE
32         "Table 358, in IEEE Std 802.16e-2005"
33     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 18 }
34
35  wmanIf2mBsOfdmaAsrSlotLength OBJECT-TYPE
36      SYNTAX      INTEGER (0..15)
37      UNITS       "Frames"
38      MAX-ACCESS  read-write
39      STATUS      current
40      DESCRIPTION
41          "Bit 0..3 of ASR Slot Length and Switching Period.
42          For FBSS operation, the time axis is slotted by an ASR
43          (Anchor Switch Reporting) slot that is
44          wmanIf2mBsOfdmaAsrSlotLength frame long."
45     REFERENCE
46         "Table 358, in IEEE Std 802.16e-2005"
47     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 19 }
48
49  wmanIf2mBsOfdmaAsrSwitchingPeriod OBJECT-TYPE
50      SYNTAX      INTEGER (0..15)
51      UNITS       "ASR slots"
52      MAX-ACCESS  read-write
53      STATUS      current
54      DESCRIPTION
55          "Bit 0..3 of ASR Slot Length and Switching Period.
56          A switching period is introduced whose duration is equals
57          to wmanIf2mBsOfdmaAsrSwitchingPeriod ASR slots that
58          should be long enough such that certain process (e.g.,
59          HARQ transmission, backhaul context transfer) can be
60          completed at the current anchor BS before the MS switches
61          to the new anchor BS."
62     REFERENCE
63         "Table 358, in IEEE Std 802.16e-2005"
64     ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 20 }

```



```
1
2 wmanIf2mBsOfdmaHytseresisMargin OBJECT-TYPE
3     SYNTAX      INTEGER (0..57)
4     UNITS       "dB"
5     MAX-ACCESS  read-write
6     STATUS      current
7     DESCRIPTION
8         "When the CINR of a neighbor BS is larger than the sum of
9         the CINR of the current serving BS and
10        wmanIf2mBsOfdmaHytseresisMargin for the time-to-trigger
11        duration, then the neighbor BS is included in the list
12        of possible target BSs in MOB_MSHO-REQ."
13    REFERENCE
14        "Table 358, in IEEE Std 802.16e-2005"
15    ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 21 }
16
17 wmanIf2mBsOfdmaTimeToTrigger OBJECT-TYPE
18     SYNTAX      INTEGER
19     UNITS       "milliseconds"
20     MAX-ACCESS  read-write
21     STATUS      current
22     DESCRIPTION
23         "Indicates the time duration for MS decides to select a
24         neighbor BS as a possible target BS. It is applicable
25         only for HHO."
26    REFERENCE
27        "Table 358, in IEEE Std 802.16e-2005"
28    ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 22 }
29
30 wmanIf2mBsOfdmaRetartCount OBJECT-TYPE
31     SYNTAX      INTEGER (0..255)
32     MAX-ACCESS  read-only
33     STATUS      current
34     DESCRIPTION
35         "The value is incremented by one whenever BS restarts
36         (see 6.3.9.11). The value rolls over from 0 to 255."
37    REFERENCE
38        "Table 358, in IEEE Std 802.16e-2005"
39    ::= { wmanIf2mBsNeighborBsOfdmaDcdEntry 23 }
40
41
42
43
44
45
46
47
48
49
```

