

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >
Title	Proposed ASN.1 code to support new TLVs in MOB_NBR-ADV
Date Submitted	2007-03-13
Source(s)	Joey Chou Intel Corporation [mailto:joey.chou@intel.com]
Re:	
Abstract	This contribution proposes the text and ASN.1 code in wmanIf2mMib to support new TLVs in MOB_NBR-ADV.
Purpose	Adoption
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2 **1. Introduction**

3 This contribution proposes ASN.1 code in wmanIf2mMib to new TLVs in 11.18 MOB_NBR-ADV
4 management message encodings

5

6 **2. Proposed changes**7 **2.1 ASN.1 Code Changes**8 **13.2 ASN.1 Definitions of MIB Modules**9 **13.2.3 wmanIf2mMib**10 [\[Add the following code to WMAN-IF2m-MIB:\]](#)

11

12 -- XXX

13 WmanIf2mOfdmaFftSize ::= TEXTUAL-CONVENTION

14 STATUS current

15 DESCRIPTION

16 "FFT size for OFDMA PHY

17 0b000 = 2048

18 0b001 = 1024

19 0b010 = 512

20 0b100 = 128"

21 REFERENCE

22 "Subclause 11.18.1, Table 384b in IEEE Std 802.16e-2005"

23 SYNTAX INTEGER {fft2048(0),

24 fft1024(1),

25 fft512(2),

26 reserved(3),

27 fft128(4)}

28

29 -- XXX

30 WmanIf2mOfdmaCp ::= TEXTUAL-CONVENTION

31 STATUS current

32 DESCRIPTION

33 "Cycle prefix for OFDMA PHY

34 0b00 = 1/4

35 0b01 = 1/8

36 0b10 = 1/16

37 0b11 = 1/32"

38 REFERENCE

39 "Subclause 11.18.1, Table 384b in IEEE Std 802.16e-2005"

40 SYNTAX INTEGER {oneForth(0),

41 oneEighth(1),

42 oneSixteenth(2),

43 oneThirtySecond(3)}

44

45 -- XXX

46 WmanIf2mOfdmaFrame ::= TEXTUAL-CONVENTION

47 STATUS current

48 DESCRIPTION

49 "Frame duration for OFDMA PHY

50 0b0000 = 2.0 ms

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1           0b0001 = 2.5 ms
2           0b0010 = 4 ms
3           0b0011 = 5 ms
4           0b0100 = 8 ms
5           0b0101 = 10 ms
6           0b0110 = 12.5 ms
7           0b0111 = 20 ms"
8 REFERENCE
9 "Subclause 11.18.1, Table 384b in IEEE Std 802.16e-2005"
10 SYNTAX      INTEGER {twoMs(0),
11              twoPointFiveMs(1),
12              fourMs(2),
13              fiveMs(3),
14              eightMs(4),
15              tenMs(5),
16              twelvePointFiveMs(6),
17              twentyMs(7)}
18
19 wmanIf2mBsNeighborAdvertismentTable OBJECT-TYPE
20 SYNTAX      SEQUENCE OF WmanIf2mBsNeighborAdvertismentEntry
21 MAX-ACCESS  not-accessible
22 STATUS      current
23 DESCRIPTION
24 "This table contains the attributes specific to each neighbor
25 BS for the MOB_NBR-ADV message."
26 REFERENCE
27 "Subclause 6.3.2.3.47, in IEEE Std 802.16e-2005"
28 ::= { wmanIf2mBsNeighborAdv 2 }
29
30 wmanIf2mBsNeighborAdvertismentEntry OBJECT-TYPE
31 SYNTAX      WmanIf2mBsNeighborAdvertismentEntry
32 MAX-ACCESS  not-accessible
33 STATUS      current
34 DESCRIPTION
35 "This table provides one row for each neighboring BSs, and
36 is indexed by ifIndex and wmanIf2mBsNeighborBsIndex."
37 INDEX      { ifIndex, wmanIf2mBsNeighborBsIndex }
38 ::= { wmanIf2mBsNeighborAdvertismentTable 1 }
39
40 WmanIf2mBsNeighborAdvertismentEntry ::= SEQUENCE {
41     wmanIf2mBsNeighborBsIndex      INTEGER,
42     wmanIf2mBsNeighborBsId         WmanIf2mNbrBsId,
43     wmanIf2mBsPhyProfileId        WmanIf2mPhyProfileId,
44     wmanIf2mBsFaIndex             Unsigned32,
45     wmanIf2mBsEirp                INTEGER,
46     wmanIf2mBsPreambleSubchIndex   Unsigned32,
47     wmanIf2mBsHandoverProcOptimization WmanIf2mHoProcOptm,
48     wmanIf2mBsSchedulingService    WmanIf2mSchedulingSupp,
49     wmanIf2mBsChannelBandwidth     INTEGER,
50     wmanIf2mBsFftSize              WmanIf2mOfdmaFftSize,
51     wmanIf2mBsCyclicPrefix         WmanIf2mOfdmaCp,
52     wmanIf2mBsFrameDurationCode    WmanIf2mOfdmaFrame,
53     wmanIf2mBsMobilityFeatureSupported WmanIf2mOfdmaMobility,
54     wmanIf2mBsNrbBsPagingGroupListIndex INTEGER,
55     wmanIf2BsNeighborAdvertismentRowStatus RowStatus}
56
57 wmanIf2mBsNeighborBsIndex OBJECT-TYPE
58 SYNTAX      INTEGER (0 .. 15)
59 MAX-ACCESS  not-accessible
60 STATUS      current
61 DESCRIPTION
62 "Index to entries in wmanIf2mBsNeighborAdvertismentTable."
63 ::= { wmanIf2mBsNeighborAdvertismentEntry 1 }
64

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1  wmanIf2mBsNeighborBsId OBJECT-TYPE
2      SYNTAX          WmanIf2mNbrBsId
3      MAX-ACCESS     read-create
4      STATUS         current
5      DESCRIPTION
6          "The least significant 24 bits of the Base Station ID
7           parameter in the DL-MAP message of the Neighbor BS. The
8           'Neighbor BSID' field is present only if Bit #1 of
9           wmanIf2mBsSkipOptions bitmap is 0."
10     ::= { wmanIf2mBsNeighborAdvertismentEntry 2 }
11
12  wmanIf2mBsPhyProfileId OBJECT-TYPE
13      SYNTAX          WmanIf2mPhyProfileId
14      MAX-ACCESS     read-create
15      STATUS         current
16      DESCRIPTION
17          "Aggregated IDs of Co-located FA Indicator, FA Configuration
18           Indicator, FFT size, Bandwidth, Operation Mode of the
19           starting subchannelization of a frame, and Channel Number."
20      REFERENCE
21          "Subclause 6.3.2.3.47, Table 109f in IEEE Std 802.16e-2005"
22     ::= { wmanIf2mBsNeighborAdvertismentEntry 3 }
23
24  wmanIf2mBsFaIndex OBJECT-TYPE
25      SYNTAX          Unsigned32 (0..255)
26      MAX-ACCESS     read-create
27      STATUS         current
28      DESCRIPTION
29          "This field is present only if the faIndexInd bit in
30           WmanIf2mPhyProfileId is set to 1. Its definition shall be
31           determined by a service provider or a governmental body
32           like FCC after the licensed band is determined."
33      REFERENCE
34          "Subclause 6.3.2.3.47, Table 109f in IEEE Std 802.16e-2005"
35     ::= { wmanIf2mBsNeighborAdvertismentEntry 4 }
36
37  wmanIf2mBsEirp OBJECT-TYPE
38      SYNTAX          INTEGER (-128 .. 127)
39      UNITS           "dBm"
40      MAX-ACCESS     read-create
41      STATUS         current
42      DESCRIPTION
43          "This field is present only if the bsEirpInd bit in
44           WmanIf2mPhyProfileId is not set. Otherwise, the BS has the
45           same EIRP as the serving BS."
46      REFERENCE
47          "Subclause 6.3.2.3.47, Table 109f in IEEE Std 802.16e-2005"
48     ::= { wmanIf2mBsNeighborAdvertismentEntry 5 }
49
50  wmanIf2mBsPreambleSubchIndex OBJECT-TYPE
51      SYNTAX          Unsigned32 (0 .. 255)
52      MAX-ACCESS     read-create
53      STATUS         current
54      DESCRIPTION
55          "SCa and OFDMA PHY - this field defines the PHY specific
56           preamble.
57           OFDM PHY - the 5 LSB contain the active DL subchannel
58           index. The 3 MSB shall be Reserved and set to
59           '0b000'"
60      REFERENCE
61          "Subclause 6.3.2.3.47, Table 109f in IEEE Std 802.16e-2005"
62     ::= { wmanIf2mBsNeighborAdvertismentEntry 6 }
63
64  wmanIf2mBsHandoverProcOptimization OBJECT-TYPE

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1      SYNTAX      WmanIf2mHoProcOptm
2      MAX-ACCESS  read-create
3      STATUS      current
4      DESCRIPTION
5          "This field is present only if omitHoProcOptimization bit in
6          WmanIf2mPhyProfileId is not set. Each bit in this field
7          indicates certain reentry message may be omitted."
8      REFERENCE
9          "Subclause 6.3.2.3.47, Table 109f in IEEE Std 802.16e-2005"
10     ::= { wmanIf2mBsNeighborAdvertizementEntry 7 }
11
12     wmanIf2mBsSchedulingService OBJECT-TYPE
13         SYNTAX      WmanIf2mSchedulingSupp
14         MAX-ACCESS  read-create
15         STATUS      current
16         DESCRIPTION
17             "This field is present only if omitQosRelatedField bit in
18             WmanIf2mPhyProfileId is not set."
19         REFERENCE
20             "Subclause 6.3.2.3.47, Table 109f in IEEE Std 802.16e-2005"
21         ::= { wmanIf2mBsNeighborAdvertizementEntry 8 }
22
23     -- XXX
24     wmanIf2mBsChannelBandwidth OBJECT-TYPE
25         SYNTAX      INTEGER (0 .. 127)
26         UNITS       "125KHz"
27         MAX-ACCESS  read-create
28         STATUS      current
29         DESCRIPTION
30             "This field indicates the channel BW in units of 125 kHz."
31         REFERENCE
32             "Subclause 11.18.1 in IEEE Std 802.16e-2005"
33         ::= { wmanIf2mBsNeighborAdvertizementEntry 9 }
34
35     -- XXX
36     wmanIf2mBsFftSize OBJECT-TYPE
37         SYNTAX      WmanIf2mOfdmaFftSize
38         MAX-ACCESS  read-create
39         STATUS      current
40         DESCRIPTION
41             "This field indicates the channel BW in units of 125 kHz
42             for OFDMA PHY."
43         REFERENCE
44             "Subclause 11.18.1, Table 384b in IEEE Std 802.16e-2005"
45         ::= { wmanIf2mBsNeighborAdvertizementEntry 10 }
46
47     -- XXX
48     wmanIf2mBsCyclicPrefix OBJECT-TYPE
49         SYNTAX      WmanIf2mOfdmaCp
50         MAX-ACCESS  read-create
51         STATUS      current
52         DESCRIPTION
53             "This field indicates the CP for OFDMA PHY."
54         REFERENCE
55             "Subclause 11.18.1, Table 384b in IEEE Std 802.16e-2005"
56         ::= { wmanIf2mBsNeighborAdvertizementEntry 11 }
57
58     -- XXX
59     wmanIf2mBsFrameDurationCode OBJECT-TYPE
60         SYNTAX      WmanIf2mOfdmaFrame
61         MAX-ACCESS  read-create
62         STATUS      current
63         DESCRIPTION
64             "This field indicates the frame duration for ODMA PHY."

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1          REFERENCE
2          "Subclause 11.18.1, Table 384b in IEEE Std 802.16e-2005"
3          ::= { wmanIf2mBsNeighborAdvertismentEntry 12 }
4
5  -- XXX
6  wmanIf2mBsMobilityFeatureSupported OBJECT-TYPE
7      SYNTAX      WmanIf2mOfdmaMobility
8      MAX-ACCESS  read-create
9      STATUS      current
10     DESCRIPTION
11         "This field indicates whether the neighbor BS supports
12         mobility features."
13     REFERENCE
14         "Subclause 6.3.2.3.47, Table 109f in IEEE Std 802.16e-2005"
15     ::= { wmanIf2mBsNeighborAdvertismentEntry 13 }
16
17  -- XXX
18  wmanIf2mBsNrbBsPagingGroupListIndex OBJECT-TYPE
19      SYNTAX      INTEGER (0 .. 65535)
20      MAX-ACCESS  read-create
21      STATUS      current
22      DESCRIPTION
23         "If idle mode is supported, this index maps to
24         wmanIf2mBsPagingGroupListId in wmanIf2mBsPagingGroupsTable
25         , and is used to identify the list of paging group IDs,
26         assigned to a neighbor BS."
27     ::= { wmanIf2mBsNeighborAdvertismentEntry 14 }
28
29  wmanIf2BsNeighborAdvertismentRowStatus OBJECT-TYPE
30      SYNTAX      RowStatus
31      MAX-ACCESS  read-create
32      STATUS      current
33      DESCRIPTION
34         "This object is used to create a new row or modify or delete
35         an existing row in this table. If the implementator of this
36         MIB has choosen not to implement 'dynamic assignment' of
37         profiles, this object is not useful and should return
38         noSuchName upon SNMP request."
39     ::= { wmanIf2mBsNeighborAdvertismentEntry 15 }
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