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| Title          | <b>Mobile MIB</b>  |   |
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Re:

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|------------------------------|---|
| Abstract                     | This contribution proposed the enhancement of wmanIfMib, as defined in IEEE P802.16f, to support IEEE P802.16e standard.  |
| Purpose                      | Adoption  |
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## 1. Introduction

wmanIfMib, as defined in IEEE P802.16f standard, has been architected to support multiple PHYs and MAC enhancements. This contribution proposed the enhancements of wmanIfMib, to support the upcoming IEEE P802.16e standard. This contribution proposes the following text be adopted to the IEEE P802.16g draft.

## 6 2. Overview

### 7 2.1 Scope

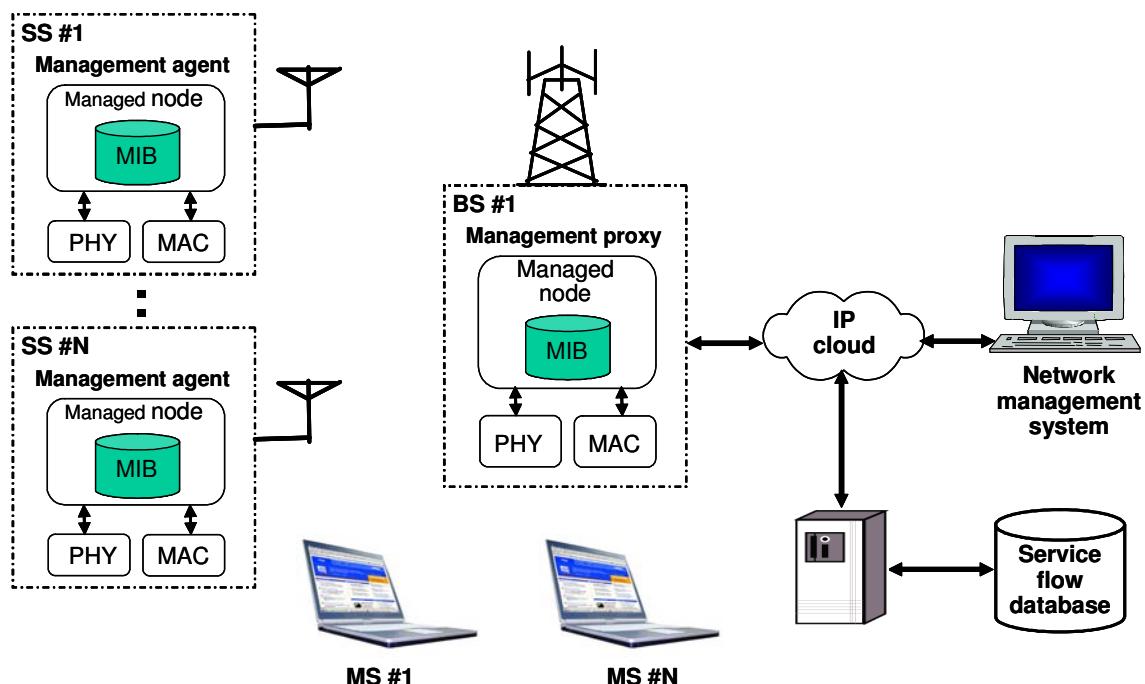
8 This document provides enhancements to IEEE P802.16f to define a management information base  
9 (MIB) for the support of IEEE P802.16e standard.

### 10 2.2 Purpose

11 The purpose of this project is to provide a definition of managed objects to enable standards-based  
12 management of IEEE 802.16e device.

### 13 2.3 Management Reference Models

14 Figure 1 shows a management reference model of fixed and mobile Broadband Wireless Access (BWA)  
15 networks that comply with IEEE 802.16-2004 and IEEE 802.16e standards, respectively. The BS can be  
16 managed by a Network Management System (NMS) directly, while the SS or MS can be managed in two  
17 different modes—direct mode or proxy mode. In the direct mode, NMS accesses the managed objects via an  
18 IP connection directly to the SNMP agent in SS. In the proxy mode, BS acts as the front-end proxy that routes  
19 the SNMP messages to the appropriate SS or MS, or the back-end proxy that can manage SS or MS in a  
20 different protocol.



41 **Figure 1—BWA Network Management Reference Models**

### 1    3 Configuration

2       The wmanIfMib shall support the configuration described in the section.

#### 3    3.1 BS ifTable

4       The implementation of the ifTable for BS must create one row for each BS sector. Table 1 provides an  
 5       example of the ifTable in a BS that has multiple sectors supporting both IEEE 802.16-2004 and IEEE  
 6       802.16e standards. This configuration enables BS to evolve smoothly from fixed BWA to mobile BWA  
 7       networks, and provides an easy way to support different flavors of OFDM PHYs to meet the market needs

| <i>ifTable</i> | <i>ifIndex</i> | <i>ifType (IANA)</i> | <i>ifDescr</i> | <i>ifPhysAddress</i>     | <i>ifAdminStatus</i>  | <i>ifOperStatus</i> |
|----------------|----------------|----------------------|----------------|--------------------------|-----------------------|---------------------|
| BS Sector 1    | 1              | propBWA2Mp           | OFDM           | MAC address of BS sector | Administration Status | Operational Status  |
| BS Sector 2    | 2              | propBWA2Mp           | OFDMA 2048     | MAC address of BS sector | Administration Status | Operational Status  |
| BS Sector 3    | 3              | propBWA2Mp           | OFDMA 1024     | MAC address of BS sector | Administration Status | Operational Status  |
| BS Sector 4    | 4              | propBWA2Mp           | OFDMA 512      | MAC address of BS sector | Administration Status | Operational Status  |
| BS Sector 5    | 5              | propBWA2Mp           | OFDMA 128      | MAC address of BS sector | Administration Status | Operational Status  |

14              **Table 1—Example of the Usage of ifTable objects for BS**

#### 15    3.2 SS and MS Management

16       SS and MS management will have the following configuration:

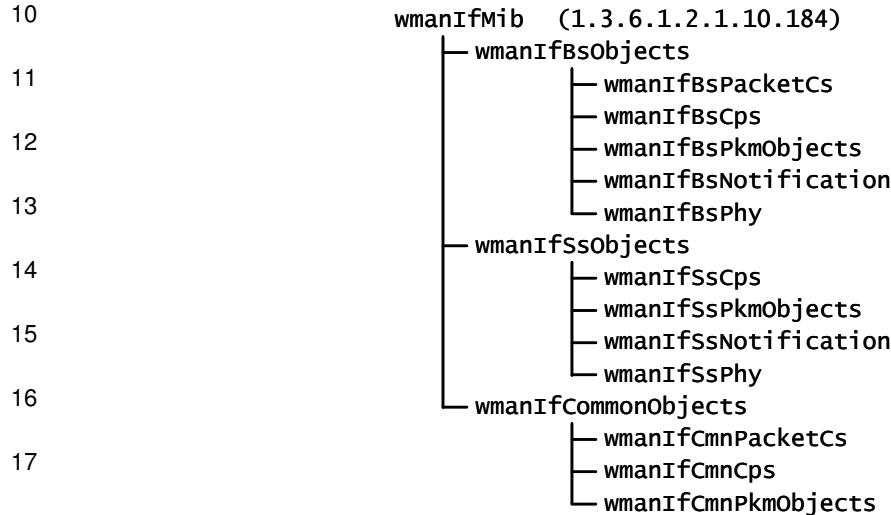
- 17              •     SS based on IEEE 802.16-2004
- 18              •     SS based on IEEE 802.16e
- 19              •     MS based on IEEE 802.16e

## 4 wmanIfMib MIB structure

Figure 2 shows the high level MIB structure of wmanIfMib for 802.16. The MIB structure is organized based on the reference model as defined in IEEE 802.16-2004 standard

The wmanIfMib is composed of three groups:

- wmanIfBsObjects: contains managed objects to be implemented in the SNMP agent in BS.
- wmanIfSsObjects: contains managed objects to be implemented in the SNMP agent in SS.
- wmanIfCommonObjects: contains common managed objects to be implemented in the SNMP agent in BS and SS.



**Figure 2—wmanIfMib structure**

### 4.1 wmanIfBsObjects

#### 4.1.1 wmanIfBsPacketCs

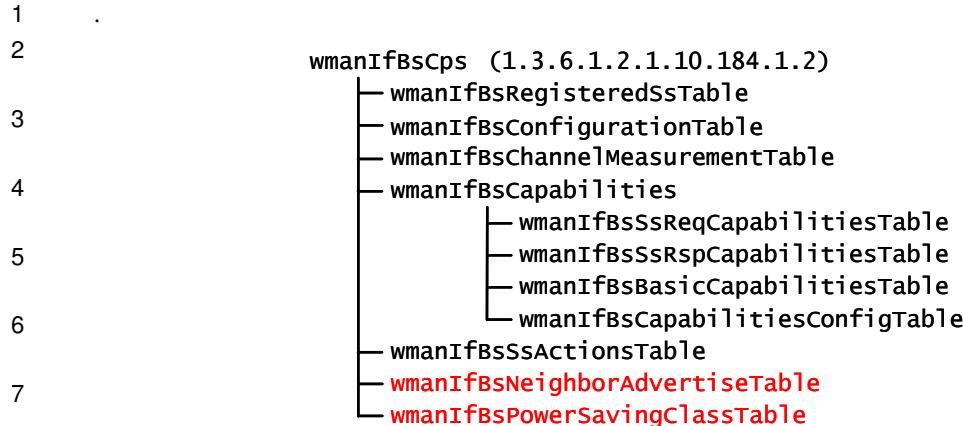
##### 4.1.1.1 wmanIfBsClassifierRuleTable

wmanIfBsClassifierRuleTable contains the additional objects as defined in 11.13.19.3.4.

- Large Context ID for ROHC- or EC RTP-compressed packet or ROHC feedback packet
- Classifier Action Rule
- Short-format Context ID for ROHC- or EC RTP-compressed packet or ROHC feedback packet

#### 4.1.2 wmanIfBsCps

Figure 3 shows the structure of wmanIfBsCps subtree. It adds two new tables – wmanIfBsNeighborAdvertiseTable and wmanIfBsPowerSavingClassTable.



**Figure 3— wmanIfBsCps structure**

#### 4.1.2.1 wmanIfBsRegisteredSsTable

WmanIfMacVersion includes a new type of ieee802Dot16e to indicate the registered SS is running the 802.16e version of MAC software.

```

12   WmanIfMacVersion ::= TEXTUAL-CONVENTION
13     STATUS      current
14     DESCRIPTION
15       "Version number of IEEE 802.16."
16     SYNTAX      INTEGER {ieee802Dot16Of2001(1),
17                           ieee802Dot16cOf2002(2),
18                           ieee802Dot16aOf2003(3),
19                           ieee802Dot16Of2004(4),
20                           ieee802Dot16e(5)}
21

```

#### 4.1.2.2 wmanIfBsConfigurationTable

wmanIfBsConfigurationTable includes additional BS objects as defined in subclause 10.1. These parameters are associated with power saving mode and handoff.

- MOB-NBR-ADV interval
- ASC-AGING-TIMER
- Paging Retry Count
- Mode Selection Feedback processing time
- Idle Mode System Timer For
- Management Resource Holding Timer
- DREG Command Retry Count
- T46
- T47
- Paging Interval Length
- Max Dir Scan Time
- SAChallengeTimer
- SATEKTimer
- SATEKRequestMaxResends

### 1 4.1.2.3 wmanIfBsCapabilities

- 2 wmanIfBsSsReqCapabilitiesTable, wmanIfBsSsRspCapabilitiesTable, and wmanIfBsBasicCapabilitiesTable  
3 include additional objects, defined in 11.7.7 and 11.7.8.
- 4
- 5     • Maximum amount of MAC level data per DL frame  
6     • Maximum amount of MAC level data per UL framet  
7     • Packing support  
8     • MAC Extended rtPS support  
9     • Maximum number of bursts transmitted concurrently to the MS  
10    • CID update encodings  
11    • Method for allocating IP address for the secondary management connection  
12    • System Resource\_Retain\_Time  
13    • HO Process Optimization MS Timer  
14    • MS Handover Retransmission Timer  
15    • Mobility features supported  
16    • Sleep-mode recovery time  
17    • MS-PREV-IP-ADDR  
18    • SKIP-ADDR-ACQUISITION  
19    • SAID update encodings  
20    • Total number of provisioned service flow  
21    • Idle Mode Timeout  
22    • SA TEK Update  
23    • GKEK Parameters  
24    • ARQ-ACK Type  
25    • HO parameters processing time  
26    • MAC header and extended subheader support  
27    • SN Reporting Base  
28    • OFDM private map support  
29    • Uplink control channel support  
30    • Maximum number of burst per frame capability in HARQ  
31    • HARQ buffer capability  
32    • HARQ incremental redundancy buffer capability  
33    • HARQ Chase combining and CC-IR buffer capability  
34    • PKM Version Support  
35    • Authorization policy support  
36    • MAC (Message Authentication Code) Mode  
37    • PN window size  
38    • Power save class types capability  
39    • Extension capability  
40    • HO Trigger metric support  
41    • Association type support  
42

#### 1 4.1.2.4 wmanIfBsNeighborAdvertiseTable

2 wmanIfBsNeighborAdvertiseTable includes objects defined in Table 384b.  
 3     • Operator ID  
 4     • Bandwidth  
 5     • FFT Size  
 6     • Cycle prefix (CP)  
 7     • Frame duration code  
 8     • FA Index  
 9

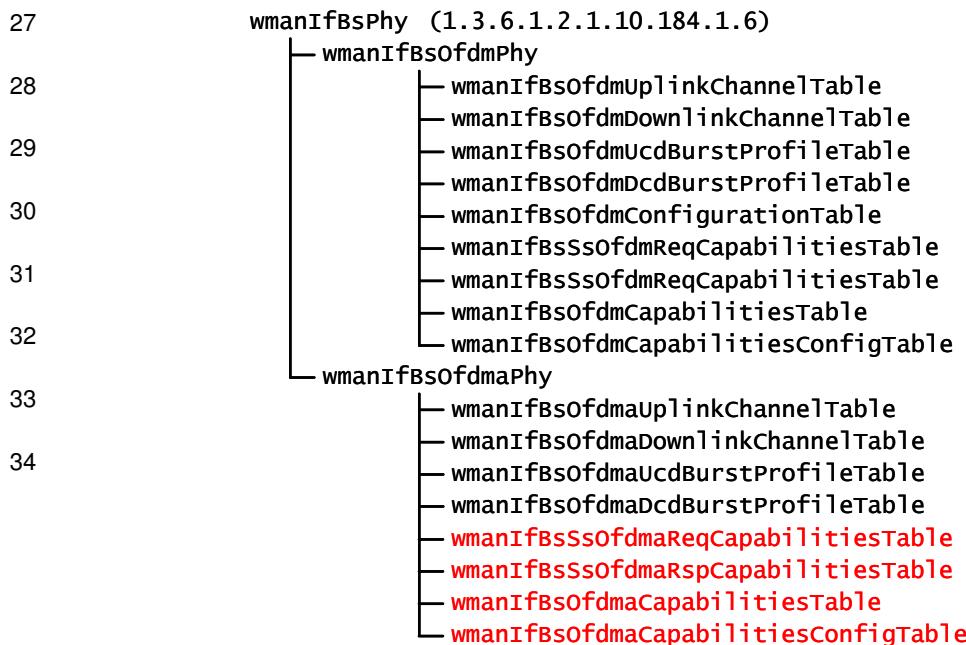
#### 10 4.1.2.5 wmanIfBsPowerSavingClassTable

11 wmanIfBsPowerSavingClassTable includes objects as defined in Table 364a.

- 12     • Power\_Saving\_Class\_ID  
 13     • Power\_Saving\_Class\_Type  
 14     • Start\_frame\_number 4  
 15     • initial-sleep window 5 1 Initial-sleep window  
 16     • listening window  
 17     • final-sleep window base  
 18     • final-sleep window exponent  
 19     • SLPID  
 20     • CID  
 21     • Direction  
 22

#### 23 4.1.3 wmanIfBsPhy

24 Figure 3 shows the structure of wmanIfBsPhy subtree. It adds four new tables –  
 25 wmanIfBsSsOfdmaReqCapabilitiesTable, wmanIfBsSsOfdmaRspCapabilitiesTable,  
 26 wmanIfBsOfdmaCapabilitiesTable, and wmanIfBsOfdmaCapabilitiesConfigTable.



1

**Figure 4—wmanIfBsPhystructure**2 **4.1.3.1 wmanIfBsOfdmaPhy**

3 wmanIfBsOfdmaPhy is a group containing objects specific to OFDMA PHY

4 **4.1.3.1.1 wmanIfBsOfdmaUplinkChannelTable**

5 wmanIfBsOfdmaUplinkChannelTable includes additional objects associated UCD channel encodings

6 Table 349

- 7 • Initial\_ranging\_backoff\_start
- 8 • Initial\_ranging\_backoff\_end
- 9 • Bandwidth\_request\_backoff\_start
- 10 • Bandwidth\_request\_backoff\_end
- 11 • Uplink\_burst\_profile for multiple FEC types
- 12 • Normalized C/N override

13

14 Table 353a

- 15 • LowerBoundAAS\_PREAMBLE
- 16 • UpperBoundAAS\_PREAMBLE
- 17 • UL allocated subchannel bitmap for optimal AMC permutation
- 18 • Allow AAS Beam Select Messages
- 19 • Use CQICH indication flag
- 20 • MS-specific up power offset adjustment step
- 21 • MS-specific down power offset adjustment step
- 22 • Minimum level of power offset adjustment
- 23 • Maximum level of power offset adjustment
- 24 • Handover Ranging Codes
- 25 • Initial ranging interval
- 26 • Normalized C/N for Channel Sounding

27

28 **4.1.3.1.2 wmanIfBsOfdmaDownlinkChannelTable**

29 wmanIfBsOfdmaDownlinkChannelTable includes additional objects defined in Table 358.

- 30 • DL region definition
- 31 • HO type support
- 32 • H\_Add Threshold
- 33 • H\_Delete Threshold
- 34 • ASR(Anchor Switch Report) Slot Length (M) and Switching Period (L)
- 35 • Paging Group ID
- 36 • DL allocated subchannel bitmap for optional AMC permutation
- 37 • TUSC1 permutation active subchannels bitmap

- 1     • TUSC2 permutation active subchannels bitmap
- 2     • Hysteresis margin
- 3     • Time-to-Trigger duration
- 4     • Trigger
- 5     • N+I
- 6     • MAC version
- 7     • Downlink\_burst\_profile for multiple FEC types
- 8     • BS Restart Count
- 9

#### 10 4.1.3.1.3 wmanIfBsOfdmaUcdBurstProfileTable

11       As per Table 357, the definition of FEC Code type and modulation type object in  
 12      wmanIfBsOfdmaUcdBurstProfileTable shall be changed as the following.

- 13     • 0 = QPSK (CC) 1/2
- 14     • 1 = QPSK (CC) 3/4
- 15     • 2 = 16-QAM (CC) 1/2
- 16     • 3 = 16-QAM (CC) 3/4
- 17     • 4 = 64-QAM (CC) 1/2
- 18     • 5 = 64-QAM (CC) 2/3
- 19     • 6 = 64-QAM (CC) 3/4
- 20     • 7 = QPSK (BTC) 1/2
- 21     • 8 = QPSK (BTC) 3/4
- 22     • 9 = 16-QAM (BTC) 3/5
- 23     • 10 = 16-QAM (BTC) 4/5
- 24     • 11 = 64-QAM (BTC) 5/8
- 25     • 12 = 64-QAM (BTC) 4/5
- 26     • 13 = QPSK (CTC) 1/2
- 27     • 14 = QPSK (CTC) 3/4
- 28     • 15 = 16-QAM (CTC) 1/2
- 29     • 16 = 16-QAM (CTC) 3/4
- 30     • 17 = 64-QAM (CTC) 1/2
- 31     • 18 = 64-QAM (CTC) 2/3
- 32     • 19 = 64-QAM (CTC) 3/4
- 33     • 20 = 64-QAM (CTC) 5/6
- 34     • 21 = QPSK (ZT CC) 1/2
- 35     • 22 = QPSK (ZT CC) 3/4
- 36     • 23 = 16-QAM (ZT CC) 1/2
- 37     • 24 = 16-QAM (ZT CC) 3/4
- 38     • 25 = 64-QAM (ZT CC) 1/2
- 39     • 26 = 64-QAM (ZT CC) 2/3
- 40     • 27 = 64-QAM (ZT CC) 3/4
- 41     • 28 = QPSK (LDPC) 1/2

- 1     • 29 = QPSK (LDPC) 2/3 A code
  - 2     • 30 = QPSK (LDPC) 3/4 A code
  - 3     • 31 = 16-QAM (LDPC) 1/2
  - 4     • 32 = 16-QAM (LDPC) 2/3 A code
  - 5     • 33 = 16-QAM (LDPC) 3/4 A code
  - 6     • 34 = 64-QAM (LDPC) 1/2
  - 7     • 35 = 64-QAM (LDPC) 2/3 A code
  - 8     • 36 = 64-QAM (LDPC) 3/4 A code
  - 9     • 37 = QPSK (LDPC) 2/3 B code
  - 10    • 38 = QPSK (LDPC) 3/4 B code
  - 11    • 39 = 16-QAM (LDPC) 2/3 B code
  - 12    • 40 = 16-QAM (LDPC) 3/4 B code
  - 13    • 41 = 64-QAM (LDPC) 2/3 B code
  - 14    • 42 = 64-QAM (LDPC) 3/4 B code
  - 15    • 43 = QPSK (LDPC) 5/6
  - 16    • 44 = 16-QAM(LDPC) 5/6
  - 17    • 45 = 64-QAM(LDPC) 5/6
- 18

#### 19 4.1.3.1.4 wmanIfBsOfdmaDcdBurstProfileTable

20 As per Table 363, the definition of FEC Code type object in wmanIfBsOfdmaDcdBurstProfileTable  
 21 shall be changed as the following

- 22    • 0 = QPSK (CC) 1/2
- 23    • 1 = QPSK (CC) 3/4
- 24    • 2 = 16-QAM (CC) 1/2
- 25    • 3 = 16-QAM (CC) 3/4
- 26    • 4 = 64-QAM (CC) 1/2
- 27    • 5 = 64-QAM (CC) 2/3
- 28    • 6 = 64-QAM (CC) 3/4
- 29    • 7 = QPSK (BTC) 1/2
- 30    • 8 = QPSK (BTC) 3/4
- 31    • 9 = 16-QAM (BTC) 3/5
- 32    • 10 = 16-QAM (BTC) 4/5
- 33    • 11 = 64-QAM (BTC) 5/8
- 34    • 12 = 64-QAM (BTC) 4/5
- 35    • 13 = QPSK (CTC) 1/2
- 36    • 14 = QPSK (CTC) 3/4
- 37    • 15 = 16-QAM (CTC) 1/2
- 38    • 16 = 16-QAM (CTC) 3/4
- 39    • 17 = 64-QAM (CTC) 1/2
- 40    • 18 = 64-QAM (CTC) 2/3
- 41    • 19 = 64-QAM (CTC) 3/4

- 1     • 20 = 64-QAM (CTC) 5/6
- 2     • 21 = QPSK (ZT CC) 1/2
- 3     • 22 = QPSK (ZT CC) 3/4
- 4     • 23= 16-QAM (ZT CC) 1/2
- 5     • 24= 16-QAM (ZT CC) 3/4
- 6     • 25= 64-QAM (ZT CC) 1/2
- 7     • 26= 64-QAM (ZT CC) 2/3
- 8     • 27= 64-QAM (ZT CC) 3/4
- 9     • 28 = QPSK (LDPC) 1/2
- 10    • 29= QPSK (LDPC) 2/3 A code
- 11    • 30= QPSK (LDPC) 3/4 A code
- 12    • 31 = 16-QAM (LDPC) 1/2
- 13    • 32 = 16-QAM (LDPC) 2/3 A code
- 14    • 33 = 16-QAM (LDPC) 3/4 A code
- 15    • 34 = 64-QAM (LDPC) 1/2
- 16    • 35 = 64-QAM (LDPC) 2/3 A code
- 17    • 36 = 64-QAM (LDPC) 3/4 A code
- 18    • 37 = QPSK (LDPC) 2/3 B code
- 19    • 38 = QPSK (LDPC) 3/4 B code
- 20    • 39 = 16-QAM (LDPC) 2/3 B code
- 21    • 40 = 16-QAM (LDPC) 3/4 B code
- 22    • 41 = 64-QAM (LDPC) 2/3 B code
- 23    • 42 = 64-QAM (LDPC) 3/4 B code
- 24    • 43 = QPSK (LDPC) 5/6
- 25    • 44 = 16-QAM(LDPC) 5/6
- 26    • 45 = 64-QAM(LDPC) 5/6
- 27

#### 28 4.1.3.1.5 wmanIfBsSsOfdmaReqCapabilitiesTable

29 wmanIfBsSsOfdmaReqCapabilitiesTable includes the following objects: (section 11.8.3.7)

- 30    • OFDMA MS FFT sizes
- 31    • OFDMA SS demodulator
- 32    • OFDMA SS modulator
- 33    • OFDMA SS Permutation support
- 34    • OFDMA AAS private map support
- 35    • OFDMA SS uplink power control support
- 36    • OFDMA MAP Capability
- 37    • OFDMA MS CSIT capability
- 38    • OFDMA SS Demodulator for MIMO Support
- 39    • OFDMA SS Modulator for MIMO Support
- 40    • SDMA Pilot capability

- 1       • OFDMA Multiple Downlink Burst Profile Capability

2

3 **4.1.3.1.6 wmanIfBsSsOfdmaRspCapabilitiesTable**

4 wmanIfBsSsOfdmaReqCapabilitiesTable includes the following objects:

- 5       • OFDMA MS FFT sizes
- 6       • OFDMA SS demodulator
- 7       • OFDMA SS modulator
- 8       • OFDMA SS Permutation support
- 9       • OFDMA AAS private map support
- 10      • OFDMA SS uplink power control support
- 11      • OFDMA MAP Capability
- 12      • OFDMA MS CSIT capability
- 13      • OFDMA SS Demodulator for MIMO Support
- 14      • OFDMA SS Modulator for MIMO Support
- 15      • SDMA Pilot capability
- 16      • OFDMA Multiple Downlink Burst Profile Capability

17

18 **4.1.3.1.7 wmanIfBsOfdmaCapabilitiesTable**

19 wmanIfBsSsOfdmaReqCapabilitiesTable includes the following objects:

- 20      • OFDMA MS FFT sizes
- 21      • OFDMA SS demodulator
- 22      • OFDMA SS modulator
- 23      • OFDMA SS Permutation support
- 24      • OFDMA AAS private map support
- 25      • OFDMA SS uplink power control support
- 26      • OFDMA MAP Capability
- 27      • OFDMA MS CSIT capability
- 28      • OFDMA SS Demodulator for MIMO Support
- 29      • OFDMA SS Modulator for MIMO Support
- 30      • SDMA Pilot capability
- 31      • OFDMA Multiple Downlink Burst Profile Capability

32

33 **4.1.3.1.8 wmanIfBsOfdmaCapabilitiesConfigTable**

34 wmanIfBsSsOfdmaReqCapabilitiesTable includes the following objects:

- 35      • OFDMA MS FFT sizes
- 36      • OFDMA SS demodulator
- 37      • OFDMA SS modulator

- 1     • OFDMA SS Permutation support
  - 2     • OFDMA AAS private map support
  - 3     • OFDMA SS uplink power control support
  - 4     • OFDMA MAP Capability
  - 5     • OFDMA MS CSIT capability
  - 6     • OFDMA SS Demodulator for MIMO Support
  - 7     • OFDMA SS Modulator for MIMO Support
  - 8     • SDMA Pilot capability
  - 9     • OFDMA Multiple Downlink Burst Profile Capability
- 10

## 11 4.2 wmanIfSsObjects

### 12 4.2.1 wmanIfSsCps

#### 13 4.2.1.1 wmanIfSsConfigurationTable

14     wmanIfSsConfigurationTable includes additional MS objects as defined in subclause 10.1. These parameters  
 15    are associated with power saving mode and handoff.

- 16     • Min\_Sleep\_Interval
- 17     • MS Max\_Sleep\_Interval
- 18     • MS Listening\_Interval
- 19     • ASC-AGING-TIMER
- 20     • Serving BS ID AGINGTIMER
- 21     • T42
- 22     • Fast-Tracking Response Processing Time
- 23     • Mode Selection Feedback processing time
- 24     • Idle Mode Timer
- 25     • T43
- 26     • T44
- 27     • T45
- 28     • DREG Request Retry Count
- 29     • HO Process Optimization MS Timer Retries
- 30     • Paging Interval Length
- 31     • Max Dir Scan Time
- 32     • SACHallengeTimer
- 33     • SATEKTimer
- 34     • SATEKRequestMaxResends

### 35 36 4.2.2 wmanIfSsPhy

#### 37 4.2.2.1 wmanIfSsOfdmaPhy

38     wmanIfSsOfdmaPhy is a group containing objects specific to OFDMA PHY.

1   **4.1.2.1.1   wmanIfSsOfdmaUplinkChannelTable**

2       wmanIfBsOfdmaUplinkChannelTable includes additional objects associated UCD channel encodings

3       Table 349

- 4       •    HO\_ranging\_start
- 5       •    HO\_ranging\_end
- 6       •    Initial\_ranging\_backoff\_start
- 7       •    Initial\_ranging\_backoff\_end
- 8       •    Bandwidth\_request\_backoff\_start
- 9       •    Bandwidth\_request\_backoff\_end
- 10      •    Uplink\_burst\_profile for multiple FEC types
- 11      •    Normalized C/N override

12

13       Table 353a

- 14      •    LowerBoundAAS\_PREAMBLE
- 15      •    UpperBoundAAS\_PREAMBLE
- 16      •    UL allocated subchannel bitmap for optimal AMC permutation
- 17      •    Allow AAS Beam Select Messages
- 18      •    Use CQICH indication flag
- 19      •    MS-specific up power offset adjustment step
- 20      •    MS-specific down power offset adjustment step
- 21      •    Minimum level of power offset adjustment
- 22      •    Maximum level of power offset adjustment
- 23      •    Handover Ranging Codes
- 24      •    Initial ranging interval
- 25      •    Normalized C/N for Channel Sounding

26

27   **4.1.2.1.2   wmanIfSsOfdmaDownlinkChannelTable**

28       wmanIfSsOfdmaDownlinkChannelTable includes additional objects defined in Table 358 and 363.

29   **4.1.2.1.3   wmanIfSsOfdmaUcdBurstProfileTable**

30       As per Table 357, the definition of FEC Code type and modulation type object in  
 31       wmanIfSsOfdmaUcdBurstProfileTable shall be changed as the following.

- 32      •    0 = QPSK (CC) 1/2
- 33      •    1 = QPSK (CC) 3/4
- 34      •    2 = 16-QAM (CC) 1/2
- 35      •    3 = 16-QAM (CC) 3/4
- 36      •    4 = 64-QAM (CC) 1/2
- 37      •    5 = 64-QAM (CC) 2/3
- 38      •    6 = 64-QAM (CC) 3/4
- 39      •    7 = QPSK (BTC) 1/2

- 1     • 8 = QPSK (BTC) 3/4
- 2     • 9 = 16-QAM (BTC) 3/5
- 3     • 10 = 16-QAM (BTC) 4/5
- 4     • 11 = 64-QAM (BTC) 5/8
- 5     • 12 = 64-QAM (BTC) 4/5
- 6     • 13 = QPSK (CTC) 1/2
- 7     • 14 = QPSK (CTC) 3/4
- 8     • 15 = 16-QAM (CTC) 1/2
- 9     • 16 = 16-QAM (CTC) 3/4
- 10    • 17 = 64-QAM (CTC) 1/2
- 11    • 18 = 64-QAM (CTC) 2/3
- 12    • 19 = 64-QAM (CTC) 3/4
- 13    • 20 = 64-QAM (CTC) 5/6
- 14    • 21 = QPSK (ZT CC) 1/2
- 15    • 22 = QPSK (ZT CC) 3/4
- 16    • 23 = 16-QAM (ZT CC) 1/2
- 17    • 24 = 16-QAM (ZT CC) 3/4
- 18    • 25 = 64-QAM (ZT CC) 1/2
- 19    • 26 = 64-QAM (ZT CC) 2/3
- 20    • 27 = 64-QAM (ZT CC) 3/4
- 21    • 28 = QPSK (LDPC) 1/2
- 22    • 29 = QPSK (LDPC) 2/3 A code
- 23    • 30 = QPSK (LDPC) 3/4 A code
- 24    • 31 = 16-QAM (LDPC) 1/2
- 25    • 32 = 16-QAM (LDPC) 2/3 A code
- 26    • 33 = 16-QAM (LDPC) 3/4 A code
- 27    • 34 = 64-QAM (LDPC) 1/2
- 28    • 35 = 64-QAM (LDPC) 2/3 A code
- 29    • 36 = 64-QAM (LDPC) 3/4 A code
- 30    • 37 = QPSK (LDPC) 2/3 B code
- 31    • 38 = QPSK (LDPC) 3/4 B code
- 32    • 39 = 16-QAM (LDPC) 2/3 B code
- 33    • 40 = 16-QAM (LDPC) 3/4 B code
- 34    • 41 = 64-QAM (LDPC) 2/3 B code
- 35    • 42 = 64-QAM (LDPC) 3/4 B code
- 36    • 43 = QPSK (LDPC) 5/6
- 37    • 44 = 16-QAM(LDPC) 5/6
- 38    • 45 = 64-QAM(LDPC) 5/6

#### 40 4.1.2.1.4 wmanIfSsOfdmaDcdBurstProfileTable

- 41    As per Table 363, the definition of FEC Code type object in wmanIfSsOfdmaDcdBurstProfileTable  
 42    shall be changed as the following.

- 1     • 0 = QPSK (CC) 1/2
- 2     • 1 = QPSK (CC) 3/4
- 3     • 2 = 16-QAM (CC) 1/2
- 4     • 3 = 16-QAM (CC) 3/4
- 5     • 4 = 64-QAM (CC) 1/2
- 6     • 5 = 64-QAM (CC) 2/3
- 7     • 6 = 64-QAM (CC) 3/4
- 8     • 7 = QPSK (BTC) 1/2
- 9     • 8 = QPSK (BTC) 3/4
- 10    • 9 = 16-QAM (BTC) 3/5
- 11    • 10 = 16-QAM (BTC) 4/5
- 12    • 11 = 64-QAM (BTC) 5/8
- 13    • 12 = 64-QAM (BTC) 4/5
- 14    • 13 = QPSK (CTC) 1/2
- 15    • 14 = QPSK (CTC) 3/4
- 16    • 15 = 16-QAM (CTC) 1/2
- 17    • 16 = 16-QAM (CTC) 3/4
- 18    • 17 = 64-QAM (CTC) 1/2
- 19    • 18 = 64-QAM (CTC) 2/3
- 20    • 19 = 64-QAM (CTC) 3/4
- 21    • 20 = 64-QAM (CTC) 5/6
- 22    • 21 = QPSK (ZT CC) 1/2
- 23    • 22 = QPSK (ZT CC) 3/4
- 24    • 23 = 16-QAM (ZT CC) 1/2
- 25    • 24 = 16-QAM (ZT CC) 3/4
- 26    • 25 = 64-QAM (ZT CC) 1/2
- 27    • 26 = 64-QAM (ZT CC) 2/3
- 28    • 27 = 64-QAM (ZT CC) 3/4
- 29    • 28 = QPSK (LDPC) 1/2
- 30    • 29 = QPSK (LDPC) 2/3 A code
- 31    • 30 = QPSK (LDPC) 3/4 A code
- 32    • 31 = 16-QAM (LDPC) 1/2
- 33    • 32 = 16-QAM (LDPC) 2/3 A code
- 34    • 33 = 16-QAM (LDPC) 3/4 A code
- 35    • 34 = 64-QAM (LDPC) 1/2
- 36    • 35 = 64-QAM (LDPC) 2/3 A code
- 37    • 36 = 64-QAM (LDPC) 3/4 A code
- 38    • 37 = QPSK (LDPC) 2/3 B code
- 39    • 38 = QPSK (LDPC) 3/4 B code
- 40    • 39 = 16-QAM (LDPC) 2/3 B code
- 41    • 40 = 16-QAM (LDPC) 3/4 B code
- 42    • 41 = 64-QAM (LDPC) 2/3 B code

- 1      • 42 = 64-QAM (LDPC) 3/4 B code
- 2      • 43 = QPSK (LDPC) 5/6
- 3      • 44 = 16-QAM(LDPC) 5/6
- 4      • 45 = 64-QAM(LDPC) 5/6

