Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Proposed text and ASN.1 code to support Account Management**
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Re:	
Abstract	This contribution proposes the text and ASN.1 code in wmanIf2mMib to support account management.
Purpose	Adoption
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1. Introduction

This contribution proposes the text and ASN.1 code in wmanIf2mMib to support account management.

2. Proposed changes

2.1 wmanIf2mMib Change

13.1.4.1 wmanIf2mBsObjects

[Add a new subclause as the following:]

13.1.4.1.3 wmanIf2mBsAm

Figure 18 shows the structure of wmanIf2mBsAm subtree that contains BS managed objects related to Account Management.

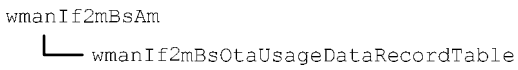

Figure 18— wmanIf2mBsAm structure

[Add a new subclause:]

13.1.4.1.3.1 wmanIf2mBsOtaUsageDataRecordTable

wmanIf2mBsOtaUsageDataRecordTable contains counters to keep track of the number of packets and octets that have been received or transmitted over the air interface. BS may delete some OTA UDR in wmanIf2BsOtaUsageDataRecordTable after they have been transferred to the AAA server.

2.2 ASN.1 Code Change

13.2 ASN.1 Definitions of MIB Modules

13.2.3 wmanIf2mMib

[Add the following ASN.1 code:]

```
-- XXX
wmanIf2mBsOtaUsageDataRecordTable OBJECT-TYPE
        SYNTAX      SEQUENCE OF WmanIf2mBsOtaUsageDataRecordEntry
        MAX-ACCESS  not-accessible
        STATUS      current
```

```
            DESCRIPTION
                "This table contains counters to keep track of the number
                 of packets and octets that have been received or
                 transmitted over the air interface. BS may delete some
                 OTA UDR in wmanIf2mBsOtaUsageDataRecordTable after they
                 have been transferred to the AAA server."
            ::= { wmanIf2mBsAm 1 }

    wmanIf2mBsOtaUsageDataRecordEntry OBJECT-TYPE
            SYNTAX      WmanIf2mBsOtaUsageDataRecordEntry
            MAX-ACCESS  not-accessible
            STATUS      current
            DESCRIPTION
               "This table provides one row for each service flow, and
                is indexed by ifIndex, wmanIf2mBsSsMacAddress, wmanIf2mBsCid
                , and wmanIf2mBsSessionId. Since MAC management CID (i.e.
                basic , primary, and 2nd management) share the same CID for
                both UL and DL, it should use the QoS parameter set to
                distinguish which entry is DL or UL."
            INDEX { ifIndex,
                    wmanIf2mBsSsMacAddress,
                    wmanIf2mBsCid,
                    wmanIf2mBsSessionId }
            ::= { wmanIf2mBsOtaUsageDataRecordTable 1 }

    WmanIf2mBsOtaUsageDataRecordEntry::= SEQUENCE {
            wmanIf2mBsSessionId                     Unsigned32,
            wmanIf2mBsServiceFlowId                 Unsigned32,
            wmanIf2mBsMacSduCount                   Counter64,
            wmanIf2mBsOctetCount                    Counter64,
            wmanIf2mBsSessionEstablishTime          TimeStamp,
            wmanIf2mBsSessionTerminateTime          TimeStamp,
            wmanIf2mBsGlobalServiceClass            WmanIf2mGlobalSrvClass,
            wmanIf2mBsQoSProfileIndex               INTEGER}

    wmanIf2mBsSessionId OBJECT-TYPE
            SYNTAX      Unsigned32 (1 .. 4294967295)
            MAX-ACCESS  not-accessible
            STATUS      current
            DESCRIPTION
                "An index identifies the accounting seesion within a CID.
                 An accounting session may be created or ended, based on
                 certain events, for example
                     - QoS parameter set change in a CID
                     - wmanIf2mBsServiceFlowState is changed
                     - an SS registers at the BS
                     - an MS handoffs to another BS"
            ::= { wmanIf2mBsOtaUsageDataRecordEntry 1 }

    wmanIf2mBsServiceFlowId OBJECT-TYPE
            SYNTAX      Unsigned32 (1 .. 4294967295)
            MAX-ACCESS  read-only
            STATUS      current
            DESCRIPTION
                "A 32 bit quantity that uniquely identifies a service flow.
                 wmanIf2mBsServiceFlowId should return '0' for MAC
                 management (i.e. basic, primary, and 2nd management CID)."
            ::= { wmanIf2mBsOtaUsageDataRecordEntry 2 }

    wmanIf2mBsMacSduCount OBJECT-TYPE
            SYNTAX      Counter64
            MAX-ACCESS  read-only
            STATUS      current
            DESCRIPTION
```

```
                "This object counts the number of MAC SDUs or MAC messages
                 that have been transmitted or received over the air
                 interface. For MAC management CID, wmanIf2mBsMacSduCount
                 tracks SDU count on DL and UL."
            ::= { wmanIf2mBsOtaUsageDataRecordEntry 3 }

    wmanIf2mBsOctetCount OBJECT-TYPE
            SYNTAX      Counter64
            MAX-ACCESS  read-only
            STATUS      current
            DESCRIPTION
                "This object counts the number of octets of MAC SDUs or MAC
                 messages that have been transmitted or received over the
                 air interface."
            ::= { wmanIf2mBsOtaUsageDataRecordEntry 4 }

    wmanIf2mBsSessionEstablishTime OBJECT-TYPE
            SYNTAX      TimeStamp
            MAX-ACCESS  read-only
            STATUS      current
            DESCRIPTION
                "Indicates the date and time when the session is established
                 ."
            ::= { wmanIf2mBsOtaUsageDataRecordEntry 5 }

    wmanIf2mBsSessionTerminateTime OBJECT-TYPE
            SYNTAX      TimeStamp
            MAX-ACCESS  read-only
            STATUS      current
            DESCRIPTION
                "Indicates the date and time when the session is terminated
                 ."
            ::= { wmanIf2mBsOtaUsageDataRecordEntry 6 }

    wmanIf2mBsGlobalServiceClass OBJECT-TYPE
            SYNTAX      WmanIf2mGlobalSrvClass
            MAX-ACCESS  read-only
            STATUS      current
            DESCRIPTION
                "This object defines the QoS parameter set used in this
                 session. When '0' is returned from reading this object, it
                 means either no global service class is available for this
                 session, or its Qos profile may be defined in the entry
                 pointed by wmanIf2mBsQoSProfileIndex."
            REFERENCE
                "Subclause 6.3.14.4.1 Table 124a in IEEE Std 802.16e-2005"
            ::= { wmanIf2mBsOtaUsageDataRecordEntry 7 }

    wmanIf2mBsQoSProfileIndex OBJECT-TYPE
            SYNTAX      INTEGER (1 .. 65535)
            MAX-ACCESS  read-only
            STATUS      current
            DESCRIPTION
                "This index points to an entry in wmanIf2mCmnQoSProfileTable
                 that defines the the QoS parameter set used in this
                 session. When '0' is returned from reading this object, it
                 means the QoS profile either is not available for this
                 session."
            REFERENCE
                "Subclause 6.3.13 and 6.3.14 in IEEE Std 802.16-2004"
            ::= { wmanIf2mBsOtaUsageDataRecordEntry 8 }
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