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| Project | **IEEE 802.16 Broadband Wireless Access Working Group <**<http://ieee802.org/16>**>** | |
| Title | **ASN.1 coding for synchronization control messages of multimode operation over IEEE 802.16.1a** | |
| Date Submitted | **2012-05-07** | |
| Source(s) | Seokjoo Shin  Chosun University  Won-Ik Kim, Seokki Kim, Eunkyung Kim, Sungkyung Kim, Miyoung Yun, Hyun Lee, Chulsik Yoon, Sungcheol Chang  ETRI | E-mail:  [sjshin@chosun.ac.kr](mailto:sjshin@chosun.ac.kr)  [woniks@etri.re.kr](mailto:woniks@etri.re.kr)  [scchang@etri.re.kr](mailto:scchang@etri.re.kr) |
| Re: | “IEEE 802.16-12-271,” in response to Letter Ballot Recirc #38a on P802.16.1a/D2 | |
| Abstract | This provides AWD text proposals for ASN.1 coding of AAI-MM-RS-SYN-REQ and AAI-MM-RS-SYN-RSP on multimode operation in IEEE p802.16.1a | |
| Purpose | To discuss and adopt the proposed text in the draft amendment document on GRIDMAN | |
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**ASN.1 coding for synchronization control messages of multimode operation over IEEE 802.16.1a**

Seokjoo Shin

Chosun University

Won-Ik Kim, Seokki Kim, Eunkyung Kim, Sungkyung Kim, Miyoung Yun, Hyun Lee, Chulsik Yoon, Sungcheol Chang

ETRI

# Introduction

This document provides ASN.1 coding of AAI-MM-RS-SYN-REQ/RSP message for HR-Network.

# References

[1] IEEE P802.16nTM/D2, Air Interface for Broadband Wireless Access Systems - Draft Amendment: Higher Reliability Networks, April 2012.

[2] IEEE P802.16.1aTM/D2, WirelessMAN-Advanced Air Interface for Broadband Access Systems - Draft Amendment: Higher Reliability Networks, April 2012.

[3] EEE P802.16Rev3/D6, IEEE Draft Standard for Local and metropolitan area networks; Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems,” April 2012.

[4] IEEE P802.16.1TM/D6, IEEE Draft for WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems, April 2012.

# Proposed Text for the 802.16.1a AWD

Note:

The text in **BLACK** color: the existing text in the 802.16.1a AWD

The text in **~~RED~~** color: the removal of existing 802.16.1a AWD

The text in **BLUE** color: the new text added to the 802.16.1a AWD

[-------------------------------------------------Start of Text Proposal---------------------------------------------------]

**Annex A**

***...***

**A.2 MAC control message definitions (normative)**

***Change Annex A.2 as indicated:***

WirelessMAN-Advanced-Air-Interface DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- MAC Control Messages

MAC-Control-Message ::= SEQUENCE {

message MAC-Control-Msg-Type,

...

}

**[*Remedy1: Add the following codes below Line# 60, Page#218 in IEEE P802.16.1a/D2.*]**

MAC-Control-Msg-Type ::= CHOICE {

...

-- Misc

aaiL2Xfer AAI-L2-XFER,

aaiMsgAck AAI-MSG-ACK,

aaiResCmd AAI-RES-CMD,

-- HR Multimode operation

aaiMmRsSynReq AAI-MM-RS-SYN-REQ,

aaiMmRsSynRsp AAI-MM-RS-SYN-RSP,

-- HR Multicast message

aaiHrMgInd AAI-HR-MG-IND,

aaiHrMtInd AAI-HR-MT-IND,

...

}

-- \*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-

-- Common type definitions

-- \*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-

...

-- \*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-

-- MAC control messages for HR-Networks

-- \*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-\*-

...

**[*Remedy2: Add the following codes below Line# 17, Page#228 in IEEE P802.16.1a/D2.*]**

-- +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-

-- HR Multimode RS Synchronization Request message

-- +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-

AAI-MM-RS-SYN-REQ ::= SEQUENCE {

scanDurationControl ENUMERATED {

increaseTimeDuration,

decreaseTimeDuration

},

timeIntervalControl ENUMERATED {

increaseTimeInterval,

decreaseTimeInterval

}

}

-- +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-

-- HR Multimode RS Synchronization Response message

-- +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-

RelaySyncInfo ::= SEQUENCE {

scanDuration INTEGER (0..255),

startSuperFrame SuperframeNumberLSB,

startFrame INTEGER (0..3),

interleavingInterval INTEGER (0..255)

}

AAI-MM-RS-SYN-RSP ::= SEQUENCE {

scanDuration CHOICE {

zeroScanDuration NULL,

nonzeroScanDuration RelaySyncInfo

}

}

-- +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-

-- Multicast Messages

-- +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-

...