

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	<b>Proposed Table of Contents on IEEE 802.16n [802.16Rev3-based]</b>	
Date Submitted	<b>2011-09-21</b>	
Source(s)	<p>Eunkyung Kim, Sungcheol Chang,  Won-Ik Kim, Seokki Kim, Sungkyung Kim,  Miyoung Yun, Hyun Lee, Chunsik Yoon,  Kwangjae Lim  ETRI</p> <p>Anh Tuan Hoang, Wai Leong Yeow  I2R</p> <p>Hoang Vinh Dien  NICT</p>	<p>Voice: +82-42-860-5415  E-mail: <a href="mailto:ekkim@etri.re.kr">ekkim@etri.re.kr</a>  <a href="mailto:scchang@etri.re.kr">scchang@etri.re.kr</a></p> <p><a href="mailto:athoang@i2r.a-star.edu.sg">athoang@i2r.a-star.edu.sg</a></p> <p><a href="mailto:hvdien@nict.com.sg">hvdien@nict.com.sg</a></p>
Re:	“IEEE 802.16n-11/0013r1,” in response to Call for Comments on 802.16n (GRIDMAN) AWD	
Abstract	TOC on IEEE 802.16n Amendment Draft Standard	
Purpose	To discuss and adopt the proposed text in the draft amendment document on 802.16n	
Notice	<i>This document does not represent the agreed views of the IEEE 802.16 Working Group or any of its subgroups.</i> It represents only the views of the participants listed in the “Source(s)” field above. It is offered as a basis for discussion. It is not binding on the contributor(s), who reserve(s) the right to add, amend or withdraw material contained herein.	
Copyright Policy	The contributor is familiar with the IEEE-SA Copyright Policy < <a href="http://standards.ieee.org/IPR/copyrightpolicy.html">http://standards.ieee.org/IPR/copyrightpolicy.html</a> >.	
Patent Policy and Procedures	The contributor is familiar with the IEEE-SA Patent Policy and Procedures: < <a href="http://standards.ieee.org/guides/bylaws/sect6-7.html#6">http://standards.ieee.org/guides/bylaws/sect6-7.html#6</a> > and < <a href="http://standards.ieee.org/guides/opman/sect6.html#6.3">http://standards.ieee.org/guides/opman/sect6.html#6.3</a> >. Further information is located at < <a href="http://standards.ieee.org/board/pat/pat-material.html">http://standards.ieee.org/board/pat/pat-material.html</a> > and < <a href="http://standards.ieee.org/board/pat">http://standards.ieee.org/board/pat</a> >.	

# Proposed Table of Contents on IEEE 802.16n [802.16Rev3-based]

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

*Anh Tuan Hoang, Wai Leong Yeow*  
*I2R*

*Hoang Vinh Dien*  
*NICT*

## 1. Introduction

This document provides in response to the agreement of TGn at session #74 to separate the current AWD into two documents which are based on 802.16Rev3[2] and 802.16.1[3] .

This document provides a proposed TOC for new AWD based on the 802.16Rev3.

This contribution proposes new subclauses, in blue colored text, for HR-Network.

*However, it is understood that during the course of standards development, some of these new sections may be deemed unnecessary, in which case they will be deleted. Similarly, new sections may be added if deemed necessary. Editorial remarks are shown in italic with square bracket. Note that editorial remarks are meant to be informative only.*

## 2. References

[1] IEEE 802.16n-11/0015, 802.16n Amendment Working Draft, August 2011.

[2] IEEE P802.16Rev3/D1, IEEE Draft Standard for Local and metropolitan area networks; Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems,” August 2011.

[3] IEEE P802.16.1<sup>TM</sup>/D1, [Draft] WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems, August 2011.

## 3. Proposed ToC on the IEEE 802.16n Amendment Draft Standard

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

## **1. Overview**

## **2. Normative References**

*[Insert new references.]*

## **3. Definitions**

*[Insert new definitions for HR at the end of this section. Definition for HR shall include Mobile Base Station, Infrastructure Station (including HR-BS or HR-RS), and HR Station (including HR-MS, HR-BS, or HR-RS).]*

## **4. Abbreviations and Acronyms**

*[Insert new abbreviation and acronyms for HR.]*

## **5. Service-specific CS**

## **6. MAC common part sublayer**

### **6.3 MAC PDU formats**

#### **6.3.2.3 MAC management messages**

##### **6.3.2.3.x MAC management messages for HR-Network**

*[Comment:*

*1. Add new MAC management messages for HR-Network as a subsection in 6.3.2.3.x*

*2. Rule of Re-Naming*

*Should insert the “AAI” prefix for the messages based on the 16.1 but any prefix is not needed for 16Rev3.*

*for example, (Note: xxx is the name of message such as REQ/RSP...)*

*6.3.2.3.x.1 AAI-DC-REQ (Direct Communication REQuest) message*

*AAI-MM-RS-REQ (Multi-Mode Relay Station REQuest) message*

*AAI-PM-xxx (Path Management)*

*AAI-FN-xxx (Forwarding To network)*

*AAI-SA-xxx (StandAlone)*

*AAI-SC-xxx (Self-Coexistence)*

*AAI-HR-xxx (not above)*

*DC-Req (Direct Communication Request) message*

*MM-RS-REQ (Multi-Mode Relay Station REQuest) message*

*PM-xxx (Path Management)*

*FN-xxx (Forwarding To network)*

*SA-xxx (StandAlone)*

*SC-xxx (Self-Coexistence)*

*HR-xxx (not above)*

*]*

## **7. Security sublayer**

## **8. Physical layer (PHY)**

### **8.4 WirelessMAN-OFDMA PHY**

## **9. Configuration**

## **10. Parameters and constants**

## **11. TLV encodings**

## **12. System profiles**

## **13. MIB modules**

## **14. Management interfaces and procedures**

## **15. Mechanisms for coordinated coexistence**

## **16. Support for HR-Network**

*[Describe all functional operation in 802.16n in this section]*

## **16.1 Multi-mode operation**

*[move all text in 17.2.1 into this subsection]*

### **16.1.1 Relay function for HR-BS**

### **16.1.2 Relay function for HR-MS**

### **16.1.3 Base station function for HR-MS**

## **16.2 Support for Direct Communication between HR-MSs**

*[Move all text in 17.2.2 into this subsection]*

### **16.2.1 General Description**

*[Comment: should describe following general concept in this subsection:*

- 1. define three use cases (1, 2, & 3)*
- 2. list 3 approaches (BS-controlled, Talk-around, and Coordinator based DC)*
  - 2.1 BS-controlled covers case 1 & 2 in 16.2.2*
  - 2.2 Talk-around covers all cases in 16.2.3*
  - 2.3 Coordinator based covers case 3 in 16.2.4*

*]*

### **16.2.2 BS-controlled DC**

*[Move all text in 17.2.2.2-17.2.2.5 and 17.2.2.7 into this subsection]*

#### **16.2.2.1 Medium access control**

#### **16.2.2.2 Physical layer**

### **16.2.3 Talk-around DC**

*[Move all text in 17.2.2.6 into this subsection]*

**16.2.3.1 Medium access control**

**16.2.3.2 Physical layer**

**16.2.4 Coordinator based DC**

## **16.3 Support for HR-MS Forwarding to Network**

*[Move all text in 17.2.3 into this subsection]*

**16.3.1 General Description**

**16.3.2 BS-controlled FTN**

*[Move all text in 17.2.3.2 - 17.2.3.4 into this subsection]*

**16.3.2.1 Medium access control**

**16.3.2.2 Physical layer**

**16.3.3 Talk-around FTN**

*[Add FTN operation under Talk-around DC into this subsection]*

**16.3.3.1 Medium access control**

**16.3.3.2 Physical layer**

## **16.4 Support for Standalone Network**

*[Move all text in 17.2.4 into this subsection]*

## **16.5 Support for High Reliable Relaying**

*[move all text in 17.2.5 into this subsection]*

## **16.6 Support for Local Forwarding**

*[move all text in 17.2.6 into this subsection. Note: currently 17.2.6 is empty.]*

## **16.7 Support for Path Management against Degraded Network**

*[move all text in 17.2.7.2 into this subsection. Note-17.2.7.1 is related to DC/FTN. Thus, those subsections are expected to move to DC & FTN subsection]*

### **16.7.1 Alternative Path Management**

*[alternative path management, including preparation, switching the active path, and maintain]*

#### **16.7.1.1 Alternative Path Preparing**

#### **16.7.1.2 Alternative Path Switching**

#### **16.7.1.3 Alternative Path Maintaining**

### **16.7.2 Reliable HO**

### **16.7.3 Forwarding between HR-Infrastructure stations**

## **16.8 Support for Priority Access Operation**

*[move all text in 17.2.8 into this subsection. Note-currently 17.2.8 is empty.]*

## **16.9 Support for Multicast**

*[move all text in 17.2.9 into this subsection]*

### **16.9.1 Multicast Communication Operation**

### **16.9.2 Multicast Protocol Features and Functions**

### **16.9.3 Multicast Key Management**



## **16.10 Support for Security**

*[move all text in 17.2.10 into this subsection]*

### **16.10.1 Security Procedure for Secure DC**

**16.10.1.1 Security Procedure for BS-controlled Secure DC**

**16.10.1.2 Security Procedure for Talk-around Secure DC**

### **16.10.2 Security Procedure for Secure Multicast Operation**

## **16.11 Support for Self-Coexistence**

*[move all text in 17.2.11 into this subsection]*

**16.11.1 Self-coexistence cycle**

**16.11.2 Frame structure**

**16.11.3 Operation modes**

**16.11.4 Self-coexistence Beacon Protocol (SCBP)**

**16.11.5 Mechanism for self-coexistence of multiple HR cells**

## **16.12 Support for Downlink High Reliability and Uplink Heavy Data Service**

*[Move all text in 17.2.12 into this subsection]*

## **Annexes**

[-----End of Text Proposal-----]