Project	**IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>**
Title	**Clarification on relay function for HR-BS over IEEE 802.16n**
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Re:	"IEEE 802.16-12-0142," in response to Letter Ballot #37 on P802.16n/D1
Abstract	Multimode operation on GRIDMAN Draft Standard
Purpose	To discuss and adopt the proposed text in the draft amendment document on GRIDMAN
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Clarification on relay function for HR-BS over IEEE 802.16n

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ETRI

1. Introduction

This document provides clarification on the multimode operation of HR-BS maintaining relay link.

2. References

[1] IEEE 802.16-12-0132, GRIDMAN System Requirement Document including SARM annex, January 2012.

[2] IEEE P802.16n[TM]/D1, Air Interface for Broadband Wireless Access Systems - Draft Amendment: Higher Reliability Networks, February 2012.

[3] IEEE P802.16.1a[TM]/D1, WirelessMAN-Advanced Air Interface for Broadband Access Systems - Draft Amendment: Higher Reliability Networks, February 2012.

[4] EEE P802.16Rev3/D4, IEEE Draft Standard for Local and metropolitan area networks; Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems," February 2012.

[5] IEEE P802.16.1[TM]/D4, IEEE Draft for WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems, February 2012.

3. Proposed Text on the IEEE 802.16n Amendment Draft Standard

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

[*Remedy: Change 16.1.1.3 Relay link release in page 64 on P802.16n/D1 as follows:*]

16.1.1.3 Relay link release

If the HR-BS recovers from failure of backhaul, it may inform network or notify the current serving HR-BS of the HR-BS having recovered backhaul link through the backhaul network interface. The superordinate serving HR-BS may then initiate HR-MS handover back to the HR-BS in which the recovered HR-BS should be listed in the first priority. The HR-BS having recovered backhaul may store MAC context information of the serving MSs (basic capabilities, security capabilities, etc.). Such context information allows HR-MS to perform optimized network reentry when returning back to the HR-BS upon its recovery.

HR-BS transmits MM-ADV message with action type = 0b101 described in 6.3.2.3.98.1 including expected time of backhaul link up. When receiving the MM-ADV message, HR-MS performs either handover to neighbor infrastructure station and returns to the HR-BS at the expected time or waiting in the HR-BS until restarting service with available backhaul link.

If the HR-BS receives the request of relay link release from superordinate serving HR-BS but the HR-BS does not recover from failure of backhaul, the HR-BS either tries to establish relay link with another HR-BS having the backhaul link as described in 16.1.1.1 or follows standalone network operation described in 16.4.

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