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| Project | **IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16> | |
| Title | **Reliable Handover in IEEE 802.16n** | |
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| Re: | "IEEE 802.16n-11/0020," in response to Call for Comments on GRIDMAN AWD | |
| Abstract | Reliable HO procedure on IEEE 802.16 GRIDMAN Amendment Draft Standard | |
| Purpose | To discuss and adopt the proposed text in the draft amendment document on GRIDMAN | |
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# Reliable Handover in IEEE 802.16n

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## 1. Introduction

This document provides reliable handover operation over IEEE 802.16n[4] to be consistent with that over IEEE 802.16.1a [5].

## 2. References

[1] IEEE 802.16n-10/0048r2, 802.16n System Requirement Document including SARM annex, July 2011.
[2] IEEE 802.16n-11/0024, P802.16n Draft AWD, October 2011.
[3] IEEE 802.16n-11/0025, P802.16.1a Draft AWD, October 2011.
[4] IEEE P802.16Rev3/D2, IEEE Draft Standard for Local and metropolitan area networks; Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems," October 2011.
[5] IEEE P802.16.1$^{TM}$/D2, [Draft] WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems, October 2011.

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

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

[*Remedy1: Insert the following text in line 36, page 10 of section 6.3.2.3.42 in the 802.16n AWD.*]

**HR Multimode Indication (see 11.4.1)**

Indicates whether neighbor BS/RS is HR-MS acting as BS/RS or HR-BS acting as RS.

[*Remedy2: Insert the following row in line 20, page 32 of section 11.4.1 in the 802.16n AWD.*]

| | | | | |
|---|---|---|---|---|
| HR Multimode Indication | xxx+1 | 1 | Indicates whether the BR/RS is HR-MS acting as BS/RS or HR-BS acting as RS<br>Bit 0: the BS/RS is neither HR-MS acting as BS/RS nor HR-BS acting as RS<br>Bit 1: the BS/RS is HR-MS acting as BS/RS<br>Bit 2: the BS/RS is HR-BS acting as RS<br>Bit 3-7: *reserved* | All |

[*Remedy3: Insert the following text in line 2, page 60 of section 16.7.2 in the 802.16n AWD.*]

MS' MAC context information may be shared between HR-infrastructure stations periodically.

To perform MAC HO procedure between HR-infrastructure station and multimode HR-infrastructure (i.e., HR-BS acting as HR-RS, HR-MS acting as HR-RS), MAC HO procedures described in 6.3.20 shall be followed with every instance of RS replaced by HR-BS acting as HR-RS or HR-MS acting as HR-RS.

When an HR-BS lists up the scanning candidates (recommended BSs) in MOB-SCN-RSP message described in 6.3.2.3.44, those scanning candidates may be ordered based on whether the MS' MAC context is shared or not between serving infrastructure station and neighbor station.

The HR Multimode indication is included in DCD and MOB-NBR-ADV described in 6.3.2.3.1 and 6.3.2.3.42 to indicate whether current BS/RS or neighbor BS/RS is multimode station, respectively. In addition to HR Multimode indication, trigger condition described in 11.18.1 may be set, which is different from that of non multimode station.

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