<table>
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<tr>
<th>Project</th>
<th>IEEE 802.16 Broadband Wireless Access Working Group <a href="http://ieee802.org/16">http://ieee802.org/16</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Proposed Change on Ranging Purpose for Multicast Operation over IEEE 802.16n</td>
</tr>
<tr>
<td>Date Submitted</td>
<td>2011-10-31</td>
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<tr>
<td>Source(s)</td>
<td>Eunkyung Kim, Sungcheol Chang, Won-Ik Kim, Seokki Kim, Sungkyung Kim, Miyoung Yun, Hyun Lee, Chulsik Yoon, Kwangjae Lim</td>
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</tr>
</tbody>
</table>

Re: “IEEE 802.16n-11/0020,” in response to Call for Comments on GRIDMAN AWD

Abstract | Ranging purpose clarification on IEEE 802.16 GRIDMAN Amendment Draft Standard |
Purpose | To discuss and adopt the proposed text in the draft amendment document on GRIDMAN |
Notice | This document does not represent the agreed views of the IEEE 802.16 Working Group or any of its subgroups. 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. |
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Proposed Change on Ranging Purpose for Multicast Operation over IEEE 802.16n

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

1. Introduction

In IEEE 802.16n[2] (i.e., over WirelessMAN-OFDMA[4]), Ranging is performed to support multicast operation to update multicast service flow.

In addition, ranging may be performed during receiving multicast service by an MS in the following cases:

- location update due to multicast zone change
- multicast security key update

This document provides the change on the ranging procedure (i.e., ranging purpose indication and its related-to parameter).

2. References


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

Note:
The text in BLACK color: the existing text in the IEEE 802.16 GRIDMAN AWD
The text in RED color: the removal of existing IEEE 802.16 GRIDMAN AWD
The text in BLUE color: the new text added to the IEEE 802.16 GRIDMAN AWD

[-----------------------------Start of Text Proposal----------------------------------]
Bit 5: HR Multicast service flow location update. When this bit is set to 1, it indicates the MS is currently attempting to perform location update for multicast operation, the MS is currently a need to update multicast service flow management encodings for multicast transmission due to crossing Multicast Group zone.

Remedy2: Add the following text into line 12 at page 10 in the 802.16n AWD as indicated:

Insert the following text at the end of 6.3.2.3.6 RNG-REQ (ranging request) message:

The following parameter shall be included in the RNG-REQ message when the MS is attempting to perform HR multicast service flow update or location update due to crossing Multicast Group Zone or the MS is attempting to update multicast security key.

**action code for HR multicast (see 11.5)**

to indicate the ranging purpose of the MS during receiving multicast service

Remedy3: Insert the following row at the end of Table 685, line 3 at page 33 in the 802.16n AWD as indicated:

<table>
<thead>
<tr>
<th>action code for HR multicast</th>
<th>25</th>
<th>1</th>
<th>Bit0: multicast service flow update</th>
<th>Bit1: multicast security key update</th>
<th>Bit2: location update due to multicast zone change</th>
<th>Bit3-7: Reserved</th>
</tr>
</thead>
</table>