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| Project | **IEEE 802.16 Broadband Wireless Access Working Group <**<http://ieee802.org/16>**>** |
| Title | **Proposed AWD Texts for Mobility Management in IEEE P802.16q** |
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| Re: | Call for Contributions: Multi-tier Networks (16-12-0690-02-Gdoc) |
| Abstract | This contribution proposes AWD texts for mobility management in IEEE P802.16q. |
| Purpose | To discuss and adopt the proposed texts in IEEE P802.16q AWD |
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# Proposed AWD Texts for Mobility Management in IEEE P802.16q

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# Introduction

This contribution proposes ToC and some texts for mobility management in IEEE P802.16q AWD. The proposed ToC for mobilty management is consistent with the high-level ToC contained in contribution IEEE 802.16-13-0001-00-000q. The proposed subclause hierarchy and contents contained in each subclause are as follow;

17.2 Mobility Management

17.2.1 Handover (HO)

17.2.1.1 Network topology acquisition

17.2.1.1.1 Network topology advertisement

 [*Contents: advertisement of neighbor CSG/OSG BSs including small BSs*]

17.2.1.1.2 MS scanning neighbor small BSs

 [*Contents: MS scanning considering cell type of neighbor BSs*]

17.2.1.2 Trigger condition definitions

 [*Contents: new trigger condition for cell type*]

17.2.1.3 HO decision

 [*Contents: HO decision considering various HO metric such as cell type, mobility, etc*]

17.2.1.4 HO from Macro BS to small BS

 [*Contents: HO from Macro BS to OSG small BS as well as HO from Macro BS to CSG small BS*]

17.2.1.5 HO from small BS to Macro BS

17.2.1.6 HO between small BSs

 [*Contents: HO between OSG small BSs as well as HO from OSG small BS to CSG small BS*]

17.2.2 Idle Mode

 [*Contents: Paging advertisement and selection of paging BS*]

# Proposed Texts

----------------- Start of the text proposal --------------------------------------------------------------------------------------

[*Insert the following texts into IEEE P802.16q AWD*]

**17.2 Mobility Management**

**17.2.1 Handover (HO)**

This subclause contains the procedures performed during HO. The HO procedures shall be the same as described in 6.3.20 with the exception of procedures specified in this subcluase.

**17.2.1.1 Network topology acquisition**

**17.2.1.1.1 Network topology advertisement**

A BS shall periodically broadcast the system information of the neighboring BSs using an MOB\_NBR-ADV message. A broadcast MOB\_NBR-ADV message may include the information of Open Subscriber Group (OSG), but shall not include information of neighbor Closed Subscriber Group (CSG) BSs.

A S-BS may unicast the MOB\_NBR-ADV message to an MS upon reception of TBD message or in an unsolicited manner. When the MS needs to obtain the system information of CSG or OSG BS, it may indicate it through the TBD message. Upon receiving this TBD message, the S-BS may send the neighboring CSG or OSG BS information through the MOB\_NBR-ADV message to the MS in an unicast manner.

**17.2.1.1.2 MS scanning neighbor small BSs**

**17.2.1.2 Trigger condition definitions**

**17.2.1.3 HO decision**

**17.2.1.4 HO from Macro BS to small BS**

[*Notes: this subcluase includes HO from Macro BS to OSG small BS as well as HO from Macro BS to CSG small BS*]

**17.2.1.5 HO from small BS to Macro BS**

**17.2.1.6 HO between small BSs**

[*Notes: this subcluase includes HO between OSG small BSs as well as HO from OSG small BS to CSG small BS*]

**17.2.2 Idle Mode**

All types of small BSs shall support idle mode by use of the same procedures as specified in 6.3.22 for for macro BSs with the exception of procedures described in this subcluase.

A CSG-Closed BS shall not broadcast paging for a non-member MS.

----------------- Start of the text proposal --------------------------------------------------------------------------------------