Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Fix for Handover primitive**
Date Submitted	**2006-01-11**
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Re:	Contribution on comments to IEEE 802.16g-05/008r2
Abstract	In this contribution, we propose to amendment the protocol through add the new section about Data Path description
Purpose	Adoption
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Fix for Handover primitive

1. Introduction

The data lossless for non-realtime service is a requirement in IEEE802.16g.

Buffering and synchronization are common mechanisms to meet the data lossless requirement.

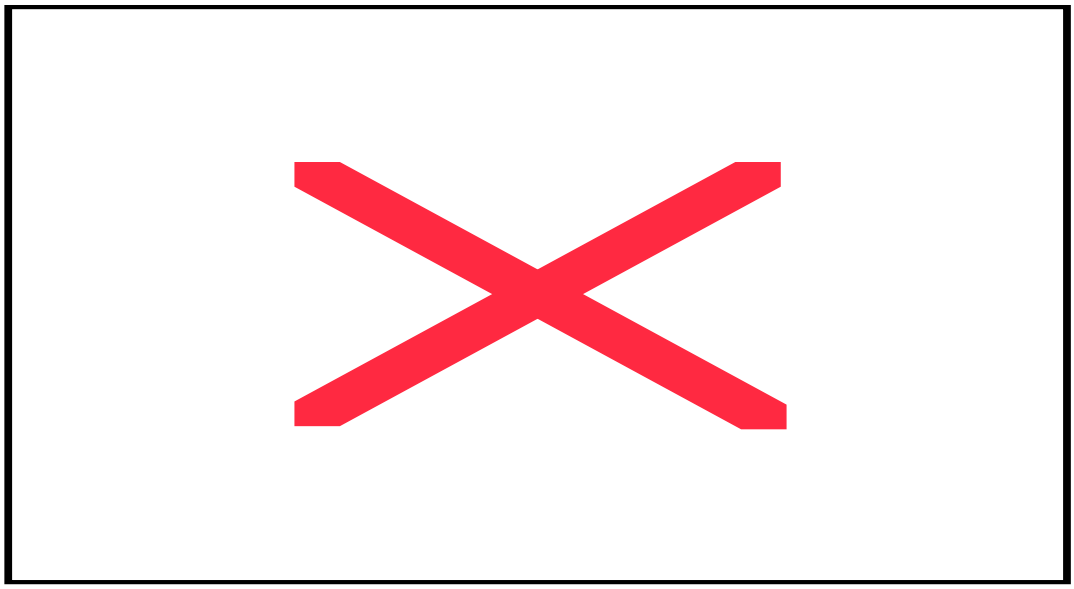
This contribution proposes to adopt the SN feedback mechanism which defined in IEEE802.16e/D12 to synchronize the data between serving BS and target BS during handover procedure.

And this contribution also proposes add a new primitive: HO completion to notify NCMS that the handover procedure has been completed.

2. Proposed Text Changes

[Modify HO primitive flow diagram between NCMS and target BS as the following]

14.5.9.7 Handover Control Protocol Procedures



~~**14.5.9.7.1.3 HO response**~~

~~[*Insert the IE at the end of IEs existed*]~~

~~**Enable SDU SN flag.**~~

~~This IE is presented if SN feedback has not been startup. The NCMS commands the~~

~~Serving BS to start sending MAC SDU with SN Extended sub-header.~~

~~**14.5.9.7.1.7 HO Directive**~~

~~[*Insert the IE at the end of IEs existed*]~~

~~**Enable SDU SN flag.**~~
~~This IE is presented if SN feedback has not been startup. The NCMS commands the Serving BS to start sending MAC SDU with SN Extended sub-header.~~

[Modify table in section 14.5.9.7.3 as follows]

Event Type	Description
HO-Start	Indicating the MS is ready to handover from the current serving BS to the target BS
HO-Cancel	Indicating the current HO procedure is cancelled.
HO-Scan	Providing scanning result to NCMS
HO-CMPLT	Indicating MS network re-entry completion at the target BS

[Add a new section as follows]

14.5.9.7.~~1.10~~3.4 ~~HO Completion~~ C-HO-NOTFY(Event_Type==HO-CMPLT)

14.5.9.7.3.4.1 Function

This primitive is used by Target BS to notify NCMS the handover process is completed.

14.5.9.7.3.4.2 Semantics of the service primitive

It delivers the following parameters.

C-HO-NOTFY
(
Message_id,
Event_Type(HO-CMPLT),
Object_id(NCMS),

Attribute_list:
Target BS ID
MS ID
Result Flag
List of Last received SDU SNs
)

Target BS ID
Base station unique identifier of the target BS
MS ID
48-bit unique identifier used by MS
Result Flag

List of Last received SDU SNs
{
SFID
Last received SDU SN
}

The sequence number of the last MAC SDU which the MS received ~~during~~ before h~~H~~andover to the target BS. The connection associated with the SDU SN is identified by SFID when SDU SN feedback is enabled. ~~MS reports it through MAC message sub-header to the Target BS, and the Target BS transmits this information to the NCMS.~~

14.5.9.7.3.4.3 When generated

This primitive is generated by target 802.16 BS Entity when the MS completes network re-entry at the target BS. If SDU SN feedback is enabled, the target 802.16 BS Entity shall generates this primitive after it has received SN report header.

14.5.9.7.3.4.4 Effect of receipt

NCMS completes handover procedure.