Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Management of Handover Context for Connections**
Date Submitted	**2005-07-11**
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Re:	Contribution on comments to IEEE 802.16g-04/03r3
Abstract	In this contribution, we propose to define and manage handover context for connections.
Purpose	Adoption
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Management of Handover Context for Connections

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1. Introduction

During HO, serving BS shall inform some information of target BS to restore the connections at the target BS. Intuitionally, only service flow information which are used to setup transport connections at the serving BS seems to be needed for re-establishment of transport connections at the target BS, but other information such as security information and MS capability information may be needed to continue the traffic service at the target BS because those information might be re-used at the target BS after HO. Therefore, the following information can be included in the HO context for connections.

- General MS Information: IP Address, MAC address, etc.
- MS Capability Information: ARQ support, Authorization Policy, etc.
- Security Information: AK, GKEK, TEK, etc.
- Service Flow Information: CID, SFID, Service Flow parameters, CS-specific parameters, etc.
- MAC State Information: ARQ timers, ARQ BSN counters, MAC SDU SN, etc.

Although the serving BS shall provide the mobility management entity in NCMS with all of the above information using HO primitives, the mobility management entity may provide the target BS with some of them according to the supported HO type and HO Optimization level. For example, if the target BS supports different authorization policy from the serving BS, then SBC-REQ/RSP and PKM procedure may not be omitted during network re-entry procedure. It means that MS capability information and security information don't need to be shared between the serving BS and the target BS during HO. Therefore, the mobility management entity in NCMS shall decide the sharing levels and inform the proper HO context of the target BS for re-establishment of the transport connections whenever HO occurs.

In the following table, we define 4 sharing levels according to HO type and HO optimization levels supported by MAC layer, and we also arrange the specific items of HO context which shall be shared according to the sharing levels.

Sharing Level	General MS Information	MS Capability Information	Security Information	Service Flow Information	MAC State Information
No Sharing	O	X	X	O	X
MS Capability Sharing	O	O	X	O	X
Security Optimization Sharing	O	O	O	O	X
Full Sharing	O	O	O	O	O

**'O' means that the information item shall be shared and 'X' means that the information item doesn't need to be shared.*

2. Proposed Text Changes

[*Modify section 14.5.9.1.1 as follow*]

14.5.9.1.1 Handover Context for Connections

Handover context for connections is the set of information which is shared between the serving BS and the target BS for re-establishment of the transport connections during HO. HO context is consisted of the following information.

General MS Information
: It is the information required to identify the MS. IP address and MAC address of the MS can be included in this information.

MS Capability Information
: It is the information negotiated through SBC-REQ/RSP handshake at the initial network entry.

Security Information
: It is the information negotiated during PKM procedure. If the MS and the target BS can derive the AK for them without the help of the serving BS, AK key may be excluded from this information.

Service Flow Information
: It is the information negotiated during DSx-related procedure.

MAC state Information
: It is the information used to maintain MAC state machine and to manage MAC PDU transmission.

For the re-establishment of connections at target BS during HO, serving BS shall provide target BS with the HO context through the mobility management entity in NCMS using HO primitives. If the target BS can not re-use some information in the HO context for restoring the former MAC state or re-establishing connections, the mobility management entity in NCMS may exclude the information from the shared HO context.