The method to reduce a number of scanning

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1. Introduction

In the minutes from conference call, "An inter-sector HO will essentially be modeled as a HO between a serving and a target BS where both BS share MAC resources such as a common CID space and essentially advertise a different sector ID"

In the current HO scheme, a serving BS shall advertise the neighbor BS's ID and their center frequencies for an MSS so that a number of scans are performed. When the target BS's are enough close to have same coverage and share MAC resource among them as mentioned above conclusion, our proposed method reduce the number of scans.

In that scenario, a serving BS may advertise just one of the target BS's IDs to MSS, then the general procedures for neighbor scanning and HO are performed except that the target BS can inform the channel states of the other target BSs to the serving BS through the backbone messages.

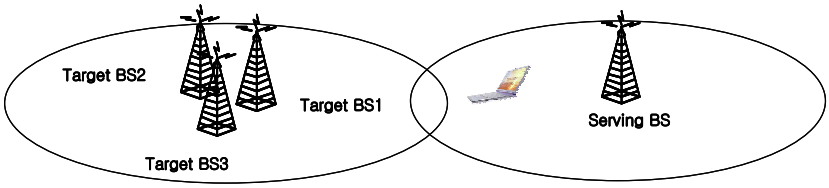

Figure 1- Example of the scenario of the same coverage

2. Proposed mechanism

The current HO consumes many time for scanning and interact backbone messages with target BSs sharing the MAC resources in the same coverage in figure 1.

In that case, one of the target BS can represent the others in MOB-NBR-ADV message and interacts serving BS through backbone message.

We propose the following changed message based on this property

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Table 92d—MOB-NBR-ADV Message Format

Field	Size	Notes
MOB-NBR-ADV_Message_Format() {		
Management Message Type=49		
Operator ID	48bit	
N_NEIGHBORS	8 bit	
For(j=0 ; j<N_NEIGHBORS;j++){		
Neighbor BS-ID	**48 bit**	
DL Physical Frequency	32bit	
Configuration Change Count	8bit	
TLV Encoded Neighbor information	Variable	TLV specific
}		
}		

[Edit the sentences on line 11, 23 of page 21]

N_Neighbors - Number of advertised neighbor BS

Neighbor BS-ID - Same as the Base Station ID parameter in the DL-MAP message of Neighbor BS. One of some BSs sharing MAC in the same coverage may stand for Neighbor BS-ID on behalf of the others.

3. Proposed Text Changes

6.3.2.3.53 BS HO Request (MOB-BSHO-REQ) message

[Modify MOB-BSHO-REQ message line 57, page 23]

Table 92d—MOB-BSHO-REQ Message Format

Syntax	Size	Notes
MOB-BSHO-REQ_Message_Format() {		
Management Message Type = 52	8 bits	
For (j=0 ; j<N_Recommended ; j++) {		Neighbor base stations shall be presented in an order such that the first presented is the one most recommended and the last presented is the least recommended. N_Recommended can be derived from the known length of message
Neighbor BS-ID	48 bits	
service level prediction	8 bits	
}		
Action mode	4bits	0x00: network assistant HO support 0x01: non network assistant HO support 0x02: direct HO without network re-entry 0x03 -0x0f : reserved
Reserved	4bit	
}		