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Abstract	The document contains clarification for FBSS functionality
Purpose	This document should be considered during comment resolution procedure
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FBSS Clarification

Vladimir Yanover (Alvarion Ltd.)

1. Background

There are some ambiguous and inconsistent elements in specification of FBSS. Suggested update fixes most of them, but do no touch SHO.

1. Combining SHO and FBSS in a single section is not justified as applicability conditions for SHO and FBSS are different
2. Section 6.3.20.2.6 says “When operating in FBSS, the MSS only communicates with the Anchor BS for UL and DL unicast messages and traffic”. MSS in FBSS (as opposite to SHO) cannot receive DL broadcast messages simultaneously from several BSs, so seems reasonable to clarify that in FBSS MSS communicates only to current Anchor BS.
3. There is no reason to change Anchor BS more frequently than once a frame, so MSS should communicate to any BS during an integer number of frames.
4. How does MSS know whether e.g. MOB_BSHO-REQ is requesting SHO or FBSS? There must be clear indication
5. Section 6.3.20.2 says: “The section defines the HO process in which an MSS migrates from the air-interface provided by one BS to the air-interface provided by another BS. The HO process consists of the stages:
   ….
   — Network Re-entry
   …..
   — Termination of Service
   This definition obviously is not applicable to FBSS. So the question is whether FBSS is really a particular case of HO as defined in the rest of 6.3.20.2? Seems that proper answer is “No, it is a different procedure though they have something in common”. Suggested remedy calls FBSS just a “FBSS procedure”, NOT a particular case of HO.

6. The assumption of FBSS is that state machines of MAC (at specific connections) at all BSs from Active Set are tightly synchronized and the BSs share context for authorization of MSS, TEKs etc. Can it be practically implemented other way than having a single MAC processor in which the whole burst payload is being built and then distributed to several BS transceivers? Obviously not all BSs will be implemented that way. It means that ability to participate in Active Set must be not an individual capability of BS but group capability: a group consists of BSs having "common MAC processor". Suggested implementation: to mark BSs, which are able to share MSS context, parameter FBSS_ID shall be transmitted in DCD message. If several BSs show same FBSS_ID value, they may participate in FBSS Active Set.
7. It is not clear from the text at which BS the MSS is registered while in SHO/FBSS state. So clarification added
8. There is no indication in MOB_MSSHO-REQ which BSS operation is requested: “regular” HO or SHO or FBSS (added)

2. Suggested remedy

[Change Section 6.3.20.2.2, page 130, line 40]

In addition to the above HO procedures, there ~~are~~ is ~~two~~ optional HO mode~~s~~, SHO ~~and FBSS~~. The SHO ~~or FBSS~~ capability can be enabled or disabled in the REG-REQ/RSP message exchange.

With SHO ~~or FBSS~~ enabled, ~~mode, the MSS shall perform the following stages:~~
~~— SHO Decision –~~ a SHO begins with a decision for an MSS to transmit to and receive from multiple BSs at the same time interval. A SHO can be triggered by either MOB_MSSHO-REQ or MOB_BSHO-REQ messages.
~~— FBSS HO Decision - A FBSS handover begins with a decision for an MSS to monitor and be synchronized with multiple BSs at the same time while transmits/receives from the Anchor BS. A FBSS handover can be triggered by either MOB_MSSHO-REQ or MOB_BSHO-REQ messages~~.

FBSS procedure is similar to HO in sense that it may result in MSS' switching from air interface of one single BS to air interface of another BS. It is different from HO in sense that several BSs may be involved and another actions are performed in the process of switching.

The following procedures are common for SHO and FBSS:

— -Active Set Selection/Update - An MSS is required to scan the neighbor BS and select BSs that are suitable to be included in the Active set. The MSS shall report the selected BSs and the Active set update procedure shall be performed by the BS and the MSS.
— -Anchor BS Selection/Update - An MSS is required to continuously monitor the signal strength of the BSs that are included in the active set. The MSS shall select one BS from its current Active Set to be the Anchor BS and reports the selected Anchor BS on CQICH or MOB-_MSSHO-REQ message.

[Change Section 6.3.20.2.6]

6.3.20.2.6 SHO and FBSS Decision and Initiation

6.3.20.2.6.1 SHO Decision and Initiation

Support of SHO ~~or FBSS~~ is optional for both MSS and BS.
For MSS and BS that support SHO ~~or FBSS~~, the MSS and the BS shall maintain a list of BSs that are involved in SHO ~~or FBSS~~ with the MSS. The list is called the Active Set. Among the BSs in the Active Set, an Anchor BS is defined. ~~When operating in FBSS, the MSS only communicates with the Anchor BS for UL and DL unicast messages and traffic.~~ When operating in SHO, the MSS communicates with all BSs in the Active Set for UL and DL unicast messages and traffic.

There are two methods for the MSS to monitor DL control information (i.e. DL-MAP, UL-MAP and FCH) and DL broadcast messages. The first method is the MSS monitors only the Anchor BS for DL control information and DL broadcast messages. The second method is the MSS monitors all the BSs in the Active Set for DL control information and DL broadcast messages. The method to be used by MSS is defined during the SBC-REQ and SBC-RSP handshake.

When an Active Set and an Anchor BS are maintained at the MSS and the BS, the BS can decide to put the MSS ~~in either SHO or FBSS~~ on a per burst allocation basis, based on factor such as QoS of a particular service flow being transmitted. A SHO begins with a decision for an MSS to transmit/receive unicast messages and traffic from multiple BSs at the same time interval. For DL SHO, two or more BSs provide synchronized transmission of MSS downlink data such that diversity combining can be performed by the MSS. For UL SHO, the transmission from a MSS is received by multiple BSs such that selection diversity of the information received by multiple BSs can be performed. A FBSS begins with a decision for an MSS to transmit/ receive unicast messages and traffic from only the Anchor BS.

The BS supporting SHO ~~or FBSS~~ shall broadcast the DCD message that includes the H_Add Threshold and H_Delete Threshold. These thresholds are used by the FBSS/SHO capable MSS to determine if MOB_MSSHO-REQ should be sent. When long-term CINR of a serving BS is less than H_Delete Threshold, the MSS shall send MOB_MSSHO-REQ to requires dropping this serving BS from the active set; when long-term CINR of a neighbor BS is higher than H_Add Threshold, the MSS shall send MOB_MSSHOREQ to require adding this neighbor BS to the active set.
The decision to update the Active Set or Anchor BS begins with a notification by the MSS through the MOB_MSSHO-REQ MAC management message or by the BS through the MOB_BSHO-REQ management message. Acknowledgement with MOB_BSHO-RSP of a notification is required, but one with MOB_BSHO-RSP is recommended by not required.
If an MSS that transmitted a MOB_MSSHO-REQ message detects an incoming MOB_BSHO-REQ message, it may respond with a MOB_MSSHO-REQ or MOB_HO-IND message and ignore its own previous request. Similarly, a BS that transmitted a MOB_BSHO-REQ message and detects an incoming MOB_MSSHO-REQ or MOB_HO-IND message from the same MSS shall ignore its own previous request.
The BSs involving in SHO with a MSS shall use the same set of CIDs for the connections that are established with the MSS. BS may assign a new set of CIDs to the MSS during Active Set update through MOB_BSHO-REQ message and MOB_BSHO-RSP message.
There are several conditions that are required to enable soft handover and or Fast BS Switching handover between MSS and a group of BSs. These conditions are listed below:
— The BSs involving in SHO/~~FBSS HO~~ are synchronized based on a common time source;
— The frames sent by the BSs involving in SHO~~/FBSS HO~~ at a given frame time arrive at the MSS within the prefix interval
— BSs involving in SHO/~~FBSS HO~~ have synchronized frame structure
— BSs involving in SHO~~/FBSS HO~~ have level 3 context transfer or sharing
— BSs involving in SHO~~/FBSS HO~~ have the same frequency assignment
— BSs involving in SHO shall use the same set of CIDs for the connections that are established with the MSS.
~~SHO further requires the following conditions:~~
~~-~~The same MAC/PHY PDUs shall be multicast by the BSs involving in SHO to the MSS

6.3.20.2.6.2 ~~SHO and~~ FBSS Decision and Initiation
FBSS is a procedure when MSS communicates each time to a single BS (“Anchor BS”) that belongs to certain set (“Active Set”). Transition from one Anchor BS to another (“switching”) is performed without invocation of HO procedure described in 6.3.20.2. Such transition may be requested / acknowledged, by only exchanging MOB_xxHO-REQ/RSP/IND messages.

FBSS procedure requires full sharing of MSS related MAC context between several BSs. Set of BSs capable of sharing MAC context is called “FBSS cluster”. Such context includes all information MSS and BS normally exchange during Network Entry, particularly authentication state, so that an MSS authenticated / registered with one of BSs from FBSS cluster is automatically authenticated / registered with other BSs from the same cluster.

The context includes also set of Service Flows and corresponding connections associated with MSS (e.g. ARQ state, current authentication and encryption keys), state of timers etc.

When MSS is connected (registered) to a single BS, it is considered a particular case of FBSS when Active Set consists of a single BS, which is an Anchor BS. If one more BS belongs to same FBSS cluster it may be added to Active Set and further become an Anchor BS etc.

~~There are several conditions that are required to enable Fast BS Switching handover between MSS and a group of BSs. These conditions are listed below:~~

~~— The BSs involving in SHO/FBSS HO are synchronized based on a common time source;~~

~~— The frames sent by the BSs involving in SHO/FBSS HO at a given frame time arrive at the MSS within the prefix interval~~

The BSs involved in FBSS within a single Active Set shall belong to same FBSS cluster and have equal frame duration.

~~— BSs involving in SHO/FBSS HO have synchronized frame structure~~

~~— BSs involving in SHO/FBSS HO have level 3 context transfer or sharing~~

~~— BSs involving in SHO/FBSS HO have the same frequency assignment~~

~~— BSs involving in SHO shall use the same set of CIDs for the connections that are established with the MSS.~~

~~SHO further requires the following conditions:~~

~~The same MAC/PHY PDUs shall be multicast by the BSs involving in SHO to the MSS~~

Support of ~~SHO or~~ FBSS is optional for both MSS and BS.

To mark BSs, which belong to same FBSS clucter, FBSS Cluster ID parameter shall be transmitted in DCD message. If several BSs show same FBSS_ID value, they may participate in FBSS Active Set.

For MSS and BS that support ~~SHO or~~ FBSS, the MSS ~~and the BS shall~~ maintain<u>s</u> a list of BSs that are involved in ~~SHO or~~ FBSS with the MSS. The list is called the Active Set. Among the BSs in the Active Set, an Anchor BS is defined. ~~When operating in FBSS, the~~ <u>Within each frame</u> MSS only communicates with the Anchor BS ~~for UL and DL unicast messages and~~ <u>.</u> ~~traffic. When operating in SHO, the MSS communicates with all BSs in the Active Set for UL and DL unicast messages and traffic.~~

~~There are two methods for the MSS to monitor DL control information (i.e. DL-MAP, UL-MAP and FCH) and DL broadcast messages. The first method is the MSS monitors only the Anchor BS for DL control information and DL broadcast messages. The second method is the MSS monitors all the BSs in the Active Set for DL control information and DL broadcast messages. The method to be used by MSS is defined during the SBC-REQ and SBC-RSP handshake.~~

~~When an Active Set and an Anchor BS are maintained at the MSS and the BS, the BS can decide to put the MSS in either SHO or FBSS on a per burst allocation basis, based on factor such as QoS of a particular service flow being transmitted~~. ~~A SHO begins with a decision for an MSS to transmit/receive unicast messages and traffic from multiple BSs at the same time interval. For DL SHO, two or more BSs provide synchronized transmission of MSS downlink data such that diversity combining can be performed by the MSS. For UL SHO, the transmission from a MSS is received by multiple BSs such that selection diversity of the information received by multiple BSs can be performed. A FBSS begins with a decision for an MSS to transmit/receive unicast messages and traffic from only the Anchor BS.~~

The BS supporting ~~SHO or~~ FBSS shall broadcast the DCD message that includes the H_Add CINR Threshold and H_Delete CINR Threshold. These thresholds ~~are~~ may be used by the FBSS~~/SHO~~ capable MSS to determine if MOB_MSSHO-REQ should be sent to switch to another Anchor BS or to change Active Set (particularly to terminate FBSS mode). When long-term mean CINR of a serving BS is less than H_Delete Threshold, the MSS ~~shall~~ may send MOB_MSSHO-REQ to ~~requires~~ request dropping this serving BS from the active set; when long-term mean CINR of a neighbor BS is higher than H_Add Threshold, the MSS ~~shall~~ may send MOB_MSSHO-REQ to require adding this neighbor BS to the active set.

~~The decision~~ Process of updating ~~to update the~~ Active Set or Anchor BS begins with a notification from ~~by~~ the MSS to Anchor BS through the MOB_MSSHO-REQ MAC management message or by the Anchor BS through the MOB_BSHO-REQ management message. ~~Acknowledgement with MOB_BSHO-RSP of a notification is required, but one with MOB_BSHO-RSP is recommended by not required.~~

~~If an MSS that transmitted a MOB_MSSHO-REQ message detects an incoming MOB_BSHO-REQ message, it may respond with a MOB_MSSHO-REQ or MOB_HO-IND message and ignore its own previous request. Similarly, a BS that transmitted a MOB_BSHO-REQ message and detects an incoming MOB_MSSHO-REQ or MOB_HO-IND message from the same MSS shall ignore its own previous request.~~
In case MSS in the middle of HO procedure initiated by MOB_MSSHO-REQ message discovers that Anchor BS also started HO procedure with MOB_BSHO-REQ the MSS shall cancel procedure initiated by MOB_MSSHO-REQ.
~~The BSs involving in SHO with a MSS shall use the same set of CIDs for the connections that are established with the MSS. BS may assign a new set of CIDs to the MSS during Active Set update through MOB_BSHO-REQ message and MOB_BSHO-RSP message~~.

~~There are several conditions that are required to enable soft handover and or Fast BS Switching handover between MSS and a group of BSs. These conditions are listed below:~~
~~— The BSs involving in SHO/FBSS HO are synchronized based on a common time source;~~
~~— The frames sent by the BSs involving in SHO/FBSS HO at a given frame time arrive at the MSS within the prefix interval~~
~~— BSs involving in SHO/FBSS HO have synchronized frame structure~~
~~— BSs involving in SHO/FBSS HO have level 3 context transfer or sharing~~
~~— BSs involving in SHO/FBSS HO have the same frequency assignment~~
~~— BSs involving in SHO shall use the same set of CIDs for the connections that are established with the MSS.~~
~~SHO further requires the following conditions:~~
- ~~The same MAC/PHY PDUs shall be multicast by the BSs involving in SHO to the MSS~~

6.3.20.2.6.~~1~~ 3 Active Set Update for SHO/FBSS

When MOB_MSSHO-REQ is sent by an MSS, the MSS may provide ~~indicate~~ possible list of BSs to be included in the MSS' Active Set. The MSS may evaluate the possible list of BSs through the received MOB_NBR-ADV MAC management message, and previously performed signal strength measurement, propagation delay measurement, scanning, ranging, and association activity. When MOB_BSHO-RSP is sent by the serving BS or BSs in the MSS' current Active Set, the BSs may ~~indicate~~ provide list of BSs ~~the~~ recommended ~~list of BSs to be~~ for incorporation into ~~included in~~ the MSS' Active Set.
When MOB_BSHO-REQ is sent by the serving BS or BSs in the MSS' current Active Set, the BSs may ~~indicate~~ provide ~~the~~ recommended list of BSs to be included in the MSS' Active Set. The ~~BSs~~ criteria for the recommendation may be based on ~~include factors such as~~ expected ~~recommended BSs~~ QoS performance, to MSS requirements and list of BSs that can be involved in SHO/FBSS as broadcast in MOB_NBR-ADV. When

MOB_MSSHORSP is sent by the MSS, the MSS may ~~indicate~~ provide a ~~the recommended~~ list of BSs recommended to be included in the MSS' Active Set. The MSS criteria for the recommendation may include factors such as previously performed signal strength measurement, propagation delay measurement, scanning, ranging, and association activity. MSS actual ~~pursuit~~ change ~~of handover with the~~ in Active Set BSs listed in MOB_BSHO-RSP ~~MOB_xxxHO-RSP~~ is recommended, but not required. However, the actual Active Set chosen by the MSS shall be a subset of those listed in MOB_BSHO-RSP ~~MOB_xxxHO-RSP~~ and shall be indicated in MOB_HO-IND, with SHOFBSS_IND_type field in MOB_HO-IND set to '00'(confirm Active Set update). The MSS may reject the ~~SHO/~~FBSS instruction ~~by the BS,~~ by setting the SHOFBSS_IND_type field in MOB_HO-IND to '10' (Active Set update reject). The BS may reconfigure the Active Set BSs list and retransmit MOB_BSHO-RSP message to the MSS.

After an MSS or BS has initiated an Active Set update using MOB_MSSHO/BSHO-REQ, the MSS may cancel the Active Set update at any time. The cancellation shall be made through transmission of a MOB_HO-IND with SHOFBSS_IND_type field set to '01' [several outstanding transactions?].
~~If the MSS is operating in SHO or FBSS, when adding a new BS to the MSS' Active Set, the network entry procedures as depicted in Figure 0a are not required and shall not be performed by the MSS~~. If the MSS is operating in FBSS, when adding a new BS to the MSSs' Active Set, the MSS may initiate ~~optionally perform~~ ranging with newly added BS.
~~but shall not perform the rest of the procedures in Figure 0a, namely, perform re-authorization, reregister/ re-establish service flows, and re-establish IP connectivity.~~

6.3.20.2.6.~~2~~ 4 Anchor BS Update for SHO/FBSS

There are two mechanisms for the MSS and BS to perform Anchor BS update. The first mechanism is by using the HO MAC management messages. The second mechanism is by using the fast Anchor BS selection feedback ~~mechanism~~. The preferred Anchor BSs shall be within the current Active Set of the MSS. The MSS may select the preferred Anchor BS through the previously performed signal strength measurement. The BS decides the target Anchor BS based on the MSS report. MSS and BS supporting SHO or FBSS shall ~~use~~ implement one of the two mechanisms to perform Anchor BS update. ~~A BS need not use the same mechanism for each MSS supported in this manner.~~

6.3.20.2.6.~~2~~4.1 HO MAC management message method

For the method using MAC management message, the MSS reports the preferred Anchor BS by using the MOB_MSSHO-REQ message. The BS informs the MSS of the Anchor BS update through MOB_BSHO-REQ or MOB_BSHO-RSP message with the estimated switching time. The MSS shall update its Anchor BS based on the information received in MOB_BSHO-REQ or MOB_BSHO-RSP. The MSS also shall indicate its acceptance of the new anchor BS through MOB_HO-IND, with SHOFBSS_IND_type field set to "00". The MSS may reject the Anchor BS update instruction by the BS, by setting the SHOFBSS_IND_type field in MOB_HO-IND to '10' (Anchor BS update reject). The BS may reconfigure the Anchor BS list and retransmit MOB_BSHO-RSP or MOB_BSHO-REQ message to the MSS. After an MSS or BS has initiated an Anchor BS update using MOB_MSSHO/BSHO-REQ, the MSS may cancel Anchor BS update at any time. The cancellation shall be made through transmission of a MOB_HO-IND with SHOFBSS_IND_type field set to '01'
When switching to a new Anchor BS within the MSS' Active Set, the network entry procedures as depicted in Figure 0a are not required and shall not be performed by the MSS.

6.3.20.2.6.~~2~~4.2 Fast Anchor BS Selection Feedback Mechanism

[Change in Table 106j]

Syntax	Size	Notes
MOB_BSHO-REQ_Message_Format() {		
Management Message Type = 56	8 bits	
Network Assisted HO supported	1 bit	Indicates that the BS supports Network Assisted
~~Mode~~	~~3 bits~~	~~000: HHO request~~ ~~001: SHO/FBSS request: Anchor BS update with CID update~~ ~~010: SHO/FBSS request: Anchor BS update without CID update~~ ~~011: SHO/FBSS request: Active Set update with CID update~~ ~~100: SHO/FBSS request: Active Set update without CID update~~ ~~101: SHO/FBSS request: Active Set update with CID update for newly added BS~~ ~~110: SHO/FBSS request: Active Set update with CID update and CQICH allocation for newly added BS~~ ~~111: reserved~~
Reserved	3 bits	
Mode	2 bits	00: HHO request 01: SHO request 10: FBSS request 11: reserved
Operation	1 bit	0: Active Set update 1: Anchor BS update
CID update	1 bit	
CQICH allocation	1 bit	CQICH allocation for newly added BS

[Change at p. 91, line 29]

~~**Mode**~~
~~indicates which HO mode is for this handover request.~~
~~0b000: HHO request~~
~~0b001: SHO/FBSS request: Anchor BS update with CID update~~
~~0b010: SHO/FBSS request: Anchor BS update without CID update~~
~~0b011: SHO/FBSS request: Active Set update with CID update~~
~~0b100: SHO/FBSS request: Active Set update without CID update~~
~~0b101: SHO/FBSS request: Active Set update with CID update for newly added BS~~
~~0b110: SHO/FBSS request: Active Set update with CID update and CQICH allocation for newly added BS~~
~~0b111: reserved~~

Mode

00: HHO request
01: SHO request
10: FBSS request
11: reserved

Operation
0: Active Set update
1: Anchor BS update
CID update
0: no CID update after operation
1: CID shall be updated after operation
CQICH allocation
0: no CQICH allocation for newly added BS requested
1: CQICH allocation for newly added BS requested

[Change in Table 106k]

Syntax	Size	Notes
MOB-_MSSHO-REQ_Message_Format()		
Management Message Type = 57	8 bits	
Reserved	3 bits	
Mode	3 bits	00: HHO request 01: SHO request 10: FBSS request 11: reserved
Operation	1 bit	0: Active Set update 1: Anchor BS update

[Add at p. 94, line 24]
Mode
00: HHO request
01: SHO request
10: FBSS request
11: reserved

Operation
0: Active Set update
1: Anchor BS update

[Change at p. 95, line 13]
The BS shall transmit an MOB_BSHO-RSP message upon reception of MOB_MSSHO-REQ message. Parameters Mode, Operation, CID update and CQICH allocation shall have same values as in the MOB_BSHO-RSP message. The message shall be transmitted on the basic CID.

[Change in Table 106l]

Syntax	Size	Notes
MOB-_BSHO-RSP_Message_Format() {		
Management Message Type = 58	8 bits	
~~Mode~~	~~3 bits~~	~~0b000: HHO request~~ ~~0b001: SHO/FBSS request: Anchor BS update with CID update~~

		~~0b010: SHO/FBSS request: Anchor BS update without CID update~~ ~~0b011: SHO/FBSS request: Active Set update with CID update~~ ~~0b100: SHO/FBSS request: Active Set update without CID update~~ ~~0b101: SHO/FBSS request: Active Set update with CID update for newly added BS~~ ~~0b110: : SHO/FBSS request: Active Set update with CID update and CQICH allocation for newly added BS~~ ~~0b111: reserved~~
Reserved	3 bits	
Mode	2 bits	00: HHO request 01: SHO request 10: FBSS request 11: reserved
Operation	1 bit	0: Active Set update 1: Anchor BS update
CID update	1 bit	
CQICH allocation	1 bit	CQICH allocation for newly added BS

[Add at p. 99, line 21]

Mode

00: HHO request
01: SHO request
10: FBSS request
11: reserved

Operation

0: Active Set update
1: Anchor BS update

CID update

0: no CID update after operation
1: CID shall be updated after operation

CQICH allocation

0: no CQICH allocation for newly added BS requested
1: CQICH allocation for newly added BS requested

[Change at p. 100, line 37]

An MSS shall transmit a MOB_HO-IND message for final indication that it is about to perform a HO. Parameters Mode, Operation, CID update and CQICH allocation shall have same values as in the corresponding MOB_BSHO-REQ or MOB_BSHO-RSP message. When the MSS cancels or rejects the HO, the MSS shall transmit a MOB_HO-IND message with appropriate HO_IND type field. The message shall be transmitted on the basic CID.

[Change in Table 106m]

Syntax	Size	Notes
MOB_HO-IND_Message_Format() {		
Management Message Type = 59	8 bits	
Reserved	~~6~~ 3 bits	
~~Mode~~	~~2 bits~~	~~0b00: HHO request~~ ~~0b01: SHO/FBSS request: Anchor BS update~~ ~~0b10: SHO/FBSS request: Active Set update~~ ~~0b11: reserved~~
Mode	2 bits	00: HHO request 01: SHO request 10: FBSS request 11: reserved
Operation	1 bit	0: Active Set update 1: Anchor BS update
CID update	1 bit	
CQICH allocation	1 bit	CQICH allocation for newly added BS

[Add at p. 102, line 19]

Mode

00: HHO request
01: SHO request
10: FBSS request
11: reserved

Operation

0: Active Set update
1: Anchor BS update

CID update

0: no CID update after operation
1: CID shall be updated after operation

CQICH allocation

0: no CQICH allocation for newly added BS requested
1: CQICH allocation for newly added BS requested