TSG RAN Meeting #22 **RP-030693**
Maui, USA, 9 - 12 December 2003

Title **CRs (Rel-5 only) to TS 25.423 and TS 25.433 on the usage of the MAC-hs Reordering Buffer Size**
Source **TSG RAN WG3**
Agenda Item **7.4.6**

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	REL	CR	Rev	Cat	Title	Work item
R3-031489	25.423	5.7.0	5.8.0	REL-5	870	-	F	The usage of the MAC-hs Reordering Buffer Size	HSDPA-IubIur
R3-031490	25.433	5.6.0	5.7.0	REL-5	904	-	F	The usage of the MAC-hs Reordering Buffer Size	HSDPA-IubIur

3GPP TSG-RAN3 Meeting #39 ***R3-031489***
San Diego, California, USA, 17th – 21st November 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.423** **CR** **870** ⌘ **rev** **-** ⌘ Current version: **5.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	The usage of the MAC-hs Reordering Buffer Size
Source:	⌘	RAN3
Work item code:	⌘	HSDPA-IuBIur
Date:	⌘	17/11/2003
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change: ⌘ The SRNC informs the DRNS of the *MAC-hs Reordering Buffer Size* IE, which indicates the total buffer size defined in UE capability minus the RLC AM buffer in kBytes. With this information, the DRNS should limit the number of MAC-hs PDUs that are allowed to be sent to the UE. Otherwise, the MAC-hs PDUs might overflow from the MAC-hs Reordering Buffer in the UE.
However, in the current RNSAP, the usage of the *MAC-hs Reordering Buffer Size* IE is not clear and the DRNS does not know how to use it. Therefore, the usage and the reference of it should be added just like the *T1* IE.
In addition, it is also unclear how many bits the unit "kByte" means.

Summary of change: ⌘ The following changes are done.

The usage of the *MAC-hs Reordering Buffer Size* IE
DRNS should use this value to limit the number of MAC-hs PDUs that are transmitted to the UE.

The refernce of the *MAC-hs Reordering Buffer Size* IE
TS25.306 (4.3 RLC and MAC-hs parameters) is referred.

The unit of "kByte"
It is clarified that "N Kbytes" means "N*1024 bytes" in the same way as RRC.

Impact Analysis:

Impact assessment towards the previous version of the specification (same release):

This CR has [isolated impact] with the previous version of the specification (same release) because it might affect only the MAC-hs PDUs transmission.

		This CR has an impact under [functional] point of view. The impact [can] be considered isolated because the change affects [one] [system function] namely the MAC-hs PDUs transmission.
Consequences if not approved:	⌘	If this CR is not approved, the DRNS might not use the *MAC-hs Reordering Buffer Size* IE effectively. As a result, there will be an overflow of the MAC-hs PDUs from the MAC-hs Reordering Buffer in the UE frequently and the throughput will also be degraded.

Clauses affected:	⌘	9.2.1.34Ab				
Other specs affected:	⌘	**Y**	**N**		⌘	CR904 on TS25.433v5.6.0
		X		Other core specifications		
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.1.34Ab MAC-hs Reordering Buffer Size

The *MAC-hs Reordering Buffer Size* IE indicates the total buffer size defined in UE capability minus the RLC AM buffer (see ref. [42] subclause 4.3)~~in kBytes~~.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Reordering Buffer Size			INTEGER (1..300,…)	Unit: kBytes And N kBytes = N*1024 Bytes. The D R N S shall use this value to avoid the overflow of the MAC-hs reordering buffer.

3GPP TSG-RAN3 Meeting #39 ***R3-031490***
San Diego, California, USA, 17th – 21st November 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.433** **CR** **904** ⌘ **rev** **-** ⌘ Current version: **5.6.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	The usage of the MAC-hs Reordering Buffer Size
Source:	⌘	RAN3
Work item code:	⌘	HSDPA-IuBIur
Date:	⌘	17/11/2003
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
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D *(editorial modification)*
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Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change: ⌘ The CRNC informs the Node B of the *MAC-hs Reordering Buffer Size* IE, which indicates the total buffer size defined in UE capability minus the RLC AM buffer in kBytes. With this information, the Node B should limit the number of MAC-hs PDUs that are allowed to be sent to the UE. Otherwise, the MAC-hs PDUs might overflow from the MAC-hs Reordering Buffer in the UE.
However, in the current NBAP, the usage of the *MAC-hs Reordering Buffer Size* IE is not clear and the Node does not know how to use it. Therefore, the usage and the reference of it should be added just like the *T1* IE.
In addition, it is also unclear how many bits the unit "kByte" means.

Summary of change: ⌘ The following changes are done.

The usage of the *MAC-hs Reordering Buffer Size* IE
Node B should use this value to limit the number of MAC-hs PDUs that are transmitted to the UE.

The refernce of the *MAC-hs Reordering Buffer Size* IE
TS25.306 (4.3 RLC and MAC-hs parameters) is referred.

The unit of "kByte"
It is clarified that "N Kbytes" means "N*1024 bytes" in the same way as RRC.

Impact Analysis:

Impact assessment towards the previous version of the specification (same release):

This CR has [isolated impact] with the previous version of the specification (same release) because it might affect only the MAC-hs PDUs transmission.

		This CR has an impact under [functional] point of view. The impact [can] be considered isolated because the change affects [one] [system function] namely the MAC-hs PDUs transmission.
Consequences if not approved:	⌘	If this CR is not approved, the Node B might not use the *MAC-hs Reordering Buffer Size* IE effectively. As a result, there will be an overflow of the MAC-hs PDUs from the MAC-hs Reordering Buffer in the UE frequently and the throughput will also be degraded.

Clauses affected:	⌘	9.2.1.38Ab			
Other specs affected:	⌘	**Y** / **N** **X** / ` ` ` ` / **X** ` ` / **X**	Other core specifications Test specifications O&M Specifications	⌘	CR870 on TS25.423v5.7.0
Other comments:	⌘				

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.1.38Ab MAC-hs Reordering Buffer Size

The *MAC-hs Reordering Buffer Size* IE indicates the total buffer size defined in UE capability minus the RLC AM buffer (see ref. [33] subclause 4.3)~~in kBytes~~.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Reordering Buffer Size			INTEGER (1..300,…)	Unit: kBytes And N kBytes = N*1024 Bytes. The Node B shall use this value to avoid the overflow of the MAC-hs reordering buffer.