TSG RAN Meeting #22 **RP-030687**
Maui, USA, 9 - 12 December 2003

Title **CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Correction for the HS-DSCH Initial Capacity Allocation**
Source **TSG RAN WG3**
Agenda Item **7.4.6**

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	REL	CR	Rev	Cat	Title	Work item
R3-031483	25.423	5.7.0	5.8.0	REL-5	867	-	F	Correction for the HS-DSCH Initial Capacity Allocation	HSDPA-IubIur
R3-031484	25.433	5.6.0	5.7.0	REL-5	901	-	F	Correction for the HS-DSCH Initial Capacity Allocation	HSDPA-IubIur

3GPP TSG-RAN3 Meeting #39 ***R3-031483***
San Diego, California, USA, 17th – 21st November 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.423** **CR** **867** ⌘ **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:	⌘	Correction for the HS-DSCH Initial Capacity Allocation
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: ⌘

In the currect RNSAP, the DRNC can allocate a capacity for HS-DSCH to the SRNC by the *HS-DSCH Initial Capacity Allocation* IE in order to reduce the delay of the first HS-DSCH DATA FRAME transmission. The number of the MAC-d PDUs that is allowed to be included in one HS-DSCH DATA FRAME is decided by the *HS-DSCH Initial Window Size* IE.
According to the HS-DSCH DATA FRAME structure defined in TS25.435, the number of the MAC-d PDUs that are included in one frame is indicated by the NumOfPDU and its maximum value is 255.
Therefore, the maximum value of the *HS-DSCH Initial Window Size* IE also should be 255 (the current maximum value is 2047) since the *HS-DSCH Initial Window Size* IE is valid only for the first HS-DSCH DATA FRAME transmission.

Note that HS-DSCH Credits, which is the same usage as the *HS-DSCH Initial Window Size* IE, in the HS-DSCH CAPACITY ALLOCATION Control Frame indicates the number of allowed MAC-d PDUs that can be sent during one HS-DSCH Interval, not only for one HS-DSCH DATA FRAME transmission.

Summary of change: ⌘

The maximum bound of the *HS-DSCH Initial Window Size* IE is changed from 2047 to 255 and the corresponding semantics description is also modified.

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 initial capacity allocation for HS-DSCH via control plane.

This CR has an impact under [protocol] point of view.

		The impact [can] be considered isolated because the change affects [one] [system function] namely the initial capacity allocation for HS-DSCH via control plane.
Consequences if not approved:	⌘	If this CR is not approved, the SRNC might receive an invalid capacity. As a result, the procedure will be rejected by the SRNC or the SRNC will be confused.

Clauses affected:	⌘	9.2.1.30Nb and 9.3.4			
Other specs affected:	⌘	Y: X Y: Y:	N: N: X N: X	Other core specifications Test specifications O&M Specifications	⌘ CR901 on TS25.433v5.6.0
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.

9.2.1.30Na HS-DSCH Initial Capacity Allocation

The *HS-DSCH Initial Capacity Allocation* IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iur.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
HS-DSCH Initial Capacity Allocation		*1..16*			–	
>Scheduling Priority Indicator	M		9.2.1.51A		–	
>Maximum MAC-d PDU Size	M		MAC-d PDU Size 9.2.1.34A		–	
>HS-DSCH Initial Window Size	M		9.2.1.30Nb		–	

9.2.1.30Nb HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs that may be transmitted before new credits are received from the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-DSCH Initial Window Size			INTEGER (1..255~~2047~~)	Number of MAC-d PDUs~~: 2047 = Unlimited number of MAC-d PDUs.~~

<Not affected part is omitted>

9.3.4 Information Element Definitions

```
-- **************************************************************
--
-- Information Element Definitions
--
-- **************************************************************

RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN
```

<Not affected part is omitted>

```
HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    maximum-MACdPDU-Size            MACdPDU-Size,
    hSDSCH-InitialWindowSize        HSDSCH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { {HSDSCH-Initial-Capacity-
AllocationItem-ExtIEs} } OPTIONAL,
    ...
}

HSDSCH-Initial-Capacity-AllocationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-InitialWindowSize            ::= INTEGER (1..255~~2047~~)
-- Number of MAC-d PDUs.
```

~~-- 2047 = Unlimited number of MAC-d PDUs~~

3GPP TSG-RAN3 Meeting #39 **R3-031484**
San Diego, California, USA, 17th – 21st November 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.433** **CR** **901** ⌘ **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:	⌘	Correction for the HS-DSCH Initial Capacity Allocation
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: ⌘

In the currect NBAP, the Node B can allocate a capacity for HS-DSCH to the CRNC by the *HS-DSCH Initial Capacity Allocation* IE in order to reduce the delay of the first HS-DSCH DATA FRAME transmission. The number of the MAC-d PDUs that is allowed to be included in one HS-DSCH DATA FRAME is decided by the *HS-DSCH Initial Window Size* IE.
According to the HS-DSCH DATA FRAME structure defined in TS25.435, the number of the MAC-d PDUs that are included in one frame is indicated by the NumOfPDU and its maximum value is 255.
Therefore, the maximum value of the *HS-DSCH Initial Window Size* IE also should be 255 (the current maximum value is 2047) since the *HS-DSCH Initial Window Size* IE is valid only for the first HS-DSCH DATA FRAME transmission.

Note that HS-DSCH Credits, which is the same usage as the *HS-DSCH Initial Window Size* IE, in the HS-DSCH CAPACITY ALLOCATION Control Frame indicates the number of allowed MAC-d PDUs that can be sent during one HS-DSCH Interval, not only for one HS-DSCH DATA FRAME transmission.

Summary of change: ⌘

The maximum bound of the *HS-DSCH Initial Window Size* IE is changed from 2047 to 255 and the corresponding semantics description is also modified.

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 initial capacity allocation for HS-DSCH via control plane.

This CR has an impact under [protocol] point of view.

		The impact [can] be considered isolated because the change affects [one] [system function] namely the initial capacity allocation for HS-DSCH via control plane.
Consequences if not approved:	⌘	If this CR is not approved, the CRNC might receive an invalid capacity. As a result, the procedure will be rejected by the CRNC or the CRNC will be confused.

Clauses affected:	⌘	9.2.1.31Hb and 9.3.4			
Other specs affected:	⌘	Y / N		⌘	CR867 on TS25.423v5.7.0
		X /	Other core specifications		
		/ X	Test specifications		
		/ X	O&M Specifications		
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.

9.2.1.31Ha HS-DSCH Initial Capacity Allocation

The *HS-DSCH Initial Capacity Allocation* IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iub.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
HS-DSCH Initial Capacity Allocation		*1..16*			–	
>Scheduling Priority Indicator	M		9.2.1.53H		–	
>Maximum MAC-d PDU Size	M		MAC-d PDU Size 9.2.1.38A		–	
>HS-DSCH Initial Window Size	M		9.2.1.31Hb		–	

9.2.1.31Hb HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs that may be transmitted before new credits are received from the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-DSCH Initial Window Size			INTEGER (1..255~~2047~~)	Number of MAC-d PDUs~~: 2047 = Unlimited number of MAC-d PDUs.~~

<Not affected part is omitted>

9.3.4 Information Elements Definitions

```
--**************************************************************************
--
-- Information Element Definitions
--
--**************************************************************************

NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
```

<Not affected part is omitted>

```
HSDSCH-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    hsDSCHMacdFlow-Id                           HSDSCH-MACdFlow-ID,
    bindingID                                   BindingID                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress       OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation          HSDSCH-Initial-Capacity-Allocation OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-MACdFlow-
Specific-InformationRespItem-ExtIEs } }     OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InformationRespItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-PowerOffset ::= INTEGER (0..255)
-- PowerOffset = -32 + offset * 0.25
```

```
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

HSDSCH-Initial-Capacity-Allocation::= SEQUENCE (SIZE (1..16)) OF HSDSCH-Initial-Capacity-
AllocationItem

HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    maximum-MACdPDU-Size            MACdPDU-Size,
    hSDSCH-InitialWindowSize        HSDSCH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { { HSDSCH-Initial-Capacity-
AllocationItem-ExtIEs } } OPTIONAL,
    ...
}

HSDSCH-Initial-Capacity-AllocationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-InitialWindowSize            ::= INTEGER (1..255~~2047~~)
-- Number of MAC-d PDUs.
~~-- 2047 = Unlimited number of MAC-d PDUs~~
```