Technical Specification Group Services and System Aspects **TSGS#12(01)0321**
Meeting #12, Stockholm, Sweden, 18-21 June 2001

Source: **SA WG3**

Title: **2 CRs to 33.105: Deletion of the maximum size of a RRC message (R99, Rel-4)**

Document for: **Approval**

Agenda Item: **7.3.3**

Spec	CR	Rev	Phase	Cat	Subject	Version-Current	Version-New	Doc-2nd-Level
33.105	019		R99	F	Deletion of the maximum size of a RRC message	3.7.0	3.8.0	S3-010187
33.105	020		Rel-4	A	Deletion of the maximum size of a RRC message	4.0.0	4.1.0	S3-010188

3GPP TSG SA WG3 Security — S3#18 **S3-010187**

21-24 May, 2001

Phoenix, USA

CR-Form-v3

CHANGE REQUEST

⌘ **33.105 CR 019** ⌘ rev **-** ⌘ Current version: **3.7.0** ⌘

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

Proposed change affects: ⌘ (U)SIM [ ] ME/UE [x] Radio Access Network [x] Core Network [ ]

Title:	⌘	Deletion of the maximum size of a RRC message
Source:	⌘	SA WG3
Work item code:	⌘	SEC1
Date:	⌘	17/05/2001
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
- ***F*** *(essential 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)*

Reason for change:	⌘	An unspecified variable X19 still exists in the specification.
Summary of change:	⌘	The reference to the maximum size of RRC message is deleted because such a maximum size does not exist.
Consequences if not approved:	⌘	Specification is incomplete

Clauses affected:	⌘	5.3.7 Interface		
Other specs Affected:	⌘	[ ] Other core specifications [ ] Test specifications [ ] O&M Specifications	⌘	
Other comments:	⌘			

5.3.7 Interface

5.3.7.1 IK

IK: the integrity key

IK[0], IK[1], …, IK[127]

The length of IK is 128 bits.

5.3.7.2 COUNT-I

COUNT-I: a frame dependent input.

COUNT-I[0], COUNT-I[1], …, COUNT-I[31]

The length of COUNT-I is 32 bits.

The input parameter COUNT-I protects against replay during a connection. It is a value incremented by one for each integrity protected message. COUNT-I consists of two parts: the HYPERFRAME NUMBER (HFN) as the most significant part and a RRC Sequence Number as the least significant part. The initial value of the hyperframe number is sent by the user to the network at connection set-up. The user stores the greatest used hyperframe number from the previous connection and increments it by one. In this way the user is assured that no COUNT-I value is re-used (by the network) with the same integrity key.

5.3.7.3 FRESH

FRESH: a random number generated by the RNC.

FRESH[0], FRESH[1], …, FRESH[31]

The length of FRESH is 32 bits.

The same integrity key may be used for several consecutive connections. This FRESH value is an input to the algorithm in order to assure the network side that the user is not replaying old MAC-Is.

5.3.7.4 MESSAGE

MESSAGE: the signalling data.

MESSAGE[0], MESSAGE[1], …, MESSAGE[X~~19~~-1]

The ~~maximum~~ length of MESSAGE is X~~19~~.

5.3.7.5 DIRECTION

DIRECTION: the direction of transmission of signalling messages (user to network or network to users).

DIRECTION[0]

The length of DIRECTION is 1 bit.

The same integrity key may be used for uplink and downlink channels simultaneously associated with a UE.

The value of the DIRECTION is 0 for messages from UE to RNC and 1 for messages from RNC to UE.

5.3.7.6 MAC-I (and equivalently XMAC-I)

MAC-I: the message authentication code for data integrity authentication

MAC-I[0], MAC-I[1], …, MAC-I[31]

The length of MAC-I is 32 bits.

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CHANGE REQUEST

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Source:	⌘	SA WG3
Work item code:	⌘	SEC1
Date:	⌘	17/05/2001
Category:	⌘	**A**
Release:	⌘	REL-4

Use one of the following categories:
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- ***A*** *(corresponds to a correction in an earlier release)*
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Other comments:	⌘			

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