

TSG-RAN Meeting #27
Tokyo, Japan, 09-11 March 2005

RP-050083
Agenda item 9.2.1

Source: TSG-RAN WG2

Title: 25.306 CR to Rel-6 on the support of ROHC mandatory

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.306	105	-	Rel-6	Support of ROHC mandatory	C	6.3.0	6.4.0	R2-050706	RANimp-RABSE

CHANGE REQUEST

25.306 CR 105 # rev - # Current version: 6.3.0

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:	# Support of ROHC mandatory		
Source:	# RAN WG2		
Work item code:	# RANimp-RABSE	Date:	# 14/02/2005
Category:	# C	Release:	# Rel-6
	Use <u>one</u> 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 <u>one</u> of the following releases: Ph2 (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) Rel-7 (Release 7)

Reason for change:	# During RAN2#44 in Sophia Antipolis, it was decided to make the support of ROHC mandatory in Release 6 for IMS.
Summary of change:	# The support of RFC 3095 is modified to be mandatory from 32kbps UE class.
Consequences if not approved:	# If the UE doesn't support RFC 3095, it won't be possible for the UTRAN to optimise the Radio Bearer for IMS.

Clauses affected:	# 4.1, 5.2.1										
Other specs Affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications # Test specifications # O&M Specifications #	Y	N	#	X	#	X	#	X		
Y	N										
#	X										
#	X										
#	X										
Other comments:	#										

4.1 PDCP parameters

Support for RFC 2507

This parameter defines whether the UE supports header compression according to RFC 2507 as defined in [1] or not.

Support for RFC 3095

This parameter defines whether the UE supports header compression according to RFC 3095 as defined in [1] or not. Except for a CS only UE, the UE shall support header compression according to RFC 3095 as defined in [1].

Support for RFC 3095 context relocation

This parameter defines whether the UE supports RFC 3095 context relocation as defined in [1] or not.

Support for loss-less SRNS relocation

Defines whether the UE supports loss-less SRNS relocation as defined in [1] or not.

Maximum header compression context space

This parameter is only applicable if the UE supports header compression according to RFC 2507. It is defined as the maximum header compression context size supported by the UE for all RFC 2507 protocol entities for all RBs. UTRAN controls that the UE capability can be fulfilled through the following parameters:

1. MAX_HEADER;
2. TCP_SPACE;
3. NON_TCP_SPACE;

The context space for a single RFC 2507 protocol entity calculates from:

$$(2 * (TCP_SPACE + 1 + NON_TCP_SPACE + 1) * MAX_HEADER).$$

The following criterion must be fulfilled in the configuration:

Maximum header compression context space \geq sum of context spaces for all RFC 2507 protocol entities for all RBs.

Maximum number of ROHC context sessions

This parameter is only applicable if the UE supports header compression according to RFC3095. It is defined as the maximum number of header compression context sessions supported by the UE.

Support for Reverse Decompression

This parameter determines whether reverse decompression is supported or not and the maximum number of packets that can be reverse decompressed by the decompressor in the UE.

5.2.1 Combinations of common UE Radio Access Parameters for UL and DL

NOTE: Measurement-related capabilities are not included in the combinations. These capabilities are independent from the supported RABs.

Table 5.2.1.1: UE radio access capability parameter combinations, parameters common for UL and DL

Reference combination of UE Radio Access capability parameters common for UL and DL	12 kbps class	32 kbps class	64 kbps class	128 kbps class	384 kbps class	768 kbps class	2048 kbps class
PDCP parameters							
Support for RFC 2507	No	No	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1
Support for RFC 3095	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1
Support for RFC 3095 context relocation	No/Yes NOTE 1						
Support for loss-less SRNS relocation	No/Yes NOTE 1						
Maximum header compression context space	Not applicable for conformance testing						
Maximum number of ROHC context sessions	Not applicable for conformance testing						
Support for Reverse decompression	No/Yes NOTE 1						
RLC parameters							
Total RLC AM buffer size (kbytes)	10	10	10	50	50	100	500
Maximum number of AM entities	4	4	4	5	6	8	8
Maximum RLC AM window size	2047/4095 NOTE 1	2047/4095 NOTE 1	2047/4095 NOTE 1	2047/4095 NOTE 1	2047/4095 NOTE 1	2047/4095 NOTE 1	2047/4095 NOTE 1
Multi-mode related parameters							
Support of UTRA FDD	Yes/No NOTE 1						
Support of UTRA TDD 3.84 Mcps	Yes/No NOTE 1						
Support of UTRA TDD 1.28 Mcps	Yes/No NOTE 1						
Multi-RAT related parameters							
Support of GSM	Yes/No NOTE 1						
Support of multi-carrier	Yes/No NOTE 1						
Support of UTRAN to GERAN Network Assisted Cell Change	Yes/No						
Security parameters							
Support of ciphering algorithm UEA0	Yes						
Support of ciphering algorithm UEA1	Yes						
Support of integrity protection algorithm UIA1	Yes						
UE positioning related parameters							
Standalone location method(s) supported	Yes/No NOTE 1						
Network assisted GPS support	Network based / UE based / Both/ None NOTE 1						
GPS reference time capable	Yes/No NOTE 1						
Support for IPDL	Yes/No NOTE 1						
Support for OTDOA UE based method	Yes/No NOTE 1						

Reference combination of UE Radio Access capability parameters common for UL and DL	12 kbps class	32 kbps class	64 kbps class	128 kbps class	384 kbps class	768 kbps class	2048 kbps class
Support for Rx-Tx time difference type 2 measurement	Yes/No NOTE 1						
Support for UE Positioning assisted GPS measurement validity in CELL_PCH and URA_PCH RRC states	Yes						
Support for SFN-SFN observed time difference type 2 measurement	Yes/No NOTE 1						
RF parameters for FDD							
UE power class	3 / 4 NOTE 1						
Tx/Rx frequency separation	190 MHz						
RF parameters for TDD 3.84 Mcps							
Radio frequency bands	A / b / c / a+b / a+c / b+c / a+b+c NOTE 1						
UE power class	2 / 3 NOTE 1						
RF parameters for TDD 1.28 Mcps							
Radio frequency bands	A / b / c / a+b / a+c / b+c / a+b+c NOTE 1						
UE power class	2 / 3 NOTE 1						

NOTE 1: Options represent different combinations that should be supported with Conformance Tests.