# RP#16(02) 0419

# Technical Specification Group Radio Access Network Marco Island, USA 4 - 7 June 2002

TSG_Doc_Num	Specification	CR_Num	Revision_Num	3G_Release	CR_Subject	CR_Category	Cur_Ver_Num	New_Ver_Num	Tdoc_Num	Workltem
RP-020419	25.423	617		Rel-4	Clarification on the Neighboring TDD Cell Measurement	F	4.4.0	4.5.0	R3-021243	TEI
RP-020419	25.423	618		Rel-5	Clarification on the Neighboring TDD Cell Measurement	A	5.0.0	5.1.0	R3-021244	TEI
RP-020419	25.423	647		Rel-4	Definition of quality figures for SFN-SFN and Tutran-gps	F	4.4.0	4.5.0	R3-021351	LCS1- UEPos-
RP-020419	25.423	648		Rel-5	Definition of quality figures for SFN-SFN and Tutran-gps	A	5.0.0	5.1.0	R3-021352	LCS1- UEPos-
RP-020419	25.423	650	1	Rel-4	Clarification to the RNSAP RL Congestion procedure	F	4.4.0	4.5.0	R3-021582	TEI
RP-020419	25.423	663	1	Rel-5	Clarification to the RNSAP RL Congestion procedure	A	5.0.0	5.1.0	R3-021583	TEI

# 3GPP TSG-RAN WG3 Meeting #29 Gyeongju, Korea, 13<sup>th</sup> – 17<sup>th</sup> May 2002

# R3-021243

	CHANGE REQUEST	CR-Form-v3
¥	25.423 CR 617 <sup># rev</sup> # Ci	urrent version: <b>4.4.0</b> <sup>#</sup>
For <u>HELP</u> on usi	ng this form, see bottom of this page or look at the p	hop-up text over the # symbols.
Proposed change af	fects: ೫ (U)SIM ME/UE Radio Acce	ss Network X Core Network
Title: #	Clarification on the Neighbouring TDD Cell Measure	ment Information
Source: ೫	R-WG3	
Work item code: #	TEI	<i>Date:</i> ೫ <u>May 2002</u>
Category: %	F R	Release: # REL-4
	<ul> <li>Ise <u>one</u> of the following categories:</li> <li>F (essential correction)</li> <li>A (corresponds to a correction in an earlier release)</li> <li>B (Addition of feature),</li> <li>C (Functional modification of feature)</li> <li>D (Editorial modification)</li> <li>Detailed explanations of the above categories can e found in 3GPP TR 21.900.</li> </ul>	Use <u>one</u> 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:	<ul> <li>The "Neighbouring TDD Cell Measurement Info IEs which are not explained in the procedure te</li> </ul>	ormation" IE contains two optional ext.
Summary of change	<b># Procedure text is added in the "Neighbouring TD</b> IE.	D Cell Measurement Information"
	Impact Analysis: Impact assessment towards the previous version release): This CR has no impact.	n of the specification (same
Consequences if not approved:	# If this CR is not approved, procedure text is mis Cell Measurement Information" IE.	ssing in the "Neighbouring TDD
Clauses affected:	策 <mark>9.2.1.41H</mark>	
Other specs	<b>X</b> Other core specifications <b>#</b> 25.423 v5.0 <b>25</b> 432 v4	).0 CR
	25.433 v4.2 25.433 v5.0	0.0 CR
affected:	Test specifications O&M Specifications	
Other comments:	X	

How to create CRs using this form: Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G\_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

## 9.2.1.41H Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of measurements. <u>Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.</u>

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
UTRAN Cell Identifier	М		9.2.1.71	
UARFCN	Μ		9.2.1.66	Corresponds to Nt [15]
Cell Parameter ID	Μ		9.2.1.8	
Time slot	0		9.2.1.56	
Midamble shift and burst type	0		9.2.3.4	

# 3GPP TSG-RAN WG3 Meeting #29 Gyeongju, Korea, 13<sup>th</sup> – 17<sup>th</sup> May 2002

# R3-021244

	CHANGE REQUEST	CR-Form-v3
¥ 2	25.423 CR 618	Current version: <b>5.0.0</b> <sup>#</sup>
For <u>HELP</u> on usir	ng this form, see bottom of this page or look at the p	pop-up text over the ¥ symbols.
Proposed change aff	fects: ¥ (U)SIM ME/UE Radio Acce	ess Network X Core Network
Title: #	Clarification on the Neighbouring TDD Cell Measure	ement Information
Source: #	R-WG3	
Work item code: #	TEI	<b>Date:</b> 米 May 2002
Category: ೫	A F	Release: ೫ REL-5
D	<ul> <li>Ise <u>one</u> of the following categories:</li> <li>F (essential correction)</li> <li>A (corresponds to a correction in an earlier release)</li> <li>B (Addition of feature),</li> <li>C (Functional modification of feature)</li> <li>D (Editorial modification)</li> <li>retailed explanations of the above categories can e found in 3GPP TR 21.900.</li> </ul>	Use <u>one</u> 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:	* The "Neighbouring TDD Cell Measurement Info IEs which are not explained in the procedure to	ormation" IE contains two optional ext.
Summary of change:	* Procedure text is added in the "Neighbouring TI IE.	DD Cell Measurement Information"
	Impact Analysis: Impact assessment towards the previous version release): This CR has no impact.	on of the specification (same
Consequences if not approved:	# If this CR is not approved, procedure text is mi Cell Measurement Information" IE.	issing in the "Neighbouring TDD
Clauses affected:	<mark>ቼ 9.2.1.47D</mark>	
Other specs	<b>X</b> Other core specifications <b>X25.423 v4.X05.400 d</b>	4.0 CR 617
	25.433 v4. 25.433 v5	4.0 CK 651 0.0 CR 652
affected:	Test specifications O&M Specifications	
Other comments:	X	

How to create CRs using this form: Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G\_Specs/CRs.htm</u>. Below is a brief summary:

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- 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 <u>ftp://www.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

## 9.2.1.41H Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of measurements. <u>Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.</u>

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
UTRAN Cell Identifier	М		9.2.1.71	
UARFCN	Μ		9.2.1.66	Corresponds to Nt [15]
Cell Parameter ID	Μ		9.2.1.8	
Time slot	0		9.2.1.56	
Midamble shift and burst type	0		9.2.3.4	

# 3GPP TSG-RAN WG3 Meeting #29 Gyeongju, Korea, 13-17 May, 2002

# R3-021351

			Cŀ	IANGE	RE	QU	ES	Т				CR-Form-v3
ж	<mark>25.4</mark> 2	23	CR <mark>6</mark> 4	17	Ж re	ev .	<b>.</b>	Curre	ent vers	ion:	<b>4.4.0</b>	Ħ
For <u>HELP</u> (	on usin	ng this f	orm, see bo	ottom of this	s page	or lo	ok at t	he pop-	up text	over	the X sy	mbols.
Proposed chan	nge affe	ects:	€ (U)SIN	I ME	UE	R	adio A	Access I	Networl	k X	Core No	etwork
Title:	ж С ii	Definition nformation	n of quality tion	figures for	SFN-S	SFN a	and Tu	utran-gp	s meas	urem	ent value	9
Source:	¥ F	R-WG3										
Work item code	e: ೫ L	-CS1-U	EPos-lublu	r				D	Date: ೫	Ma	y 2002	
Category:	ដ F	-						Rele	ase: ೫	RE	L-4	
	Us De be	se <u>one</u> c F (es A (c B (A C (F D (E etailed e e found i	of the followin ssential corre prresponds t ddition of fea unctional modi ditorial modi xplanations n 3GPP TR :	ng categories action) o a correctio ture), dification of fication) of the above 21.900.	s: n in an feature catego	<i>earlie</i> ) pries c	er relea an	Use 2 Ise)             	e <u>one</u> of 2 R96 R97 R98 R99 REL-4 REL-5	the fo. (GSN (Rele (Rele (Rele (Rele (Rele (Rele	llowing rel 1 Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4) ase 5)	eases:
Reason for cha	ange:	¥ Star is m	idard devia issing. This	tion is men CR is mea	tioned int to c	in the Iarify	e spec any a	ification mbiguiti	i, but th ies	e forn	nula to ca	alculate it,
Summary of change: #       Added formulas in SFN-SFN Quality IE and to the Tutran-gps Quality IE semantics descriptions for calculating standard deviation.         Impact Analysis:       Impact assessment towards the previous version of the specification (same release):         This CR has no impact with the previous version of the specification (same release) because standard deviation formula is known and this CR clarifies and gives reader an idea what kind of formula standard deviation is.							ime me ïies and					
Consequences not approved:	s if	Hamb UE	oiguities of o	quality figur	es still	exist	s and	this ma	y result	t for p	oorer acc	curacy of
Clauses affecte	ed:	<mark>೫ 9.2</mark>	<mark>.1.52C, 9.2</mark>	.1.59D								
Other specs affected:		ж Х	Other core	specificatio cations	ns	ж	TS25. TS25. TS25.	.433v4.4 .433v5.( .423v5.(	4.0 CR6 0.0 CR6 0.0 CR6	674, 675, 648		
Other commen	its:	ж	O&M Speci	fications								

#### How to create CRs using this form:

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- 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 <u>ftp://www.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

#### 9.2.1.52C SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information		1 <maxnoofmeasn Cell&gt;</maxnoofmeasn 		
>UTRAN Cell Identifier			9.2.1.71	
>SFN-SFN Value	М		9.2.1.77	
>SFN-SFN Quality	0		INTEGER(0. .255)	Indicates the standard deviation (std) of the SFN-SFN otd (observed time difference) measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN- SFN Value and $\mu$ = E[x] is the expectation value of x.
>SFN-SFN Drift Rate	М		INTEGER(- 100100)	Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell.
>SFN-SFN Drift Rate Quality	M		INTEGER(0. .100)	Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. <u>SFN-SFN Drift Rate</u> <u>Quality = <math>\sqrt{E[(x-\mu)^2]}</math> = std of</u> reported SFN-SFN Drift Rate, where x is the reported SFN- <u>SFN Drift Rate and <math>\mu</math> = E[x] is</u> the expectation value of x.
>SFN-SFN Measurement Time Stamp	М		9.2.1.76	
Unsuccessful Neighbouring cell SFN- SFN Observed Time Difference Measurement Information		0 <maxnoofmeasn Cell-1&gt;</maxnoofmeasn 		
>UTRAN Cell Identifier			9.2.1.71	

Range bound	Explanation
MaxnoofMeasNCell	Maximum number of neighbouring cells on which
	measurements can be performed.

# 9.2.1.59D T<sub>UTRAN-GPS</sub> Measurement Value Information

The T<sub>UTRAN-GPS</sub> *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frame for LCS measurements.

IE/Group Name	Presence	Range	IE type and	Semantics description
Tutran-gps		1		Indicates the UTRAN GPS Timing of Cell Frame for LCS. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999.
>MS	Μ		INTEGER (016383)	Most Significant Part
>LS	Μ		INTEGER (04294967 295)	Least Significant Part
T <sub>UTRAN-GPS</sub> Quality	М		INTEGER(0. .255)	Indicates the standard deviation (std) of the T <sub>UTRAN-GPS</sub> measurements in 1/16 chip. T <sub>UTRAN-GPS</sub> Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported T <sub>UTRAN-GPS</sub> Value, where x is the reported T <sub>UTRAN-GPS</sub> Value, GPS Value and $\mu$ = E[x] is the expectation value of x.
T <sub>UTRAN-GPS</sub> Drift Rate	М		INTEGER(- 5050)	Indicates the T <sub>UTRAN-GPS</sub> drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
T <sub>UTRAN-GPS</sub> Drift Rate Quality	M		INTEGER(0. .50)	Indicates the standard deviation (std) of the T <sub>UTRAN-GPS</sub> drift rate measurements in 1/256 chip per second. T <sub>UTRAN-GPS</sub> Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported T <sub>UTRAN-GPS</sub> Drift Rate, where x is the reported T <sub>UTRAN-GPS</sub> Drift Rate and $\mu$ = E[x] is the expectation value of x.

### 3GPP TSG-RAN WG3 Meeting #29 Gyeongju, Korea, 13-17 May, 2002

# R3-021352

	,	CHAN	IGE	REC	UE	ST				CR-Form-v3
<sup>ж</sup> 25.4	23	CR 648	a a a a a a a a a a a a a a a a a a a	₩ rev	-	ж	Current vers	ion:	5.0.0	ж
For <mark>HELP</mark> on us	ing this fo	rm, see bottom	of this	page or	look	at the	e pop-up text	over t	the X syr	nbols.
Proposed change at	ffects: ೫	(U)SIM	ME/l	JE	Rad	io Ac	cess Network	< X	Core Ne	etwork
Title: ೫	Definition information	of quality figur	es for S	FN-SF	N and	l Tutr	an-gps meas	ureme	ent value	
Source: #	R-WG3									
Work item code: #	LCS1-UE	Pos-lublur					Date: ೫	May	/ 2002	
Category: #	Α						Release: ೫	REL	5	
( [ [	Use <u>one</u> of <b>F</b> (ess <b>A</b> (cor <b>B</b> (Ad <b>C</b> (Fur <b>D</b> (Ed Detailed ex be found in	the following cat sential correction, rresponds to a co dition of feature), nctional modificatio planations of the 3GPP TR 21.90	egories: ) prrection tion of fe n) above c 0.	in an ea eature) categorie	arlier re	elease	Use <u>one</u> of 2 R96 R97 R98 R99 REL-4 REL-5	the fol (GSM (Relea (Relea (Relea (Relea (Relea	lowing relé   Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4) ase 5)	eases:
Passan for abanga	9 Stope	lard doviation is	monti	anad in	the or	ooifi	action but th	o form		louloto it
Reason for change.	is mis	sing. This CR i	s mean	t to clai	rify an	y am	biguities	eiom		
Summary of change: #       Added formulas in SFN-SFN Quality IE and to the Tutran-gps Quality IE semantics descriptions for calculating standard deviation.         Impact Analysis:       Impact assessment towards the previous version of the specification (same release):         This CR has no impact with the previous version of the specification (same release) because standard deviation formula is known and this CR clarifies a gives reader an idea what kind of formula standard deviation is.							me ne ies and			
Consequences if not approved:	₩ <mark>Ambig</mark> UE po	guities of qualit	y figure	s still ex	kists a	ind th	nis may result	for po	oorer acc	uracy of
Clauses affected:	₩ <mark>9.2.</mark> 1	1.52C, 9.2.1.59	D							
Other specs	ж <mark>Х</mark> О	ther core speci	fication	s a	ts TS TS	25.4 25.4 25.4	33v4.4.0 CR6 23v4.4.0 CR6 33v5.0.0 CR6	674, 647, 675		
	0	&M Specificatio	ons							
Other comments:	ж									

### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G\_Specs/CRs.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.
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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.

#### 9.2.1.52C SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information		1 <maxnoofmeasn Cell&gt;</maxnoofmeasn 		
>UTRAN Cell Identifier			9.2.1.71	
>SFN-SFN Value	М		9.2.1.77	
>SFN-SFN Quality	0		INTEGER(0. .255)	Indicates the standard deviation (std) of the SFN-SFN otd (observed time difference) measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN- SFN Value and $\mu$ = E[x] is the expectation value of x.
>SFN-SFN Drift Rate	М		INTEGER(- 100100)	Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell.
>SFN-SFN Drift Rate Quality	М		INTEGER(0. .100)	Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. <u>SFN-SFN Drift Rate</u> <u>Quality = <math>\sqrt{E[(x-\mu)^2]}</math> = std of</u> reported SFN-SFN Drift Rate, where x is the reported SFN- <u>SFN Drift Rate and <math>\mu</math> = E[x] is the expectation value of x.</u>
>SFN-SFN Measurement Time Stamp	М		9.2.1.76	
Unsuccessful Neighbouring cell SFN- SFN Observed Time Difference Measurement Information		0 <maxnoofmeasn Cell-1&gt;</maxnoofmeasn 		
>UTRAN Cell Identifier			9.2.1.71	

Range bound	Explanation
MaxnoofMeasNCell	Maximum number of neighbouring cells on which
	measurements can be performed.

# 9.2.1.59D T<sub>UTRAN-GPS</sub> Measurement Value Information

The T<sub>UTRAN-GPS</sub> *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frame for LCS measurements.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Tutran-gps		1		Indicates the UTRAN GPS Timing of Cell Frame for LCS. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999.
>MS	М		INTEGER (016383)	Most Significant Part
>LS	М		INTEGER (04294967 295)	Least Significant Part
T <sub>UTRAN-GPS</sub> Quality	М		INTEGER(0. .255)	Indicates the standard deviation (std) of the T <sub>UTRAN-GPS</sub> measurements in 1/16 chip. <u>T<sub>UTRAN-GPS</sub>Quality = <math>\sqrt{E[(x-\mu)^2]}</math> = std of reported T<sub>UTRAN-GPS</sub>Value, where x is the reported T<sub>UTRAN-GPS</sub>Value, <u>GPS</u>Value and <math>\mu</math> = E[x] is the expectation value of x.</u>
T <sub>UTRAN-GPS</sub> Drift Rate	Μ		INTEGER(- 5050)	Indicates the T <sub>UTRAN-GPS</sub> drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
T <sub>UTRAN-GPS</sub> Drift Rate Quality	M		INTEGER(0. .50)	Indicates the standard deviation (std) of the T <sub>UTRAN-GPS</sub> drift rate measurements in 1/256 chip per second. <u>T<sub>UTRAN-GPS</sub> Drift Rate</u> Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported T <sub>UTRAN-GPS</sub> Drift Rate, where x is the reported T <sub>UTRAN-GPS</sub> Drift Rate and $\mu$ = E[x] is the expectation value of x.

# R3-021582

	CHANGE REQUEST							CR-Form-v4			
¥	25	<mark>.423</mark>	CR <mark>650</mark>	ж	rev	1	ж	Current vers	ion:	4.4.0	ж
For <b>HELP</b> on using this form, see bottom of this page or look at the pop-up text over the <b>#</b> symbols.								nbols.			
Proposed change	Proposed change affects: # (U)SIM ME/UE Radio Access Network X Core Network									etwork	
Title: #	<sup>Cla</sup>	arificatio	on to the RNS	SAP RL Co	ngesti	on proc	cedu	ire			
Source: ¥	R-N	NG3									
Work item code: ₩	S TE	I						Date: ೫	Ma	y 2002	
Category: ₩	<b>F Release:</b> % <b>REL-4</b> Use one of the following categories: <i>F</i> (correction) <i>Use one of the following releases: F</i> (correction) <i>A</i> (corresponds to a correction in an earlier release) <i>R96</i> (Release 1996) <i>B</i> (addition of feature), <i>R97</i> (Release 1997) <i>C</i> (functional modification of feature) <i>R98</i> (Release 1998) <i>D</i> (editorial modification) <i>R99</i> (Release 1999)         Detailed explanations of the above categories can be found in 3GPP TR 21.900. <i>REL-4</i> (Release 5)						eases:				
Reason for chang	<u>م.</u> ж	Atm	eeting#25 de	ocument R	3-0136	70 was	s ani	proved This	docu	ment brou	ight
	<ul> <li>At meeting#25, document RS-013070 was approved. This document brought some clarification to the RL congestion procedure, and identified two causes: dynamic and semistatic, to distinguish between the different situations where congestion may be indicated to an SRNC.</li> <li>However, the procedure text is still unclear, as to when the procedure should be used, and additionally the different causes in the Congestion Indication message are not clearly defined. The reason for this CR is to clearly define the use of this procedure.</li> </ul>				ould be pessage of this						
Summary of chan	mmary of change: \$\$Changes to the procedure text to clarify the use of the RL congestion procedure, but overall resources for e.g a cell. However, it is a particular radio link that the DRN decides should be acted upon to reduce this congestion in e.g the cell.Also, the CR clearly defines the use of the two causes: semi-static and dynamic R1: Minor aditorial change.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 additional behaviour is specified.The impact can be considered isolated because the change affects one function.						cedure, , but DRNC /namic. ne (same nction.				
Consequences if	ж	If this	CR is not ap	proved, the	en the	RL co	nges	tion procedu	ire ma	ay be use	d
not approved:		wrong	gly by the DF	RNC. Also i	f the ca	ause va	alue	s are not pro	perly	defined, t	hen the

	SRNC may make an unnecessary or wrong decision on receiving this message.
Clauses affected:	<b>¥</b> 8.3.19; 9.2.1.79
Other specs affected:	<b>X</b> Other core specifications <b>X</b> TS25.423 v5.0.0 (CR663)         Test specifications       O&M Specifications
Other comments:	ж

#### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G\_Specs/CRs.htm</u>. 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.

# 8.3.19 Radio Link Congestion

#### 8.3.19.1 General

This procedure is started by the DRNS when <u>RL-resource</u> congestion is detected and the rate of one or more DCHs, <u>corresponding to one or more radio links</u>, is preferred need to be limited in the UL and/or DL. This procedure is also used by the DRNC to indicate to the SRNC any change of the UL/DL <del>DCH</del>-resource congestion situation, affecting these radio links. This procedure shall use the signalling bearer connection for the relevant UE context.

The Radio Link Congestion procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.19.2 Successful Operation



#### Figure 26C: Radio Link Congestion procedure, Successful Operation

#### Start of <u>an UL/DL <del>DCH</del> Resource</u> Congestion Situation

When the DRNC detects <u>a-the</u> start of a UL/DL <u>DCHresource</u> congestion situation and prefers the rate of one or more DCHs <u>for one or more radio links</u> to be limited below the maximum rate currently configured in the UL/DL TFS, it shall send the RADIO LINK CONGESTION INDICATION message to the SRNC. The DRNC shall indicate the cause of the congestion in the *Congestion Cause* IE and shall indicate all the Radio Links for which the rate of a DCH needs to be reduced.

When receiving the RADIO LINK CONGESTION INDICATION message the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for a DCH.

#### Change of UL/DL DCH-Resource Congestion Situation

The DRNC shall indicate any change of the UL/DL <u>DCH resource</u> congestion situation by sending the RADIO LINK CONGESTION INDICATION message in which the new allowed rate of the DCHs are indicated by the *Allowed Rate Information* IE. In the case that the new allowed rate is lower than a previously indicated allowed rate, the *Congestion Cause* IE, indicating the cause of the congestion, shall also be included.

When receiving a RADIO LINK CONGESTION INDICATION message indicating a further rate decrease on any DCH(s) on any RL, the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for a DCH.

#### End of UL/DL-DCH <u>Resource</u> Congestion Situation

End of an UL <del>DCH <u>resource</u> congestion situation, <u>affectingfor</u> a specific RL, shall be indicated by including the TF corresponding to the highest data rate in the *Allowed UL Rate* IE in the *Allowed Rate Information* IE for the concerning RL. End of a DL <del>DCH <u>resource</u> congestion situation<u>in the DL</u>, <u>affecting for</u> a specific RL, shall be indicated by including the TF with the highest data rate in the *Allowed DL Rate* IE in the *Allowed Rate Information* IE for the concerning RL.</del></del>

### 8.3.19.3 Abnormal Conditions

# 9.2.1.79 Congestion Cause

The Congestion Cause IE indicates the cause of a congestion situation:

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Congestion Cause			ENUMERATED (UTRAN Dynamic Resources, UTRAN Semistatic Resources, )	

The meaning of the different congestion cause values is described in the following table:

Congestion cause	Meaning
UTRAN Dynamic Resources	UL and/or DL DCH-resource congestion situation mainly caused by the UL and/or DL UTRAN Dynamic Resources. This type of congestion situation is, e.g. related to the limitation of the DL transmitted carrier power situation of the cell(s), or the UL Interference situation in the concerning cell(s).
UTRAN Semistatic Resources	UL and/or DL DCH-resource_congestion situation mainly related to UTRAN Semistatic Resources (e.g. channelisation codes, Node-B resources,).

# R3-021583

CHANGE REQUEST							
ж	25.423 CR 663 # rev 1 # 0	Current version: <b>5.0.0</b> <sup>#</sup>					
For <b>HELP</b> on using this form, see bottom of this page or look at the pop-up text over the <b>#</b> symbols.							
Proposed change a	affects: # (U)SIM ME/UE Radio Acc	ess Network X Core Network					
Title: #	Clarification to the RNSAP RL Congestion procedure	e					
Source: ¥	R-WG3						
Work item code: #	TEI	Date: ೫ May 2002					
Category: ೫	A 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 <u>TR 21.900</u> .	Release: %REL-5Use 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: #       At meeting#25, document R3-013670 was approved. This document broug some clarification to the RL congestion procedure, and identified two cause dynamic and semistatic, to distinguish between the different situations whe congestion may be indicated to an SRNC.         However, the procedure text is still unclear, as to when the procedure shou used, and additionally the different causes in the Congestion Indication me are not clearly defined. The reason for this CR is to clearly define the use of procedure.							
Summary of chang	<ul> <li>Changes to the procedure text to clarify the use in that it it is not a radio link being congested wo overall resources for e.g a cell. However, it is a decides should be acted upon to reduce this conditional change.</li> <li>Also, the CR clearly defines the use of the two reals of the two reals of the two relations in the conditional change.</li> <li>Impact Analysis:</li> <li>Impact assessment towards the previous version release):</li> <li>This CR has isolated impact with the previous version release) because additional behaviour is specific.</li> </ul>	e of the RL congestion procedure, hich triggers the procedure, but particular radio link that the DRNC ongestion in e.g the cell. causes: semi-static and dynamic. on of the specification (same version of the specification (same fied. the change affects one function.					

Consequences if not approved:	ж	If this CR is not approved, ther wrongly by the DRNC. Also if t SRNC may make an unnecess	he cau he cau ary or	L congestion procedure may be used use values are not properly defined, then the wrong decision on receiving this message.
Clauses affected:	ж	8.3.19; 9.2.1.79		
Other specs affected:	ж	<ul> <li>X Other core specifications</li> <li>Test specifications</li> <li>O&amp;M Specifications</li> </ul>	Ħ	TS25.423 v4.4.0 (CR650)
Other comments:	ж			

#### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G\_Specs/CRs.htm</u>. Below is a brief summary:

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- 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 <u>ftp://ftp.3gpp.org/specs/</u> 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.
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# 8.3.19 Radio Link Congestion

#### 8.3.19.1 General

This procedure is started by the DRNS when <u>RL-resource</u> congestion is detected and the rate of one or more DCHs, <u>corresponding to one or more radio links</u>, is preferred need to be limited in the UL and/or DL. This procedure is also used by the DRNC to indicate to the SRNC any change of the UL/DL <del>DCH</del>-resource congestion situation, affecting these radio links. This procedure shall use the signalling bearer connection for the relevant UE context.

The Radio Link Congestion procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.19.2 Successful Operation



#### Figure 26C: Radio Link Congestion procedure, Successful Operation

#### Start of <u>an UL/DL <del>DCH</del> Resource</u> Congestion Situation

When the DRNC detects <u>a the</u> start of a UL/DL <u>DCHresource</u> congestion situation and prefers the rate of one or more DCHs for one or more radio links to be limited below the maximum rate currently configured in the UL/DL TFS, it shall send the RADIO LINK CONGESTION INDICATION message to the SRNC. The DRNC shall indicate the cause of the congestion in the *Congestion Cause* IE and shall indicate all the Radio Links for which the rate of a DCH needs to be reduced.

When receiving the RADIO LINK CONGESTION INDICATION message the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for a DCH.

#### Change of UL/DL DCH-Resource Congestion Situation

The DRNC shall indicate any change of the UL/DL <u>DCH resource</u> congestion situation by sending the RADIO LINK CONGESTION INDICATION message in which the new allowed rate of the DCHs are indicated by the *Allowed Rate Information* IE. In the case that the new allowed rate is lower than a previously indicated allowed rate, the *Congestion Cause* IE, indicating the cause of the congestion, shall also be included.

When receiving a RADIO LINK CONGESTION INDICATION message indicating a further rate decrease on any DCH(s) on any RL, the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for a DCH.

#### End of UL/DL-DCH <u>Resource</u> Congestion Situation

End of an UL <del>DCH <u>resource</u> congestion situation, <u>affectingfor</u> a specific RL, shall be indicated by including the TF corresponding to the highest data rate in the *Allowed UL Rate* IE in the *Allowed Rate Information* IE for the concerning RL. End of a DL <del>DCH <u>resource</u> congestion situation<u>in the DL</u>, <u>affecting for</u> a specific RL, shall be indicated by including the TF with the highest data rate in the *Allowed DL Rate* IE in the *Allowed Rate Information* IE for the concerning RL.</del></del>

#### 8.3.19.3 Abnormal Conditions

# 9.2.1.79 Congestion Cause

The Congestion Cause IE indicates the cause of a congestion situation:

IE/Group Name	Presence	Range	IE type and reference	Semantics description
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