TSGS#21(03)0431 Technical Specification Group Services and System Aspects

Meeting #21, Frankfurt am Main, Germany, 22-25 September 2003

SA5 (Telecom Management) Source:

6 Rel-4/5/6 CR 32.403 (Performance Management; Performance measurements - UMTS and combined UMTS/GSM) Title:

Approval Document for:

Agenda Item: 7.5.3

Doc-1st-Level	Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Doc-2nd-Level	Workitem
SP-030431	32.403	018	-		Correction of collection method for SGSN measurements	F	4.4.0	S5-038552	OAM-PM
SP-030431	32.403	019	-		Correction of collection method for SGSN measurements	A	5.3.0	S5-038553	OAM-PM
SP-030431	32.403	020	-		Correction of collection method for SGSN measurements	A	6.0.0	S5-038554	OAM-PM
SP-030431	32.403	021	-		Correction of "outgoing intra-cell hard handovers measurements"	F	4.4.0	S5-038556	OAM-PM
SP-030431	32.403	022	-		Correction of "outgoing intra-cell hard handovers measurements"	A	5.3.0	S5-038557	OAM-PM
SP-030431	32.403	023	-		Correction of "outgoing intra-cell hard handovers measurements"	A	6.0.0	S5-038558	OAM-PM

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*	32.403	CR 018	жrev	- # (Current version	4.4.0 [#]							
For <u>HELP</u> on	For <u>HELP</u> 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 Acc	cess Network	Core Network X							
Title:	€ Correctio	n of collection r	method for SGS	N measure	ements								
Source:	€ SA5 (ulf.l	nubinette@eric	sson.com)										
Work item code:	€ OAM-PM				Date: 第 0	5/09/2003							
Category:	F (cor A (cor B (add C (fun D (edr Detailed ex	dition of feature), ectional modificati torial modification	prrection in an ear ion of feature) n) above categories	rlier release)	Use <u>one</u> of the 2 (GS R96 (Re R97 (Re R98 (Re R99 (Re Rel-4 (Re Rel-5 (Re	cel-4 following releases: SM Phase 2) elease 1996) elease 1997) elease 1999) elease 4) elease 5) elease 6)							
Reason for chang			od for some SOnt with the cond			orrectly specified,							
Summary of char	ge: Ж <mark>Cha</mark>	nge collection r	nethod from "C	umulative C	Counter" (CC) to	o "GAUGE".							
Consequences if not approved:			od for the two s incorrect imple		surements will	remain inconsistent,							
Clauses affected:	第 <mark>5.1.3</mark>	30 and 5.1.31											
Other specs affected:	米	Other core sp Test specifica O&M Specific	itions	策 Rel-5/	/6 32.403								
Other comments:	₩ Mirro	or CRs in S5-03	38553 (rel-5) an	d S5-03855	54 (rel-6)								

Change in Clause 5.1.30

5.1.30 Number of subscribers in PMM-IDLE state

- a) Number of subscribers in PMM-IDLE state.
- b) **CCGAUGE**.
- c) Incremented at PS Signalling Connection Release (Iu Release), decremented at PS Detach or PS Signalling Connection Establish (Service Request).
- d) A single integer value.
- e) MM.NbrSubPmmIdle.
- f) SgsnFunction.
- g) Valid for packet switching.
- h) UMTS.

End of Change in Clause 5.1.30

Change in Clause 5.1.31

5.1.31 Number of subscribers in PMM-CONNECTED state

- a) Number of subscribers in PMM-CONNECTED state.
- b) **CCGAUGE**.
- c) Decremented at PS Signalling Connection Release (Iu Release), Detach, PS Attach Reject or RAU Reject, incremented at PS Attach or PS Signalling Connection Establish (Service Request).
- d) A single integer value.
- e) MM.NbrSubPmmConnected
- f) SgsnFunction.
- g) Valid for packet switching.
- h) UMTS.

End of Change in Clause 5.1.31 End of document

Annex B (informative): Change history

Change history												
TSG#	TSG Doc.	CR	Rev	Subject/Comment	Old	New						
S_12	SP-010237			Submitted to TSG SA #12 for Approval.	1.0.2	4.0.0						
S_13	SP-010468	001		Corrections on UMTS and combined UMTS/GSM measurements: Addition of family name for CN measurements, addition of the list of families, addition of Annex A: "(n-1) out of n" examples, application of the "(n-1) out of n" approach to all relevant measurements, enhancement of per cause measurements	4.0.0	4.1.0						
S_15	SP-020026	002		Correction of the measured object class for some SGSN MM measurement definitions	4.1.0	4.2.0						
				MCC clean-up (Cosmetics based on EditHelp)	4.2.0	4.2.1						
S_19	SP-030146	011		Correction of the subscriber number measurement definitions	4.2.1	4.3.0						
S_20	SP-030292	013		Correction of the definition of the successful GPRS attach counters	4.3.0	4.4.0						
	S_12 S_13 S_15 S_19	S_12 SP-010237 S_13 SP-010468 S_15 SP-020026 S_19 SP-030146	S_12	S_12	TSG # TSG Doc. CR Rev Subject/Comment S_12 SP-010237 Submitted to TSG SA #12 for Approval. S_13 SP-010468 001 Corrections on UMTS and combined UMTS/GSM measurements: Addition of family name for CN measurements, addition of the list of families, addition of Annex A: "(n-1) out of n" examples, application of the "(n-1) out of n" approach to all relevant measurements, enhancement of per cause measurements S_15 SP-020026 002 Correction of the measured object class for some SGSN MM measurement definitions MCC clean-up (Cosmetics based on EditHelp) S_19 SP-030146 011 Correction of the subscriber number measurement definitions	TSG # TSG Doc. CR Rev Subject/Comment Old S_12 SP-010237 Submitted to TSG SA #12 for Approval. 1.0.2 S_13 SP-010468 001 Corrections on UMTS and combined UMTS/GSM measurements: Addition of family name for CN measurements, addition of the list of families, addition of Annex A: "(n-1) out of n" examples, application of the "(n-1) out of n" approach to all relevant measurements, enhancement of per cause measurements S_15 SP-020026 002 Correction of the measured object class for some SGSN MM measurement definitions 4.1.0 MCC clean-up (Cosmetics based on EditHelp) 4.2.0 S_19 SP-030146 011 Correction of the subscriber number measurement definitions 4.2.1						

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For <u>HELP</u> on	For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the % symbols.												
Proposed change	e affects:	UICC apps第	ME	Radio Ac	cess Network	Core Network X							
Title:	光 Correctio	n of collection	method for SGS	N measur	ements								
Source:	₩ SA5 (ulf.l	nubinette@eric	esson.com)										
Work item code:	₩ <mark>OAM-PM</mark>				Date: 第 (05/09/2003							
Category:	F (con A (con B (add C (fur D (edd Detailed ex	dition of feature) actional modifica itorial modificatio	orrection in an ear tion of feature) on) above categories		2 (G) R96 (R R97 (R R98 (R R99 (R Rel-4 (R Rel-5 (R	Rel-5 e following releases: eSM Phase 2) elease 1996) elease 1997) elease 1998) elease 1999) elease 4) elease 5) elease 6)							
Reason for chang			nod for some SC nt with the cond			correctly specified,							
Summary of char	nge: 郑 <mark>Cha</mark>	nge collection	method from "C	umulative (Counter" (CC) t	to "GAUGE".							
Consequences if not approved:			nod for the two so incorrect imple			remain inconsistent,							
Clauses affected.	· 第 <mark>5.1.3</mark>	30 and 5.1.31											
Other specs affected:	# X X X	Test specification	ations	*									
Other comments.	:	5 Mirror CR to	S5-038552										

Change in Clause 5.1.30

5.1.30 Number of subscribers in PMM-IDLE state

- a) Number of subscribers in PMM-IDLE state.
- b) **CCGAUGE**.
- c) Incremented at PS Signalling Connection Release (Iu Release), decremented at PS Detach or PS Signalling Connection Establish (Service Request).
- d) A single integer value.
- e) MM.NbrSubPmmIdle.
- f) SgsnFunction.
- g) Valid for packet switching.
- h) UMTS.

End of Change in Clause 5.1.30

Change in Clause 5.1.31

5.1.31 Number of subscribers in PMM-CONNECTED state

- a) Number of subscribers in PMM-CONNECTED state.
- b) **CCGAUGE**.
- c) Decremented at PS Signalling Connection Release (Iu Release), Detach, PS Attach Reject or RAU Reject, incremented at PS Attach or PS Signalling Connection Establish (Service Request).
- d) A single integer value.
- e) MM.NbrSubPmmConnected
- f) SgsnFunction.
- g) Valid for packet switching.
- h) UMTS.

End of Change in Clause 5.1.31 End of document

Annex C (informative): Change history

					Change history		
Date	TSG#	TSG Doc.	CR	Rev		Old	New
Jun 2001	S_12	SP-010237			Submitted to TSG SA #12 for Approval.	1.0.2	4.0.0
Sep 2001	S_13	SP-010468	001		Corrections on UMTS and combined UMTS/GSM measurements: Addition of family name for CN measurements, addition of the list of families, addition of Annex A: "(n-1) out of n" examples, application of the "(n-1) out of n" approach to all relevant measurements, enhancement of per cause measurements	4.0.0	4.1.0
Mar 2002	S_15	SP-020026	002		Correction of the measured object class for some SGSN MM measurement definitions	4.1.0	4.2.0
Mai 2002					MCC clean-up (Cosmetics based on EditHelp)	4.2.0	4.2.1
Jun 2002	S_16	SP-020291	003	2	Introduction of "Performance Measurements Definition Process" describing the repeatable, top-down process to define measurements for inclusion in future 3GPP Releases	4.2.0	5.0.0
Jun 2002	S_16	SP-020291	004		Adding performance measurement definitions related to GGSN	4.2.0	5.0.0
Jun 2002	S_16	SP-020291	005		Introduction of an optional "Purpose" clause in the measurement template	4.2.0	5.0.0
Jun 2002	S_16	SP-020291	006		Addition of explanatory text for Radio Access Bearer (RAB) measurements	4.2.0	5.0.0
Sep 2002	S_17	SP-020609	009		Introduction of Service Based Performance Measurement Definitions	5.0.0	5.1.0
Sep 2002	S_17	SP-020609	010		Add flexibility in the measurement template for the Measured Object Class (MOC)	5.0.0	5.1.0
Mar 2003	S_19	SP-030146	012	-	Correction of the subscriber number measurement definitions	5.1.0	5.2.0
Jun 2003	S_20	SP-030292	014		Correction of the definition of the successful GPRS attach counters	5.2.0	5.3.0
Jun 2003	S_20	SP-030292	015		Deletion of dual clause 4.1.2	5.2.0	5.3.0

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For <u>HELP</u> o	n using this	form, see	obottom of the	is page or	look a	at the	pop-up text over the	he	nbols.
Proposed chang	ge affects:	UICC a	apps#	ME	Rad	lio Ad	ccess Network	Core Ne	twork X
Title:	光 Correc	tion of co	llection meth	od for SGS	N me	easur	ements		
Source:	₩ SA5 (u	lf.hubine	tte@ericsson	.com)					
Work item code	:黑 <mark>OAM-F</mark>	PM					<i>Date:</i>	9/2003	
Category:	F (0 A (0 B (0 C (0 D (0 Detailed	correction, correspon addition of functional editorial m explanatio	ds to a correcti	ion in an ear f feature)		lease) R96 (Relea R97 (Relea R98 (Relea	owing rele Phase 2) Ise 1996) Ise 1997) Ise 1998) Ise 4) Ise 5)	ases:
Reason for char			ion method fo consistent wit				urements is incorre e.	ectly spec	ified,
Summary of cha	ange: ೫ C	nange co	llection metho	od from "C	umula	ative	Counter" (CC) to "G	GAUGE".	
Consequences not approved:			ion method for dead to inco				asurements will rem	nain incor	nsistent,
Clauses affected	d: 第 <mark>5</mark> .	1.30 and	5.1.31						
Other specs affected:	¥ Y	X Test X O&M	r core specific specifications Specificatior	s ns	¥				
Other comments	s: X R	el-6 Mirro	or CR to S5-0	38552					

Change in Clause 5.1.30

5.1.30 Number of subscribers in PMM-IDLE state

- a) Number of subscribers in PMM-IDLE state.
- b) **CCGAUGE**.
- c) Incremented at PS Signalling Connection Release (Iu Release), decremented at PS Detach or PS Signalling Connection Establish (Service Request).
- d) A single integer value.
- e) MM.NbrSubPmmIdle.
- f) SgsnFunction.
- g) Valid for packet switching.
- h) UMTS.

End of Change in Clause 5.1.30

Change in Clause 5.1.31

5.1.31 Number of subscribers in PMM-CONNECTED state

- a) Number of subscribers in PMM-CONNECTED state.
- b) **CCGAUGE**.
- c) Decremented at PS Signalling Connection Release (Iu Release), Detach, PS Attach Reject or RAU Reject, incremented at PS Attach or PS Signalling Connection Establish (Service Request).
- d) A single integer value.
- e) MM.NbrSubPmmConnected
- f) SgsnFunction.
- g) Valid for packet switching.
- h) UMTS.

End of Change in Clause 5.1.31 End of document

Annex C (informative): Change history

					Change history		
Date	TSG#	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Jun 2001	S_12	SP-010237			Submitted to TSG SA #12 for Approval.	1.0.2	4.0.0
Sep 2001	S_13	SP-010468	001		Corrections on UMTS and combined UMTS/GSM measurements: Addition of family name for CN measurements, addition of the list of families, addition of Annex A: "(n-1) out of n" examples, application of the "(n-1) out of n" approach to all relevant measurements, enhancement of per cause measurements	4.0.0	4.1.0
Mar 2002	S_15	SP-020026	002	-	Correction of the measured object class for some SGSN MM measurement definitions	4.1.0	4.2.0
Mai 2002					MCC clean-up (Cosmetics based on EditHelp)	4.2.0	4.2.1
Jun 2002	S_16	SP-020291	003	2	Introduction of "Performance Measurements Definition Process" describing the repeatable, top-down process to define measurements for inclusion in future 3GPP Releases	4.2.0	5.0.0
Jun 2002	S_16	SP-020291	004		Adding performance measurement definitions related to GGSN	4.2.0	5.0.0
Jun 2002	S_16	SP-020291	005		Introduction of an optional "Purpose" clause in the measurement template	4.2.0	5.0.0
Jun 2002	S_16	SP-020291	006		Addition of explanatory text for Radio Access Bearer (RAB) measurements	4.2.0	5.0.0
Sep 2002	S_17	SP-020609	009		Introduction of Service Based Performance Measurement Definitions	5.0.0	5.1.0
Sep 2002	S_17	SP-020609	010		Add flexibility in the measurement template for the Measured Object Class (MOC)	5.0.0	5.1.0
Mar 2003	S_19	SP-030146	012		Correction of the subscriber number measurement definitions	5.1.0	5.2.0
Jun 2003	S_20	SP-030292	014		Correction of the definition of the successful GPRS attach counters	5.2.0	5.3.0
Jun 2003		SP-030292	015		Deletion of dual clause 4.1.2	5.2.0	5.3.0
Jun 2003	S_20	SP-030293	016		Addition of GPRS per cause measurement definitions	5.3.0	6.0.0
Jun 2003	S_20	SP-030293	017		Introduction of MMS Service Based Performance Measurement	5.3.0	6.0.0

3GPP TSG-SA5 (Telecom Management)
Meeting #35, Sophia Antipolis, FRANCE, 27 Aug - 10 Sep 2003

	CHANGE REQUEST	orm-v7
*	32.403 CR 021	
For <u>HELP</u> on u	ing this form, see bottom of this page or look at the pop-up text over the 策 symbols	S.
Proposed change	ffects: UICC apps第 ME Radio Access Network X Core Network	k
Title:	Correction of "outgoing intra-cell hard handovers measurements"	
Source: #	SA5 (China Mobile, RUI Lanlan)	
Work item code: ₩	OAM-PM	
Category:	Release: \Re Rel-4Use one of the following categories:Use one of the following releasesF (correction)2(GSM Phase 2)A (corresponds to a correction in an earlier release)R96 (Release 1996)B (addition of feature),R97 (Release 1997)C (functional modification of feature)R98 (Release 1998)D (editorial modification)R99 (Release 1999)Detailed explanations of the above categories can be found in 3GPP TR 21.900.Rel-4 (Release 4)Rel-5 (Release 5)Rel-6 (Release 6)	:-
Reason for change	The current measured object class of "Outgoing intra-cell hard handovers" measurements is UtranRelation. It describes the handover relation of neighborcells, but not the handover relation of intra cell.	our
Summary of chang	Modify description and measurement object class of "Outgoing intra-cell hard handovers" measurments.	
Consequences if not approved:	The description and measurement object class will remain inconsistent with the behaviour for those measurements.	ne
Clauses affected: Other specs affected:	# 4.9.1 # X Other core specifications # Test specifications X N N N N N N N N N	
Other comments:	X O&M Specifications Rel-5/6 32.403	

Change in Clause 4.9.1

4.9.1 Outgoing intra-cell hard handovers

The three measurement types defined in the subclause 4.9.1.n for outgoing intra-cell hard handovers are subject to the "2 out of 3 approach".

4.9.1.1 Attempted outgoing intra-cell hard handovers

- a) This measurement provides the number of attempted outgoing-intra-cell hard handovers per neighbour-cell relation.
- b) CC.
- c) Transmission of a RRC message PHYSICAL CHANNEL RECONFIGURATION, RADIO BEARER SETUP, RADIO BEARER RECONFIGURATION, RADIO BEARER RELEASE, or TRANSPORT CHANNEL RECONFIGURATION from the source RNC to the UE, indicating the attempt of an <u>outgoing</u> intra-<u>hell_cell_hard</u> handover (see TS 25.331).
- d) A single integer value.
- e) HHO.AttOutIntraCell.
- f) UtranRelationUtranCell.
- g) Valid for circuit switched and packet switched traffic.
- h) UMTS.

4.9.1.2 Successful outgoing intra-cell hard handovers

- a) This measurement provides the number of successful outgoing intra-cell hard handovers per neighbour cell relation.
- b) CC.
- c) Receipt of a RRC message PHYSICAL CHANNEL RECONFIGURATION COMPLETE, RADIO BEARER SETUP COMPLETE, RADIO BEARER RECONFIGURATION COMPLETE, RADIO BEARER RELEASE COMPLETE, or TRANSPORT CHANNEL RECONFIGURATION COMPLETE sent from the UE to the source RNC, indicating a successful outgoing intra-cCell hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.SuccOutIntraCell.
- f) UtranRelationUtranCell.
- g) Valid for circuit switched and packet switched traffic.
- h) UMTS.

4.9.1.3 Failed outgoing intra-cell hard handovers

- a) This measurement provides the number of failed outgoing intra-cell hard handovers per neighbour cell relation per cause, where the UE returned to the original physical channel configuration.
- b) CC.

- c) Receipt of a RRC message PHYSICAL CHANNEL RECONFIGURATION FAILURE, RADIO BEARER SETUP FAILURE, RADIO BEARER RECONFIGURATION FAILURE, RADIO BEARER RELEASE FAILURE, or TRANSPORT CHANNEL RECONFIGURATION FAILURE sent from the UE to the source RNC, indicating a failed outgoing intra-cell hard handover. Failure causes are defined within TS 25.331. The sum of all supported per cause measurements shall equal the total number of failed events. In case only a subset of per cause measurements is supported, a sum measurement subtype will be provided first.
- d) Each measurement is an integer value. The number of measurements is equal to the number of causes supported plus a possible sum value identified by the .sum suffix.
- e) The measurement name has the form HHO.FailOutIntraCell.Cause where Cause identifies the failure cause.
- f) UtranRelationUtranCell.
- g) Valid for circuit switched and packet switched traffic.
- h) UMTS.

End of Change in Clause 4.9.1 End of Document

Annex B (informative): Change history

	Change history												
Date	TSG#	TSG Doc.	CR	Rev	Subject/Comment	Old	New						
Jun 2001	S_12	SP-010237			Submitted to TSG SA #12 for Approval.	1.0.2	4.0.0						
Sep 2001	S_13	SP-010468	001		Corrections on UMTS and combined UMTS/GSM measurements: Addition of family name for CN measurements, addition of the list of families, addition of Annex A: "(n-1) out of n" examples, application of the "(n-1) out of n" approach to all relevant measurements, enhancement of per cause measurements	4.0.0	4.1.0						
Mar 2002	S_15	SP-020026	002		Correction of the measured object class for some SGSN MM measurement definitions	4.1.0	4.2.0						
Mai 2002					MCC clean-up (Cosmetics based on EditHelp)	4.2.0	4.2.1						
Mar 2003	S_19	SP-030146	011		Correction of the subscriber number measurement definitions	4.2.1	4.3.0						
Jun 2003	S_20	SP-030292	013		Correction of the definition of the successful GPRS attach counters	4.3.0	4.4.0						

3GPP TSG-SA5 (Telecom Management)
Meeting #35, Sophia Antipolis, FRANCE, 27 August - 10 September 2003

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Proposed change affe	ects: UIC	C apps#	ME	Radio	o Acces	s Networ	k X Core N	etwork
Title:	orrection of	f " outgoing intra	a-cell hard h	andov	ers mea	asuremen	nts "	
Source: # S	A5 (China I	Mobile, RUI Lar	nlan)					
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De	e <u>one</u> of the F (correct A (corres) B (additio C (functio D (editoria tailed explan	following categorion) bonds to a correct of feature), nal modification of al modification) hations of the abound TR 21.900.	etion in an ear		U.	2 R96 R97 R98 R99 Rel-4 Rel-5	Rel-5 the following rel (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)	
Reason for change: 3	measur	rent measured ements is Utrar ut not the hando	Relation. It	describ	bes the			
Summary of change: 3		description and ers" measurme		nt obje	ect class	s of "Outg	going intra-cell	hard
Consequences if not approved:		scription and me our for those me			class w	vill remain	inconsistent v	with the
Clauses affected:	€ 4.10.1							
affected:	X Te	ther core specification &M Specification	ns ons	黑				

Change in Clause 4.10.1

4.10.1 Outgoing intra-cell hard handovers

The three measurement types defined in the subclause 4.10.1.n for outgoing intra-cell hard handovers are subject to the "2 out of 3 approach".

4.10.1.1 Attempted outgoing intra-cell hard handovers

- a) This measurement provides the number of attempted outgoing-intra-cell hard handovers per neighbour cell relation.
- b) CC.
- c) Transmission of a RRC message PHYSICAL CHANNEL RECONFIGURATION, RADIO BEARER SETUP, RADIO BEARER RECONFIGURATION, RADIO BEARER RELEASE, or TRANSPORT CHANNEL RECONFIGURATION from the source RNC to the UE, indicating the attempt of an outgoing intra-hcell hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.AttOutIntraCell.
- f) UtranRelationUtranCell.
- g) Valid for circuit switched and packet switched traffic.
- h) UMTS.

4.10.1.2 Successful outgoing intra-cell hard handovers

- a) This measurement provides the number of successful outgoing intra-cell hard handovers per neighbour cell relation.
- b) CC.
- c) Receipt of a RRC message PHYSICAL CHANNEL RECONFIGURATION COMPLETE, RADIO BEARER SETUP COMPLETE, RADIO BEARER RECONFIGURATION COMPLETE, RADIO BEARER RELEASE COMPLETE, or TRANSPORT CHANNEL RECONFIGURATION COMPLETE sent from the UE to the source RNC, indicating a successful outgoing intra-cCell hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.SuccOutIntraCell.
- f) UtranRelationUtranCell.
- g) Valid for circuit switched and packet switched traffic.
- h) UMTS.

4.10.1.3 Failed outgoing intra-cell hard handovers

- a) This measurement provides the number of failed outgoing intra-cell hard handovers per neighbour cell relation per cause, where the UE returned to the original physical channel configuration.
- b) CC.

- c) Receipt of a RRC message PHYSICAL CHANNEL RECONFIGURATION FAILURE, RADIO BEARER SETUP FAILURE, RADIO BEARER RECONFIGURATION FAILURE, RADIO BEARER RELEASE FAILURE, or TRANSPORT CHANNEL RECONFIGURATION FAILURE sent from the UE to the source RNC, indicating a failed outgoing intra-cell hard handover. Failure causes are defined within TS 25.331. The sum of all supported per cause measurements shall equal the total number of failed events. In case only a subset of per cause measurements is supported, a sum measurement subtype will be provided first.
- d) Each measurement is an integer value. The number of measurements is equal to the number of causes supported plus a possible sum value identified by the *.sum* suffix.
- e) The measurement name has the form HHO.Fail Out IntraCell. Cause where Cause identifies the failure cause.
- f) UtranRelationUtranCell.
- g) Valid for circuit switched and packet switched traffic.
- h) UMTS.

End of Change in Clause 4.10.1 End of Document

Annex C (informative): Change history

					Change history		
Date	TSG#	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Jun 2001	S_12	SP-010237			Submitted to TSG SA #12 for Approval.	1.0.2	4.0.0
Sep 2001	S_13	SP-010468	001		Corrections on UMTS and combined UMTS/GSM measurements: Addition of family name for CN measurements, addition of the list of families, addition of Annex A: "(n-1) out of n" examples, application of the "(n-1) out of n" approach to all relevant measurements, enhancement of per cause measurements	4.0.0	4.1.0
Mar 2002	S_15	SP-020026	002		Correction of the measured object class for some SGSN MM measurement definitions	4.1.0	4.2.0
Mai 2002					MCC clean-up (Cosmetics based on EditHelp)	4.2.0	4.2.1
Jun 2002	S_16	SP-020291	003	2	Introduction of "Performance Measurements Definition Process" describing the repeatable, top-down process to define measurements for inclusion in future 3GPP Releases	4.2.0	5.0.0
Jun 2002	S_16	SP-020291	004		Adding performance measurement definitions related to GGSN	4.2.0	5.0.0
Jun 2002	S_16	SP-020291	005		Introduction of an optional "Purpose" clause in the measurement template	4.2.0	5.0.0
Jun 2002	S_16	SP-020291	006		Addition of explanatory text for Radio Access Bearer (RAB) measurements	4.2.0	5.0.0
Sep 2002	S_17	SP-020609	009		Introduction of Service Based Performance Measurement Definitions	5.0.0	5.1.0
Sep 2002	S_17	SP-020609	010		Add flexibility in the measurement template for the Measured Object Class (MOC)	5.0.0	5.1.0
Mar 2003	S_19	SP-030146	012	-	Correction of the subscriber number measurement definitions	5.1.0	5.2.0
Jun 2003	S_20	SP-030292	014		Correction of the definition of the successful GPRS attach counters	5.2.0	5.3.0
Jun 2003	S_20	SP-030292	015		Deletion of dual clause 4.1.2	5.2.0	5.3.0

3GPP TSG-SA5 (Telecom Management)
Meeting #35, Sophia Antipolis, FRANCE, 27 August - 10 September 2003

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Proposed change affects: UICC apps# ME Radio Access Network X Core Network Title: ** Correction of "outgoing intra-cell hard handovers measurements"													
Title: ₩	Correction	n of " outgoing in	tra-cell hard h	andovers	measuremer	nts "							
Source: #	SA5 (Chir	na Mobile, RUI L	anlan)										
Work item code: ₩	OAM-PM				Date: ₩	05/09/2003							
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Other comments:	₩ Rel-6	6 Mirror CR of S5	5-038556										

Change in Clause 4.10.1

4.10.1 Outgoing intra-cell hard handovers

The three measurement types defined in the subclause 4.10.1.n for outgoing intra-cell hard handovers are subject to the "2 out of 3 approach".

4.10.1.1 Attempted outgoing intra-cell hard handovers

- a) This measurement provides the number of attempted outgoing-intra-cell hard handovers per neighbour cell relation.
- b) CC.
- c) Transmission of a RRC message PHYSICAL CHANNEL RECONFIGURATION, RADIO BEARER SETUP, RADIO BEARER RECONFIGURATION, RADIO BEARER RELEASE, or TRANSPORT CHANNEL RECONFIGURATION from the source RNC to the UE, indicating the attempt of an <u>outgoing</u>-intra-<u>hell-cell</u> hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.AttOutIntraCell.
- f) UtranRelationUtranCell.
- g) Valid for circuit switched and packet switched traffic.
- h) UMTS.

4.10.1.2 Successful outgoing intra-cell hard handovers

- a) This measurement provides the number of successful outgoing intra-cell hard handovers per neighbour cell relation.
- b) CC.
- c) Receipt of a RRC message PHYSICAL CHANNEL RECONFIGURATION COMPLETE, RADIO BEARER SETUP COMPLETE, RADIO BEARER RECONFIGURATION COMPLETE, RADIO BEARER RELEASE COMPLETE, or TRANSPORT CHANNEL RECONFIGURATION COMPLETE sent from the UE to the source RNC, indicating a successful outgoing intra-cCell hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.SuccOutIntraCell.
- f) UtranRelationUtranCell.
- g) Valid for circuit switched and packet switched traffic.
- h) UMTS.

4.10.1.3 Failed outgoing intra-cell hard handovers

- a) This measurement provides the number of failed outgoing intra-cell hard handovers per neighbour cell relation per cause, where the UE returned to the original physical channel configuration.
- b) CC.

- c) Receipt of a RRC message PHYSICAL CHANNEL RECONFIGURATION FAILURE, RADIO BEARER SETUP FAILURE, RADIO BEARER RECONFIGURATION FAILURE, RADIO BEARER RELEASE FAILURE, or TRANSPORT CHANNEL RECONFIGURATION FAILURE sent from the UE to the source RNC, indicating a failed outgoing intra-cell hard handover. Failure causes are defined within TS 25.331. The sum of all supported per cause measurements shall equal the total number of failed events. In case only a subset of per cause measurements is supported, a sum measurement subtype will be provided first.
- d) Each measurement is an integer value. The number of measurements is equal to the number of causes supported plus a possible sum value identified by the .sum suffix.
- e) The measurement name has the form HHO.Fail Out IntraCell. Cause where Cause identifies the failure cause.
- f) UtranRelationUtranCell.
- g) Valid for circuit switched and packet switched traffic.
- h) UMTS.

End of Change in Clause 4.10.1 End of document

Annex C (informative): Change history

Change history							
Date	TSG#	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Jun 2001	S_12	SP-010237			Submitted to TSG SA #12 for Approval.	1.0.2	4.0.0
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Jun 2003	S_20	SP-030292	014		Correction of the definition of the successful GPRS attach counters	5.2.0	5.3.0
Jun 2003		SP-030292	015		Deletion of dual clause 4.1.2	5.2.0	5.3.0
Jun 2003	S_20	SP-030293	016		Addition of GPRS per cause measurement definitions	5.3.0	6.0.0
Jun 2003	S_20	SP-030293	017		Introduction of MMS Service Based Performance Measurement	5.3.0	6.0.0