

Source: SA5 (Telecom Management)

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

Document for: Approval

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	-	Rel-4	Correction of collection method for SGSN measurements	F	4.4.0	S5-038552	OAM-PM
SP-030431	32.403	019	-	Rel-5	Correction of collection method for SGSN measurements	A	5.3.0	S5-038553	OAM-PM
SP-030431	32.403	020	-	Rel-6	Correction of collection method for SGSN measurements	A	6.0.0	S5-038554	OAM-PM
SP-030431	32.403	021	-	Rel-4	Correction of "outgoing intra-cell hard handovers measurements"	F	4.4.0	S5-038556	OAM-PM
SP-030431	32.403	022	-	Rel-5	Correction of "outgoing intra-cell hard handovers measurements"	A	5.3.0	S5-038557	OAM-PM
SP-030431	32.403	023	-	Rel-6	Correction of "outgoing intra-cell hard handovers measurements"	A	6.0.0	S5-038558	OAM-PM

CHANGE REQUEST

⌘ **32.403 CR 018** ⌘ rev **-** ⌘ Current version: **4.4.0** ⌘

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 of collection method for SGSN measurements		
Source:	⌘ SA5 (ulf.hubINETTE@ericsson.com)		
Work item code:	⌘ OAM-PM	Date:	⌘ 05/09/2003
Category:	⌘ F	Release:	⌘ Rel-4
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	R96 (Release 1996)	2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R97 (Release 1997)	
	B (addition of feature),	R98 (Release 1998)	
	C (functional modification of feature)	R99 (Release 1999)	
	D (editorial modification)	Rel-4 (Release 4)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-5 (Release 5)	
		Rel-6 (Release 6)	

Reason for change:	⌘ The collection method for some SGSN measurements is incorrectly specified, and is not consistent with the condition clause.
Summary of change:	⌘ Change collection method from "Cumulative Counter" (CC) to "GAUGE".
Consequences if not approved:	⌘ The collection method for the two SGSN measurements will remain inconsistent, which could lead to incorrect implementation.

Clauses affected:	⌘ 5.1.30 and 5.1.31					
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">Y</td> <td style="padding: 2px 5px;">N</td> </tr> <tr> <td style="padding: 2px 5px;"><input type="checkbox"/></td> <td style="padding: 2px 5px;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications
	Y	N				
	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;"><input type="checkbox"/></td> <td style="padding: 2px 5px;"><input checked="" type="checkbox"/></td> </tr> </table>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test specifications			
<input type="checkbox"/>	<input checked="" type="checkbox"/>					
<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;"><input checked="" type="checkbox"/></td> <td style="padding: 2px 5px;"><input type="checkbox"/></td> </tr> </table>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	O&M Specifications			
<input checked="" type="checkbox"/>	<input type="checkbox"/>					
Other comments:	⌘ Mirror CRs in S5-038553 (rel-5) and S5-038554 (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) ~~EE~~GAUGE.
- 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) ~~EE~~GAUGE.
- c) Decrement 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							
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

CHANGE REQUEST

⌘ **32.403 CR 019** ⌘ rev **-** ⌘ Current version: **5.3.0** ⌘

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:	⌘ Correction of collection method for SGSN measurements		
Source:	⌘ SA5 (ulf.hubINETTE@ericsson.com)		
Work item code:	⌘ OAM-PM	Date:	⌘ 05/09/2003
Category:	⌘ A	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories: <i>F</i> (correction) <i>A</i> (corresponds to a correction in an earlier release) <i>B</i> (addition of feature), <i>C</i> (functional modification of feature) <i>D</i> (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		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) Rel-6 (Release 6)

Reason for change:	⌘ The collection method for some SGSN measurements is incorrectly specified, and is not consistent with the condition clause.
Summary of change:	⌘ Change collection method from "Cumulative Counter" (CC) to "GAUGE".
Consequences if not approved:	⌘ The collection method for the two SGSN measurements will remain inconsistent, which could lead to incorrect implementation.

Clauses affected:	⌘ 5.1.30 and 5.1.31						
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;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<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;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<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;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
Other comments:	⌘ Rel-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) ~~EC~~GAUGE.
- 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) ~~EC~~GAUGE.
- c) Decrement 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	S_20	SP-030292	015		Deletion of dual clause 4.1.2	5.2.0	5.3.0

CHANGE REQUEST

⌘ **32.403 CR 020** ⌘ rev **-** ⌘ Current version: **6.0.0** ⌘

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 of collection method for SGSN measurements		
Source:	⌘ SA5 (ulf.hubINETTE@ericsson.com)		
Work item code:	⌘ OAM-PM	Date:	⌘ 05/09/2003
Category:	⌘ A	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<i>F</i> (correction)	R96	(GSM Phase 2)
	<i>A</i> (corresponds to a correction in an earlier release)	R97	(Release 1996)
	<i>B</i> (addition of feature),	R98	(Release 1997)
	<i>C</i> (functional modification of feature)	R99	(Release 1998)
	<i>D</i> (editorial modification)	Rel-4	(Release 1999)
	Detailed explanations of the above categories can	Rel-5	(Release 4)
	be found in 3GPP TR 21.900 .	Rel-6	(Release 5)
			(Release 6)

Reason for change:	⌘ The collection method for some SGSN measurements is incorrectly specified, and is not consistent with the condition clause.
Summary of change:	⌘ Change collection method from "Cumulative Counter" (CC) to "GAUGE".
Consequences if not approved:	⌘ The collection method for the two SGSN measurements will remain inconsistent, which could lead to incorrect implementation.

Clauses affected:	⌘ 5.1.30 and 5.1.31						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="text-align: center; padding: 2px;"><input type="checkbox"/></td> <td style="text-align: center; padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	⌘
	Y	N					
	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>	Test specifications						
<input checked="" type="checkbox"/>	O&M Specifications						
Other comments:	⌘ Rel-6 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) ~~EC~~GAUGE.
- 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) ~~EC~~GAUGE.
- c) Decrement 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	S_20	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

CR-Form-v7
CHANGE REQUEST
⌘ 32.403 CR 021 ⌘ rev - ⌘ Current version: 4.4.0 ⌘

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 of "outgoing intra-cell hard handovers measurements"	
Source:	⌘	SA5 (China Mobile, RUI Lanlan)	
Work item code:	⌘	OAM-PM	Date: ⌘ 05/09/2003
Category:	⌘	F	Release: ⌘ Rel-4
		<i>Use one of the following categories:</i> F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification)	<i>Use one of the following releases:</i> 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)
		Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	

Reason for change:	⌘	The current measured object class of "Outgoing intra-cell hard handovers" measurements is UtranRelation. It describes the handover relation of neighbour cells, but not the handover relation of intra cell.
Summary of change:	⌘	Modify description and measurement object class of "Outgoing intra-cell hard handovers" measurements.
Consequences if not approved:	⌘	The description and measurement object class will remain inconsistent with the behaviour for those measurements.

Clauses affected:	⌘	4.9.1										
Other specs affected:	⌘	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr><td>Y</td><td>N</td></tr> <tr><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other core specifications	⌘ Rel-5/6 32.403
		Y	N									
		<input type="checkbox"/>	<input checked="" type="checkbox"/>									
<input type="checkbox"/>	<input checked="" type="checkbox"/>											
<input checked="" type="checkbox"/>	<input type="checkbox"/>											
<input type="checkbox"/>	Test specifications											
<input checked="" type="checkbox"/>	O&M Specifications											
Other comments:	⌘	Mirror CRs in S5-038557 (rel-5) and S5-038558 (rel-6)										

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 ~~outgoing~~-intra-~~cell~~-cell hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.Att~~Out~~IntraCell.
- f) ~~UtranRelation~~UtranCell.
- 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-~~c~~Cell hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.Succ~~Out~~IntraCell.
- f) ~~UtranRelation~~UtranCell.
- 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.Fail~~Out~~IntraCell.*Cause* where *Cause* identifies the failure cause.
- f) ~~UtranRelation~~UtranCell.
- 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

CHANGE REQUEST

⌘ **32.403 CR 022** ⌘ rev **-** ⌘ Current version: **5.3.0** ⌘

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:	⌘ Correction of " outgoing intra-cell hard handovers measurements "		
Source:	⌘ SA5 (China Mobile, RUI Lanlan)		
Work item code:	⌘ OAM-PM	Date:	⌘ 05/09/2003
Category:	⌘ A	Release:	⌘ Rel-5
	<i>Use one of the following categories:</i> 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 .		<i>Use one of the following releases:</i> 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:	⌘ The current measured object class of "Outgoing intra-cell hard handovers" measurements is UtranRelation. It describes the handover relation of neighbour cells, but not the handover relation of intra cell.
Summary of change:	⌘ 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.

Clauses affected:	⌘ 4.10.1						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> <td style="padding: 2px;"><input type="checkbox"/></td> </tr> </table>	Y	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other core specifications	⌘
	Y	N					
	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
<input checked="" type="checkbox"/>	Test specifications						
<input checked="" type="checkbox"/>	O&M Specifications						
Other comments:	⌘ Rel-5 Mirror CR to S5-038556						

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 ~~outgoing~~-intra-~~h~~cell hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.Att~~Out~~IntraCell.
- f) ~~UtranRelation~~UtranCell.
- 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-~~c~~Cell hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.Succ~~Out~~IntraCell.
- f) ~~UtranRelation~~UtranCell.
- 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) ~~UtranRelation~~UtranCell.
- 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

CHANGE REQUEST

⌘ **32.403 CR 023** ⌘ rev **-** ⌘ Current version: **6.0.0** ⌘

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 of " outgoing intra-cell hard handovers measurements "	
Source:	⌘	SA5 (China Mobile, RUI Lanlan)	
Work item code:	⌘	OAM-PM	Date: ⌘ 05/09/2003
Category:	⌘	A	Release: ⌘ Rel-6
		<i>Use one of the following categories:</i> 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 .	<i>Use one of the following releases:</i> 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:	⌘	The current measured object class of "Outgoing intra-cell hard handovers" measurements is UtranRelation. It describes the handover relation of neighbour cells, but not the handover relation of intra cell.
Summary of change:	⌘	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.

Clauses affected:	⌘	4.10.1										
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;">X</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;"> </td> </tr> </table>	Y	N	X		X		X		Other core specifications	⌘
		Y	N									
		X										
X												
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Other comments:	⌘	Rel-6 Mirror CR of S5-038556										

Change in Clause 4.10.1

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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".

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- d) A single integer value.
- e) HHO.Att~~Out~~IntraCell.
- f) ~~UtranRelation~~UtranCell.
- 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-~~c~~Cell hard handover (see TS 25.331).
- d) A single integer value.
- e) HHO.Succ~~Out~~IntraCell.
- f) ~~UtranRelation~~UtranCell.
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4.10.1.3 Failed ~~outgoing~~-intra-cell hard handovers

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- 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.
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- e) The measurement name has the form HHO.Fail~~Out~~IntraCell.*Cause* where *Cause* identifies the failure cause.
- f) ~~UtranRelation~~UtranCell.
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- h) UMTS.

End of Change in Clause 4.10.1 End of document

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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	S_20	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