TSGS#25(04)0577

Source: SA5 (Telecom Management)

Title: 3 Rel-4/5/6 CR 32.403 Measurement Name Length Constraints

Document for: Approval

Agenda Item: 7.5.3

Doc-1st-Level	Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver-Cur	Wi
SP-040577	S5-048746	32.403	051	--	Rel-4	Add missing Measurement Name Length constraints	F	4.7.0	OAM-PM
SP-040577	S5-048747	32.403	052	--	Rel-5	Add missing Measurement Name Length constraints	A	5.7.0	OAM-PM
SP-040577	S5-048748	32.403	053	--	Rel-6	Add missing Measurement Name Length constraints	A	6.4.0	OAM-PM

3GPP TSG-SA5 (Telecom Management) **S5-048746**
Meeting #39, Montreal, CANADA, 16 - 20 August 2004

CR-Form-v7

CHANGE REQUEST

⌘ **32.403** **CR** **051** ⌘ **rev** **-** ⌘ Current version: **4.7.0** ⌘

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

Proposed change affects: | UICC apps⌘ ☐ ME ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	Add missing Measurement Name Length constraints
Source:	⌘	**SA5** (trevor.pirt@motorola.com)
Work item code:	⌘	OAM-PM
Date:	⌘	20/08/2004
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use 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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Currently Measurement Name length is not specifically constrained
Summary of change:	⌘	Specify maximum and recommended Measurement Name lengths of 64 and 32 characters respectively.
Consequences if not approved:	⌘	Implementations of XML file definitions may not be consistent with Measurement Names specified in the TS 32.403 and may result in unnecessary overhead on implementations.

Clauses affected:	⌘	3.3

Other specs affected: ⌘

Y	N		
	X	Other core specifications	⌘
	X	Test specifications	
X		O&M Specifications	Rel-5/6 32.403

Other comments:	⌘	Mirror Rel-5/6 CRs in S5-048747/48

Change in Clause 3.3

3.3 Measurement definition template

Following is the template used to describe the measurements contained in this subclause.

C.x.y. Measurement Name (clause header)

This is a descriptive name of the measurement type that is specified as clause C.x.y of the present document.

The measurement name shall be written in lower-case characters except abbreviations (e.g. RNC).

A measurement name can apply to one or more measurements. If the measurement name applies to several measurements then all fields of the template will take this into account.

Measurement names shall not exceed 64 characters in length and should be constrained to 32 characters maximum. Exceptions greater than 32 characters are allowed but should be kept to a minimum and only made where necessary.

a) Description

This subclause contains an explanation of the measurement operation.

b) Collection Method

This n contains the form in which this measurement data is obtained:

- **CC** (Cumulative Counter);
- **GAUGE** (dynamic variable), used when data being measured can vary up or down during the period of measurement;
- **DER** (Discrete Event Registration), when data related to a particular event are captured every n^{th} event is registered, where n can be 1 or larger;
- **SI** (Status Inspection).

c) Condition

This subclause contains the condition which causes the measurement result data to be updated;
This will be defined by identifying protocol related trigger events for starting and stopping measurement processes, or updating the current measurement result value. Where it is not possible to give a precise condition, then the conditional circumstances leading to the update are stated.

If a measurement is not available for FDD or TDD, then the measurement description shall contain a statement.

d) Measurement Result (measured value(s), Units)

This subclause contains a description of expected result value(s) (e.g. a single integer value).

The definition applies for each measurement result.

e) Measurement Type

This subclause contains a short form of the measurement name specified in the header, which is used to identify the measurement type in the result files.

The measurement names are dotted sequences of items. The sequence of elements identifying a measurement is organised from the general to the particular.

- The first item identifies the measurement family (e.g. HHO, RAB, SMS). Note that this family may also be used for measurement administration purpose.
- The second item identifies the name of the measurement itself.

- Depending on the measurement type, additional items may be present to specify sub-counters (failure causes, traffic classes, min, max, avg, G, U ...). When available, the template will describe to which standard it is referring to for these additional items (e.g. cause, traffic class). Otherwise, the additional item semantics must be described in details in the present document. Standardised causes will be a number.
(e.g. RRC.ConnEstab.1) but non standardised causes should be a string (e.g. RRC.ConnEstab.NoReply).

It is to be noted that the set of values issued for a measurement does not depend on the associated collection method (CC, SI, Gauge, DER). For instance, a gauge collected counter does not necessarily provide min, max, average values.

In addition, it is recommended that a prefix is added for non-UMTS measurements:

- VS for vendor-specific measurements;
- Q3 for Q3 measurements;
- MIB for IETF measurements (ATM, IP);
- OS for other standards measurements.

NOTE 1: The 3GPP standardised measurements name must not commence with the above prefixes.

Examples of valid measurement names are:

- VS.HO.InterSGSNReject.NoResource;
- HHO.SuccOutIntraCell;
- MM.AttachedSubs.Max;
- RAB.EstabAttCS.Conversational;
- RRC.ConnEstab.*Cause*
where *Cause* identifies the failure cause.

Abbreviations to be used within measurement types can be found in subclause 3.2 of the present document.

f) Measurement Object Class

This subclause describes the measured object class (e.g. UtranCell, RncFunction, SgsnFunction). The object class used for this purpose shall be in accordance with the Network Resource Model defined in 3GPP TS 32.622 [9], TS 32.632 [10] and TS 32.642 [11].

For object classes currently not defined in CM, the present document defines its own nomenclature (e.g. RA, LAC).

g) Switching Technology

This subclause contains the Switching domain(s) this measurement is applicable to i.e. Circuit Switched and/or Packet Switched.

h) Generation

The generation determines if it concerns a GSM, UMTS, or combined (GSM+UMTS) measurement.

- **GSM:** pure GSM measurement; it only counts GSM events. In a combined (GSM+UMTS) NE the count would be exactly the same as in a pure GSM NE. In a pure UMTS NE this counter does not exist;
- **UMTS:** pure UMTS measurement; it only counts UMTS events. In a combined (GSM+UMTS) NE the count would be exactly the same as in a pure UMTS NE. In a pure GSM NE this counter does not exist;
- **GSM/UMTS:** measurement applicable to both GSM and UMTS systems; in a combined (GSM+UMTS) NE separate subcounts for GSM and/or UMTS events can be obtained;
- **Combined:** measurement applicable to combined GSM and UMTS systems, but regardless of whether the measured event occurred on the GSM or UMTS part of the system. This means that in a combined NE only one total (i.e. GSM+UMTS) count is obtained for the measured event.

The above aspects are also reflected in the measurement type name in template item E by adding a "G" to the GSM measurements and "U" to the UMTS measurements.

NOTE 2: The 2G component of a combined 2G/3G equipment may actually choose to implement GSM measurements according to the present document or GSM12.04/TS 52.402, based on GSM standards.

End of Change in Clause 3.3
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
Sep 2003	S_21	SP-030431	018	--	Correction of collection method for SGSN measurements	4.4.0	4.5.0
Sep 2003	S_21	SP-030431	021	--	Correction of "outgoing intra-cell hard handovers measurements"	4.4.0	4.5.0
Mar 2004	S_23	SP-040134	026	--	Correction of "Radio link addition" measurements	4.5.0	4.6.0
Jun 2004	S_24	SP-040266	030	--	Correction of ìInter-RAT handoverî measurements	4.6.0	4.7.0
Jun 2004	S_24	SP-040267	033	--	Correction of ìRAB assignmentî measurements	4.6.0	4.7.0
Jun 2004	S_24	SP-040269	036	--	Correction of ìhard handoverî measurement definitions	4.6.0	4.7.0

3GPP TSG-SA5 (Telecom Management) **S5-048747**
Meeting #39, Montreal, CANADA, 16 - 20 August 2004

CR-Form-v7

CHANGE REQUEST

⌘ **32.403** **CR** **052** ⌘ **rev** **-** ⌘ Current version: **5.7.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network [X] Core Network [X]

Title:	⌘	Add missing Measurement Name Length constraints
Source:	⌘	**SA5** (trevor.pirt@motorola.com)
Work item code:	⌘	OAM-PM
Date:	⌘	20/08/2004
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use 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)
Rel-6 (Release 6)

Reason for change:	⌘	Currently Measurement Name length is not specifically constrained
Summary of change:	⌘	Specify maximum and recommended Meaurement Name lengths of 64 and 32 characters respectively.
Consequences if not approved:	⌘	Implementations of XML file definitions may not be consistent with Measurement Names specified in the TS 32.403 and may result in unnecessary overhead on implementations.

Clauses affected:	⌘	3.3

Other specs affected:	⌘	Y	N		⌘	
			X	Other core specifications		
			X	Test specifications		
		X		O&M Specifications		Rel-6 32.403

Other comments:	⌘	Rel-5 Mirror CR of S5-048746.

Change in Clause 3.3

3.3 Measurement definition template

Following is the template used to describe the measurements contained in this subclause.

C.x.y. Measurement Name (clause header)

This is a descriptive name of the measurement type that is specified as clause C.x.y of the present document.

The measurement name shall be written in lower-case characters except abbreviations (e.g. RNC).

A measurement name can apply to one or more measurements. If the measurement name applies to several measurements then all fields of the template will take this into account.

Measurement names shall not exceed 64 characters in length and should be constrained to 32 chracters maximum. Exceptions greater than 32 characters are allowed but should be kept to a minimum and only made where necessary.

a) Description

This subclause contains an explanation of the measurement operation.

b) Collection Method

This n contains the form in which this measurement data is obtained:

- **CC** (Cumulative Counter);
- **GAUGE** (dynamic variable), used when data being measured can vary up or down during the period of measurement;
- **DER** (Discrete Event Registration), when data related to a particular event are captured every n^{th} event is registered, where n can be 1 or larger;
- **SI** (Status Inspection).

c) Condition

This subclause contains the condition which causes the measurement result data to be updated;
This will be defined by identifying protocol related trigger events for starting and stopping measurement processes, or updating the current measurement result value. Where it is not possible to give a precise condition, then the conditional circumstances leading to the update are stated.

If a measurement is not available for FDD or TDD, then the measurement description shall contain a statement.

d) Measurement Result (measured value(s), Units)

This subclause contains a description of expected result value(s) (e.g. a single integer value).

The definition applies for each measurement result.

e) Measurement Type

This subclause contains a short form of the measurement name specified in the header, which is used to identify the measurement type in the result files.

The measurement names are dotted sequences of items. The sequence of elements identifying a measurement is organised from the general to the particular.

- The first item identifies the measurement family (e.g. HHO, RAB, SMS). Note that this family may also be used for measurement administration purpose.
- The second item identifies the name of the measurement itself.

- Depending on the measurement type, additional items may be present to specify subcounters (failure causes, traffic classes, min, max, avg, G, U ...). In case of multiple additional items, they are also represented as a dotted sequence of items. When available, the template will describe to which standard it is referring to for these additional items (e.g. cause, traffic class). Otherwise, the additional item semantics must be described in details in the present document. Standardised causes will be a number. (e.g. RRC.ConnEstab.1) but non standardised causes should be a string (e.g. RRC.ConnEstab.NoReply).

It is to be noted that the set of values issued for a measurement does not depend on the associated collection method (CC, SI, Gauge, DER). For instance, a gauge collected counter does not necessarily provide min, max, average values.

The vendor-specific UMTS and combined GSM/UMTS measurement names will all begin with the VS prefix.

In addition, it is recommended that a prefix is added for non-UMTS measurements:

- Q3 for Q3 measurements;
- MIB for IETF measurements (ATM, IP);
- OS for other standards measurements.

NOTE 1: The 3GPP standardised measurements name must not commence with the above prefixes.

Examples of valid measurement names are:

- VS.HO.InterSGSNReject.NoResource;
- HHO.SuccOutIntraCell;
- MM.AttachedSubs.Max;
- RAB.EstabAttCS.Conversational;
- RRC.ConnEstab.*Cause*
  where *Cause* identifies the failure cause.

Abbreviations to be used within measurement types can be found in subclause 3.2 of the present document.

f) Measurement Object Class

This subclause describes the measured object class (e.g. UtranCell, RncFunction, SgsnFunction). The object class used for this purpose shall be in accordance with the Network Resource Model defined in 3GPP TS 32.622 [9], TS 32.632 [10] and TS 32.642 [11].

For object classes currently not defined in CM, the present document defines its own nomenclature (e.g. RA, LAC).

NOTE: It is possible to use the same measurement name for a standardized measurement type implemented at a different object class level than the one defined in the Standard. The same measurement type can apply to one or more measurements for which all fields of the measurement template are the same except the clause f) "Measurement Object Class". For instance, a measurement which uses the same template as a given measurement type but relates to another object class (e.g. UtranCell instead of UtranRelation) shall have the same name.

g) Switching Technology

This subclause contains the Switching domain(s) this measurement is applicable to i.e. Circuit Switched and/or Packet Switched.

h) Generation

The generation determines if it concerns a GSM, UMTS, or combined (GSM+UMTS) measurement.

- **GSM:** pure GSM measurement; it only counts GSM events. In a combined (GSM+UMTS) NE the count would be exactly the same as in a pure GSM NE. In a pure UMTS NE this counter does not exist;

- **UMTS:** pure UMTS measurement; it only counts UMTS events. In a combined (GSM+UMTS) NE the count would be exactly the same as in a pure UMTS NE. In a pure GSM NE this counter does not exist;

- **GSM/UMTS:** measurement applicable to both GSM and UMTS systems; in a combined (GSM+UMTS) NE separate subcounts for GSM and/or UMTS events can be obtained;

- **Combined:** measurement applicable to combined GSM and UMTS systems, but regardless of whether the measured event occurred on the GSM or UMTS part of the system. This means that in a combined NE only one total (i.e. GSM+UMTS) count is obtained for the measured event.

The above aspects are also reflected in the measurement type name in template item E by adding a "G" to the GSM measurements and "U" to the UMTS measurements.

NOTE 2: The 2G component of a combined 2G/3G equipment may actually choose to implement GSM measurements according to the present document or GSM12.04/TS 52.402, based on GSM standards.

i) Purpose

This optional clause aims at describing who will be using the measurement. It is proposed to indicate in this clause the targeted categories of users based on the measurement user communities described in Annex B.

When available, this clause provides additional information on the interest of the measurement but is however purely indicative.

End of Change in Clause 3.3
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
Sep 2003	S_21	SP-030431	019	--	Correction of collection method for SGSN measurements	5.3.0	5.4.0
Sep 2003	S_21	SP-030431	022	--	Correction of ìoutgoing intra-cell hard handovers measurementsî	5.3.0	5.4.0
Dec 2003	S_22	SP-030645	024	--	Correction of terms used for subcounter definitions	5.4.0	5.5.0
Mar 2004	S_23	SP-040134	027	--	Correction of "Radio link addition" measurements	5.5.0	5.6.0
Jun 2004	S_24	SP-040266	031	--	Correction of ìInter-RAT handoverî measurements	5.6.0	5.7.0
Jun 2004	S_24	SP-040267	034	--	Correction of ìRAB assignmentî measurements	5.6.0	5.7.0
Jun 2004	S_24	SP-040269	037	--	Correction of ìhard handoverî measurement definitions	5.6.0	5.7.0

3GPP TSG-SA5 (Telecom Management) **S5-048748**
Meeting #39, Montreal, CANADA, 16 - 20 August 2004

CR-Form-v7

CHANGE REQUEST

⌘ **32.403** **CR** **053** ⌘ **rev** **-** ⌘ Current version: **6.4.0** ⌘

*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 **X** Core Network **X**

Title:	⌘	Add missing Measurement Name Length constraints
Source:	⌘	**SA5** (trevor.pirt@motorola.com)
Work item code:	⌘	OAM-PM
Date:	⌘	20/08/2004
Category:	⌘	**A**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
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Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Currently Measurement Name length is not specifically constrained
Summary of change:	⌘	Specify maximum and recommended Meaurement Name lengths of 64 and 32 characters respectively.
Consequences if not approved:	⌘	Implementations of XML file definitions may not be consistent with Measurement Names specified in the TS 32.403 and may result in unnecessary overhead on implementations.

Clauses affected:	⌘	3.3

Other specs affected: ⌘

Y	N	
	X	Other core specifications
	X	Test specifications
	X	O&M Specifications

⌘

Other comments:	⌘	Rel-6 Mirror CR of S5-048746.

Change in Clause 3.3

3.3 Measurement definition template

Following is the template used to describe the measurements contained in this subclause.

C.x.y. Measurement Name (clause header)

This is a descriptive name of the measurement type that is specified as clause C.x.y of the present document.

The measurement name shall be written in lower-case characters except abbreviations (e.g. RNC).

A measurement name can apply to one or more measurements. If the measurement name applies to several measurements then all fields of the template will take this into account.

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This subclause contains the condition which causes the measurement result data to be updated;
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It is to be noted that the set of values issued for a measurement does not depend on the associated collection method (CC, SI, Gauge, DER). For instance, a gauge collected counter does not necessarily provide min, max, average values.

The vendor-specific UMTS and combined GSM/UMTS measurement names will all begin with the VS prefix.

In addition, it is recommended that a prefix is added for non-UMTS measurements:

- Q3 for Q3 measurements;
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  where *Cause* identifies the failure cause.

Abbreviations to be used within measurement types can be found in subclause 3.2 of the present document.

f) Measurement Object Class

This subclause describes the measured object class (e.g. UtranCell, RncFunction, SgsnFunction). The object class used for this purpose shall be in accordance with the Network Resource Model defined in 3GPP TS 32.622 [9], TS 32.632 [10] and TS 32.642 [11].

For object classes currently not defined in CM, the present document defines its own nomenclature (e.g. RA, LAC).

NOTE: It is possible to use the same measurement name for a standardized measurement type implemented at a different object class level than the one defined in the Standard. The same measurement type can apply to one or more measurements for which all fields of the measurement template are the same except the clause f) "Measurement Object Class". For instance, a measurement which uses the same template as a given measurement type but relates to another object class (e.g. UtranCell instead of UtranRelation) shall have the same name.

g) Switching Technology

This subclause contains the Switching domain(s) this measurement is applicable to i.e. Circuit Switched and/or Packet Switched.

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The generation determines if it concerns a GSM, UMTS, or combined (GSM+UMTS) measurement.

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- **UMTS:** pure UMTS measurement; it only counts UMTS events. In a combined (GSM+UMTS) NE the count would be exactly the same as in a pure UMTS NE. In a pure GSM NE this counter does not exist;

- **GSM/UMTS:** measurement applicable to both GSM and UMTS systems; in a combined (GSM+UMTS) NE separate subcounts for GSM and/or UMTS events can be obtained;

- **Combined:** measurement applicable to combined GSM and UMTS systems, but regardless of whether the measured event occurred on the GSM or UMTS part of the system. This means that in a combined NE only one total (i.e. GSM+UMTS) count is obtained for the measured event.

The above aspects are also reflected in the measurement type name in template item E by adding a "G" to the GSM measurements and "U" to the UMTS measurements.

NOTE 2: The 2G component of a combined 2G/3G equipment may actually choose to implement GSM measurements according to the present document or GSM12.04/TS 52.402, based on GSM standards.

i) Purpose

This optional clause aims at describing who will be using the measurement. It is proposed to indicate in this clause the targeted categories of users based on the measurement user communities described in Annex B.

When available, this clause provides additional information on the interest of the measurement but is however purely indicative.

End of Change in Clause 3.3
End of Document

Annex C (informative): Change history

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
Jun 2003	S_20	SP-030293	017	--	Introduction of MMS Service Based Performance Measurement	5.3.0	6.0.0
Sep 2003	S_21	SP-030431	020	--	Correction of collection method for SGSN measurements	6.0.0	6.1.0
Sep 2003	S_21	SP-030431	023	--	Correction of ìoutgoing intra-cell hard handovers measurementsî	6.0.0	6.1.0
Dec 2003	S_22	SP-030645	025	--	Correction of terms used for subcounter definitions	6.1.0	6.2.0
Mar 2004	S_23	SP-040134	028	--	Correction of "Radio link addition" measurements	6.2.0	6.3.0
Mar 2004	S_23	SP-040135	029	--	Add the measurements about Iu connection release	6.2.0	6.3.0
Jun 2004	S_24	SP-040266	032	--	Correction of ìInter-RAT handoverî measurements	6.3.0	6.4.0
Jun 2004	S_24	SP-040267	035	--	Correction of ìRAB assignmentî measurements	6.3.0	6.4.0
Jun 2004	S_24	SP-040269	038	--	Correction of ìhard handoverî measurement definitions	6.3.0	6.4.0
Jun 2004	S_24	SP-040270	039	--	Addition of the measurements about RAB modification and RAB release by CN	6.3.0	6.4.0