TSGS#16(02)0286

Technical Specification Group Services and System Aspects Meeting #16, Marco Island, Florida, 10-13 June 2002

Source: SA5 (Telecom Management)

Title: 4 Rel-4 & Rel-5 CRs 32.200 and 32.215

Document for: Approval

Agenda Item: 7.5.3

Doc-1 st	Spec	CR	R	Phase	Subject	Cat	Ver	Ver	Doc-2 nd	Workite
-Level							Cur	New	-Level	m
SP-020286	32.200	011	-	Rel-4	Align with 23.060 by adding 'intra-SGSN intersystem	F	4.1.0	4.2.0	S5-024158	OAM-CH
					change' as record closure criterion for S-CDR - Parent CR					
SP-020286	32.200	012	-	Rel-5	Align with 23.060 by adding 'intra-SGSN intersystem	Α	5.0.0	5.1.0	S5-024159	OAM-CH
					change' as record closure criterion for S-CDR - Parent CR					
SP-020286	32.215	009	-	Rel-4	Correction of S-CDR triggers - Child CR	F	4.2.1	4.3.0	S5-024160	OAM-CH
SP-020286	32.215	010	-	Rel-5	Correction of S-CDR triggers - Child CR	Α	5.0.0	5.1.0	S5-024161	OAM-CH

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Source:	€ SA	5												
Work item code:	€ OA	М-СН							Dat	te:	24/0	05/2002	2	
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Clauses affected:	ж	6.2.1	.1.2, 6.2	.1.2.2										
Other specs affected:	¥	Te	est speci	specific fications cification		*		215						
Other comments:	\mathfrak{H}			CR is ap					g can be	appro	oved.			

6.2.1.1.2 Triggers for S-CDR Closure

The S-CDR shall be closed on encountering some trigger conditions. Table 12 identifies which conditions are supported to permit closure of the S-CDR.

Table 12: Triggers for S-CDR closure

	Closure Conditions	Description/Behaviour
	End of PDP Context within	Deactivation of the PDP context in the SGSN shall result in the CDR being closed. The
	the SGSN	trigger condition covers:
ì		- termination of PDP context,
		- SGSN change (inter-SGSN routing area update including intersystem handoverchange),
		- any abnormal release.
	Partial Record Reason	O&M reasons permit the closure of the CDR for internal reasons. The trigger condition
		covers:
		- data volume limit,
		- time (duration) limit,
		- maximum number of charging condition changes,
		- management intervention-,
		- Intra-SGSN intersystem change (change of radio interface from GSM to UMTS or vice
		versa).

<unmodified text>

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6.2.1.2.2 Triggers for M-CDR Closure

The M-CDR shall be closed on encountering some trigger conditions. Table 14 identifies which conditions are supported to permit closures of the M-CDR.

Table 14: Triggers for M-CDR closure

Closure Conditions	Description/Behaviour
End of MM Context within	Deactivation of the MM context in the SGSN shall result in the CDR being closed. The
SGSN	trigger condition covers:
	- SGSN change (inter-SGSN routing area update including intersystem
	handoverchange),
	- GPRS detach,
	- any abnormal release.
Partial Record Reason	O&M reasons permit the closure of the CDR for internal reasons. The trigger condition
	covers:
	- time (duration) limit,
	- maximum number of mobility changes, and
	- Management intervention,
	- Intra-SGSN intersystem handover change (change of radio interface from GSM to 3G
	<u>UMTS</u> or visa <u>vice</u> versa).

In the event that the M-CDR is closed and the mobile is still known to the SGSN, a further logical M-CDR shall be opened with an incremented Sequence Number in the SGSN.

3GPP TSG-SA5 (Telecom Management) S5-024161 Meeting #28, Sophia Antipolis, FRANCE, 20 - 24 May 2002 CR-Form-v5 CHANGE REQUEST \mathfrak{R} 32,215 CR 010 Current version: **# rev** 5.0.0 For **HELP** on using this form, see bottom of this page or look at the pop-up text over the **x** symbols. (U)SIM Proposed change affects: # ME/UE Radio Access Network Core Network X Title: Correction of S-CDR triggers Source: SA₅ Work item code: 第 OAM-CH Date: # 24/05/2002 REL-5 Category: Release: # Use one of the following releases: Use one of the following categories: F (correction) (GSM Phase 2) 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) (Release 1999) R99 Detailed explanations of the above categories can REL-4 (Release 4) be found in 3GPP TR 21.900. REL-5 (Release 5) Alignment of 32.215 with 23.060. Reason for change: # The current S-CDR does not contain information about intra-SGSN intersystem change. In order to be able to charge the subscriber correctly, in case the charge for payload depends on the used air interface, this must be reflected in the S-CDR. The procedure is described in TS 23.060 (ch. 6.13.1) but not considered in the charging specifications. Intra-SGSN intersystem change can not be reflected on the existing M-CDR due to incomplete ASN.1 specification, even if it is specified as a valid reason for record closure in TS 32.200 (Charging principles). The 'SGSN Change' that triggers CDR closure is incorrectly specified as a trigger for partial record generation. Summary of change: ₩ 'System change' is added as reason for record closure. ASN.1 description for record closure reason is updated to also cover 'Intra SGSN Intersystem change'. 3. 'SGSN Change' is correctly specified as CDR closure trigger. 1,2. Subscribers can not be charged correctly in case of intra-SGSN intersystem Consequences if not approved: change. 3. Billing errors.

Clauses affected:	第 5.4, 6.1
Other specs	★ Other core specifications ★
affected:	Test specifications
uoo.ou.	X O&M Specifications 32.200
	Zam opcomodiono
Other comments:	# This CR can be approved only after the related Parent 32.200CR12 has been
Other comments.	··· ·
	approved.

5.4 Cause for Record Closing

This field contains a reason for the release of the CDR including the following:

- normal release: PDP context release (end of context or SGSN change) or GPRS detach;
- partial record generation: data volume limit, time (duration) limit, SGSN change or maximum number of changes in charging conditions or intra SGSN intersystem change (change of radio interface from GSM to UMTS or vice versa);
- abnormal termination (PDP or MM context);
- management intervention (request due to O&M reasons).

A more detailed reason may be found in the diagnostics field.

...
<unmodified text>

6 Charging Data Record Structure

6.1 ASN.1 definitions for CDR information

```
<unmodified text>
CauseForRecClosing ::= INTEGER
    \mbox{--} 
 In GGSN the value sGSNChange should be used for partial record
    -- generation due to SGSN Address List Overflow
    -- cause codes 0 to 15 are defined in TS 32.205 as 'CauseForTerm' (cause for termination)
                                  (0),
    normalRelease
    abnormalRelease
                                  (4),
    {\tt cAMELInitCallRelease}
                                  (5),
    volumeLimit
                                  (16),
    timeLimit
                                  (17),
                                  (18),
    sGSNChange
    maxChangeCond
    managementIntervention
                                  (20),
    \verb|intraSGSNIntersystemChange|\\
                                  (21)
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Proposed change	affects:	₩ (U)	SIM	ME/UE	Radio Ad	ccess Netwo	rk Core N	Network X
Title: Ж	Correc	ction of S-	CDR trigge	rs				
Source: #	SA5							
Work item code: ₩	OAM-	СН				Date: ៖	g 24/05/2002	
Category: Ж	F					Release: 3		
	F (ABC) Detailed	(correction, (correspon (addition of (functional (editorial m I explanation	ds to a corre f feature), modification nodification)	ction in an ea		2	f the following re (GSM Phase 2 (Release 1996 (Release 1997 (Release 1998 (Release 4) (Release 5)	2) 6) 7) 3)
Reason for change	T c fo C th	The current hange. In payload CDR. The ne charginatra-SGSN pincomple ecord closs.	order to be I depends of procedure in g specificated I intersyste ete ASN.1 soure in TS 3	pes not conta able to cha on the used a s described tions. m change ca specification 2.200 (Char	rge the su air interfact in TS 23.0 an not be an even if it ging princ	bscriber correct, this must 060 (ch. 6.13 reflected on is specified aiples).	ntra-SGSN interectly, in case to be reflected in (a.1) but not continue the existing Mass a valid reasectly specified a	the charge the S- nsidered in -CDR due on for
Summary of chang	2.	ASN.1 SGSN	description Intersystem	for record c change'.	losure rea	record closu son is update CDR closure	ed to also cove	er 'Intra
Consequences if not approved:		hange.		ot be charg	ed correct	ly in case of	intra-SGSN in	tersystem
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Other specs affected:	¥ X	Test spe	ore specifica ecifications pecifications		32.200			

This CR can be approved only after the related Parent 32.200CR11 has been approved.

Other comments:

5.4 Cause for Record Closing

This field contains a reason for the release of the CDR including the following:

- normal release: PDP context release (end of context or SGSN change) or GPRS detach;
- partial record generation: data volume limit, time (duration) limit, SGSN change or maximum number of changes in charging conditions or intra SGSN intersystem change (change of radio interface from GSM to UMTS or vice versa);
- abnormal termination (PDP or MM context);
- management intervention (request due to O&M reasons).

A more detailed reason may be found in the diagnostics field.

...
<unmodified text>

6 Charging Data Record Structure

6.1 ASN.1 definitions for CDR information

```
<unmodified text>
CauseForRecClosing ::= INTEGER
    \mbox{--} 
 In GGSN the value sGSNChange should be used for partial record
    -- generation due to SGSN Address List Overflow
    -- cause codes 0 to 15 are defined in TS 32.205 as 'CauseForTerm' (cause for termination)
                                  (0),
    normalRelease
    abnormalRelease
                                  (4),
    {\tt cAMELInitCallRelease}
                                  (5),
    volumeLimit
                                  (16),
    timeLimit
                                  (17),
                                  (18),
    sGSNChange
    maxChangeCond
    managementIntervention
                                  (20),
    \verb|intraSGSNIntersystemChange|\\
                                  (21)
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Summary of chang	ge: #											closure for according	
Consequences if not approved:	*			can not salignme					case o	of intra-	-SGS	N intersys	stem
Clauses affected:	Ж	6.2.1	.1.2, 6.	.2.1.2.2									
Other specs affected:	æ	Te	st spe	re specif cification ecificatio	ıs	ns 8	3:	2.215					
Other comments:	ж	If this Parent CR is approved then also the Related Child 32.215CR010 for PS Charging can be approved.											

6.2.1.1.2 Triggers for S-CDR Closure

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6.2.1.2.2 Triggers for M-CDR Closure

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