Technical Specification Group Services and System Aspects   ***TSGS#9(00) 0374***
Meeting #9, Hawaii, USA, 25-28 September 2000

Source: **TSG SA1**

Title: **CRs (R99) to 22.078 for alignment to stage 2**

Document for: **Approval**

Agenda Item: **7.1.3**

Spec	CR	Rev	Phase	Cat	Subject	Vers	New Vers	SA1 Doc. No.
22.078	049		R99	F	Removal of user interaction at answer DPs (Release 99)	3.4.1	3.5.0	S1-000506
22.078	060		R99	F	GPRS AC/ACR alignment of shared data volume control (Stage 1 vs. 2)	3.4.1	3.5.0	S1-000540

3GPP SA1 #9
3GPP SA1 CAMEL ad Hoc
Arundel, UK, 4-6 July 2000

S1-000506
Document *S1c000017*
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

22.078 CR **049**   Current Version: 3.4.1

GSM (AA.BB) or 3G (AA.BBB) specification number ↑   *↑ CR number as allocated by MCC support team*

For submission to: SA #9   for approval ☐   strategic ☐   *(for SMG*
list expected approval meeting # here   for information ☐   non-strategic ☐   *use only)*
↑

Form: CR cover sheet, version 2 for 3GPP and SMG   *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: (U)SIM ☐   ME ☐   UTRAN / Radio ☐   Core Network **X**
(at least one should be marked with an X)

Source:	SA1		**Date:**	27.6.2000
Subject:	Removal of user interaction at answer DPs			
Work item:	CAMEL phase 3 TEI			

Category:

	F	Correction	**X**	**Release:**	Phase 2	☐
	A	Corresponds to a correction in an earlier release	☐		Release 96	☐
(only one category	B	Addition of feature	☐		Release 97	☐
shall be marked	C	Functional modification of feature	☐		Release 98	☐
with an X)	D	Editorial modification	☐		Release 99	**X**
					Release 00	☐

Reason for change: User interaction was introduced to stage 1 in CAMEL3 for the O/T_Answer DPs. However, the CAMEL3 stage 2 does not implement UI at event of the answer. Therefore this alignment is needed.

Clauses affected:

Other specs affected:

	Other 3G core specifications	☐	→ List of CRs:
	Other GSM core specifications	☐	→ List of CRs:
	MS test specifications	☐	→ List of CRs:
	BSS test specifications	☐	→ List of CRs:
	O&M specifications	☐	→ List of CRs:

Other comments:

5.6   Called party connection procedure

The purpose of this procedure is to manage an outgoing call set-up at the time when the called party answers and the call is successfully established.

If the CSE has activated this subsequent service event for this call and the called party connection event occurs the VPLMN/IPLMN shall:

- suspend call processing, notify the CSE and await further instructions, or

- notify the CSE and continue call processing.

The following information shall be provided to the CSE:
- Event met.

- The party in the call for which the event is reported (only Called party applicable).

- Type of monitoring.

When the VPLMN/IPLMN has made contact with the CSE, the CSE shall be able to instruct the VPLMN to act as described below:

- perform charging activities;

- activate subsequent control service events for the call. The CSE shall have the possibility to send the following information:

    - The subsequent service event which shall be detected and reported:

        - Call disconnection.

    - The party in the call for which the event shall be detected and reported (calling or called party);

    - The type of monitoring (control or notification).

- Order in-band user interaction $(CAMEL3$).

There shall be no restriction regarding the order of the above instructions or the number of times each of the above instructions can be repeated. Once the CSE has concluded issuing the above instructions, it shall issue one and only one of the following instructions:
- release the call;

- allow the call processing to continue unchanged.

6.6   Called party connection procedure

The purpose of this procedure is to manage an incoming call set-up at the time when the called party answers and the call is successfully established.

If the CSE has activated this subsequent service event for this call and the called party connection event occurs, the IPLMN/VPLMN shall:

- suspend call processing, notify the CSE and await further instructions, or

- notify the CSE and continue call processing.

The following information shall be provided to the CSE:
- Event met.

- The party in the call for which the event is reported (only Called party applicable).

- Type of monitoring.

When the IPLMN/VPLMN has made contact with the CSE, the CSE shall be able to instruct the IPLMN/VPLMN to act as described below.

- perform charging activities;$(CAMEL2$);

- activate subsequent control service events for the call. The CSE shall have the possibility to send the following information:

  - The subsequent service event which shall be detected and reported:

    - (Call disconnection).

  - The party in the call for which the event shall be detected and reported (calling or called party).

  - The type of monitoring (control or notification).

- ~~Order in-band user interaction. - $(CAMEL3$).~~

There shall be no restriction regarding the order of the above instructions or the number of times each of the above instructions can be repeated. Once the CSE has concluded issuing the above instructions, it shall issue one and only one of the following instructions:
- release the call;

- allow the call processing to continue unchanged.

3GPP SA1 CAMEL ad Hoc   *Document* **S1c000020**
Arundel, UK, 4-6 July 2000

e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

22.078	CR	**060**	Current Version:	3.4.1

GSM (AA.BB) or 3G (AA.BBB) specification number ↑   *↑ CR number as allocated by MCC support team*

For submission to:	SA #9	for approval	☐	strategic	☐	*(for SMG*
list expected approval meeting # here ↑		for information	☐	non-strategic	☐	*use only)*

Form: CR cover sheet, version 2 for 3GPP and SMG   The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

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Proposed change affects: (U)SIM ☐   ME ☐   UTRAN / Radio ☐   Core Network **X**
(at least one should be marked with an X)

Source:	SA 1		**Date:**	20.7.2000

Subject:	GPRS AC/ACR alignment of shared data volume control (Stage 1 vs. 2)

Work item:	CAMEL phase 3

Category: F   Correction   **X**   **Release:**   Phase 2   ☐
              A   Corresponds to a correction in an earlier release ☐   Release 96   ☐
(only one category   B   Addition of feature   ☐   Release 97   ☐
shall be marked   C   Functional modification of feature   ☐   Release 98   ☐
with an X)   D   Editorial modification   ☐   Release 99   **X**
                                                          Release 00   ☐

Reason for change:	The CAMEL3 stage 2 does not include the functionality of shared data volume control, although stage 1 requires it. Implementing of such functionality is somewhat complicated for the following reasons:

- QoS change applies for one PDP context only. How QoS change would be handled in the case of shared data volume threshold? QoS is essential part of GPRS sharging and can not be ignored.
- If the SCP/CSE gives both a shared volume and data volume threshold for an individual PDP context, the inter-working is complicated. Not least from the SCP point of view that should be able to decrease the credit correctly.
- The current stage 1 is based on the assumption that the SCP must first release individual PDP contexts, and thereafter attach/detach FSM. However, this assumption is not documented.
- In the worst case scenarios the SGSN would be required to "remember" used data volume of an PDP context, that have been closed hours ago! The scenarios in which PDP contexts are opened and closed actively are complex.

Given the tight CAMEL phase 3 timetable Nokia proposes to remove this inadequately documented functionality, rather than trying to implement the requirement. The Stage 1 requirement would require among other things SDL changes and very precise documentation how the "shared" data volume counters are maintained in various cases.

Clauses affected:

Other specs affected:
Other 3G core specifications	☐	→ List of CRs:	
Other GSM core specifications	☐	→ List of CRs:	
MS test specifications	☐	→ List of CRs:	

SP-000374.doc

BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:

**** FIRST and LAST MODIFIED SECTION   ****

10.7   Data Volume or Time Threshold Procedure

The purpose of this procedure is to control the amount of data transmitted by and transmitted to the served subscriber or the used time per GPRS Session or PDP Context. The time threshold is valid for one GPRS session or PDP Context of the subscriber only. The the data threshold is valid for one PDP context only. If the subscriber controls simultaneous GPRS sessions, time thresholds per GPRS session or PDP Context have tomay be defined. If the subscriber controls simultaneous PDP Contexts, data thresholds per PDP Context may be defined.

The type of threshold is indicated per GPRS session or PDP Context as:

- a maximum amount of data transmitted by and transmitted to the subscriber;

- a granted time to transmit and receive data.

A threshold is reached within a GPRS session or PDP Context, when:

- the total amount of data transmitted by and transmitted to the subscriber within the PDP context reaches the granted data volume for that PDP context or,

- the allowed time for the GPRS Session or PDP Context has elapsed.

If the CSE has defined a threshold for a GPRS Session or PDP Context and the threshold has been reached, then the VPLMN shall inform the CSE.

The VPLMN shall not suspend the transmission of data packets to and from the GPRS terminal. The VPLMN shall immediately restart counting the amount of data transmitted by and transmitted to the GPRS terminal and restart timing the duration of the GPRS Session or PDP Context.

The following information shall be provided to the CSE if available:

- Charge result (elapsed time or total amount of data transmitted).

- The GPRS session or PDP Context for which the event is reported.

- GPRS Session or PDP Context-Active indicator.

When the VPLMN has reported the reaching of the threshold to the CSE, the CSE shall be able to do the following (assuming the continuation of the applicable dialogue):

- perform charging activities (including the defining of a new threshold or time limit);

- activate subsequent control service events. The CSE shall have the possibility to send the following information:
  - the subsequent service event which shall be detected and reported:

    - PDP deactivation;

    - Detach Procedure.

  - The GPRS session or PDP Context for which the event shall be monitored and reported.

- The type of monitoring (only monitor mode is allowed in this case).

  There shall be no restriction regarding the order of the above instructions or the number of times each of the above instructions can be repeated.

Once the CSE has concluded issuing the above instructions, it shall be able to act as follows (provided the GPRS session or PDP context has not been released):

- release the GPRS session or PDP Context;

- allow the GPRS session or PDP Context to continue.