

Source: SA1

Title: CRs to 22.078 R99 and Rel-4 on Clarification of PDP context QoS change notification to the CSE (CAMEL3)

Document for: Approval

Agenda Item: 7.1.3

Spec	CR	Rev	Phase	Cat	Subject	Version-Current	Version-New	Doc-2nd-Level
22.078	101	1	R99	F	Clarification of PDP context QoS change notification to the CSE (CAMEL3)	3.7.0	3.8.0	S1-010460
22.078	103	1	Rel-4	F	Clarification of PDP context QoS change notification to the CSE (CAMEL3)	4.2.0	4.3.0	S1-010461

CHANGE REQUEST

⌘ **22.078 CR 101** ⌘ rev **r1** ⌘ Current version: **3.7.0** ⌘

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Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Clarification of PDP context QoS change notification to the CSE		
Source:	⌘ SA1		
Work item code:	⌘ CAMEL3	Date:	⌘ 11/05/2001
Category:	⌘ F	Release:	⌘ R99
<p>Use <u>one</u> of the following categories:</p> <p>F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>	

Reason for change:	⌘ The current stage 1 for CAMEL Phase 3 states that the CSE may request that QoS changes be reported when they occur. The solution that CN2 has provide only allows the QoS to be reported if a threshold (volume or time) is set by the CSE. This means that in order for the QoS changes to be reported, the CSE must request time/volume thresholds. There is no explicit mechanism in which the CSE can request QoS changes to be notified. This purpose of this change request is to clarify exactly this without changing the stage 2 and stage 3 for Release 99. TSG CN2 have endorsed the principle of this contribution in their meeting held between 25 th January and 2 nd February 2001 in Sophia Antipolis (N2-010129).
Summary of change:	⌘ Removal of the requirement that the CSE can request a VPLMN to report a change in the Quality of Service for a specific PDP context
Consequences if not approved:	⌘ Incorrect interpretation by service designers. There is sufficient ambiguity in the text that may lead to an incorrect interpretation of the actual capability.

Clauses affected:	⌘ 10.12	
Other specs affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘
Other comments:	⌘	

10.12 Change of Quality of Service Procedure

The CSE may request the VPLMN to report a change in the Quality of Service (QoS) for a specific PDP Context.

When a QoS change occurs and provided that a volume or time threshold is active for that PDP Context (as specified in sub-clause 10.7), then the VPLMN shall send a notification to the CSE and continue.

The following information shall be provided to the CSE:

- Charge result – this may be elapsed time and/or the total amount of data transmitted by and transmitted to the subscriber;
- Quality of Service;
- PDP Context state.

When the CSE receives the notification of change of QoS, it may instruct the VPLMN to act as follows:

- Perform charging activities (including the defining of a new threshold). GPRS Session related charging instructions may be sent only if the change of PDP Context QoS event is reported within a GPRS Session relationship;
- Activate subsequent control service events for the PDP Context or GPRS Session. The CSE shall have the possibility to send the following information:
 - The subsequent service event which shall be detected and reported:
 - PDP deactivation;
 - Change of Position (PDP Context);
 - Change of Position (Session); this event may be armed only if the change of PDP Context QoS event is reported within a GPRS Session relationship;
 - Detach Procedure: this event may be armed only if the change of PDP Context QoS event is reported within a GPRS Session relationship.
 - The 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 issue one and only one of the following instructions:

- Release the PDP Context;
- Release the GPRS Session: this instruction may be given only if the change of PDP Context QoS event is reported within a GPRS Session relationship;
- Continue the PDP Context.

CHANGE REQUEST

⌘ **22.078 CR 103** ⌘ rev **r1** ⌘ Current version: **4.2.0** ⌘

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Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Clarification of PDP context QoS change notification to the CSE		
Source:	⌘ SA1		
Work item code:	⌘ CAMEL3	Date:	⌘ 11 th May 2001
Category:	⌘ F	Release:	⌘ REL-4
<p>Use <u>one</u> of the following categories:</p> <p>F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>	

Reason for change:	⌘ The current stage 1 for CAMEL Phase 3 states that the CSE may request that QoS changes be reported when they occur. The solution that CN2 has provide only allows the QoS to be reported if a threshold (volume or time) is set by the CSE. This means that in order for the QoS changes to be reported, the CSE must request time/volume thresholds. There is no explicit mechanism in which the CSE can request QoS changes to be notified. This purpose of this change request is to clarify exactly this without changing the stage 2 and stage 3 for Release 4. TSG CN2 have endorsed the principle of this contribution in their meeting held between 25 th January and 2 nd February 2001 in Sophia Antipolis (N2-010129).
Summary of change:	⌘ Removal of the requirement that the CSE can request a VPLMN to report a change in the Quality of Service for a specific PDP context
Consequences if not approved:	⌘ Incorrect interpretation by service designers. There is sufficient ambiguity in the text that may lead to an incorrect interpretation of the actual capability.

Clauses affected:	⌘ 10.12	
Other specs affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘
Other comments:	⌘	

10.12 Change of Quality of Service Procedure

~~The CSE may request the VPLMN to report a change in the Quality of Service (QoS) for a specific PDP Context.~~

When a QoS change occurs and provided that a volume or time threshold is active for that PDP Context, then the VPLMN shall send a notification to the CSE_i and continue.

The following information shall be provided to the CSE:

- Charge result – this may be elapsed time and/or the total amount of data transmitted by and transmitted to the subscriber;
- Quality of Service;
- PDP Context state.

When the CSE receives the notification of change of QoS, it may instruct the VPLMN to act as follows:

- Perform charging activities (including the defining of a new threshold). GPRS Session related charging instructions may be sent only if the change of PDP Context QoS event is reported within a GPRS Session relationship;
- Activate subsequent control service events for the PDP Context or GPRS Session. The CSE shall have the possibility to send the following information:
 - The subsequent service event which shall be detected and reported:
 - PDP deactivation;
 - Change of Position (PDP Context);
 - Change of Position (Session); this event may be armed only if the change of PDP Context QoS event is reported within a GPRS Session relationship;
 - Detach Procedure: this event may be armed only if the change of PDP Context QoS event is reported within a GPRS Session relationship.
 - The PDP Context for which the event shall be monitored and reported;
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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 PDP Context;
- Release the GPRS Session: this instruction may be given only if the change of PDP Context QoS event is reported within a GPRS Session relationship;

Continue the PDP Context.