

Source: TSG-CN2 chairman  
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Subject: Status Report for TSG CN WG2

TSG-CN2 has held two meetings since the last plenary;

- CN2#22 28 January – 1 February, Sophia Antipolis, France. Hosted by ETSI. Report in **NP-020051**.
- CN2 CAMEL4 editorial adHoc 19 –20 February, Rijen, Netherlands. Hosted by Ericsson. Report in **NP-020067**.

## 1 Executive summary

CN2 has worked on R99 CAMEL3 CRs. The change requests have been mainly small corrections and clarifications. CN2 chairman's personal view is that from now on CN2 shall use tighter filtering of CRs, only real corrections and useful clarifications shall be allowed

The main focus of CN2#22 was in Rel-5 CAMEL4. Most of the meeting time was spent on CAMEL4. CN2 produced a set of collective CRs that were sent to CN4 for approval. CN4 found some backward compatibility issues in the 29.002 collective CR, the other collective CRs were agreed by CN4.

The CN#15 plenary needs to consider whether to approve the first version of CAMEL4 specifications (23.078 and 29.078. 23.278 is a separate issue). CN2#22 recommend that the first versions of the CAMEL4 specifications are not produced at CN#15 plenary. This would help CN2 consider the inter-working between CRs at the next 2 meetings before June plenary. If the first versions of the CAMEL4 specifications are produced at CN#15 plenary then in the latter (May) meeting the CRs would have to be based on the 03/2002 version, although the former meeting (April) may have radically changed the base version.

An alternative proposal is to make versions 5.0.0 in the 03/2002 plenary, and in the April meeting make CRs against 5.0.0 version. Then draft 5.1.0 would be produced after April meeting. Draft 5.1.0 would be the base for the May meeting. Then, revised draft 5.1.0 would replace 5.0.0 version in the June plenary.

The CN4 collective CRs should be approved - it is important that these are agreed at CN#15 otherwise, CN4 may agree CRs that radically change the base version of the combined CRs.

**NP-020057** Draft TS 23.078 for Rel-5 (CAMEL4 collective CR), Agenda item 9.5

**NP-020058** Draft TS 29.078 for Rel-5 (CAMEL4 collective CR), Agenda item 9.5

**NP-020059** Draft TS 23.278 v 1.1.0, Agenda item 9.5

## 2 CAMEL phase 1 (R96)

No changes.

## 3 CAMEL Phase 2 (R97 & R98)

No changes.

## 4 CAMEL phase 3 (R99)

The progress by functionality;

A. GPRS inter-working. The most important changes were the following:

- The TC dialogue handler SDLs were corrected. If the CR were not approved then the SGSN would reject a TC-END from SCP. **NP-020054 23.078-CR374** accompanied by a mirror CR.
- Instructions on what to do when a CAP operation timer expires is missing from some GPRS related CAP operations. **NP-020056 29.078-CR234** accompanied by a mirror CR.
- Textual errors corrected, e.g. operation names. These changes are technical although they may appear to be editorial. **NP-020054 23.078-CR378** accompanied by a mirror CR

- B. MO SMS: No change.
- C. Call Gapping / SCP load control: No change.
- D. Dialed services: No change.
- E. CF notification: No change
- F. ATM/ATSI: CN2 handled a set of CRs that were then approved by CN4.
- G. Call-related:
  - MSISDN was made available for MSC. This is needed due to MSP ph 2. **NP-020055 23.078-CR390** accompanied by a mirror CR.
  - The error handling was clarified in the case when one TC message contains multiple CAP operations. **NP-020056 29.078-CR233** accompanied by a mirror CR.
  - The triggering criteria check is clarified at DP Analyzed\_Information. The numbering plan indicator is to be ignored. **NP-020055 23.078-CR372** accompanied by a mirror CR.
  - The nation-specific values of the *NatureOfAddress* are supported. This is needed due to USA specific values. **NP-020056 23.078-CR373 and 29.078-CR232** accompanied by a mirror CRs.
  - CAMEL3 support of MT AoC is finalised. The VT -BCSM supports it but the necessary updates to AoC were not implemented. **NP-020054 23.078-CR376** accompanied by a mirror CR.
  - Handling of SCP provided free-format charging data is aligned. The handling was different for dialled services. **NP-020054 23.078-CR380** accompanied by a mirror CR.
  - The handling of the timer in the MSC for a new ApplyCharging operation is improved. The SDLs had errors. **NP-020055 23.078-CR382** accompanied by a mirror CR.
  - Mapping of Closed User Group information between ISUP and CAP has been corrected. **NP-020056 29.078-CR237** accompanied by a mirror CR.
  - A correction regarding the SCP provided user interaction. The handling of the SCP provided parameter "Disconnect From IP Forbidden IE" was not correct. **NP-020055 23.078-CR384** accompanied by a mirror CR.
- H. Miscellaneous
  - There was an incomplete description of which CSI is sent to which network element. Now it's completed. **NP-020054 23.078-CR386** accompanied by a mirror CR.
- I. Controversial issues:
  - None.

## 5 3GPP Rel-4

In the 3GPP release 4 there is no new CAMEL phase. The following Rel-4 issues are worth noting:

- A. CAP-over-IP. CN4 and CN2 have completed the work.
- B. The GPRS barrings may have a minor impact. Not worked out by CN2 yet.
- C. The 3GPP Rel-4 set of specifications have a separate copy of R99 CAMEL3. This is similar to the R98 copy of the R97 CAMEL2.

## 6 CAMEL phase 4 (Rel-5)

Most of the CAMEL4 functionality is included in the draft version. Most of them need corrections during the next year. These functionalities are marked as "Completed", although they may not be mature enough to be implemented.

CN2 maintains so called "collective CRs" to other specifications that in most cases fall into the remit of CN4 (29.002, 29.079, 23.018 etc). In January, CN2 sent the collective CRs to CN4 for approval (in a joint meeting).

The progress by functionality:

Title	Biggest open issues	Status
<b>Interactions with Optimal Routing</b>	-	Complete.
<b>Call Party Handling</b>	There is a separate list of the open issues.	85%
<b>Mid call procedure for MO and MT calls</b>	There was not enough meeting time to handle the CRs.	85%

<b>CAMEL for IMS</b>	Shall we use CAPv3 or CAPv4? Either of the choices will have issues to be solved: ?? CAPv3: How to put Rel-5 stuff into R99 spec? ?? CAPv4: If dialogue is CAPv4 then how SCP knows that SSF behaves as in CAMEL3?	Skeleton of Stage 2 (23.278) done, 23.278 generic 60%, Stage 2 Si 15%, completed.
<b>CAMEL control over MT SMS</b>	-	Complete.
<b>Inclusion of flexible tone injection</b>	CPH interaction.	Complete
<b>Charging notification to the CSE</b>	CPH interaction.	60%
<b>Enhancements of dialled services</b>	Debate about the SDL modelling. Interaction of CAMEL phases if the same SDL is used.	10%. SA1 has agreed to remove this feature from CAMEL4.
<b>Provision of location information of called subscriber (Alerting phase)</b>	-	Complete.
<b>Notification of GPRS mobility management to CSE</b>	Not known yet	Completion rate 90%.
<b>Inclusion of ODB data in the CSE-HLR interface.</b>	Not known yet.	Complete
<b>Location information during an ongoing call (Handover DP)</b>	Not known yet.	80%.
<b>GPRS</b>	Not known yet.	80%.
<b>AnyTimeInterrogation IMEISV to SCP</b>	Not known yet.	New item. 22.078 not yet approved. 23.078 stage 2 conditionally approved. Completion rate 60%.

**7 Other Work Items with impact on CAMEL**

None

**8 CN2 meeting calendar**

Meeting calendar for 2002

TITLE	TYPE	DATES	LOCATION	CTRY
<a href="#">3GPPCN2-#23</a>	WG	8 – 12 April 2002	Helsinki *1	Finland
<a href="#">3GPPCN2#24</a>	WG	13-17 May 2002	Amsterdam	Netherlands
<a href="#">3GPPCN2#25</a>	WG	29 July-2 August 2002	Helsinki	Finland
<a href="#">3GPPCN2#26</a>	WG	23-27 September	TBD	USA
<a href="#">3GPPCN2#27</a>	WG	11-15 November	Penang	Malaysia

\*1 = Unlike other CN working groups, CN2 meets in Europe since very few, if any, delegates are from outside of Europe. This decision also gives MCC support for CN2 and CN4.

**9 Other issues to be mentioned**

1. SA#15 may decide to split CAMEL4 into subsets. Subsets will cause additional work for CN2 and CN4. The amount of work greatly depends on how sophisticated the split is.

**11 Acknowledgements**

Thanks to the CN2 vice chairman for running the editorial adHoc meeting. A lot of useful work was done and the English of the specification was improved. At best this means clarity, readability and less misunderstanding.

CN2 thanks our excellent MCC support person Andrijana Jurisic. She gives us good support in meetings and between the meetings. And keeps things in order.

CN2 also thanks to the hosts of the CN2 meetings (ETSI in Sophia Antipolis and Ericsson in Rijen) for hosting us.