

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;

- July 9 - 13, Dresden, Germany-CN#19 hosted by Mannesmann.
- September 11 – 13, Sophia Antipolis, France. CAMEL4 adHoc, hosted by ETSI.

1 CAMEL phase 1 (R96)

Not changed.

2 CAMEL Phase 2 (R97 & R98)

- A. A controversial issue is pending regarding to CAMEL2 SendChargingInformation (SCI). Currently all vendors have not implemented CAMEL control of AdviceOfCharge in a compatible manner. Some MSC/SSPs reject SCP provided e-parameters if AoC is not supported by the MSC, or there is subscription for AoC. The first set of CRs were rejected in the e-mail approval, and the next regular CN2 meeting must solve the issue.

3 CAMEL phase 3 (R99)

The progress by functionality;

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

- GsmSCF (SCP) address issue was debated intensively again. Now we agreed a compromise.
- The uniqueness of the ChargingID was discussed. ChargingID is related to the GGSN address that allocates it. It was concluded that the GGSN address will not change during the PDP context (not even due to inter-SGSN RAU) and thus the ChargingID remains globally unique.

B. MO SMS:

- SMS charging reference number was not approved for R99 / CAMEL3. The CAMEL4 adHoc approved it for Rel-5 CAMEL4. Since CAMEL4 uses CAPv3 in Rel-5, the R99 version of the ASN must include the parameter. R99 change does not impact CAMEL3 since the Stage 2 is changed in Rel-5 only. The source of the R99 plenary CR will be Ericsson, since the adHoc had no mandate to change anything in the R99.

C. Call Gapping / SCP load control: No change.

D. Dialed services: No change.

E. CF notification: No change

F. ATM/ATSI: No change.

G. Miscellaneous:

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H. **Controversial issues:**

- SMS charging reference issue may cause discussion or debate.

4 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. The CN4 and CN2 have completed the work.

B. The GPRS barriers may have a minor impact. Not worked out by the CN2 yet.

C. The 3GPP Rel-4 set of specifications will have a separate copy of R99 CAMEL3. This is similar to the R98 copy of the R97 CAMEL2.

5 CAMEL phase 4 (Rel-5)

The CN2 maintains so called "collective CRs" of other specifications that in most cases fall into remit of the CN4 (29.002, 29.079, 23.018 etc). Once CAMEL4 is stable, the CN2 will send the collective CRs to the responsible working group for approval. Most likely this will take place in the end of the year so that the December 2001 plenary can stamp the (CN4 approved) changes unless the plenary decides other time plan for Rel-5.

The progress by functionality:

- A. Call Party Handling (CPH):
 - CPH work has progressed nicely, partially due to the ad Hoc. The initial versions of the SDL, information flows and ASN have been approved.
 - Advice of Charging will require work.
 - Vodafone maintains a list of open CPH issues and principal decisions.
 - The SCP initiated roaming number interrogation CRs were approved. CN2 wants to use existing operation with specific parameter settings. Some fine-tuning is still needed.
- B. Optimal Routing: The GMSC handling was aligned with the VMSC handling. Now it's more flexible and simpler to implement.
- C. CAMEL support by the IMS:
 - It's still a problem where the CAMEL procedure calls are located (in which spec).
 - We decided to use CAMEL3 SDLs as basis for the IMS CAMEL. CAMEL3 is more stable deployment base.
 - SA2 to decide the location of the budget control (CSCF / IM-SSF).
 - SA2 / CN1 to decide the (SIP) mode to be used. (These 2 last open points do not prohibit CN2 work).
- D. MT SMS:
 - Charging reference number was approved for Rel-5.
 - We keep the paging after the MT SMS triggering. The ciphering and authentication were removed from CAMEL spec, they are not related to CAMEL.
- E. DTMF MidCall: Was improved. The CN2 approved so-called automatic rearming of the EDP-N.
- F. Flexible pre-paid warning tones: No CRs, practically complete item.
- G. Forwarded-to number (The SCP is informed to which number call is diverted to): No CRs.
- H. Charging Notification:
 - The initial stuff is now included. MSC/SSP sends an indicator to the SCP whether call is chargeable according to MSC / ISUP configuration. There is no service requirement on this. In general, the EventReportBCSM parameters are not listed in stage 1.
- I. Enhancements of dialled services: We expect the revised CRs for the next meeting.
- J. GPRS/PS mobility management enhancements: The GPRS specs (29.060) are still to be modified.
- K. Location Information at alerting phase: No CRs.
- L. Location Information during ongoing call: First CRs approved.
- M. ODB in HLR-SCP interface: The CRs were revised to the next meeting.
- N. GPRS AnyTimeInterrogation: Dresden meeting postponed the CRs, no CRs in the adHoc.

6 Other Work Items with impact on CAMEL

None

7 Rel-5 IPT/VoIP work share between CN1, CN2, CN4 and SA2.

CN2 chairmen's personal view: The CAMEL "hooks" (procedure calls for the CAMEL specific Detection Points) will be there in the CN1 document. The CN2 shall define the CAMEL state models and other CAMEL specifics.

8 Other issues to be mentioned

Meeting calendar for remaining year 2001 looks currently as follows:

15 – 19 Oct	Brighton, UK (BT & Vodafone)
26 – 30 Nov	Cancun, Mexico

9 Acknowledgements

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CN2 also thanks the hosts of CN2 meeting (Mannesmann and ETSI) for hosting us.