3GPP TSG-CN #19   **Tdoc 3GPP NP-030082**
Birmingham, UK
12 – 14 March 2003

Source: **TSG-CN2 chairman**
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Subject: **CN2 status report**

TSG-CN2 has held meeting since the last plenary;
- CN2#28 10th – 14th February, Dublin, Ireland. Hosted by European Friends of 3GPP. Report in **NP-030083**.

1   Executive summary

Plenary document **NP-030084** contains LSs sent from CN2 since TSG CN#18 Meeting.

No changes to CAMEL2.

5 CRs were approved in R99 plus their mirror CRs.

No changes to Rel-4 except mirror CRs were approved.

The main focus of CN2 was in Rel-5 CAMEL4. Most of the meeting time was spent on CAMEL4.

CN2 discussed implementation principle of Rel-6 CAMEL6 item "Enhanced Dialled Serv ices" (EDS). EDS will use CAMEL phase 4, i.e. there will not be any new CAMEL phase because of EDS.

2   CAMEL phase 1 (R96)

No change.

3   CAMEL Phase 2 (R97 & R98)

No change.

4   CAMEL phase 3 (R99)

The progress by functionality; the most important changes were the following:
A. ATM/ATSI:
- No change.
B. GPRS inter-working.
- **NP-030089** 23.078-CR542 "Handling of AC and ACR in GPRS (revision of N2-021032)". This document adds an informative annex to Rel-5. The annex helps service logic designers to implement GPRS pre -paid charging.
- **NP-030089** 23.078-CR533 "Buffering of TC messages in the SGSN while waiting for the first SCP response". This CR corrects and clarifies one interworking problem. The correction is done into Rel-5 only.
- **NP-030089** 23.078-CR534 "Disallowing ACH-GPRS when PDPc already disconnected". AC-GPRS is ignored if the PDP context is not active anymore. Corrected in Rel-5 only.
- **NP-030087** 29.078-CR305 "Response to ApplyChargingGPRS at WFI at DP that terminates a relationship". SGSN reports "Task refused" error if AC-GPRS is received under certain conditions. Corrected in Rel-5 only.
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C. MO SMS:
- See controversial issues.
D. Call Gapping / SCP load control: No change.
E. Dialled services:
- NP-030085 23.078-CR532 "Introduction of ResetTimer input in state WFI-DS". The CR allows SCP to send ResetTimer operation also at DP3. Corrected also to Rel-5 IMS CAMEL in NP-030090 23.278-CR028.

F. CF notification: No change
G. Call-related:
- **NP-030085** 23.078-CR521 "CR521 Correction to SRI Information Flow". The HLR shall send the criteria associated with DP T_Busy or DP T_No_Answer in the MAP-SendRoutingInfoAck, if available.
- **NP-030085** 23.078-CR539 "Inconsistency in Call Information Report in Re-Connect Case". The CR corrects the SDLs so that CIRp of calling leg is not sent if that leg still exists.
- **NP-030089** 23.078-CR538 "Correction to Call Information Request". Wording clarified – the report is on leg basis.
H. Miscellaneous:
- **NP-030086** 29.078-CR299 "ASN.1 syntax basic corrections".
I. Controversial issues in CAMEL3:
- **NP-030** 23.078-CR527, Rel4 23.078-CR528, Rel5 23.078-CR529 "Correction to interactions between CAMEL control of MO SMS and barring". These were conditionally approved in CN2#28, but CN4 did not approve by e-mail the corresponding 29.002 CRs. CN2 did not find any problems in the CAMEL CRs. These documents are expected to be Vodafone company contributions in CN#19.

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 inter-working between CAMEL3 and Rel-4 GPRS barring classes is specified. Currently, this is the only technical difference between R99 CAMEL3 and Rel-4 CAMEL3.
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)

The progress by functionality:

A. Interaction with optimal routing: No change.
B. Call party handling:
- NP-030088 23.078-CR491 "Handling of a stand alone call segment in CS_gsmSSF (revision of N2-020991)". The SDL handling is improved in the special case the SCP drops out.
- NP-030088 23.078-CR513 "Handling of Int_Import_Leg in CS_gsmSSF". The SDL modelling is improved for the InitiateCallAttempt case.
- NP-030087 29.078-CR307 "Adding unknownCSId Error to Continue With Argument". An appropriate error code is added to CWA CAP operation.
C. Mid call procedure for MO and MT call handling: No change.
D. CAMEL for IMS:
- NP-030090 29.278-CR004 "ASN.1 syntax basic corrections for IMS CAMEL".
- NP-030090 23.278-CR029 "Correction of imcnSSF procedure names".
- NP-030090 23.278-CR030 "Incorrect procedure names used for CAMEL_MT_CTR and CAMEL_MO_CTR". Incorrect procedure names are technical errors, especially if the refer to different functionality.
- NP-030090 23.278-CR031 "Incorrect procedures called in CAMEL_IMCN_MT_ANSWER".
- NP-030091 23.278-CR032 "Sending of provisional response for the INVITE". 100 TRYING signal is sent immediately to the originating side once INVITE is received.
- NP-030091 23.278-CR033 "Incorrect SIP response when no CAMEL is invoked". The CR replace SIP 488 Not Acceptable Here response with SIP 606 Not Acceptable when CAMEL is not available.
- NP-030091 23.278-CR035 "Corrections in CAMEL_IMCN_MO_ANSWER". A wrong signal name was used in the SDL.
- NP-030091 23.278-CR036 "Corrections in the procedures for handling failure SIP response". The IM-SSF should defer sending of the error response to the originating S-CSCF until after it has determined that there is no other treatment that can be provided by CAMEL, otherwise the call is killed.
- NP-030090 23.278-CR027 "CR027 Implementing of Connect to Resource handling in CAMEL for IMS". The CR makes the imcnSSF handling identical to gsmSSF handling to ensure service compatibility.

- **NP-030091** 23.278-CR039 "Inconsistency in Call Information Report in Re-Connect Case". The CR corrects the SDLs so that CIRp of calling leg is not sent if that leg still exists.
  E. CAMEL control over MT SMS:
  - **NP-030089** 23.078-CR531 "Alignment of signal names with TS 29.002". Change signal names to the MAP service format used in TS 29.002
  F. Inclusion of flexible tone injection:
  - **NP-030087** 29.078-CR302 "ASN operation package definition for PlayTone". Due to ASN error the Play Tone CAP operation was missing from protocol.
  G. Provision of location information of called subscriber (Alerting phase): No change.
  H. Notification of GPRS mobility management to CSE:
  I. Inclusion of ODB data in the CSE-HLR interface: No change.
  J. Location information during an ongoing call (Handover DP). No change.
  K. GPRS AnyTimeInterrogation:
  - **NP-030088** 23.078-CR518 "HLR handling when Requested Domain is absent from ATI". Align the structure of the ATI Request Information Flow table in section 11.3.3 with the structure of the ATI Argument in TS 29.002. This CR was e-mail approved.
  L. IMEISV to SCP: No change.
  M. Partial implementation of CAMEL4:
  N. Miscellaneous:
  - **NP-030087** 29.078-CR301 "ASN.1 syntax basic corrections". Different errors than in R99.
  - NP-030087 29.078-CR304 "Correction to ASN.1 syntax for CWA". The CR moves a parameter from main level to extension parameter.
  - NP-030089 23.078-CR526 "CR526 Consistent prefix naming of 23.078 signals". The CR makes the signal naming consistent.
  - NP-030087 29.078-CR306 "Missing parameter (Charge Indicator)". The parameter was in Stage 2 but was missing in Stage 3 ASN.1.
  - NP-030088 23.078-CR516 "Correction to CAMEL interaction with Line Identification". The old text had incomplete list of CAP operations and incomplete list of call cases. The text is simplified.
  - NP-030088 23.078-CR517 "Correction to implicit disarming of DPs in CS_gsmSSF". The CR takes into account that RRB can also disarm DPs. The SDL comment did not have complete list of DPs therefore the incomplete list is removed.
  - NP-030088 23.078-CR520 "Correction to CTR Information Flow". Stage 2 table is reorganized to reflect the Stage 3 structure of data.
  - NP-030087 29.078-CR298 "Correction to Call Information Request". ASN default is now leg2 -> Inconsistency is removed.
  - NP-030089 23.078-CR536 "Correction to timer expiry handling during call forwarding notification". Tssf time r expiry will cause Int_Error signal which did not have handling at all. The handling has been added.
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Controversial CAMEL4 issues: None.

7 CAMEL phase 4 (Rel-6)

Two Rel-6 CAMEL requirements were discussed in CN2:
A. Enhanced dialled services. CN2 approved the work item NP-030092. The principles were discussed.
B. Ericsson proposed CAMEL support for concatenated SMS pre-paid charging. There was no objection in CN2 so the originator should proceed in SA1 to get service requirement approval.

8 Other Work Items with impact on CAMEL

CN4 is working on pre-paid services inter-working with number portability. If they will select (CAMEL) MAP-AnyTimeInterrogation alternative this would mean also CN2 work.

9 CN2 meeting calendar

Meeting calendar for 2003:

TITLE	TYPE	DATES	LOCATION	CTRY
EDS meeting	Ad hoc	1 – 2 April	?	?
CN2#29	WG	19 - 23 May	San Diego	USA
CN2#30	WG	25 - 29 Aug	Sophia Antipolis	France
CN2#31	WG	27 - 31 Oct	TBD	China

10 Other issues to be mentioned

None

11 Merging to CN4

The result of CN2 query on interest areas:
1. 10 delegates follow non-IMS CAMEL work.
2. 7 delegates follow IMS CAMEL work
3. 6 delegates follow both items
4. 14 delegates (will) follow Rel-6 and onwards
-> Half of the group follow both IMS and non-IMS work.