

Source: TSG-CN2 chairman
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Subject: CN2 status report

TSG-CN2 has held one meeting since the last plenary;

- CN2#25 29 June – 2 August, Helsinki, Finland. Hosted by Finnish Friends of 3GPP. Report in **NP-020338**.

1 Executive summary

For a long time, the CN2#25 was the first meeting in which we could handle all input tdocs delivered before deadline. This was mainly because summer holidays, people had not had time to prepare tdocs. In the next CN2 meeting CN2 chairman expects again full flow of input documents.

Plenary document **NP-020339** contains LSs sent from CN2 since TSG CN#16 Meeting.

No technical changes to CAMEL2.

Only 3 CRs were approved in R99. They are in tdoc **NP-020340**.

For Rel-4 one non-mirror CR was approved. 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. Tdoc **NP-020341**.

The main focus of CN2 was in Rel-5 CAMEL4. Most of the meeting time was spent on CAMEL4. For Rel-5 CN2 presents the following documents for approval:

1. **NP-020348** – Draft TS 23.278 v 2.1.0 (CAMEL-IMS interworking, stage 2).
2. **NP-020349** – Draft TS 29.278 v 2.0.0 (CAMEL-IMS interworking stage 3).

The CAMEL IMS specifications can be regarded as “complete”. The technical content is in but corrections and clarifications will be needed. Identified open IMS CAMEL issues are:

1. The SDLs for CAP-ConnectToResource are missing.
2. The information flows for CAP-Connect and CAP-ContinueWithArgument are missing. I.e. CN2 needs to specify the parameters and their use.
3. Change of Calling Line Identity. SCP, via CAP protocol for circuit switched calls, may change the ISUP’s additional calling line identity which is presented for the CLI supplementary service. The ISUP Calling Party Number (CgPN) shall not be changed due to possible impacts on charging, and the SCP may not be aware of VPLMN’s use of CgPN. In the IMS SIP environment there is only one Calling Party number. It should be noted that IMS SSF runs in HPLMN.

The issue of “Handling of partial implementations of CAMEL phase 4” is completed. **NP-020347**. As for any new item, corrections and clarifications will be needed.

CN2 chairman’s personal feeling is that IMS CAMEL will take 40%-50% CN2 meeting time in near future.

2 CAMEL phase 1 (R96)

No change.

3 CAMEL Phase 2 (R97 & R98)

- A. SDLs were included into ZIP file. The MS Word document is the primary one if there are misalignments. Not in the form of a CR, SDLs are added in the new version on the server.

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.
 - A correction to Cancel-GPRS operation. The 29.078 was aligned with 23.078. **NP-020340 29.078-CR262.**
- C. MO SMS: No change.
- D. Call Gapping / SCP load control: No change.
- E. Dialed services: No change.
- F. CF notification: No change
- G. Call-related:
 - A correction to ApplyChargingReport description. Stage 2 is aligned to State 3. **NP-020340 23.078-CR441.**
 - ReleaseCall CAP operation is not allowed to assisting gsmSSF. The existence was a copy-paste from INAP CS-2, but for CAMEL there is no use case. **NP-020340 29.078-CR254.**
- H. Miscellaneous: None.
- I. Controversial issues in CAMEL3:
 - 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 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 completion rate indicates a rough estimate on required CN2 meeting time. “Complete” means that functionality is specified but may need corrections.

The progress by functionality:

- A. Interaction with optimal routing: No change.
- B. Call party handling:
 - Call Segment number 1 (CSID1) is referred instead of “initial CS”. **NP-020343 23.078-CR423** and **29.078-CR265.**
 - Mid-Call state is removed CAMEL_EXPORT_LEG_MSC since the functionality is incorporated in leg-specific procedures. **NP-020343 23.078-CR424.**
 - Forwarded-to number is added specified in internal MSC-VLR message PerformCallHandlingAck. This CR is due to SDL modelling. **NP-020343 23.078-CR425.**
 - A call leg is allowed to be disconnected by SCP either at initial triggering, or at active phase of call, but not in between. **NP-020343 23.078-CR414.**
 - The last leg is released if there are no event detection points armed. **NP-020343 23.078-CR415.**
 - Call Segment ID is not used when CAP operations are sent to announcement device. **NP-020343 23.078-CR419.**
 - Call party handling definitions are added to Stage 2 and 3. **NP-020343 23.078-CR432** and **29.078-CR266.**
 - The SDL architecture is clarified. **NP-020343 23.078-CR412.**
 - Editorial change, “note that” is removed. **NP-020344 23.078-428.**
 - A state name is corrected in SDLs. **NP-020344 23.078-CR429.**
 - A signal name is changed in SDLs. The correct new name is Int_Disconnect_Leg. **NP-020344 23.078-CR430.**
 - ContinueWithArgument is not allowed to change anything at Mid-Call DP. **NP-020344 23.078-CR431.**
 - Input signals are saved in relevant places. **NP-020344 23.078-CR426.**
 - TaskRefused error code is added to MoveLef and Split leg if user interaction is ongoing. **NP-020344 29.078-CR267.**
- C. Mid call procedure for MO and MT call handling: No change.

- D. CAMEL for IMS:
 - Stage 2 (23.278) done, 23.278 generic 95%, Stage 2 Si interface 100%, Stage 3 29.278 90%.
 - E. CAMEL control over MT SMS: No change in CN2. CN4 part was improved in CN4.
 - F. Inclusion of flexible tone injection:
 - A new legID parameter was introduced. **NP-020346 23.078-CR418** and **29.078-CR260**. “CRs to Rel-5 WI CAMEL4 (Playing of warning tones)”.
 - G. Charging notification to the CSE: This item was removed from Rel-5, **NP-020345 23.078-CR417** and **29.078-CR259**.
 - H. Provision of location information of called subscriber (Alerting phase): No change.
 - I. Notification of GPRS mobility management to CSE: No change.
 - J. Inclusion of ODB data in the CSE-HLR interface: No change.
 - K. Location information during an ongoing call (Handover DP). No change.
 - L. GPRS AnyTimeInterrogation: No change.
 - M. IMEISV to SCP: No change.
 - N. Partial implementation of CAMEL4:
 - **NP-020347 23.078-CR416** and **29.078-CR258**.
 - O. Miscellaneous (mainly CAMEL3 clarifications, done in Rel-5):
 - ASN syntax errors corrected. **NP-020342 29.078-CR261**.
 - Description of N-CSI is improved so that it does not refer to “subscription”. **NP-020342 23.078-CR421**.
 - D-CSI negotiated capability can be also CAMEL4. **NP-020342 23.078-CR422**.
 - Editorial correction to Cancel-GPRS operation. **NP-020342 29.078-CR264**.
 - Busy cause is reported to SCP also when call deflection takes place. **NP-020342 29.078-CR270**.
 - It is clarified that the target SGSN does not report parameter “secondary PDP context” at inter-SGSN routing area update. **NP-020342 23.078-CR446**.
 - If calling party clears prior first response from SCP, then SSP makes a local TC abort. **NP-020342 29.078-CR257**.
 - It is clarified, which CSI applies to which call case. **NP-020342 23.078-CR447**.
- Controversial CAMEL4 issues:
- There may be comments to **NP-020346** “CRs to Rel-5 WI CAMEL4 (Playing of warning tones)”. The document was e-mail approved.

7 Other Work Items with impact on CAMEL

None

8 CN2 meeting calendar

Meeting calendar for 2002

TITLE	TYPE	DATES	LOCATION	CTRY
3GPPCN2#26	WG	23-27September	Miami	USA
3GPPCN2#27	WG	11-15 November	Bangkok	

9 Other issues to be mentioned

1. CAMEL4 work item is updated in **NP-020352**.
2. CN2 Terms of Reference is updated in **NP-020353**.

11 Acknowledgements

CN2 chairman thanks our MCC support person, Andrijana Jurisic. She gives us excellent support in meetings and between the meetings, with professional attitude.

Also the active contributors deserve thanks. They make the specifications to happen. As well the spec editors, who are very important links in the chain of 3GPP engine.