

Source: TSG-CN2 chairman
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Subject: CN2 status report

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

- CN2#26 23rd – 27th September, Miami, USA. Hosted by American Friends of 3GPP. Report in **NP-020521**.
- CN2#27 11th – 15th November, Bangkok, Thailand. Hosted by Japanese Friends of 3GPP. Report in **NP-020521**.

1 Executive summary

Plenary document **NP-020522** contains LSs sent from CN2 since TSG CN#17 Meeting.

No changes to CAMEL2.

7 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.

The CAMEL IMS specifications can be regarded as “complete”. A company changing Rel-5 CAMEL4 is also responsible updating IMS-CAMEL specifications, if the change applies to IMS-CAMEL as well.

Depending on the SA plenary decision, there may be a new Rel-6 CAMEL functionality “Enhanced Dialed Services”.

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:

- **NP-020524 23.078-CR498** “Clarification on ATM -> NSDC when status of one SS impacts another SS status.”

B. GPRS inter-working.

- **NP-020523 23.078-CR478** “Correction to QoS reporting and Delta timer overflow”. The CR clarifies that id QoS changes, ACR-GPRS is sent. Also when Delta is smaller than limit, ACR-GPRS will be sent.
- **NP-020528 29.078-CR295** “Re-introduction of local definition of LocationInformationGPRS”. Rel-5 line coding is aligned with R99 line coding (same application context).
- **NP-020527 Rel-5 29.078-CR276** “Correction to GPRS dialogue abortion”. R99 spec is not changed but the same behaviour is expected from R99 SGSN.

C. MO SMS:

- **NP-020526 Rel5 29.078-CR277** “Correction to SMS dialogue termination”. TC-END shall be send if no Detection point is reported to SCP. R99 spec is not changed but the same behaviour is expected from R99 MSC or SGSN.

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

- E. Dialed services: No change.
- F. CF notification: No change
- G. Call-related:
 - **NP-020523 23.078-CR468** “Alignment between 23.078 and 29.002 about RCH.” Too late to change ASN therefore 23.078 explains that triggering criteria are not sent to GMSC from VMSC. In Rel-5 the 29.002 ASN.1 is enhanced (by CN4).
 - **NP-020524 23.078-CR487** “Number comparison for D-CSI”. The CR clarifies to which numbers modifications are done to compare.
 - **NP-020524 23.078-CR508** and **NP-020532 23.278-CR026** “Correction to dialled services criteria”. A health warning indicating that overlapping criteria may not work.
- H. Miscellaneous:
 - **NP-020523 29.078-CR290** “Correction to CAP Extension Types”.
- I. Controversial issues in CAMEL3:
 - “ASN.1 syntax basic corrections” CR was for R99 “rejected” in CN2. A plenary decision is needed how this kind of ASN corrections shall be treated.

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:
 - **NP-020526 23.078-CR427** “Use of Release Call & Release Call Segment in gsmSSF processes”. Improves SDL modelling.
 - **NP-020527 23.078-CR418** “Playing of Warning Tones”. Explains to which party the tone is played in each situation.
 - **NP-020528 29.078-CR288** “Use of Continue With Argument operation for call resumption”.
 - **NP-020528 29.078-CR289** “Missing Call Segment ID in Continue With Argument operation”.
 - **NP-020528 23.078-CR490** “Handling of Apply Charging after gsmSCF terminates dialogue or sends 'Release Call'”
 - **NP-020528 23.078-CR499** “MSC-number in MAP Location Information”. Makes MSC# mandatory in ATI-ack in CAMEL4.
- C. Mid call procedure for MO and MT call handling: No change.
- D. CAMEL for IMS:
 - Work is complete.
 - **NP-020530 23.278-CR001** “Correction and improvement in the overall SDL structure”. Editorial CR.
 - **NP-020530 23.278-CR002** “Correction and improvement in the registration procedures”.
 - **NP-020530 29.278-CR002** “ASN.1 syntax basic corrections”.
 - **NP-020530 23.278-CR008** “Remove support of SCI operation from imcnSSF SDL process”. The Advice of Charge is not relevant in IMS.
 - **NP-020530 23.278-CR010** “Correction of InitialDP MediaType parameter” and **29.278-CR001** “Correction of ASN.1 definition for the InitialDP MediaType parameter”. A parameter renamed and description improved.

- **NP-020530 23.278-CR005** “Correction and improvement in CSI update”. SDL improved, no change in functionality.
 - **NP-020530 23.278-CR006** “Clarification in the case multiple RRBs are sent for a DP”. Corresponds to a 23.078 change.
 - **NP-020530 23.278-CR007** “Inconsistent description on ACR: time information”. Corresponds to a 23.078 change.
 - **NP-020530 23.278-CR009** “Removal of ETC processing from IM-SSF SDL Procedures”.
 - **NP-020529 23.278-CR014** “Figure and table numbers”. Editorial.
 - **NP-020532 23.278-CR022** “SDL Procedure for Connect To Resource.”
 - **NP-020532 23.278-CR012** “IF Description for gsmSRF-related operations for IMS”.
 - **NP-020532 29.278-CR003** “Correction of ConnectToResource operation procedure for IMS.”
 - **NP-020531 23.278-CR015** “For better document structure”. Editorial.
 - **NP-020532 23.278-CR003** “Correction and improvement in MO procedures”.
 - **NP-020532 23.278-CR004** “Correction and improvement in MT procedures”.
 - **NP-020532 23.278-CR023** “Stage 2 specifications for Call Gap for IMS”.
 - **NP-020532 23.278-CR024** “Clarification of DP destination number trigger criteria for IMS”.
 - **NP-020531 23.278-CR016** “Editorial improvement - clause 2”.
 - **NP-020531 23.278-CR017** “Editorial improvement - clause 3”.
 - **NP-020531 23.278-CR018** “Editorial improvement - clause 4”.
 - **NP-020531 23.278-CR019** “Editorial improvement - clause 5”.
 - **NP-020531 23.278-CR020** “Editorial improvement - clause 6”.
 - **NP-020531 23.278-CR021** “Editorial improvement - clause 7”.
- E. CAMEL control over MT SMS:
- **NP-020526 23.078-CR449** “Correction of handling of MT-SMS in the SGSN”. Aligns MT SMS CAMEL handling with MSC/VLR.
 - **NP-020526 23.078-CR452** “Clarification of architecture for CAMEL control of MT-SMS”.
 - **NP-020526 23.078-CR453** “Correction of handling of MT-SMS in the VLR”. Revise the VLR handling so that if MT-SMS-CSI is not provisioned then CAMEL handling will not occur.
- F. Inclusion of flexible tone injection:
- **NP-020527 23.078-CR500** and **29.078-CR291** “ASN default for Flexible Tone BurstInterval due to MEGACO”.
- G. Provision of location information of called subscriber (Alerting phase): No change.
- H. Notification of GPRS mobility management to CSE:
- **NP-020526 23.078-CR456** “Add result from GPRS mobility management procedure”. To correct an error which SA2 found out.
 - **NP-020526 23.078-CR457** “Detach report in inter-SGSN routeing area update”. Now SCP knows if mobile has gone out of CAMEL4 coverage.
- 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: No change.
- L. IMEISV to SCP: No change.
- M. Partial implementation of CAMEL4:
- **NP-020526 23.078-CR470** “Resolving of open issues on "Support of partial implementation of CAMEL"”. Various corrections.
 - **NP-020527 23.078-CR485** “Correction of "Support of partial implementation of CAMEL"”.
- N. Miscellaneous (mainly CAMEL3 clarifications, done in Rel-5):
- **NP-020526 23.078-CR454** “Correction of IDPs in new section 4.5.1.” The CR removes irrelevant TDPs of the SDL description. E.g. OCH_MSC process does not have DPs of the T-BCSM.
 - **NP-020527 23.078-CR494** “Inconsistent description "Store destination address"”.
 - **NP-020529 23.078-CR483** “Figure and table numbers”.
 - **NP-020528 23.078-CR495** “Correction to ATI handling in HLR”.
 - **NP-020527 23.078-CR466** “Correction to VLR Address in Location Information”.

- **NP-020527 23.078-CR504** “Removal of redundant information elements from Location Information”.
- **NP-020527 23.078-CR482** “Correction on DP name”. Corrects obvious editing error.
- **NP-020528 23.078-CR484** “Better SDL CSA_gsmSSF”. No technical change.

Controversial CAMEL4 issues:

- There may be comments to **NP-020525 23.078-CR509** “Correction to interaction between MO-SMS and CB / ODB”. The document was e-mail approved.

7 CAMEL phase 4 (Rel-6)

There is no formal decision whether Rel-6 CAMEL should be called as CAMEL phase 5 or CAMEL phase 4. If there were any enhancements for Rel-6 they probably would not justify creation of a new CAMEL phase.

Handling of work items (SA1 or CN2 work item?) is quite unclear. Who should agree and what kind of work item?

Two Rel-6 CAMEL requirements were discussed in CN2:

- The Ericsson proposal to suppress QoS reporting for CAMEL3 GPRS was postponed. CN2 waits for an explicit service requirement from SA1. Without service requirement CN2 will not proceed.
- The SK Telecom proposal for Enhanced Dialed Services is postponed. SA1 could not agree on the service requirement (they had a meeting at the same time in Korea), the decision was postponed to SA plenary. CN2 will not proceed without an explicit service requirement.

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
CN2#28	WG	10 - 14 Feb	Dublin	Ireland
CN2#29	WG	19 - 23 May	Birmingham	UK
CN2#30	WG	18 - 22 Aug	Sophia Antipolis	France
CN2#31	WG	27 - 31 Oct	TBD	China

In a CN2 meeting there was a proposal to move August meeting one week later. The change would allow more time for holidays. On the other hand, next week has a bank holiday in UK.

10 Other issues to be mentioned

- CN2 asks CN plenary guidance about correcting ASN.1 syntax errors in frozen releases. Vendors can fix most errors manually while they do ASN.1 compilation. However, all vendors must do the same corrections.

11 Acknowledgements

Active contributors/delegates and spec editors deserve thanks for their hard work.

The meeting hosts also deserve thanks. Especially, the dinner in the Bangkok social event, offered by Japanese friends of 3GPP, ranks highest so far, in my scale. The way to CN2 chairman's heart goes via stomach...

The cooperation with CN4 works very well. The thanks belong in a great amount to CN4 chairman, Ian Park, who plays a key role in this process.

Last but not least: I thank our wonderful MCC support person. Andrijana gives us in CN2 hard-working support during the meetings and between the meetings. Among other things, she always knows missing documents, and never allocates same numbers twice. Something I personally could not achieve, ever.

12 Merging to CN4

The issue was discussed jointly with CN4. The conclusion was not to merge during 2003. The reason is that for 2003 CN2 is busy enough. The merge could happen e.g. 2004.