

Source: TSG-N2 chairman
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Subject: Summary Report of the TSG-N2 to TSG-N plenary meeting #9

TSG-N2 has held two meetings since last plenary;

- July 17-21 in Helsinki, Finland, hosted by Nokia and
- August 28 – 1 September in Seattle, USA, hosted by North American Friends of GSM

1 CAMEL phase 1

No changes.

2 CAMEL Phase 2

A proposal have been presented and approved in Seattle meeting to improve CAMEL phase 2.

- A Vodafone proposal to make a minor alignment into 3G TS 23.018. Most vendors have not noticed the error. So, the correction is an alignment to the "reality". The correction was not seen as critical, but likely vendors are ready to accept the change.

3 CAMEL phase 3

In both meetings the main focus was in CAMEL phase 3. The progress by functionality;

- GPRS inter-working was the subject of most work. A number of corrections were made. The most important changes were the following:
 - TC dialogue termination was clarified and corrected.
 - The SCP/CSE **should** reply to spontaneous ApplyChargingReport-GPRS operations by a new ApplyCharging operations, or ReleaseGPRS operation. Thus there would be no uncontrolled GPRS recurses within the SGSN, in particular this concern applies to the pre-paid case.
 - Once the allowed volume or elapsed time is consumed in the SGSN, the SGSN must report both the used data volume and the elapsed time. Some vendors say this was not even a change, some had interpreted the spec differently. However, now it should be clear.
 - An indication whether PDP context is initiated by the MS or by the network was approved. This was a controversial change proposed by Lucent, and Alcatel had some reservations. They may reject the CR in the plenary. Ericsson and Marconi supported the Lucent proposal while Siemens and Nokia said "no problem". Since Nokia introduced a CR to have *Event Detection Point specific information* visible in stage 2, Nokia also had to also make a CR to make "Indication of Network requested PDP Context" visible in Stage 2 as an alignment. However, this CR should not be seen as an indication of any active support for the original proposal.
 - Corrections to the GPRS AoC.
- MO SMS: fine tunings.
- Call Gapping / SCP load control. No change.
- Dialed services: Clarifications & corrections on the dialed number criteria check.
- Since the CAMEL3 enables multiple CAP dialogues per call (due to the dialed services and due to the new trigger detection points), N2 had to agree a principle how the AoC is handled. The agreed principle is that each CAP dialogue can give e-parameters, and the latter dialogue can overwrite e-parameters given by the previous dialogue/service. In addition, when a CAP dialogue is closed then the tariff switch timer is stopped, and the non-applicable waiting set of e-parameters is discarded.
- General issues of CAMEL3:
 - Location Information specifications changed so that the main description is found in the 23.018, and CAMEL Stage 2 23.078 highlights only the differences.
 - UMTS Service Area Identification (SAI) can be distinguished more easily from the Cell-ID by the CSE.

The N2 chairman's personal view is that now the CAMEL3 is quite stable, no major errors exist. The changes are becoming more and more editorial in their nature. Individual errors will be spotted while the vendors and operators progress in their CAMEL3 development – exactly the same that happened with CAMEL2.

4 CAMEL phase 4

This was the first set of meetings where CAMEL4 progressed. The progress by functionality:

- Call Party Handling (CPH):
 - N2 discussed on the SDL modelling, and based on the agreed modelling CRs are expected in the next meetings.
 - The start of the alerting phase is reported to the SCP/CSE. This is need so that the SCP knows when it can start CPH activity for the particular call.
 - The maximum number of call parties involved was not resolved. In the S1 CAMEL4 adHoc the issue should be resolved. Vodafone collects input from vendors on the issue. The max is somewhat sensitive issue thus input is easier to be received off-line.
- Optimum Routing: The first CRs were approved. The principle is that SCP/CSE orders VMSC to "try its best to perform OR". The SCP gets information whether OR was done based on existing CAMEL3 functionality.
- CAMEL control over IPT/VoIP: A set of proposal were received from BT and Lucent. BT proposes to use "a MSC emulator" that would convert SIP messages to/from ISUP for modelling purposes. They also propose to use CAMEL3 as basis. However, such a decision belongs to S1. N2 is currently in hesitation since we do not know whether S2, N1 or N4 is going to do an appropriate "basic call handling" to which the CAMEL "hooks" could be added.
- MS SMS: One CR was introduced, but it will be revised to next meeting.

The N2 conclusion was that with the current (prior to the S1 adHoc in September) CAMEL4 Stage 1 content, Stage 2 would be provided to the TSG-CN#12 meeting in June 2001, and the whole package of CAMEL4 would be provided in the TSG-CN#13 meeting in September 2001. The situation of the VoIP is a bit unclear, and depends on the fact whether it will be based on the CAME3 or CAMEL4.

5 Other Work Items with impact on CAMEL

VHE: N2 responded to a VHE Liaison Statement (N2-000433). The big lines of the output LS were:

- It may be feasible that the SCP/CSE could access HLR/HSS VHE related data. This would affect to SIP/LDAB/MAP protocol(s), depending on which one is chosen by S2.
- Security would no be an issue since HLR/HSS and CSE both belong to the HPLMN, and the HPLMN operator can take care of the security.
- Currently N2 does not see any drivers for additions to the VHE 'user data' list, but this is an issue that is a subject for change since the service requirements are not clear.

6 R2000 IPT/VoIP work share between N1, N2, N4 and S2.

The plenary meeting should discuss which group is going to specify Stage 2 level "Basic Call Handling" of SIP calls. Such a specification is need for CAMEL control over VoIP/IPT. It may useful for other purposes as well.

- N2 wishes to have "the Basic Call Handling" of SIP in SDL format. If no other group is going to specify it, N2 may have to make a spec of its own. This may introduce overlapping work and some maintenance problems as well (if basics of CSCF are modified). In addition, a generic "basic call handling" is useful if any supplementary service is introduced for SIP. The possible inter-working of two services is easier to be specified in a single generic spec.
- The S2 Stage 2 signalling flows are claimed to describe successful cases only – for CAMEL we need some unsuccessful cases described as well.
- The N1 stage 1 may be too much concentrated on the MS side. In addition, it is not desirable to call CAMEL Stage 2 procedures from a Stage 3 specification.

7 Other issues to be mentioned

- Meeting calendar for 2001 was discussed with N4. The schedule looks currently as follows:

15-19 Jan	Australia (Ericsson)
26 Feb – 2 Mar	<no host yet>
14 – 18 May	USA (American Friends of GSM)
9 – 13 Jul	Düsseldorf, Germany (Mannesmann)
15 – 19 Oct	UK (BT & Vodafone)
26 – 30 Nov	<no host yet>

- The remaining year 2000 meeting calendar looks as follows:
 - 16 – 20 Oct Wien, Austria (Telekom Austria / SPAN3)
 - 13 – 17 Nov Paris, France (Alcatel).