

**Madrid, SPAIN****13 - 15 March 2000**

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**Title:** **Status report of TSG-N2 to TSG-N plenary meeting #7**

**Agenda item:** **5.2**

**Document for:** **Information/approval**

## **1 Introduction**

This report can be regarded as an executive summary of the work of N2, N2A and N2B since the last N plenary meeting. If you want the intimate details, please refer to the meeting reports, which are available on the 3GPP server as well as being documents for this meeting (NP-000031, NP-000032, and more to come).

TSG-N has had one meeting: 17 - 21 January in Kyoto, Japan, hosted by NTT DoCoMo. In addition, N2A had an ad hoc meeting on CAMEL phase 3, 21 - 25 February in Sophia Antipolis, France, hosted by ETSI, and N2B had two ad hoc meetings on several Release 99 work items: 14 - 16 February in Milan, Italy, hosted by Omnitel, and 2 - 3 March in Kista, Sweden, hosted by Ericsson. N2 experts also participated in an S3 ad hoc meeting on security, 10 - 11 January in Darmstadt, Germany, hosted by T-Mobil, and an SS ad hoc meeting on Multicall, 17 - 18 February in Sophia Antipolis, France, hosted by ETSI. As you can see, we haven't been idle!

## **2 Main achievements**

This section summarises the status of the N2 work on each work item, ordered by work item name. The three of us (IP, SH, Y-CH) give a formal list of the open issues for each work item in NP-000127.

We have produced a set of corrective CRs (R97, with mirrors for R98 and R99) to MAP for **ASCI phase 2**; these are in NP-000063.

The work in N2 on the basic call stage 2 and MAP on **Call Forwarding Enhancements** (also known as long forwarded-to numbers) is now complete; the CRs are in NP-000055 & NP-000066.

N2A (with endorsement from N2B on the CRs to TS 23.018 and TS 23.079) have produced a package of corrective CRs to **CAMEL phase 2** for Release 97, with the corresponding CRs for Release 98 and Release 99. These CRs deal with a serious problem which would lead to indefinite looping in the handling of forwarded calls subject to CAMEL processing. A further CR to GSM 03.78 for Release 97, with mirrors to Release 98 and Release 99, corrects an error in the SDL description of the gsmSSF. You can find them in NP-000033 & NP-000064.

N2A have produced several CRs for **CAMEL phase 3** to resolve the open issues which were identified at CN #6 (and others which have emerged in reviews since then). The CRs are in NP-000035, NP-000036, NP-000065 NP-000160 & NP-000161. There are still some open

issues to be resolved on CAMEL phase 3; the most contentious of these is seen as being the connection of announcements during the active phase of the call. N2A agreed the stage 2 and 3 definitions to meet the existing stage 1 requirement, but the stage 1 requirement is based on the assumption that Call Party Handling is included in CAMEL Phase 3. S1 have not been able to resolve the service requirement in the absence of Call Party Handling, so the stage 2 & 3 CRs may need to be withdrawn.

The stage 2 and stage 3 (MAP and GTP) specifications (TS 23.119, 29.120 and 29.119 respectively) for the **Gateway Location Register** are presented for approval. The relevant documents are NP-000107, NP-000108, & NP-000109.

We agreed a correction to the subscriber data definition for **GPRS**, and an editorial clarification on the ordering of repeated information elements in GPRS for Release 97, with corresponding CRs to Release 98 and Release 99. We also agreed a CR to MAP to improve charging efficiency for GPRS, and a corrective CR to TS 29.060 to remove the redundant description of support for X.25. You will find all these CRs in NP-000067.

We agreed a CR to TS 23.003 to define the coding for a deleted P-TMSI signature, for **GSM/UMTS interworking**; this is in NP-000068.

Work has continued on **GTP Enhancements**, and the result is now stable. This work is now seen as being complete in N2. The relevant CRs are in NP-000069.

In response to a request from S2, we have completed the work on enhancing MAP for the transport of RANAP encapsulated in MAP for **Handover between 3G MSCs**. We have also agreed CRs to MAP and TS 29.010 to deal with **Handover between GSM and UMTS**. The result is in NP-000070.

We have agreed two corrective CRs to GSM 09.02 for **LCS** in Release 98, with the corresponding CRs to TS 29.002 for Release 99, and a further CR to TS 23.007 to define the HLR and VLR data restoration procedures for LCS. These are in NP-000071.

We held a Public Enquiry resolution meeting to deal with the PE comments on the EN version of GSM 03.66 (**Mobile Number Portability** stage 2), and agreed a CR to GSM 03.66 for Release 98, with a mirror CR to TS 23.066 for Release 99. We also agreed several CRs to deal with MNP database mismatch. You can find these in NP-000072. We have also reviewed CRs from our T1P1 colleagues, to define changes which are specific to the North American environment; however these require further work in T1P1 before they are seen as ready to be sent for endorsement by N2.

A concentrated effort in N2B and a special meeting of the SS ad hoc have led to the completion of the specification work for **Multicall**. The stage 2 and stage 3 (access) specifications are the responsibility of the SS ad hoc, and will be presented by Steffen Habermann as part of their output; however N2B have prepared several CRs against their specifications, which are presented for approval. These can be found in NP-000073.

The stage 2 specification for **Out of Band Transcoder Control** is presented for **approval**. We have identified some open issues where guidance is needed from other working groups,

but we believe that the specification is now ready to be put under change control. The specification (TS 23.153) can be found in NP-000111.

Something **did** come out to bite us on **PCS-1900 Harmonization** ! A CR to clarify the use of 3-digit Mobile Network Codes, which was originally drafted in January last year, got lost somewhere between SMG3 and T1P1, so it was not presented for approval. We have revised the CR to base it on the latest version of GSM 09.60 for Release 98, and created the mirror CR for Release 99. In our understanding, PCS-1900 Harmonization is a Release 98 work item, so no CR is needed for Release 97. The CRs are in NP-000074.

Having completed (as we thought) **Pre-paging** at the last CN plenary meeting, we have found that there was a minor error which needed correction. The CR to deal with this is in NP-000075.

We have agreed several CRs on **QoS Enhancements**, which you can find in NP-000077. This completes the work on this item in N2.

We have worked on several topics under the heading of **Security**.

- A CR to GSM 03.03 for **GSM Phase 2**, with mirror CRs to Releases 96, 97, 98 and 99, to define a tighter requirement for **protection of the IMEI against tampering**;
- CRs to several of our specifications to provide **Enhanced User Identity Confidentiality**. Unfortunately these do not provide a complete solution for the requirement from S3. We have indicated to S3 the area of weakness in EUIC, and warned them that it will not be possible to provide a complete solution in time for approval by CN #7; S3 will put their recommendation to the SA plenary meeting later this week.
- CRs to TSs 23.012, 23.018 and 29.002 to support **Authentication Failure Reporting** to the HPLMN;
- Various corrections and enhancements to the definition in our specifications of the **UMTS authentication regime**;
- A CR to TS 29.060 to clarify the means of providing **GTP signalling security** (this CR is linked to a CR against TS 33.102, to be drafted by S3);
- **MAP signalling security** (leaving the hottest topic until last?). Unfortunately we were not able to agree a MAP change request to meet the requirement from S3, though we have a good basis for further development of an application level security mechanism, and if CN and SA plenaries approve the work in N2 we believe that we could complete the work for approval by CN #8. Two companies (T-Mobile and Vodafone Airtouch) have indicated their willingness to lead this work, and several manufacturers and operators have offered to support it. The decision on how this work will be continued rests with SA in the first instance; S3 will be making their recommendation later this week.

The agreed change requests are in NP-000076.

We agreed a set of corrective CRs on the Local Service Area definition for **SoLSA** for Release 98, with the corresponding Release 99 CRs; you can find these in NP-000078. All open issues on the **Super-Charger** stage 2 (TS 23.116) have now been resolved, and the specification is now presented at version 2.0.0 for approval. You can find it in NP-000110. As usual, we have produced several CRs in the **Technical Enhancements and Improvements** category. Two of these which I would like to mention specifically are a large-scale editorial clean-up on MAP, courtesy of a new broom from Ericsson US, Sean Schneyer, and another piece of liposuction on TS 29.002, which removes the architectural information from chapter 4. This CR is linked to a companion CR against TS 23.002 to be drafted by S2. You can find our TEI CRs in NP-000079 & NP-000113.

### **3 Documents for Approval**

The following **specifications** are presented for approval:

- TS 23.116 (Super-Charger stage 2) in NP-000110;
- TS 23.119 (GLR stage 2) in NP-000108;
- TS 23.153 (Out of Band Transcoder Control stage 2) in NP-000111;
- TS 29.119 (GTP for the GLR) in NP-000107;
- TS 29.120 (MAP for the GLR) in NP-000109.

The following **change requests** are presented for approval:

- On CAMEL Phase 2 in NP-000033 and NP-000064;
- On CAMEL Phase 3 in NP-000034, NP-000035, NP-000036, NP-000037 & NP-000065;
- On Call Forwarding Enhancements in NP-000055 and 000066;
- On ASCI phase 2 in NP-000063;
- On GPRS in NP-000067;
- On GSM/UMTS interworking in NP-000068;
- On GTP enhancements in NP-000069;
- On Handover in NP-000070;
- On LCS in NP-000071;
- On Mobile Number Portability in NP-000072;
- On Multicall in NP-000073;
- On PCS-1900 Harmonization in NP-000074;
- On Pre-paging in NP-000075;
- On Security in NP-000076;
- On QoS Enhancements in NP-000077;
- On SoLSA in NP-000078;
- On Technical Enhancements and Improvements in NP-000079 & in NP-000113.

#### 4 Information to be noted

The lists of **Liaison statements** already sent by N2 are in NP-000080 & NP-000162.

For the rest of this year we have agreed the calendar of N2 meetings:

- 27 – 31 Mar      Charleston, South Carolina, USA (Pacific Bell Wireless);
- 22 – 26 May      Rotenburg, Germany (Siemens);
- 17 – 21 Jul      Budapest, Hungary (Nokia);
- 11 – 15 Sep      "Somewhere in the USA" (Ericsson et al);
- 13 – 17 Nov      Paris, France (Alcatel).

#### 5 Thanks

This time I have to say "Gratias atque vale", at least to one person. Steffen Habermann, one of the N2A vice-chairmen, has been instructed by his company to concentrate on the work of N2B, so he has retired from the Chairmanship of N2A. His departure leaves a serious hole to be filled; at the time of drafting this report, I'm not sure where the successor will come from. I hasten to add that being seriously tall is not an essential part of the job description...

Yun-Chao Hu, the other vice-chairman of N2, has chaired N2 subgroup B in the ad hoc meetings this year - I was able to return the favour I owed him by looking after the N2B sessions in Kyoto, which Yun-Chao had to miss because of illness. Monica Hellman and Franco Settimo, the MCC members, have continued to give us excellent support, and have doubled as hosts - Monica for the N2A meeting in Sophia Antipolis and Franco for the N2B meeting in Milan. My thanks also to the delegates, who have worked some extremely unsociable hours (I thought the days were long in Eton, but some of the discussions in Milan went on until 3 a.m.!) and provided a large number of good contributions, and to the hosts. The use of electronic distribution of documents has certainly saved the Scandinavian forests - we have dealt with a very large number of documents already this year, after only one regular N2 meeting, and three ad hoc meetings, we are nearing a total of 1000 documents.

I believe that N2 is now well-placed to start work on UMTS Release 2000.

This meeting's quotation could be followed by, "How wrong can you be?". To save you having to ask me afterwards where it comes from, the name of the author is Rudyard Kipling. "East is East, and West is West, and never the twain shall meet."