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Status report of TSGN1 to TSGN plenary meeting #7

1 Introduction

This report summarises the progress of TSGN1 on the work items which have been active in the working group since TSGN plenary meeting #6. More detailed meeting reports are available on the 3GPP server and they are also provided to this meeting in Tdoc NP-000105 (Abiko) and NP-000106 (Umeå). Additionally an estimate of R2000 work is given in section 4.4 of this document. The whole section should not be treated as comprehensive task list resulting from a thorough study but it is the list of tasks which have been identified up to now.

TSGN1 has had two meetings since TSGN plenary #6. TSGN1 #10 was held in Abiko, Japan, hosted by NEC and TSGN1 #11 was hosted by Telia in Umeå, Northern Sweden. Additionally to these regular meetings some delegates participated the R00 ad-hoc meeting in Puerto Vallarta. The report from this ad-hoc meeting is available on the 3GPP server but it has not been provided for this meeting as TSGN1 originated contribution.

2 Main achievements

In the previous plenary meeting TSGN #6 all WGs got the task to focus on the open items that had been identified on some of the R99 work items. This has meant prioritising pre-R99 and R99 work higher than R00 work. In practice no R00 work other than participation to Puerto Vallarta ad-hoc meeting and arranging a joint ad-hoc with S2 in April has taken place in TSGN1 yet.

Older releases before R99 are stabilising but there are still some detailed CRs on pre-99 releases which TSGN1 provides for the approval to TSGN #7. The biggest volume of CRs are related to GPRS and ASCI work items.

We see now that the schedule estimate given by TSGN1 about one year ago was very accurate. We indicated that approximately 6-7 months will be needed after the stabilisation of the service requirements and stage 2 architecture to complete the stage 3 specifications. It was problematic for TSGN1 to proceed with the stage 3 work during summer 1999 due to lack of stability in stage 1 and

stage 2. We got the answers to the large list of open questions to the other WGs in Kyongju meeting and now we can present what we think is an almost complete package from TSGN1 for most of our R99 work items. Maybe this should be remembered when defining the goals for R00 in order to have realistic targets for the rest of the year.

The main missing things from the goals we set to ourselves in TSGN #6 are reduced scope of OoBTC and the missing security items. With the security WI it was already indicated in TSGN #6 that it will not be possible to complete the task in time for R99.

3 Information to be noted

3.1 Meeting schedule for year 2000

1. TSGN1 #10 11.-14.1.2000 (Abiko, Japan/NEC)
2. GPRS Ad-Hoc 19.-20.1.2000 (Oslo/ Motorola)
3. SMG#31 14.-18.2.2000
4. TSGN1 #11 28.2.-3.3.2000 (Umeå, Sweden/Telia)
5. TSGN#7 13.-15.3.2000
6. TSGS2 – TSGN1 Ad-hoc on CC and Architecture 11.-13.4.2000
7. TSGS2 – TSGN ad-hoc on R00 work planning 13.-14.4.2000
8. TSGN1 #12 22.-26.5.2000 (Hawaii, U.S./T1P1)
9. SMG#32 19.-20.6.2000
10. TSGN#8 21.-23.6.2000
11. TSGN1 #13 11.-15.9.2000 (U.S./T1P1)
12. TSGN#9 25.-27.9.2000
13. SMG#33 6.-10.11.2000
14. TSGN1 #14 20.11 – 24.11.2000 (UK, Lucent)
15. TSGN#10 6.-8.12.2000

The meeting dates for year 2000 have been set as the minimum number of meetings that will be needed to finalise the TSGN1 input to each plenary meeting. This will leave space for ad-hoc meetings that may be needed in between the scheduled meetings.

3.2 Liaison statements already sent

Due to the busy meeting schedule all agreed outgoing liaison statements from TSGN1 have been sent right after each meeting. The LSs from TSGN1 in NP-000104 are provided for information for TSGN plenary.

3.3 TSGN1 Work Item list

The work item list has been followed since TSGN #6. With majority of the work items there has also been an open item list to guide the progress in the working group. The status of each work item has been covered in section 4 of this report.

4 Issues for action/decision by CN plenary

4.1 Liaison statements

All liaison statements from TSGN1 since TSGN #6 have already been sent and the ones in Tdoc NP-000104 are for information for the plenary.

4.2 GSM Maintenance

4.2.1 GPRS

TSGN1 is asking TSGN plenary to endorse the GPRS change requests which are in document NP-000091, and forward them to SMG #32 for approval. These change requests are corrections to the GSM Release 97 standard, with their Release 98 and Release 99 counterparts.

4.2.1 ASCI

ASCI CRs are provided in Tdoc NP-000089.

4.2.3 TEI and correction

Miscellaneous TEI and correction CRs are provided for plenary approval in tdoc NP-000101.

Tdoc NP-000097 contains NITZ related CRs for approval.

4.3 Release 99 work items

4.3.1 Multicall

TSGN1 task on the WI is complete. The work item is proposed for R99, tdoc NP-000084.

There has been active discussion between TSGN1 and the other groups since TSGN #6 in order to finalise the multicall work item for R99. The work in TSGN1 has been coordinated using an open item list and all of the items on the list have now been covered either with a CR or in some cases with a reference to a decision meaning that no action is required by TSGN1.

TSGN1 provides its part of the multicall CRs for plenary approval in tdoc NP-000095.

4.3.2 Multimedia

TSGN1 task on the WI is complete. The work item is proposed for R99, Tdoc NP-000088.

All main N1 working assumptions have been collected in Multimedia TR 23.972. An earlier version of the TR in tdoc NP-000103 was provided for the TSGN #6 for information. It has been updated since then and now TSGN1 forwards 23.972 to TSGN plenary for approval asking for it to be raised to version 3.0 and to be frozen as part of R99.

TSGN1 provides its part of the multimedia CRs for plenary approval in tdoc NP-000096.

4.3.3 GSM-UMTS interworking and MM for UMTS

TSGN1 task on the WI is complete. The work item is proposed for R99, Tdoc NP-000086.

Also with this work item an open item list was given as the task list for TSGN1 to complete by TSGN #7 plenary. All of the issues plus one additional open item which was identified after TSGN #6 have now been covered either by a CR or a decision meaning that no TSGN1 action is needed.

The problem with 23.009 still remains, TSGN1 is not confident to be the only reviewer of the proposed changes but would also like to ask for TSGN2 comments before final endorsement. There is also a practical problem with the SDL diagrams which make far too large files to be handled in a practical way and also the format used by the tool causes problems. The files seem to be either unreadable (.doc) or impossible to update (.pdf). Also the meeting secretary indicated a problem with implementing the CRs due to not having the original SDL files available. Because of the size of the files it is not feasible to ask the secretary to redraw the diagrams from paper or .pdf format.

TSGN1 provides its part of the GSM – UMTS interworking CRs for plenary approval in tdoc NP-000092 and NP-000093.

GSM – UMTS interworking related CR (coding of RAB ID field) in tdoc NP-000102 is withdrawn.

4.3.4 MS Classmark split

TSGN1 task on the WI was reported to be complete already in TSGN #6 and the work item was frozen in that meeting.

The reason why we see some fundamental changes in the CRs under this work item is the late introduction of a new work item GSM for 400 and 850 MHz bands and change of working assumption regarding the UMTS classmark for mobile station.

TSGN1 reports its work on this WI complete and provides the CRs for plenary approval in tdoc NP-000094.

4.3.5 EDGE and Compact EDGE

SMG2 has been working on the Compact EDGE WI for some time now and CN related tasks of the Compact EDGE WI have been discussed only in the latest meetings of TSGN1. Now after the split of 03.22 some of this work is transferred to where it should originally have been done, i.e. TSGN1.

All necessary CRs related with PLMN selection could not be agreed yet. The main work on the lower layers has already been done and will be part of the R99 specifications so more time should be allocated for TSGN1 to complete its part of the WI for R99 specifications.

EDGE CRs for approval are in tdoc NP-000090.

4.3.6 Security

Security is a work item which can be easily partitioned in smaller subtasks. In TSGN1 some of these subtasks have been treated under security work item while some others have been included in other work items such as GSM-UMTS interworking and MM for UMTS.

TSGN1 task on security work item is not complete yet. It was agreed in TSGN #6 to study the security WI task by task according to 30.810 and to make a R99 vs. R00 decision on each individual task basis in TSGN #7. Work item status in TSGN1 is provided in tdoc NP-000083.

The WG supports this approach and to include the currently available security contributions in R99 specification freeze. The remaining tasks should be made R00 work items or features/work tasks/building blocks as appropriate.

The following open items have been identified related with WI security:

- MS reaction after failure of the network authentication by the MS (needed for R99)
- Integrity protection of emergency calls (needed for R99)
- Encrypted IMSI (R99 or R00 – plenary decision required)
- USIM triggered re-authentication (proposed for R00)

The two former ones need to be solved for R99, otherwise the security in R99 is severely compromised. The two later ones would not cause as dramatic effects if they are specified for R00 only. TSGN1 expects to get the work completed by June 2000 and requests for more time to complete these parts of the WI.

Additionally to this the encrypted IMSI CR was discussed in TSGN1 but it was felt that this WG should not proceed with the stage 3 before service requirements and security requirements have been defined by S1 and S3 respectively. Whether this feature should be standardised for R99 or R00 could not be agreed by TSGN1 so here plenary decision is requested.

TSGN1 provides in tdoc NP-000100 for TSGN #7 approval those security related CRs which have been completed up to now.

4.3.7 Out-of-Band Transcoder Control (OoBTC)

TSGN1 could not complete its part of the work on Out-of-Band Transcoder Control in the scope defined for the WI. Several liaisons were exchanged and parallel ad-hoc sessions were held in order to get together the minimum building blocks for R99. This was achieved by defining AMR the default codec for UMTS meaning that it does not need to be signalled out-of-band during call establishment phase. The existing BC IE structure is kept for GSM and its contents is still useful for UMTS to GSM handover.

Adding new codecs and the signalling mechanism to negotiate the activation of the codecs should be studied for R00. TSGN1 has not had the time to draft a proposal for the remaining R00 work. TSGN1 work item status is in tdoc NP-000085.

With the reservations above, TSGN1 reports its work on the R99 part of the WI complete and provides the CRs for plenary approval in tdoc NP-000098.

4.3.8 QoS

Three open items were identified in TSGN #6, the length of TFT, default values for unused code points in QoS IE and mapping between R98 and R99 QoS.

TSGN1 has agreed CRs to cover the two former issues and S2 have done the third one. So there are no more open items and TSGN1 reports its work on this WI completed for R99. TSGN1 work item status is in tdoc NP-000087.

The QoS related CRs are provided for plenary approval in tdoc NP-000099.

4.4 Foreseen Release 2000 work in TSGN1

No R00 work item proposals have been prepared by TSGN1 due to the prioritisation of R99 work. Two existing work items, L3 segmentation and turbocharger have already been moved from R99 to R00 earlier. Additionally some more work has been identified for TSGN1 for R00 and the most likely candidate work items have been listed below. As indicated in the meeting schedule the next task for the WG will be planning of R00 work in the ad-hoc meetings which will be hosted by Nokia in Helsinki in April.

TSGN1 has had no time to think about the choice of the call control protocol(s) for R2000. This will be an interesting decision from TSGN1 viewpoint no matter which group is tasked with the standardisation of the multimedia CC.

Additionally a general principle of standardising regional additions like informative cause code for the lack of Called Party BCD Number in MT call Setup message was discussed. It was the unanimous opinion of the meeting that if such procedures are to be brought in the global 3GPP specifications then the service requirements and the architecture should be defined by TSGS1 and TSGS2 as usual.

The regionally defined procedures make it more difficult to design global mobiles that would roam easily between the networks. Due to this N1 agreed the principle that when feasible the regional deviations from the global standard should be avoided. Whether the principle above would apply to this particular case could not be agreed by N1. In any case TTC will be standardising the feature as part of Japanese regional standard at least for R99.

4.4.1 L3 segmentation

The work item was postponed for R2000 in TSGN #6.

There has been no progress on the WI in TSGN1 since TSGN #6.

4.4.2 Turbocharger

The work item was postponed for R2000 in TSGN #6. Then it was decided that TSGN #8 at the latest will need to make a decision on the future of the work item.

There has been no progress on the WI in TSGN1 since TSGN #6.

4.4.3 Emergency call enhancements

TSGN1 has been discussing two alternative stage 3 CRs to introduce emergency calls to different emergency services. However, none of the alternatives could be agreed due to lack of decision in TSGS1 in favour of one or the other principle. Consequently TSGN1 proposes that for R99 no changes are done and that the emergency call enhancements should be studied as R00 work item.

4.4.4 Security

The outstanding security tasks which can not be completed in time for R99 should be studied in R00.

4.4.5 GPRS Ciphering

TSGS3 had sent a liaison statement containing a single GPRS CR on R98 and R99 V7.2.0.

The principle of the proposal was that the MS should (actually mandatory "shall") monitor whether the ciphering is on and in case of no ciphering clear the PDP context(s). The CR gained no support in TSGN1 and the reason was not a formal one but R98 GPRS is already frozen and the same should in practice apply to R99 too and that is why no new requirements could be accepted. A LS to inform TSGS3 on this decision has been sent in N1-000448.

TSGN1 proposes that TSGS3 should start a R00 work item on this issue.

4.4.6 USIM triggered authentication

USIM triggered authentication and key setting during PS connections was also proposed by TSGS3 in their LS. With this proposal there were too many technical open issues to agree stage 3 right away and here too TSGN1 proposes that the issue should be studied as R00 work item. A LS to inform TSGS3 has been sent in N1-000449.

4.4.6 TSGN1 Terms of Reference

TSGN1 has rewritten the ToR to adapt it to R2000 work. The new version is provided for plenary approval in tdoc NP-000082.

5. Thanks!

Thanks go to the companies hosting TSGN1 meetings in various interesting places around the world. We have been treated with good meeting logistics, weather to please all tastes, fresh strawberries and snowmobiles among other useful and entertaining things and now having the next meeting hosted by T1P1 in the U.S. makes a well balanced geographical distribution of meetings.

I also need to thank the delegates for their contributions and constructive comments on the documents provided by the other delegates. Cleaning the open item list has required some crash actions but we got it all done after all.

And finally special thanks to TSGN1 Vice chairman Mark Fenton for drafting the agenda for TSGN1 #11 meeting during my illness and secretary Ban Al-Bakri for providing the TSGN1 input documents to this plenary meeting singlehandedly during my winter holiday last week.