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Source: **Chairman TSG SA**

Title: **Report to PCG#03 on work in TSG-SA**

Agenda: **5.1**

Document for:

Decision	
Discussion	
Information	**X**

1   Main events since last meeting

In the period July 1999 (PCG#02) to January 2000 (PCG#03) TSG-SA have held two TSG-SA plenary meetings, TSG-SA#05 in Kyongju, South Korea 11 – 13 October 1999 and TSG-SA#06 in Nice, France 15 - 17 December 1999. Further to TSG-SA plenaries, a number of meetings of the TSG-SA working groups have taken place.

2   Technical work in TSG-SA

The work of TSG-SA consists of three main parts: technical work within TSG-SA, technical co-ordination between the TSGs and project management. In the period TSG-SA have been working in all three areas. The technical work within TSG-SA is organised in 5 working groups dealing with the service aspects, architecture, security, codec aspects and telecom management.

2.1   Work related to Service Aspects

The service requirements and associated stage 1 documentation for release '99 are now considered complete except for adjustments and clarification caused by the stage 2 and stage 3 work. TSG-SA WG1 (S1) are now analysing the requirements for the next releases. One of the key items proposed for the future releases is the introduction of a IP based network in 3GPP. The feasibility of IP based network for 3GPP have been studied by TSG-SA WG2 and TSG-SA have decide to start the work. In order to assist TSG-SA WG1 in the elaboration of the requirements etc., TSG-SA have decide to hold a workshop on IP network for 3GPP 7 – 9 February 2000. This work has as goal to establish a vision and identify the requirement for the IP network in the future releases.

2.2   Architecture related work

As reported to PCG meeting number 2, already at TSG-SA#02 in March 1999, it was clear that system

architecture work of TSG-SA WG2 (S2) was one of the bottlenecks on the way to release 99. This lead TSG-SA to request is members to contribute towards completion of the release '99 architecture work. At TSG-SA#03 key architecture documents was still not completed. In order not to delay the work of TSG-CN it was agreed that S2 should forward the requirements imposed on the core network to TSG-CN by the end of May 1999. S2 did forward the architectural documents to TSG-CN, but when the documents were scrutinised at TSG-SA#04 it became evident that a number of key issues still were open. During TSG-SA#04 an ad-hoc group was formed to analyse the issues and list the issues which needed to be resolved urgently. Since then the situation around TSG-SA WG2 have significantly improved and TSG- SA WG2 can now generally be considered as being in line and on schedule with the rest of the project.

In order to get a better cross project co-ordination a number of work area oriented ad-hoc groups have been established in S2. These ad-hoc groups are to provide cross project technical co-ordination as well as to create and follow-up on project plans for the work area under their responsibility. The reports of these ad-hoc groups have shown to be a useful tool for the project co-ordination role of TSG-SA.

2.3 Security related work

The security architecture specification is now completed and a few issues in relation to TSG-CN have been identified to potentially require adjustment of the expectations of TSG-SA WG3. In order to align the work of TSG-SA WG3 and TSG-CN provision for a joint expert meeting have been made.

As earlier reported and accepted by the PCG, TSG-SA has through TSG-SA WG3 subcontracted the development and verification of the cryptographic algorithms for 3G systems to ETSI SAGE. This work has now been completed and the cryptographic is now available. TSG-SA WG3 proposes the algorithm to be fully published (see Tdoc PCG#03(00)xxx). ***Consequently, the PCG is asked to decide on publishing of the algorithm and/or the handling and licensing of the algorithm***. In order, not to unnecessarily delay implementations TSG-SA recommends that arrangements are provided to allow manufacturers to obtain the algorithm for implementation purposes any phase required to obtain to handle the different aspects of a publication of the algorithm.

The cross 2G-3G SIM-USIM compatibility and handling has been subject of intense discussions in the period. The main problem being the desire from a number of members of having the possibility of using 2G cards (SIM only) in 3G terminals and networks, knowing that this would not allow a 3G network to use the new and improved security features which requires a 3G card (USIM). As a compromise, TSG-SA has agreed to design the system such that the 2G-card (SIM) can be used in a 3G terminal in a 3G network. However, the operator of a 3G network will be provided with the technical possibility of rejecting access to the 3G access portion of the network when a 2G card (SIM) is used.

2.4 Codec related work

The codec work in TSG-SA WG4 (S4) have been progressing well and the basic specifications for the speech codec and the specifications have been approved by TSG-SA. The only aspects not yet completed are the evaluation and characterisation reports, which are expected for the next meeting of TSG-SA. This speech codec is the same as the AMR codec for GSM, but it should be noted that due to the different radio access technology the radio related adaptation algorithm can not be reused from GSM. Also due to the different radio technology it has been decided to perform supplementary characterisation tests in order to evaluate the quality under 3G error conditions (UTRA FDD and UTRA TDD). As indicated to the last meeting of the PCG, TSG-SA believes that the required experiments

could be compiled in two subjective listening tests performed in 2 different languages. This supplementary characterisation effort was estimated to require a funding of 55 kEuro, and approved in principle by the PCG. ***The PCG is requested to provide the 55 kEuro necessary for speech codec characterisation, as soon as possible to avoid further delays of the characterisation test.***

2.5 Work related to telecom management

The timing of release 99 for the telecom management related specifications were reported to the last meeting of the PCG. It was noted that TSG-SA wishes TSG-SA WG5 (S5) to complete the specifications by December 1999 as for the rest of release 99. However, it was understood that parts of the telecom management specifications builds on the core specifications and can therefore not be fully completed before the core specifications are completed. On this background TSG-SA found it acceptable that a delay of 3 month compared to the December 1999 can occur for some telecom management specifications. At the last TSG-SA meeting it was found that it was possible to provide most of the telecom management specification no later than March 2000. However, some areas were reported to have expected completion date in June 2000. For these areas TSG-SA requested the specifications to be provided to TSG-SA in March for approval accepting than some updates might be required following.

TSG-SA noted the importance of close corporation and the need for feedback from the operator side. Especially taking the amount of work and the associated time scales into account. On this back ground TSG-SA has been very pleased to see the commitment from the GSM Association to actively contribute in the area of telecom management.

3 Technical co-ordination

3.1 Issues related TSG-CN

The co-operation with TSG-CN have in the period focussed on the detailed implementation of the requirements, the architecture and the security aspects, which have been developed by TSG_SA WG1, WG2 and WG3.

For release 1999 security items are being analysed for inclusion of parts in release 1999. A joint meeting has been arranged with SA WG3 experts in order to clarify the requirements, impacts and urgency. A final decision will be made in March 2000.

Similar to the other TSGs and the working groups of TSG-SA, TSG-CN provided a list of items for late inclusion in release 1999 to TSG-SA. These items was evaluated together with the similar information from the other groups and used to generate and over all position of which items are accepted for late inclusion in release 1999 and which items are postponed (see Tdoc PCG#03(00)xxx)

For release 2000 a joint meeting on the IP network between TSG-CN and TSG-SA WG2 has been organised, to provide TSG-CN information about the architectural considerations and to provide feedback on the impact and potential time scales for standardisation in the TSG-CN area.

3.2 Issues related to TSG-RAN

The main issue in this previous period related to the co-operation between TSG-SA and TSG-RAN was the work related to the proposal received on harmonisation between CDMA based IMT-2000 proposals, better known as the "OHG agreement". Since the last PCG meeting two workshops have been held to progress the proposals. The one workshop organised by 3GPP dealt with usage of the 3GPP RAN on an ANSI-41 based core network. This workshop identified hooks and extensions to be provided in UTRAN and as well as in the ANSI-41 core network to facilitate this combination. TSG-SA have noted the actions to be taken by 3GPP as being confined to the working area of 3GPP TSG-RAN and the amount of work to be line with the expectations reported to the last PCG meeting.

A second workshop organised by 3GPP2 dealt with the usage of multi carrier on a MAP based core network. This workshop did not create any significant work taks to be performed by any of the 3GPP TSGs.

Similar to the other TSGs and the working groups of TSG-SA, TSG-RAN provided a list of items for late inclusion in release 1999 to TSG-SA. These items was evaluated together with the similar information from the other groups and used to generate and over all position of which items are accepted for late inclusion in release 1999 and which items are postponed (see Tdoc PCG#03(00)xxx)

3.3 Co-ordination with TSG-T

TSG-SA has noted that the funding requested by TSG-T, for elaboration USIM test specifications and the similar funding of the elaboration of the detailed protocol and signalling test specification for 3GPP MS in a formal language, TTCN (Tree and Tabular Combined Notation), has not yet been made available. This despite that this was agreed in principle by the previous PCG meeting. TSG-Sa have noted that this so far have delayed the planned availability of the test specifications in question with 3 month and that this delay will increase unless the funding is made available immediately. ***TSG-SA is concern about the lack of available funding and would invite the PCG to make this funding available as soon as possible.***

At the last TSG-SA meeting TSG-T provided terms of reference and a Project Plan for funded TTCN Testing team. These were endorsed by TSG-SA.

In addition to the funding requested at the previous PCG meeting TSG-T presented a request for additional 9 man months (~ 108 kEuro) of funding for a task teams which major task would be to produce test purposes and test descriptions for UE supporting packet data service. Together with the indication of the funding required terms of references and a project plan for the proposed task team was provided (see Tdoc PCG#03(00)007). TSG SA endorsed the project plan and the request for funding. ***TSG-SA invites the PCG to consider funding of this work***.

Similar to the other TSGs and the working groups of TSG-SA, TSG-T provided a list of items for late inclusion in release 1999. These items was evaluated together with the similar information from the other groups and used to generate and over all position of which items are accepted for late inclusion in release 1999 and which items are postponed (see Tdoc PCG#03(00)xxx)

4   Summary of requirements for funding

At the previous PCG meeting the following request for funding was accepted in principle:

Development of ciphering algorithm (spent)   344 700 Euro

AMR codec characterisation   55 000 Euro

SIM test specification (9 – 12 man month)   144 000 Euro

TTCN test cases (78 man month over two years)   936 000 Euro

In addition the following funding is being requested in this period:

Packet data test cases (9 man month)   108 000 Euro

5   Release 99 and beyond

As indicated earlier in this report TSG-SA have reviewed the status of the project in co-operation with the other TSGs. Based on the status report provided, TSG-SA have complied a list of items originally expected for release 1999, but not yet completed. For each of these items it has been decide whether or not the item should be accepted for late inclusion in release 1999, or postponed for later releases. This list is provided in Tdoc PCG#03(00)xxx and will be reviewed and the statuses updated at the next TSG-SA meeting.

Based on input from members TSG-SA has initiated discussions on the releases after release 99, it has been agreed to set the target for the next release to December 2000. Furthermore, a way forward for identifying the content of this next release (release 00) and establishing a work plan have been agreed. S1 have been tasked to create a list of services/service capabilities and present it back to TSG-SA as a continuous exercise. Based on the very broad support for introduction of an all IP based network, S2 has been tasked to identify and plan all the necessary work to specify this. Also in relation to the all IP based network TSG-SA have planned a workshop on vision and requirements in under to ensure that the different views are properly collected and used to form a stable basis for the future work on the all IP based network.

6   General Management issues

When establishing the overall status for the release 1999 it has been realised that it has been difficult to link together the work items of the different TSGs in order to understand whether or not all part of a service or functionality is being completed according to the target. To help overcoming this problem for release 2000 a working model has be elaborated and agreed. This working model allows the work items of the different TSGs to be linked into a hierarchical structure, based on three levels feature, building block and work task. The work item data base have been updated accordingly in order to support this working model.