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Draft Report



Munich Clock Tower Contents

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1 Opening of the meeting

The SA WG3 Vice Chairman, V. Niemi, opened the meeting and welcomed delegates to Munich. The meeting was hosted by Siemens. G. Horn welcomed everybody on behalf of Siemens and provided the domestic arrangements for the meeting.

2 Agreement of the agenda and meeting objectives

TD S3-020455 Draft agenda for meeting #25. The agenda was approved without change.

2.1 3GPP IPR Declaration

The SA WG3 Vice Chairman reminded delegates of their responsibilities regarding the declaration of essential IPRs.

3 Assignment of input documents

The available documents were allocated to their respective agenda items. It was noted that the late documents (received after 17.00 CET, Thursday 3 October 2002) would be dealt with if possible, but priority would be given to dealing with documents that were already submitted before the deadline.

4 Reports from 3GPP SA3 meetings

4.1 SA3#24, 9-12 July 2002

TD S3-020456 Draft Report of meeting #24 - vsn 0.0.3. The report was reviewed by the meeting. Actions from meeting #24:

AP 24/01: K Boman agreed to check TS 33.203 for ISIM/USIM Terminology and respond to the

contact person for the LS in TD S3-020336 (M. de Groot).

This had been completed. No changes were necessary from SA WG3.

AP 24/02: A. Escott to update TD \$3-020450 and send for approval. A 2 week comments period

(29 July) and 1 week to update (2 August) and send for approval. Approval deadline 16

August 2002. Completed.

AP 24/04: P. Howard to lead an e-mail discussion group to discuss IST issues.

Ongoing - e-mail discussion to be re-initiated for reporting to the next SA WG3 meeting.

AP 25/01: P. Howard to lead an e-mail discussion group to discuss IST issues and

report to next SA WG3 meeting.

AP 24/05: Various: People listed in Subscriber Certificates open issues list to progress discussions

and report to next meeting.

Completed. Various e-mail discussions took place and inputs provided to the meeting. The Lawful Interception implications are still to e discussed in the LI group. It was noted

that a WID has been created in the LI group.

AP 25/02: (B. Wilhelm / C. Brookson) LI group to consider implications of Subscriber

Certificate work on LI.

AP 24/06: L. Lopez Soriato update WLAN TS based on comments received for next meeting.

Completed.

AP 24/07: M. Walker to produce TD S3-020428 (response to letter to SA WG3 Chairman in

TD S3-020337) and copy to SA WG3 list.

Completed.

Changes as follows were requested: TS 33.201, TS 33.903 to be deleted. TR 33.900 to be Rel-6. The status of TS 42.009 should be checked (i.e. whether or not it should be continued into Rel-5). For the FIGS specifications, the FIGS WI is no longer supported. **C. Brookson agreed to ask operators whether any development on FIGS functionality was required. A decision whether or not to continue FIGS into Rel-6 will be taken at the next meeting.**

AP 25/03: C. Brookson to circulate draft 33.900 to SA WG3 for update and approval at

next meeting as a Rel-6 TR.

AP 25/04: C. Brookson to ask operators whether there is any support for FIGS in

Release 6 and report to SA WG3 meeting #26.

4.2 SA3 LI #12, 24-26 September 2002

TD S3-020488 Report of the 3GPP TSG SA WG3-LI (S3-LI) meeting #3/02 on lawful interception. This was provided for information and was noted.

TD S3-020489 Proposed CR to 33.107-5.4.0: Event Time (Rel-5). This CR was approved.

TD S3-020490 Proposed CR to 33.107-5.4.0: Essential correction to the LI events generated during inter-SGSN RAU, when PDP context is active (Rel-5). The affected Specification was identified as 33.108, it was reported that this CR was under e-mail discussion on the LI list and would be presented for approval after their next meeting. The CR was noted.

TD S3-020494 Proposed CR to 33.108-5.1.0: Essential correction to the LI events generated during RAU, when PDP context is active (Rel-5). "lease" will be changed to "least" in 6.5.1.2. The added-then-deleted text in the table title in Table 6.11a will be removed. The CR was updated and provided in TD S3-020546. It was reported that this CR was under e-mail discussion on the LI list and would be presented for approval after their next meeting. The CR was noted.

TD S3-020491 Proposed CR to 33.108-5.1.0: Essential corrections to the Annex C.1 (ULIC) - (Rel-5). This CR was approved.

TD S3-020492 Proposed CR to 33.108-5.1.0: Missing PDP Context Modification event (Rel-5). This CR was approved.

TD S3-020493 Proposed CR to 33.108-5.1.0: Aggregation of IRI Records (Rel-6). This CR was approved.

TD S3-020496 WI Description: Lawful Interception in the 3GPP Rel-6 architecture. This WI description was approved.

TD S3-020497 LS on change to LI email subscription and access controlled SA3-LI document area. It was thought that detailed arguments explaining why this change is needed should be provided before SA WG3 (or TSG SA) are likely to make a decision on this proposal.

AP 25/05:

B. Wilhelm to ask the LI group to provide more information on the reasons for the restricted access to the LI FTP area, in order for a better understanding of the issues involved for SA WG3 and TSG SA to be gained in considering the request (re: TD S3-020497 / S3LI02_155r1).

5 Report from SA#17, 9-12 September 2002

TD S3-020498 Report on SA#17 for SA3. This was introduced by the SA WG3 Vice Chairman and was reviewed.

- It was noted that 22.022 was a SA WG3 specification and it had now been upgraded to version 5.0.0 by the MCC Secretary.
- The A5/3 deadline had been proposed as October 2004 and was expected to be announced at the next GSMA meeting (October 2002). It was noted that this includes GEA3 as a mode of A5/3 working.
- Removal of MAPsec Automatic Key management from Release 5. M. Pope agreed to try to find the necessary changes needed to remove the automatic Key management from Release 5, using the latest Release 4 and Release 5 versions. (see agenda item 7.3, TD \$3-020568).

- GERAN Security: Enhanced A/Gb mode. Status needs to be clarified at next TSG SA Plenary. The Chairman's report from the TSG SA meeting #17 was then noted.

TD S3-020543 Draft report of TSG SA meeting #17 - version 0.0.4. This was provided by the Secretary for information.

The GSA3 A5/3 Algorithm report was thought in need of clarification, in order not to mislead readers on the implications. The SA WG3 Chairman will provide a comment to the draft report on this and provide information to the next TSG SA meeting in the SA WG3 Chairman's report to TSG SA.

It was noted that TD SP-020513 (WID NDS/IP) had been approved (not reported in the draft report).

The draft report of TSG SA meeting #17 was then noted.

6 Reports and liaisons from other groups

6.1 3GPP working groups

TD S3-020462 LS reply on Packet Switched Streaming (PSS) in Rel-6 Work Programme. This was noted.

TD S3-020464 LS reply on "Answer to "LS on PSS Release 6 work programme"". This was noted.

TD S3-020467 New requirements about functionality to make subscription to different domains independent or linked based on operator decision. It was noted that the attached CR had been rejected at TSG SA#17. A related LS had been forwarded to SA WG3 in TD S3-020468 "Response to T3-020406/S1-021427 (Response "Liaison Statement on Access to IMS Services using 3GPP release 99 and release 4 UICCs" (S1-020577))". This was provided for information and was noted. A response LS to TD S3-020467 and TD S3-020468, noting the discussion at SA WG3 on ISIM and USIM security requirements being the same from a Security perspective, was provided in TD S3-020561 which was modified and updated in TD S3-020577 which was approved.

TD S3-020469 LS on Speech Enabled Services. The attached TR 22.977 and TS 22.243 should be reviewed and contribution made to next meeting. L. Finklestein agreed to start an e-mail discussion on this and provide a response LS by 4 November 2002. Comments to be provided to L. Finklestein by 21 October 2002. Approval of resulting LS on 4th November 2002.

TD S3-020470 Draft Working Item Description PSS Rel-6 and LS response to:

"Answer to Liaison Statement regarding PSS Release 6 work programme" (S2-022050/ S4 (02)0375) from SA2, and "LS reply on Packet Switched Streaming (PSS) in Rel-6 Work Programme" (S5-024235/S4(0)0376) from SA5. No comments were made on the attached WID and their next meeting had already been held. The LS was then noted.

6.2 IETF co-ordination

This was covered under specific areas in Agenda Item 7.

6.3 ETSI SAGE

P. Christoffersson provided a verbal report of the work in ETSI SAGE. The reported Attack from Crypto was not considered a real attack, but rather a demonstration of a theoretical method for attack of the algorithm and was considered of low impact. A study on Plaintext redundancy was identified as needed. Resources were needed to help with this study and delegates were asked to forward any names to help with this.

6.4 GSMA SG

C. Brookson provided a verbal report. Discussions on HS theft - government legislation and input of EIR needed. GSMA have put on a shared part of the CEIR, which can be fed by Operators. Data integrity is an issue, as old blacklist equipment is still on the system. A new PRD on Security policy between operators in order to help with roaming agreements. A Security Advice service is under consideration to provide advice on Network Security to Operators.

SA WG3 delegates were invited to the next meeting 27-28 November 2002 in Ireland. Interested people should contact C. Brookson.

MILENAGE 2G: The new name for this algorithm is under consideration (possibly "G-MILENAGE", or "GSM-MILENAGE"). The algorithm will be delivered by ETSI SAGE to SA WG3. Partners' agreements will be required and the Distribution agreements between 3GPP and GSMA will need to be agreed upon.

6.5 3GPP2

The TSG S Security group was reported to be known as "TSG-S WG4", which should be reflected in future agendas. Main items - common algorithms for 3GPP2; 3GPP2 documents S-0033, S-0055 and SP-0078.

6.6 TIA TR-45

The AHAG group was reported to be meeting only each 3 months, joint with the TR-45 Plenary and are currently only working on maintenance of TDMA algorithm work. Joint meetings with AHAG was thought unnecessary at present. The co-operation agreements may be reviewed.

6.7 Other Groups

There were no specific contributions under this agenda item. Inputs were dealt with under their topics in agenda item 7.

7 Technical issues

7.1 IP multimedia subsystem (IMS)

TD S3-020495 Interception regarding IMS. This was a contribution to the LI group Helsinki meeting. The contribution was noted by SA WG3, and further discussion was requested within the LI group, based on this and additional contributions to their meeting.

TD S3-020458 LS on Diameter security issues. A related LS was postponed from the previous meeting in TD S3-020439 "LS from SA WG5 on Diameter security issues". A response to SA WG5 was produced, informing SA WG5 that SA WG3 agree with CN WG4 that NDS/IP can be used to secure the interfaces. SA WG3 still need to verify whether the latest DIAMETER draft includes the requirements in the NDS/IP specification. This LS was provided in TD S3-020547 which was updated in TD S3-020576 and approved.

TD S3-020485 Response to IETF LS on Interoperability Issues and SIP in IMS. This was introduced by Ericsson. It was noted that as much work as possible would need to be done to finalise Rel-5 work by December 2002. The contribution was then noted.

TD S3-020480 Liaison statement on Interoperability Issues and SIP in IMS. This was introduced by Nokia and provides an analysis of items needing work for completion of Release 5. Items 3 and 5 were thought necessary to consider immediately, and Item 2 should also be considered. For item 3, it was noted that end-to-end integrity cannot be provided if the headers are modified at intermediate nodes. For Item 5, CN WG1 view was considered OK. No changes to the security requirements were expected. A response was provided in TD S3-020550 which was updated in TD S3-020578 and approved.

TD S3-020516 IETF status report: SIP security agreement. This was introduced by Ericsson and proposed that SA WG3 decide on a deadline for the completion of SIP-sec-agree for inclusion in Rel-5. It proposes the IETF meeting as a deadline and a backup plan to be sure of a fall-back solution for November 2002. The idea for a back-up plan, in case of no approval of the draft by the IETF, was approved by SA WG3. A solution is needed for December Plenary in order to complete this for Rel-5. Co-operation with CN WG1 is needed to ensure that any CRs needed for the December Plenary are prepared in good time. A LS informing CN WG1 of these proposals was provided in TD S3-020551 which was modified slightly in TD S3-020580 and approved.

TD S3-020457 Secure registration of IP addresses. This was introduced by Nokia and asks SA WG3 to take into account the mechanism employed when setting up the SA in the P-CSCF. A CR related to this was provided at the last meeting in TD S3-020375 which was again reviewed. A CR was produced in TD S3-020553 which was approved.

TD S3-020460 IMS authentication vector distribution on the Cx interface. This was introduced by Ericsson and was noted.

TD S3-020499 Proposed CR to 33.203-5.3.0: Sending error response when P-CSCF receives unacceptable proposal (Rel-5). This was introduced by Nokia and aligns stage 2 and stage 3 specifications. It was reported that the *4xx_Unacceptable_Proposal* message had been introduced to keep the specification generic. This CR was updated slightly in TD S3-020554 and was approved.

TD S3-020513 Proposed CR to 33.203: Indication in the UE that the SA is no longer active in P-CSCF (Rel-5). This was introduced by Ericsson and attempted to clarify the procedure for detecting no longer active SAs. The CR was revised in TD S3-020555 which was approved. A LS to CN WG1 was provided to check any impact of this CR to their specifications 24.228 and 24.229 was provided in TD S3-020556 which was modified in TD S3-020579 and approved.

TD S3-020514 The use of SAs in IMS user authentication failures. This was introduced by Hutchison 3G UK and proposes that the P-CSCF should always rule out the case in which P-CSCF sends an error message in SM12 unprotected. A related CR was provided in TD S3-020515 which was modified in TD S3-020558 and approved.

TD S3-020527 Registration and SA lifetimes. This was presented by Hutchison 3G and reviewed the discussion so far on the binding between SA and registration lifetimes, in order to help SA WG3 reach a consensus on one of the discussed solutions or to develop an alternative solution. After some discussion, an evening session was set up for interested parties to discuss and return with an agreed proposal. The evening session reported that more time was required and an e-mail discussion will be held, and A. Escott agreed to lead this and draft a new CR proposal.

AP 25/06: A. Escott to lead e-mail discussion group on registration of SA lifetimes and provide a CR for SA WG3 meeting #26.

TD S3-020548 Proposed CR to 33.203: Re-use and re-transmission of RAND and AUTN (Rel-5). This was introduced by Ericsson and proposes the removal of an editors note as there is no longer any need for it. There was a request that the actions of the S-CSCF should be added to the specification if the editors note is removed - text from the conclusions in the *Reasons for Change* could be used for this purpose. It was agreed that this could be attempted overnight and a revised CR was presented in TD S3-020560. The CR was discussed and modified in TD S3-020590. It was agreed that these issues should be discussed and the CR updated and presented to the next SA WG3 meeting (CR postponed).

TD S3-020567 Due to an error in document number allocation, this was provided with a new number after the meeting TD S3-020591 will also be subject to this e-mail discussion for presentation to the next meeting.

TD S3-020559 Proposed CR to 33.203: Clean up one Editor's note in 33.203 (Rel-5). This was introduced by AT&T Wireless and proposed the removal of an editors note as the Hiding mechanism for Rel-5 no longer depends upon the issues described by the editors note. This CR was approved.

7.2 Network domain security: IP layer (NDS/IP)

TD S3-020536 Security need evaluation of UTRAN and GERAN IP transport interfaces. This was introduced by Nokia and recommended to have encryption and integrity protection on lu interface. A lower priority proposal was to use integrity checking for control plane interfaces that are IP based, which are namely lur, lub, lupc, lur-g and lu-BC. As the Gb interface is already covered by encryption in SGSN, it does not need to be secured by the NDS/IP mechanism. After some discussion, it was agreed that as a working assumption, protection of the RANAP protocol over the lu interface would be given the highest priority. the Gb interface is a similar case to the lub, and signalling between NW nodes is not currently protected. Therefore the Gb interface is raised to higher priority. CRs on this topic were requested, for the higher priority interfaces first and the lower priority interfaces will be dealt with after these.

TD S3-020552 Proposed CR to 33.210: Adding requirement to provide mandatory support for 3DES encryption in NDS/IP.Remove AES references and dependencies (Rel-5). This was introduced by Telenor and proposed the removal of AES, which is not complete in the IETF, and mandating support of 3DES. This CR was modified slightly and revised in TD S3-020562, updated again to include equivalent changes to section 5.4 in TD S3-020563 which was approved.

7.3 Network domain security: MAP layer (NDS/MAP)

TD S3-020481 LS on Status of protocol work on Ze interface. This was introduced by Nokia and was provided by CN WG4 to SA WG3 for information. The LS was noted.

TD S3-020568 Proposed CR to 33.200: Removal of Automatic Key Management from Rel-5 (Rel-5). This CR was postponed and A. Escott agreed to check the necessary changes off line and represent the CR to the next meeting.

7.4 UTRAN network access security

TD S3-020482 LS on re-used of START value for ciphering of RB using RLC TM during SRNS relocation. This was introduced by Nortel Networks. RAN WG2 asked SA WG3:

- whether SA WG3 consider that the R'99 handling of ciphering of RB using RLC TM during SRNS relocation by re-using COUNT-C values is a security problem that needs correction in further releases (Rel-4 onwards).
- If yes, RAN WG2 asks SA WG3 if the attached proposal is in line with the SA WG3 principles, is more secure compared to the solution adopted in Release 1999 and looks acceptable as far as SA WG3 are concerned.

The attached document (R2-022550) discussed the proposal for consideration by SA WG3.

SA WG3 agreed that the described problem should be addressed in Rel-4 RAN specifications. Some issues with backward compatibility to Release 1999 mobiles and the specification of the value of "x" (needs to be positive and of a large enough value). A response LS was provided in TD S3-020564 which was modified in TD S3-020583 and approved.

TD S3-020483 LS to SA WG3 on Group release security solution. This was introduced by Ericsson. RAN WG2 asked SA WG3 to answer the following questions:

- 1 If group release functionality is introduced in RRC signalling is a security mechanism needed or not?
- 2 If the answer to question 1 is that it is needed, can SA WG3 guide RAN WG2 on possible ways to limit UE implementation impacts, e.g. on the possible reuse without modifications of one of the Release 1999 security blocks (F8 or F9).

The following related contributions were considered:

TD S3-020510 Group Release Authentication algorithm. This was introduced by Ericsson and requested support from SA WG3 to agree on that HMAC SHA-1 is used to create the Group Indicia and that the indicia as well as the key are 128 bits long. If so, Ericsson suggested that SA WG3 send an LS with the requirements to RAN WG 2. The LS should also inform RAN WG 2 that SA WG3 expects to approve a CR against TS 33.102 at SA WG3 meeting #26, if RAN WG2 adopt the Group Release function. TD S3-020388 (from meeting #24) was a LS from ETSI SAGE on the suitability of the f9 and f8 functions for the Group Release function (this had been copied to RAN WG2). Although the LS indicates a variant of f8 would be best, it also indicated that f8 is adequate, and in order to meet timescales for RAN WG2, the use of f8 was considered the best choice.

TD S3-020537 Group release security mechanism. This was presented by Lucent Technologies and discusses the need for protection of the Group Release mechanism, and the need for protection of individual Release messages.

It was agreed that the impact of not protecting against the cost of protecting the Group Release function required further study. Other existing similar attacks should also be analysed to determine the efficiency of protection and the need for protection of other mechanisms. B. Owen agreed to lead an e-mail discussion to conclude on this issue. A LS to RAN WG2 was provided in TD S3-020565 which was modified slightly in TD S3-020584 and approved.

AP 25/07: B. Owen to lead an e-mail discussion to conclude on the need to secure the Group Release function.

If it is agreed that a protection mechanism is needed, ETSI SAGE were asked to provide information of the use of f8 and Qualcomm agreed to produce a CR to 33.102 based on this for the next SA WG3 meeting. P. Christoffersson agreed to co-ordinate this with G. Rose.

AP 25/078: P. Christoffersson (mechanism) and G. Rose (CR to 33.102) to co-ordinate the use of f8 to provide protection for Group Release mechanism, if the SA WG3 e-mail discussion on the need to have protection concludes that protection is desirable.

TD S3-020585 Proposed CR to 33.102 for information: USIM support in GERAN only terminals (Rel-5).

NOTE: The title on the CR sheet is incorrect and should read "Group Release Authentication Function"

This was provided for information and will be submitted if the need for Group Release protection is confirmed.

7.5 GERAN network access security

TD S3-020474 Response LS on Security enhancements for GERAN. This was introduced by Ericsson. TSG GERAN asked SA WG3 whether there is a plan to create work items to enhance GERAN Security for A/Gb mode. This was in response to GERAN document GP-022491, which had been elaborated by Vodafone following SA WG3 e-mail discussions. **P. Howard agreed to develop a WID for GERAN Security enhancements. Contribution and indication of supporting companies were invited for this**, This will be submitted to the next SA WG3 meeting. A reply LS was provided in TD S3-020566 which was modified slightly in TD S3-020589 and approved.

AP 25/089: P. Howard to develop WID for GERAN Security Enhancements (Rel-6).

TD S3-020477 Reply LS on "Gb evolution". This was introduced by Nokia and summarised the result of discussions in SA WG2. There were no actions on SA WG3, and delegates were asked to take the LS into account for SA WG3 work on Gb evolution. The LS was then noted.

TD S3-020540 Reply LS on "Gb evolution". This was introduced by Vodafone. TSG GERAN informed SA WG2 on WIDs created related to Gb evolution. It was reported that the joint GERAN/SA WG2 meeting had been set for 21-22 October in Sweden. This LS was noted and it was decided to copy the LS in TD S3-020589 (see above) to SA WG2 for information.

TD S3-020503 Proposed CR to 33.102: USIM support in GERAN only terminals (Rel-5). This was introduced by Siemens and was revised in TD S3-020567. This will be subject to an e-mail discussion for re-presentation to the next meeting.

TD S3-020545 A5/3 and GEA3 and their relation with EGPRS. This was introduced by Ericsson and questions the use of A5/3 for EDGE and the data-rate for EGPRS and asks SA WG3 to discuss the issues raised in order to provide any necessary CRs to the next SA WG3 meeting. It was confirmed that A5/3 and GEA3 were suitable for both GSM/GPRS and EDGE variants, the algorithm specifications are unclear on this: The modulation scheme used in the PS domain does not affect the GEA3 algorithm mechanism. A5/3 (CS domain) has 2 modes of use, GSM standard mode and GSM EDGE mode. No CR to TS 43.020 was thought necessary, as implementers need to look at the algorithm specifications where the two modes of operation are clarified. It was agreed, however, to create a CR to the Technical Report TR 55.919 to clarify the use of the term "EDGE" in the specifications and the EGPRS bit-rates. K. Boman agreed to do this for the next SA WG3 meeting.

AP 25/<u>1</u>09: K. Boman to clarify the use of the term EDGE for CS and PS domains in TR 55.919 (CR to be drafted).

7.6 Immediate service termination (IST)

There were no specific contributions under this agenda item.

7.7 Support for subscriber certificates

TD S3-020463 Liaison Statement from SA WG1 on subscriber certificates. This was introduced by Nokia and informs SA WG2, SA WG3 and T WG2 that SA WG1 have added a new section to TS 22.105, in response to LSs received on subscriber certificates, which is copied in the LS. It was not clear whether SA WG1 allowed the visited network to issue service usage certificates, which was the question asked by SA WG3 in the LS to SA WG1. It was considered that SA WG1 do not need to specify who issues the certificates, and this should be specified by SA WG3. The LS was noted.

TD S3-020471 LS from T WG3 on Subscriber Certificates. This was introduced by Motorola. T WG3 call the attention of SA WG3 to the Digital Identity Module (DIM) work item recently approved by ETSI SCP. One objective of this effort is to find common elements in the various identity modules (xIM's) and to centralize these elements in a general-purpose card service. It is expected that subscriber

certificate handling and public and private key operations will be part of this common core. This LS was noted. The developments of DIM work should be monitored by SA WG3.

TD S3-020479 LS response from CN WG1 on subscriber certificates. This was introduced by Nokia. The LS was noted. SA WG3 should monitor progress and send details and requests for information to CN WG1 as and when needed.

TD S3-020486 Architectural choices for Subscriber Certificates. This was briefly presented by Nokia and described a number of possibilities for the provision of subscriber certificates and discusses the advantages and disadvantages of each proposal. The presentation was related to the results of the email discussions on subscriber certificates. The involvement of the IETF in the IMS option was clarified that it could be specified inside SIP. The 4 proposals were analysed and discussed. It was thought that the response from SA WG2 should be taken into account after they deal with the LS at their meeting. The presentation was noted and delegates were asked to keep these options in mind for further discussion at the next meeting with feedback from SA WG2.

TD S3-020487 Digital Signatures: Who is doing what? This was introduced by Orange and collects together information on ongoing work on Digital Signatures. The document was noted and SA WG3 would continue to monitor the work ongoing in this area.

TD S3-020541 Conclusions on Proof of Possession discussion. This was introduced by the SA WG3 Vice Chairman and provided the conclusions of the e-mail discussion on PoP. The comments received over the e-mail discussions were presented and the general conclusions were that there are three options for 3GPP:

- mandate PoP in all cases; This has the side effect that at least some use cases will be prevented.
- mandate PoP at least when use of key includes anything other than the commitment type. This
 assumes that application developers will correctly check the keyUsage parameter and clearly
 indicate it to the user.
- 3. do not require PoP at all. This assumes that the certificates will be used with applications and application protocols which are well designed (3GPP specifications can clearly indicate what "well designed" means in this context).

The concluding recommendation was for the option 3, for the following reasons:

- trying to provide protection from badly designed applications or application protocols is not advisable: it might lead to the CA operator being liable for any design error made by arbitrary application developer.
- the specification should not have a feature that does not have a compelling reason; the only reasons we found so far in the above discussion is basically "protecting potential victims from badly designed applications or application protocols".

The paper was discussed and noted.

TD S3-020542 Trust and PKI email discussion input paper. This was briefly reviewed for information on the input paper for the e-mail discussion. This was noted and taken into account for the discussion of related input papers.

TD S3-020500 Contribution to discussion on architecture and trust for subscriber certificates. This was introduced by Siemens and provided discussion material on architecture options for trust and subscriber certificates. It was agreed that some level of standardisation of certificates was required, but the exact level of standardisation required further study and discussion. The evolution paths for deployment and roaming issues were suggested to be similar to the evolution of GPRS service offering. This would need further discussion. Revocation of certificates was argued to be more efficient than the use of short-lived certificates. This would require connection for the revocation to complete. Short-lived certificates may remove the need for OCSB servers. Certificate management on the UE would require further analysis (space considerations for storage of certificates). The complexities of interfaces between CA_S and HLR versus CS_S and SGSN requires further investigation and discussion. Authentication vs. Authorisation: Value-added service permissions may need to be added to user profiles. Proposals for criteria for an evaluation of architectural choices was outlined in section 10 of the contribution, it was agreed that this could be taken into account as criteria for future discussion.

It was generally agreed that the choice of Architecture for Subscriber Certificates requires more study and discussion within SA WG3 (in conjunction with the work ongoing in SA WG2).

It was mentioned that with the large number of issues raised on Subscriber Certificates, that the original Work Item predicted timescales and scope of work may need reviewing.

TD S3-020509 Issuing Subscriber Certificates at Application Layer. This was introduced by Ericsson and discussed an alternative approach for issuing subscriber certificates at application layer, Ericsson preferred Application layer (instead of some lower layer) in order to promote access independency.

It was suggested that SA WG3 takes the following as working assumptions in relation to subscriber certificates:

- 1. Application layer approach.
- 2. Home network controlled model.

It is also suggested that SA WG3 should study if IMS could be re-used for certificate management.

The points provided in this contribution were discussed in length. Further discussion was recognised to be necessary on the issues raised.

TD S3-020512 Contribution to discussion on subscriber certificates. This was introduced by Orange and discussed the need for Home Control of certificates in order to limit the potential damage due to complaints from customers receiving services from third parties. *Most importantly, Orange would like to see the requirement for home control to be addressed in the solution that SA WG3 adopt for support of subscriber certificates. Secondly, Orange also believe that the possibility to build an interoperator PKI for that support should be carefully examined because it provides a better solution for the purpose of the work item.*

It was agreed that Home control needs to be handled as it is a service requirement from SA WG1. The solution adopted for this needs further discussion.

7.8 Digital rights management (DRM)

There were no specific contributions under this agenda item.

7.9 WLAN inter-working

TD S3-020570 Cellular – WLAN Interworking: Activities in ETSI/MMAC and WIG Status. Dr. Robert Hancock, Siemens / Roke Manor Research provided a presentation of an overview of the Activities on Wireless LAN and the status of the ETSI/MMAC and WIG work. A LS from WIG to TSG SA, which will be copied to SA WG3 is about to be forwarded which provides the scope of WIG and information on their work.

For information, the WIG e-mail reflector list is WIG@list.etsi.fr

Conclusions (from slides):

- based initially on ETSI work, WIG can serve to define a reference point and protocols which enable 3GPP "core" networks to exploit any WLAN technology;
- the W.2 interface can be used as a vehicle for defining concrete requirements on the WLAN part of the overall system:
 - Very important, especially for security.

Dr. Hancock was thanked for the presentation which formed useful background on the work ongoing and security issues to be tackled for WLAN interworking. The presentation was then noted.

TD S3-020476 LS (from SA WG2) on 3GPP System to WLAN Inter working architecture. This was introduced by Ericsson and provides comments on the feedback received from SA WG3 on TR 23.934 and asked SA WG3 to provide feedback on the work split proposal as well as on the issue of identity protection.

Work Split

- Security framework: SA WG3 would be responsible for the security framework, e.g. security features on relevant interfaces.
- <u>EAP Methods</u>: Though specific methods have been identified by SA WG2, i.e. EAP-SIM and EAP-AKA, SA WG2 doesn't not have the expertise to specify the methods to be used on top of EAP. Thus SA WG2 wishes that SA WG3 would design the authentication methods to be used on top of the EAP framework.

For EAP methods, it was thought that the use of the word "design" was misleading, and SA WG3 are only asked to specify suitable methods.

It was commented that the protection of handovers may be more difficult as handovers are likely to be more frequent than in normal 3GPP networks. The Allocation and storage of Temporary Identities also needs further study.

It was clarified that SA WG2 have now removed the detail of the internal WLAN structure from their specification.

It was agreed that the target is to have equivalent level of security for WLAN interworking as is available for 3GPP systems.

A LS to reply to the questions from SA WG2 was provided in TD S3-020571 and updated in TD S3-020586 which was approved.

TD S3-020511 IETF and WLAN Authentication Methods. This was introduced by Nokia and documented the status of IETF documents used for WLAN Authentication and outlines the Recent Changes in EAP AKA and EAP SIM drafts. The document encouraged SA WG3 members to actively participate the IETF mailing list discussion about the open issues in the IETF drafts related to WLAN interworking.

Ericsson and Nokia were thanked for this investigation and report and SA WG3 members were asked to help ensure progress on WLAN drafts in the IETF in order to finalise the drafts in good time for use in Release 6. The contribution was then noted.

TD S3-020517 Use of smart cards in WLAN interworking. This was introduced by GemPlus and provided reasons to use Smart Cards in WLAN. There was a lot of discussion on this and many companies did not see a great value in creating another application WSIM when the USIM should be used (and enhanced if it does not currently cover the security requirements.

GemPlus were asked to re-develop the proposal and prepare more details on the e-mail list for further discussion at the next meeting.

TD S3-020518 Pseudo-CR to WLAN Interworking draft: Editorial changes concerning the term "SIM/USIM-based authentication" (Rel-6). This was introduced by GemPlus and tidies up the text of clause 6.1.1, removing the "SIM" part as the clause is dedicated to USIM authentication. It was pointed out that this had been added explicitly by the editor of the draft. The Editors (L. Lopez, C. Blanchard) were asked to verify the reason for this and correct if appropriate.

TD S3-020519 Pseudo-CR to WLAN Interworking draft: Removal of the sentence related to a SIM/USIM software application (Rel-6). This had been agreed at meeting #24 and the change was agreed by SA WG3.

TD S3-020520 Pseudo-CR to WLAN Interworking draft: Changes to UICC are allowed (Rel-6). The changes were agreed. It was noted that clause 4.2 does not contain Security Requirements and requires a full review. The Editors were asked to propose updates to clause 4.2.

TD S3-020521 Pseudo-CR to WLAN Interworking draft: Editorial changes concerning abbreviations (Rel-6). This change was agreed. The Editors were also asked to remove any abbreviations which are already provided in TR 21.905 and make a reference to the vocabulary document instead.

TD S3-020522 Draft TS 33.cde - 0.1.0: Wireless Local Area Network (WLAN) Interworking Security (Release 6). This was briefly introduced by Ericsson, in the absence of the Editors at the meeting. It was not known if any changes had been introduced without the revision marks. The document editors were asked to use revision marks for future updates to help delegates to track the changes. It was noted that the SA WG2 position was that authentication is done in the Home Network, and SA WG3 endorsed this.

TD S3-020525 IEEE 802.11 and WECA Status Updates. this was introduced by Ericsson and provided an update to the status of IEEE 802.11 work. It was noted that *WECA* had now changed its' name to "*Wi-Fi Alliance*". It was noted that *TKIP* is "*Temporal Key Integrity Protocol*". The contribution was then noted.

TD S3-020544 On the security of EAP/SIM and EAP/AKA and their use in WLAN-3G-interworking. This was introduced by Siemens.

Conclusions (from contribution)

- 1. If it is the objective to reach a security level for WLAN-3G interworking which is comparable to GSM then the use of EAP/SIM without additional precautions seems fine. This objective would, however, contradict a security requirement in the WLAN draft TS that "The user should have same security level for WLAN access as for 3GPP access". But note, that the security requirements section in the WLAN draft TS may need some revision as there seem to be contradictory requirements.
- 2. Measures to increase the security level of EAP/SIM over that of GSM are technically possible, but the benefits have to be carefully weighed against the drawback that they seem to make it more difficult to leverage the existing authentication infrastructure. The use of EAP/AKA seems to make it possible to use the existing infrastructure.
- 3. The use of EAP/AKA seems preferable over the use of EAP/SIM.

The principles of this contribution were endorsed as a working assumption by SA WG3 (i.e. if only access to the WLAN with USIM is allowed, then use EAP-AKA, if access with SIM card is allowed, and no USIM is available then use EAP-SIM). An analysis of any problems with allowing SIM access should be made.

It was proposed that the WID for WLAN should explicitly include the SIM access (WID was approved in SA WG3 meeting #24, TD S3-020451). This should be considered by delegates and changes proposed if necessary.

TD S3-020557 On the use of EAP/SIM in 3G-WLAN-interworking. This was introduced by Ericsson and addresses conflicting security requirements in the Draft WLAN security TS.. It was agreed that the 7th bullet should read:

"The <u>subscriber</u> should have at least the same security level for WLAN access as for his current <u>cellular access</u> subscription (i.e. GSM or UMTS)".

This bullet should be considered for improvement (as the level of security is not directly under 3GPP control) and contributions presented to the next SA WG3 meeting. The other changes in the contribution were then approved.

TD S3-020523 3G-WLAN – Trust Model. This was introduced by Ericsson and proposed a 3G-WLAN system model, describing the key players and their trust relationships. Ericsson proposed that the Trust Model described in section 2 of the contribution is adopted by SA WG3, and incorporated to Annex B of the Draft "WLAN Interworking Security". The Trust model described was considered in need of further study and it was decided to return to this at the next SA WG3 meeting. The final paragraph of clause 2.2 was therefore transformed into an editors note, and it was agreed to insert this modified text into Annex B of the draft TS.

TD S3-020524 3G-WLAN - Security Evaluation and Countermeasures Proposal. This was introduced by Ericsson and described potential threats and attacks, and proposes countermeasures for a 3G-WLAN interworking solution. Ericsson proposed that the Security Evaluation and Countermeasures proposal described in sections 2 and 3 are agreed by SA WG3 and incorporated to Annex C of the Draft "WLAN Interworking Security". It was agreed that the 2nd sentence of clause 2.1.2 should be removed. It was noted that the Access Server Node (ASN) functionality is assumed throughout the proposal, but the ASN has not been agreed in the document at present. It was decided that more time was needed for consideration of the issues. **Delegates were asked to consider and contribute to this at the next meeting**. The contribution was then noted.

TD S3-020539 3G-WLAN – Security Endpoint. This was introduced by Ericsson and argued that the security endpoint must be physically secure; and, hence lie "deeper" in the WLAN AN than the WLAN access point. Traffic protection alternatives were also discussed and a solution using IPsec was sketched out in the contribution. It was commented that the L2.5 solution would require unique driver software for each OS and WLAN access. It was agreed that further discussion is needed on these scenarios and solutions and delegates were asked to contribute via the e-mail list for re-consideration at the next SA WG3 meeting.

7.10 Visibility and configurability of security

There were no specific contributions under this agenda item.

7.11 Push

TD S3-020466 Reply LS from SA WG1 on Push Security. SA WG1 requested more comments on the security aspects of the current draft of TS 22.174 (attached to the LS). The draft TS was briefly reviewed, but it was considered that members should review the draft off-line and P. Howard agreed to lead a review and would report if any further comments should be provided to SA WG1. P. Howard agreed to lead an e-mail discussion on any identified issues and co-ordinate comments to SA WG1.

AP 25/101: P. Howard to lead e-mail discussion on Push Security issues (TS 22.174) and co-ordinate any comments to SA WG1.

TD S3-020459 LS (from CN WG4) on use of IP as transport for the Inter-GMLC Interface. This was introduced by Ericsson and was copied to SA WG3 for information. The LS was noted.

TD S3-020461 LS back to SA1 and SA2 (from CN WG5) on enhanced user privacy and new security requirements for LCS. This was introduced by Ericsson and was copied to SA WG3 for information. It was noted that CN WG5 had taken SA WG3 comments on Client Authentication into account in their specification. The LS was noted.

TD S3-020465 (LS from SA WG1) Support of LCS enhanced user privacy in OSA. This was introduced by Lucent Technologies and was a response to the LS from CN WG5 in TD S3-020461. The LS was copied to SA WG3 for information and was noted.

TD S3-020478 LS (from LiF-SIG) to 3GPP TSG WG CN4, CN, SA3, SA2, and GSMA SERG on the protocol development for the GMLC Lr-interface. LiF-SIG Roaming ad-hoc asked SA WG3 to provide recommendations for an acceptable security protocol for the MLP-based Lr interface. An investigation was made off-line and a LS to LiF-SIG was provided in TD S3-020581 which was modified slightly in TD S3-020582 and approved.

7.12 Priority

There were no specific contributions under this agenda item.

7.13 Location services (LCS)

There were no specific contributions under this agenda item.

7.14 User equipment functionality split (UEFS)

There were no specific contributions under this agenda item.

7.15 Open service architecture (OSA)

There were no specific contributions under this agenda item.

7.16 Generic user profile (GUP)

There were no specific contributions under this agenda item.

7.17 Presence

TD S3-020475 Liaison (from SA WG2) on Security and Charging Issues with use of HTTP within IMS. This was introduced by Nokia. SA WG2 had not identified any particular use scenarios for HTTP at present, but do not rule out identifying scenarios in the future. SA WG2 asked SA WG3 to comment on and investigate potential security issues related to the use of HTTP within IMS for service related purposes. TD S3-020528 (see below) was considered before finalising on this Liaison.

TD S3-020528 HTTP Security. This was introduced by Nokia and reports a study of HTTP security under request from SA2 WG. One solution very much based on IETF existing protocol is presented. It also combines 3GPP Digest AKA for authentication as advantage. Nokia proposed to start the analysis based on knowledge investigated as a baseline (as provided in this contribution) and to query SA WG2 for the deployment detail of HTTP feature and its required security functions. It was clarified that this had been developed assuming many types of server, as well as Presence servers and that it would not be needed if SA WG2 decide not to use HTTP after all. It was agreed to send a LS to SA WG2 asking them for details of the expected use for HTTP and showing that there are potential

solutions if it is required. The LS was provided in TD S3-020572 and updated in TD S3-020587 which was approved.

TD S3-020502 Presence Security Proposal. This was introduced by Nortel Networks and proposed a solution for securing the information exchanged between the Presence Server and Watcher applications. this was covered by the discussions of TD S3-020507 below.

TD S3-020507 Presence Security Architecture. This was introduced by Ericsson and aimed to identify some security requirements that apply for the Presence Architecture. The contribution does not assume any particular architecture, e.g. IMS, and it is general in nature. Ericsson asked SA WG3 to discuss and endorse the proposed requirements as working assumptions and collect them where appropriate in the TR. It was agreed to input the material in the contribution in the draft TR and to liaise the information to SA WG2 for their comments on section 2. The LS was provided in TD S3-020569 which was modified in TD S3-020588 which was approved.

TD S3-020508 Working Assumptions and Open Issues in Presence Security. This was introduced by Ericsson and compared the Presence Reference Architecture to existing UMTS security mechanisms. The goal of the paper was to identity working assumptions and open issues for SA WG3 and asked SA WG3 to endorse the working assumptions and to begin studies on the open issues.

The working assumptions were endorsed by SA WG3, noting that there are some other issues, e.g. Network-based Watcher applications, which are not fully covered.

It was agreed to attach the contribution to the LS to SA WG2 in TD S3-020588, explaining the detail of this contribution as opposed to the general issues in TD S3-020507.

7.18 User equipment management (UEM)

TD S3-020472 LS (from T WG3) on User Equipment Management Feasibility Study (TR 32.802). This was introduced by AT&T Wireless. This was provided for information and was noted.

TD S3-020473 LS (from T WG3) on Rel-6 WID for User Equipment Management. This was introduced by AT&T Wireless. This was provided for information and was noted. It was recognised that the security aspects of the T WG3 WID on the remote management of UEs would need to be studied by SA WG3.

7.19 Multimedia Broadcast/Multicast Service (MBMS)

TD S3-020504 MBMS Fraud and countermeasures. This was introduced by Siemens and analysed the fraud issues that are an inherent property of sharing an MBMS key among MBMS users. Some measures were proposed that could be used to combat that type of fraud and should be taken into account when selecting the appropriate MBMS architecture. Siemens proposed that SA WG3 communicates these findings to SA WG2 as important criteria for selecting the appropriate architecture.

It was concluded that the techniques seem useful and further study of the fraud models and possible solutions need to be done. The solutions developed could be included as guidelines for implementation of the specified mechanisms. The document was then noted.

TD S3-020501 Draft 3GPP2 Broadcast / Multicast Service security specifications. This presentation and associated documents were presented by Qualcomm. This was provided for information on the issues being studied in 3GPP2, which may be of use for the development of the MBMS Security architecture in 3GPP. The presentation was discussed and clarification provided on some points. It was noted that the stage 2 document attached was more up-to-date, as it had been updated as a result of the recent meeting of the 3GPP2 MBMS group. The presentation was noted.

TD S3-020505 MBMS security functions. This was introduced by Siemens and described the needed security functions for MBMS and analysed the allocation of these security functions to the NE's from the viewpoint of security re-usability. The contribution concludes that:

- It is preferred to allocate the MBMS security functions 1 and 2 not to the BM-SC at the application layer as it would give rise to additional authentication/encryption functionality and complexity.
- For security function 3, the SA WG2 view can be confirmed that there is no need for standardization (see TR 23.846 V1.2.0, clause 7.1.8).
- Siemens proposed to inform SA WG2 of the above conclusions such that the selection of the architectural options can proceed.

Other proposals were provided in contributions which also need to be considered.

TD S3-020526 Draft TS 33.cde - 0.0.1: Security of Multimedia Broadcast/Multicast Service (Release 6). This was provided by the editor for information and was noted. Comments were requested off-line for update at the next meeting.

TD S3-020532 MBMS – Trust and Threats. This was introduced by Ericsson and shows the MBMS architecture, describing the roles and their trust relationships. The document also described some potential threats and attacks in order to help 3GPP identify security requirements for the MBMS system, and choose suitable security mechanisms which fulfil those requirements. Ericsson proposed that SA WG3 adopt the security requirements given in section 1.8 of the contribution and insert the text into the Draft TR in order to provide a basis for further elaboration.

It was agreed to add this to the TR, the Threat and Trust model parts should be inserted as Annexes in the TR. Some parts of the text needed editing, and the editor agreed to add some editors notes where clarification was needed. section 1.8.2, R3a should be included as an editors note indicating that the requirements are for further study. Contributions were requested to the next meeting to reorganize and develop the Draft TR after it is distributed by the Editor.

TD S3-020573 MBMS Security: A Summary of three contributions S3-020533, 534 & 535. This was presented by Ericsson and summarised the proposals given in their contributions TD S3-020533, TD S3-020534 and TD S3-020535.

Ericsson is proposed that SA WG3 endorses the following working assumptions for MBMS Security:

- 1. S3-020533 (Security protocol)
 - i Security protocol at application layer
 - ii IETF SRTP as security protocol for streaming
- 2. S3-020534 (Key Management)
 - i IETF MIKEY using pre-shared keys and symmetric crypto
- 3. S3-020535 (Push Re-keying)
 - i IETF MIKEY is potentially extended to support LKH (Logical Key Hierarchy)

The proposals were discussed and it was recognised that the other contribution in TD S3-020538 should also be considered with document (see below).

TD S3-020538 MBMS Security Architecture Proposal. This was introduced by Nortel Networks and proposed mechanisms for MBMS user authentication, authorisation and data encryption. This supported the application layer security as proposed by Ericsson in TD S3-020573.

It was thought that a comparison of the solutions with respect to the impact on the business and threat models was required in order to select the most appropriate solutions.

It was agreed that as a user could subscribe to service A, and not subscribe to service B, another user could subscribe to service B, and not subscribe to service A, then it follows that the keys need to be different for services A and B.

It was recognised that there are many open issues and delegates were asked to consider the contributions and proposals for MBMS and to contribute to the next meeting of SA WG3 in order to progress the draft specification.

7.20 PKI-based key management for network domain security

TD S3-020506 TR 33.810 v1.0.1_2: NDS/AF Feasibility Study. The updates made to the draft TR were presented by Nokia. The version number of the document should be 1.1.0, as there are substantial additions to the previous version 1.0.1, and the editor was asked to put the text into passive prose (i.e. replacing the instances of "we ... "). It was noted that tamper proof storage of "secrets" is important, and the both symmetric and asymmetric key systems have secrets to be securely stored.

The editor was thanked for his tremendous effort in updating the feasibility study and a new version and revised WID was requested for the next meeting for approval. Further comments should be provided to the editor.

TD S3-020575 TR 33.810 v1.1.0: NDS/AF Feasibility Study. This was introduced by the Editor who outlined the changes made to the draft. This TR was approved and will be forwarded to TSG SA meeting #18 for TSG Approval as a Release 6 Feasibility Study.

TD S3-020574 Proposed WID: Network Domain Security; Authentication Framework (NDS/AF). This WID was created based upon the related WID for the Feasibility Study for this work. There was some concerns and confusion over the targeted Release for this work. It was agreed that an e-mail discussion would be held in order to try to achieve agreement and the WID would be re-presented at the next meeting if appropriate.

8 Review and update of work programme

There was no time to deal with this agenda item.

9 Future meeting dates and venues

Additional SA WG3 meeting dates were agreed, as shown in the following table.

The planned meetings were as follows:

Meeting	Date	Location	Host		
S3#26	19 - 22 November 2002	Oxford	European 'Friends of 3GPP'		
S3#27	25 - 28 February 2003	Sophia Antipolis	ETSI		
S3#28	06 - 09 May 2003	Berlin	European 'Friends of 3GPP'		
S3#29	15-18 July 2003	San Francisco	NA 'Friends of 3GPP' (tbc)		
S3#30	7-10 October 2003	Italy (tbc) ??	tbd		

LI meetings planned

Meeting	Date	Location	Host
SA3 LI-#7	12 - 14 November 2002	San Diego US	
SA3 LI-#8	18 - 20 February 2003	Paris FR	
SA3 LI-#9	13 - 15 May 2003	Sophia Antipolis FR	
SA3 LI-#10	16 - 18 September 2003	US	

TSGs RAN/CN/T and SA Plenary meeting schedule

TSG RAN/CN/T #18	3 – 6 December	New Orleans USA	NA 'Friends of 3GPP'
TSG SA #18	9 – 12 December	New Orleans USA	NA 'Friends of 3GPP'
Meeting	2003	Location	Primary Host
TSG RAN/CN/T #19	11-14 March (tba)	UK	European 'Friends of 3GPP'
TSG SA #19	17-20 March	UK	European 'Friends of 3GPP'
TSG RAN/CN/T #20	3-6 June	Hämeenlinna, FIN	Nokia
TSG SA #20	9-12 June	Hämeenlinna, FIN	Nokia
TSG RAN/CN/T #21	16-19 September	Germany	
TSG SA #21	22-25 September	Germany	
TSG RAN/CN/T #22	9-12 December	US	
TSG SA #22	15-18 December	US	
Meeting	2004 DRAFT TBD	Location	Primary Host
TSG#23	March 9-12 & 15-18	China	
TSG#24	June 1-4 & 7-10	Korea	
TSG#25	7-10 & 13-16 September	USA	
TSG#26	7-10 & 13-16 December	TBD	

10 Any other business

There were no specific contributions under this agenda item.

11 Close

The Chairman thanked the host, Siemens, for the meeting arrangements, and the delegates for their hard work and co-operation during the meeting, and closed the meeting.

Annex A: List of attendees at the SA WG3#24 meeting and Voting List

A.1 List of attendees

Name	Company	e-mail	3GPP	ORG
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Mr. Stuart Ward	ORANGE PCS LTD	stuart.ward@orange.co.uk	ETSI	GB
Ms. Monica Wifvesson	ERICSSON L.M.	monica.wifvesson@emp.ericsson.se	ETSI	SE
Mr. Berthold Wilhelm	BMWi	berthold.wilhelm@regtp.de	ETSI	DE

41 attendees

A.2 SA WG3 Voting list

Based on the attendees lists for meetings #23, #24 and #25, the following companies are eligible to vote at SA WG3 meeting #26:

Company	Country	Status	Partner Org
ALCATEL S.A.	FR	3GPPMEMBER	ETSI
AT&T Wireless Services, Inc.	US	3GPPMEMBER	T1
BUNDESMINISTERIUM FUR WIRTSCHAFT	DE	3GPPMEMBER	ETSI
BT Group Plc	GB	3GPPMEMBER	ETSI
Cisco Systems France	FR	3GPPMEMBER	ETSI
Dansk MobilTelefon I/S	DK	3GPPMEMBER	ETSI
DTI - Department of Trade and Industry	GB	3GPPMEMBER	ETSI
Ericsson Incorporated	US	3GPPMEMBER	T1
Telefon AB LM Ericsson	SE	3GPPMEMBER	ETSI
France Telecom	FR	3GPPMEMBER	ETSI
GEMPLUS Card International	FR	3GPPMEMBER	ETSI
HotSip AB	FI	3GPPMEMBER	ETSI
Hutchison 3G UK Limited	GB	3GPPMEMBER	ETSI
Lucent Technologies	US	3GPPMEMBER	T1
Lucent Technologies Network Systems UK	GB	3GPPMEMBER	ETSI
Mitsubishi Electric Co.	JP	3GPPMEMBER	ARIB
mmO2 plc	GB	3GPPMEMBER	ETSI
Motorola Inc.	US	3GPPMEMBER	T1
MOTOROLA Ltd	GB	3GPPMEMBER	ETSI
NOKIA Corporation	FI	3GPPMEMBER	ETSI
NOKIA KOREA	KR	3GPPMEMBER	TTA
Nokia Telecommunications Inc.	US	3GPPMEMBER	T1
NORTEL NETWORKS (EUROPE)	GB	3GPPMEMBER	ETSI
NTT DoCoMo Inc.	JP	3GPPMEMBER	ARIB
ORANGE FRANCE	FR	3GPPMEMBER	ETSI
ORANGE PCS LTD	GB	3GPPMEMBER	ETSI
QUALCOMM EUROPE S.A.R.L.	FR	3GPPMEMBER	ETSI
Research In Motion Limited	CA	3GPPMEMBER	ETSI
SAMSUNG Electronics Research Institute	GB	3GPPMEMBER	ETSI
SchlumbergerSema - Schlumberger Systèmes S.A	FR	3GPPMEMBER	ETSI
SIEMENS AG	DE	3GPPMEMBER	ETSI
SIEMENS ATEA NV	BE	3GPPMEMBER	ETSI
SONERA Corporation	FI	3GPPMEMBER	ETSI
SSH Communications Security Corp	FI	3GPPMEMBER	ETSI
T-MOBILE DEUTSCHLAND	DE	3GPPMEMBER	ETSI
TELECOM ITALIA S.p.A.	IT	3GPPMEMBER	ETSI
Telenor AS	NO	3GPPMEMBER	ETSI
TELIA AB	SE	3GPPMEMBER	ETSI
Vodafone D2 GmbH	DE	3GPPMEMBER	ETSI
VODAFONE Group Plc	GB	3GPPMEMBER	ETSI

40 Individual Member Companies

Annex B: List of documents

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
	Draft agenda for meeting #25	Chairman	2	Approval	,	Approved
S3-020456	Draft Report of meeting #24 - vsn 0.0.3	Secretary	4.1	Approval		Approved with minor changes - updated v1.0.0 to be placed on FTP server
S3-020457	Secure registration of IP addresses	CN WG1	7.1	Action		Revised CR from S3-020375 in S3- 020553
S3-020458	LS on on Diameter security issues	CN WG4	7.1	Information		Response in S3- 020547
S3-020459	LS on use of IP as transport for the Inter- GMLC Interface	CN WG4	7.13	Information		Noted
	IMS authentication vector distribution on the Cx interface	CN WG4	7.1	Information		Response to SA WG3 questions. Noted
S3-020461	LS back to SA1 and SA2 on enhanced user privacy and new security requirements for LCS	CN WG5	7.13	Information		Noted
	LS reply on Packet Switched Streaming (PSS) in Rel-6 Work Programme	SA WG1	6.1	Information		Noted
S3-020463	Liaison Statement on subscriber certificates	SA WG1	7.7	Information		Response to SA WG3 on Subscriber Certificates. Noted.
S3-020464	LS reply on "Answer to "LS on PSS Release 6 work programme""	SA WG1	6.1	Information		Noted
S3-020465	Support of LCS enhanced user privacy in OSA	SA WG1	7.13	Information		Noted
S3-020466	Reply LS on Push Security	SA WG1	7.11	Action		P Howard to lead e- mail discussion if any issues are identified in the draft TS
	New requirements about functionality to make subscription to different domains independent or linked based on operator decision	SA WG1	6.1	Action		Attached CR had been rejected in SA#17. Response LS in S3-020561
	Response to T3-020406/S1-021427 (Response "Liaison Statement on Access to IMS Services using 3GPP release 99 and release 4 UICCs" (S1-020577))	SA WG1	6.1	Information		Noted. Response LS in S3-020561
S3-020469	LS on Speech Enabled Services	SA WG1	6.1	Information		TR 22.977 and TS 22.243 should be reviewed and contribution to e-mail group. L Finklestein to create response LS to SA WG1 by 4 November
	Draft Working Item Description PSS Rel-6 and LS response to: "Answer to Liaison Statement regarding PSS Release 6 work pro-gramme" (S2-022050/ S4 (02)0375) from SA2, and "LS reply on Packet Switched Streaming (PSS) in Rel-6 Work Pro-gramme" (S5-024235/S4(0)0376) from SA5	SA WG4	6.1	Information		No comments on WID. Noted
S3-020471	LS on Subscriber Certificates	T WG3	7.7	Information		Response to SA WG3 on Subscriber Certificates. Noted.

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TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
	LS on User Equipment Management Feasibility Study (TR 32.802)	T WG3	7.18	Information		Noted
	LS on Rel-6 WID for User Equipment Management	T WG3	7.18	Information		Noted
S3-020474	Response LS on Security enhancements for GERAN	TSG GERAN	7.5	Action		Reply LS in S3- 020566. P Howard to develop WID for next meeting
S3-020475	Liaison on Security and Charging Issues with use of HTTP within IMS	SA WG2	7.17	Action		Reply LS in S3- 020572
	LS on 3GPP System to WLAN Inter working architecture	SA WG2	7.9	Action		LS response to SA WG2 in S3-020586
S3-020477	Reply LS on "Gb evolution"	SA WG2	7.5	Information		Noted
	LS to 3GPP TSG WG CN4, CN, SA3, SA2, and GSMA SerG on the protocol development for the GMLC Lr-interface	LiF-SIG	7.13	Action		LS provided in S3- 020582
S3-020479	LS response on subscriber certificates	CN WG1	7.7	Action		Noted
	Liaison statement on Interoperability Issues and SIP in IMS	CN WG1	7.1	Action		Response in SP- 020550
	LS on Status of protocol work on Ze interface	CN WG4	7.3	Information		Noted
	LS on re-used of START value for ciphering of RB using RLC TM during SRNS relocation	RAN WG2	7.4	Action		Agreed change needed in Rel-4. Response LS in S3- 020564
S3-020483	LS to SA3 on Group release security solution	RAN WG2	7.4	Action		Other contributions considered. Need for protection to be discussed over e- mail. Response LS in S3-020565
	WITHDRAWN - Duplicate of TD465: Support of LCS enhanced user privacy in OSA	SA WG1	7.13	Information		WITHDRAWN - Duplicated input
S3-020485	Response to IETF LS on Interoperability Issues and SIP in IMS	TSG SA	7.1	Information		Noted
	Architectural choices for Subscriber Certificates	Nokia	7.7	Presentation		Noted. Feedback frrom SA WG2 awaited for further discussion
S3-020487	Digital Signatures: Who is doing what?	Orange	7.7	Information		Noted. SA WG3 to monitor ongoing work on DS
	Report of the 3GPP TSG SA WG3-LI (S3-LI) meeting #3/02 on lawful interception	SA WG3-LI Group	4.2	Information		PDF Only. Noted
S3-020489	Proposed CR to 33.107-5.4.0: Event Time (Rel-5)	SA WG3-LI Group	4.2	Approval		Approved
	Proposed CR to 33.107-5.4.0: Essential correction to the LI events generated during inter-SGSN RAU, when PDP context is active (ReI-5)	SA WG3-LI Group	4.2	Approval		Noted. E-mail discussion in LI group.
	Proposed CR to 33.108-5.1.0: Essential corrections to the Annex C.1 (ULIC) - (Rel-5)	SA WG3-LI Group	4.2	Approval		Approved
	Proposed CR to 33.108-5.1.0: Missing PDP Context Modification event (Rel-5)	SA WG3-LI Group	4.2	Approval		Approved
S3-020493	Proposed CR to 33.108-5.1.0: Aggregation of IRI Records (Rel-6)	SA WG3-LI Group	4.2	Approval		Approved

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-020494	Proposed CR to 33.108-5.1.0: Essential correction to the LI events generated during RAU, when PDP context is active (Rel-5)	SA WG3-LI Group	4.2	Approval	S3-020546	Updated in S3- 020546
S3-020495	Interception regarding IMS	Telcordia Technologies and Federal Bureau of Investigation	7.1	Discussion / Action		(Forwarded to SA WG3 by SA WG3- LI). Noted. Further discussion within the LI group
S3-020496	WI Description: Lawful Interception in the 3GPP Rel-6 architecture	SA WG3-LI Group	4.2	Approval		Approved
S3-020497	LS on change to LI email subscription and access controlled SA3-LI document area	SA WG3-LI Group	4.2	Action		Return to LI to clarify reasons for the closing of FTP site
S3-020498	Report on SA#17 for SA3	SA WG3 Chairman	5	Information		Noted
S3-020499	Propesed CR to 33.203-5.3.0: Sending error response when P-CSCF receives unacceptable proposal (Rel-5)	Nokia	7.1	Approval	S3-020554	Updated in S3- 020554
S3-020500	Contribution to discussion on architecture and trust for subscriber certificates	Siemens	7.7	Discussion		Discussed. Many points raised that need further discussion before deciding on Architecture
S3-020501	Draft 3GPP2 Broadcast / Multicast Service security specifications	Qualcomm	7.19	Information / Review		Noted
S3-020502	Presence Security Proposal	Nortel Networks	7.17	Discussion		Covered by discussion of S3- 020507
S3-020503	Proposed CR to 33.102: USIM support in GERAN only terminals (Rel-5)	Siemens	7.5	Approval	S3-020567	Revised in S3- 020567
S3-020504	MBMS Fraud and countermeasures	Siemens	7.19	Discussion		Noted. More study of fraud scenarios and solutions needed
S3-020505	MBMS security functions	Siemens	7.19	Discussion		Discussed
S3-020506	TR 33.810 v1.0.1_2: NDS/AF Feasibility Study	Nokia, Siemens, SSH, Telenor, T- Mobile	7.20	Discussion / Approval		Further comments should be provided to the editor for approval at next meeting
S3-020507	Presence Security Architecture	Ericsson	7.17	Discussion / Decision		To be included in TR. LS to SA WG2 in S3-020569
S3-020508	Working Assumptions and Open Issues in Presence Security	Ericsson	7.17	Discussion / Decision		Working assumptions endorsed. Added to LS to SA WG2 in S3-020569
S3-020509	Issuing Subscriber Certificates at Application Layer	Ericsson	7.7	Discussion / Decision		Discussed
S3-020510	Group Release Authentication algorithm	Ericsson	7.4	Discussion / Decision		Use of f8 considered more appropriate for Rel- 5, need for protection to be discussed over e- mail. Noted.
S3-020511	IETF and WLAN Authentication Methods	Ericsson and Nokia	7.9	Information		Noted. Members asked to help progress IETF WLAN drafts

TD	Title	Source	Agenda	Document for	Replaced	Status / Comment
number	Title	Source	Agenda	Document for	by	Status / Comment
S3-020512	Contribution to discussion on subscriber certificates	Orange	7.7	Discussion		Home Control is SA1 requirement. Solution neds developing
S3-020513	Proposed CR to 33.203: Indication in the UE that the SA is no longer active in P-CSCF (Rel-5)	Ericsson, Hutchison 3G	7.1	Approval	S3-020555	Revised in S3- 020555. Related LS to CN1 in S3- 020556
S3-020514	The use of SAs in IMS user authentication failures	Ericsson, Hutchison 3G	7.1	Discussion / Decision		Discussed as background to S3- 020515
S3-020515	Proposed CR to 33.203: The use of SAs in user authentication failures (Rel-5)	Ericsson, Hutchison 3G	7.1	Approval	S3-020558	Revised in S3- 020558. Added to LS in S3-020556
S3-020516	IETF status report: SIP security agreement	Ericsson & Nokia	7.1	Discussion / Decision		LS to CN1 in SP- 020551
S3-020517	Use of smart cards in WLAN interworking	GEMPLUS Card International	7.9	Discussion		GemPlus to develop proposals further by e-mail and next meeting
S3-020518	Pseudo-CR to WLAN Interworking draft: Editorial changes concerning the term "SIM/USIM-based authentication" (Rel-6)	GEMPLUS Card International	7.9	Discussion		Editors asked to check if this change is correct
S3-020519	Pseudo-CR to WLAN Interworking draft: Removal of the sentence related to a SIM/USIM software application (Rel-6)	GEMPLUS Card International	7.9	Discussion		Agreed. Editor to update document accordingly
S3-020520	Pseudo-CR to WLAN Interworking draft: Changes to UICC are allowed (Rel-6)	GEMPLUS Card International	7.9	Discussion		Agreed. Section 4.2 requires full review. Editors asked to update document accordingly
S3-020521	Pseudo-CR to WLAN Interworking draft: Editorial changes concerning abbreviations (Rel-6)	GEMPLUS Card International	7.9	Discussion		Agreed. Editors also asked to replace abbreviations with ref to vocabulary document.
S3-020522	Draft TS 33.cde - 0.1.0: Wireless Local Area Network (WLAN) Interworking Security (Release 6)	Ericsson	7.9	Discussion		Noted. Some changes may not be revision marked.
S3-020523	3G-WLAN – Trust Model	Ericsson	7.9	Discussion / Approval		Final para of 2.2 as editors note. Editors asked to insert text into Annex B of Draft TS WLAN.
S3-020524	3G-WLAN - Security Evaluation and Countermeasures Proposal	Ericsson	7.9	Discussion / Approval		Delegates to consider and contribute for next meeting. Noted
S3-020525	IEEE 802.11 and WECA Status Updates	Ericsson	7.9	Information		Noted
S3-020526	Draft TS 33.cde - 0.0.1: Security of Multimedia Broadcast/Multicast Service (Release 6)	Hutchison 3G UK	7.19	Discussion		Noted. Contribution requested in form of Pseudo-CRs
S3-020527	Registration and SA lifetimes	Hutchison 3G UK	7.1	Discussion / Decision		E-mail discussion to provide CR to next meeting (A Escott)
S3-020528	HTTP Security	Nokia	7.17	Discussion / Decision		LS to SA WG2 in S3-020572
S3-020529	WITHDRAWN - Repeat of S3-020513					WITHDRAWN
S3-020530	WITHDRAWN - Repeat of S3-020514					WITHDRAWN
S3-020531	WITHDRAWN - Repeat of S3-020515					WITHDRAWN

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-020532	MBMS – Trust and Threats	Ericsson	7.19	Discussion / Decision		Editor to reorganise and add this to draft TR
S3-020533	MBMS – Security layer selection	Ericsson	7.19	Discussion / Decision		Covered by summary in S3- 020573
S3-020534	MBMS - key management comparison	Ericsson	7.19	Discussion / Approval		Covered by summary in S3- 020573
S3-020535	MBMS - re-keying	Ericsson	7.19	Discussion / Approval		Covered by summary in S3- 020573
S3-020536	Security need evaluation of UTRAN and GERAN IP transport interfaces	Nokia	7.2	Discussion / Approval		Gb I/f also high priority. CR contributions requested on High priority I/fs identified
S3-020537	Group release security mechanism	Lucent Technologies	7.4	Discussion / Approval		e-mail discussion over need for protection. Response LS to RAN2 in S3-020565
S3-020538	MBMS Security Architecture Proposal	Nortel Networks	7.19	Discussion		More consideration needed. Progress at next meeting
S3-020539	3G-WLAN – Security Endpoint	Ericsson	7.9	Discussion / Approval		Delegates asked to consider and contribute to e-mail discussion
S3-020540	Reply LS on "Gb evolution"	TSG GERAN	7.5	Information		Noted.
S3-020541	Conclusions on Proof of Possession discussion	E-mail discussion chairman	7.7	Discussion / Decision		Discussed and noted
S3-020542	Trust and PKI email discussion input paper	Nokia	7.7	Discussion / Decision		Noted. Used for discussion of other contributions
S3-020543	Draft report of TSG SA meeting #17 - version 0.0.4	Secretary	5	Information		Noted
S3-020544	On the security of EAP/SIM and EAP/AKA and their use in WLAN-3G-interworking	Siemens	7.9	Discussion		Principles endorsed as a working assumption
S3-020545	A5/3 and GEA3 and their relation with EGPRS	Ericsson	7.5	Discussion		K. Boman to create CR to 55.919 to clarify CS EDGE use of algorithm for next meeting
	Proposed CR to 33.108-5.1.0: Essential correction to the LI events generated during RAU, when PDP context is active (Rel-5)	SA WG3-LI Group	4.2	Approval		Noted. E-mail discussion in LI group.
	Response LS to CN WG4, SA WG5: adopts the security requirements in chapter 1.8	SA WG3	7.1	Approval	S3-020576	Revised in S3- 020576
	Proposed CR to 33.203: Re-use and re- transmission of RAND and AUTN (Rel-5)	Ericsson	7.1	Approval		Revised to include mechanism in S- CSCF in specification - S3- 020560
S3-020549	WITHDRAWN - Duplicate of TD544	Siemwns	7.9	Discussion		WITHDRAWN - DUPLICATED TD 544
S3-020550	Liaison statement on Interoperability Issues and SIP in IMS	SA WG3		Approval	S3-020578	revised in S3- 020578

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
	LS to CN WG1 on IETF Sec-agree alternative	SA WG3		Approval		revised in S3- 020580
	Proposed CR to 33.210: Adding requirement to provide mandatory support for 3DES encryption in NDS/IP.Remove AES references and dependencies (Rel-5)	Telenor	7.2	Approval		Revised in S3- 020562
	Proposed CR to 33.203: Correction of IP address acquisition in P-CSCF	Nokia	7.1	Action		Approved
	Proposed CR to 33.203-5.3.0: Sending error response when P-CSCF receives unacceptable proposal (Rel-5)	SA WG3	7.1	Approval		Approved
	Proposed CR to 33.203: Indication in the UE that the SA is no longer active in P-CSCF (Rel-5)	SA WG3	7.1	Approval		Approved. LS to CN1 in S3-020556
S3-020556	LS to CN WG1 on CR impacts in S3-020555 (Monika)	SA WG3	7.1	Approval		Revised in S3- 020579
S3-020557	On the use of EAP/SIM in 3G-WLAN- interworking	Nokia, Ericsson	7.9	Discussion		Agreed with changes to 7th bullet (see report). Editors asked to update the WLAN draft accordingly
S3-020558	Proposed CR to 33.203: The use of SAs in user authentication failures (Rel-5)	SA WG3	7.1	Approval		Approved. Append to LS in TD556
	Proposed CR to 33.203: Clean up one Editor's note in 33.203 (Rel-5)	AT&T Wireless	7.1	Approval		Approved
	Proposed CR to 33.203: Re-use and re- transmission of RAND and AUTN (Rel-5)	Ericsson	7.1	Approval		Revised in S3- 020590
	New requirements about functionality to make subscription to different domains independent or linked based on operator decision	SA WG3	6.1	Approval		revised in S3- 020577
	Proposed CR to 33.210: Adding requirement to provide mandatory support for 3DES encryption in NDS/IP.Remove AES references and dependencies (Rel-5)	SA WG3	7.2	Approval		Revised in S3- 020563
	Proposed CR to 33.210: Adding requirement to provide mandatory support for 3DES encryption in NDS/IP.Remove AES references and dependencies (Rel-5)	SA WG3	7.2	Approval		Approved
	LS to RAN2: Reuse of COUNT-C Values for Ciphering of RB Using RLC TM During Handover	SA WG3	7.4	Approval		revised in S3- 020583
	LS to RAN2: Group Release security solution	SA WG3	7.4	Approval		revised in S3- 020584
	LS to GERAN cc SA WG2:Security enhancements for GERAN	SA WG3	7.5	Approval		revised in S3- 020589
S3-020567	WITHDRAWN - Wrong document supplied - correct doc allocated to S3-020591					WITHDRAWN
S3-020568	Proposed CR to 33.200: Removal of Automatic Key Management from Rel-5 (Rel-5)	SA WG3 (Secretary)	7.3	Approval		A Escott to check and update CR at next meeting
	LS to SA WG2 on Presence General Requirements (K Boman)	SA WG3	7.17	Approval		revised in S3- 020588
S3-020570	Cellular – WLAN Interworking: Activities in ETSI/MMAC and WIG Status	ETSI BRAN Chairman	7.9	Presentation		Presented. Useful background information
	Reply LS to SA WG2 on 3GPP System to WLAN Inter working architecture	SA WG3	7.9	Approval		Revised in S3- 020586

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
	Liaison to SA WG2 on HTTP Security investigation within IMS	SA WG3	7.17	Approval	S3-020587	Revised in S3- 020587
	MBMS Security: A Summary of three contributions SA3-020533, 534 & 535	Ericsson	7.19	Presentation		More consideration needed. Progress at next meeting
	Proposed WID: Network Domain Security; Authentication Framework (NDS/AF)	SA WG3	7.20	Approval		
S3-020575	TR 33.810 v1.1.0: NDS/AF Feasibility Study	Nokia, Siemens, SSH, Telenor, T- Mobile	7.20	Approval		Approved. To be sent to SA#18 for approval
S3-020576	Response LS to CN WG4, SA WG5: adopts the security requirements in chapter 1.8	SA WG3	7.1	Approval		Approved
	New requirements about functionality to make subscription to different domains independent or linked based on operator decision	SA WG3	6.1	Approval		Approved
	Liaison statement on Interoperability Issues and SIP in IMS	SA WG3		Approval		Approved
S3-020579	LS to CN WG1 on CR impacts in S3-020555 (Monika)	SA WG3	7.1	Approval		Approved. TDs 555 and 558 appended
	LS to CN WG1 on IETF Sec-agree alternative (K Boman)	SA WG3		Approval		Approved
S3-020581	LS on Lr interface security	SA WG3	7.11	Approval		revised in S3- 020582
S3-020582	LS on Lr interface security	SA WG3	7.11	Approval		Approved
	LS to RAN2: Reuse of COUNT-C Values for Ciphering of RB Using RLC TM During Handover	SA WG3	7.4	Approval		Approved
	LS to RAN2: Group Release security solution	SA WG3	7.4	Approval		Approved
	Proposed CR to 33.102 for information: USIM support in GERAN only terminals (Rel-5)	SA WG3	7.4	Information		Noted
	Reply LS to SA WG2 on 3GPP System to WLAN Inter working architecture	SA WG3	7.9	Approval		Approved
	Liaison to SA WG2 on HTTP Security investigation within IMS	SA WG3	7.17	Approval		Approved
S3-020588	LS to SA WG2 on Presence General Requirements (K Boman)	SA WG3	7.17	Approval		Approved
S3-020589	LS to GERAN cc SA WG2:Security enhancements for GERAN	SA WG3	7.5	Approval		Approved
S3-020590	Proposed CR to 33.203: Re-use and re- transmission of RAND and AUTN (Rel-5)	Ericsson	7.1	Approval		To be discussed over e-mail and updated for next meeting (Postponed)
S3-020591	Proposed CR to 33.102 for information: USIM support in GERAN only terminals (Rel-5)	Siemens	7.1	Approval		To be discussed over e-mail and updated for next meeting (Postponed)

Annex C: Status of specifications under SA WG3 responsibility

An	nex C:	Sta	tus of specifications under SA WG3 responsibility	1	
	Specificat	ion	Title	Editor	Rel
TR	01.31	7.0.1	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	WRIGHT, Tim	R98
TR	01.31	8.0.0	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	WRIGHT, Tim	R99
TR	01.33	7.0.0	Lawful Interception requirements for GSM	BONNER, Brye	R98
TR	01.33	8.0.0	Lawful Interception requirements for GSM	BONNER, Brye	R99
TS	01.61	6.0.1	General Packet Radio Service (GPRS); GPRS ciphering algorithm requirements	WALKER, Michael	R97
TS	01.61	7.0.0	General Packet Radio Service (GPRS); GPRS ciphering algorithm requirements	WALKER, Michael	R98
TS	01.61	8.0.0	General Packet Radio Service (GPRS); GPRS ciphering algorithm requirements	WALKER, Michael	R99
TS	02.09	3.1.0	Security aspects	CHRISTOFFE	Ph1
TS	02.09	4.5.1	Security aspects	RSSON, Per CHRISTOFFE	Ph2
TS	02.09	5.2.1	Security aspects	RSSON, Per CHRISTOFFE	R96
TS	02.09	6.1.1	Security aspects	RSSON, Per CHRISTOFFE	R97
TS	02.09	7.1.1	Security aspects	RSSON, Per CHRISTOFFE	R98
TS	02.09	8.0.1	Security aspects	RSSON, Per CHRISTOFFE	R99
TO	00.04	744	Froud Information Cothoring Custom (FICC): Condend decadation Ct	RSSON, Per	DOG
TS	02.31	7.1.1	Fraud Information Gathering System (FIGS); Service description; Stage 1	WRIGHT, Tim	R98
TS	02.31	8.0.1	Fraud Information Gathering System (FIGS); Service description; Stage 1	WRIGHT, Tim	R99
TS	02.32	7.1.1	Immediate Service Termination (IST); Service description; Stage 1	WRIGHT, Tim	R98
TS	02.33	7.3.0	Lawful Interception (LI); Stage 1	BONNER, Brye	R98
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TS	03.20	3.0.0	Security-related Network Functions	NGUYEN	Ph1-
			,	NGOC, Sebastien	EXT
TS	03.20	4.4.1	Security-related Network Functions	NGUYEN NGOC, Sebastien	Ph2
TS	03.20	5.2.1	Security-related Network Functions	NGUYEN NGOC, Sebastien	R96
TS	03.20	6.1.0	Security-related Network Functions	NGUYEN NGOC, Sebastien	R97
TS	03.20	7.2.0	Security-related Network Functions	NGUYEN NGOC, Sebastien	R98
TS	03.20	8.1.0	Security-related Network Functions	NGUYEN NGOC, Sebastien	R99
TS	03.31	7.0.0	Fraud Information Gathering System (FIGS); Service description; Stage 2	WRIGHT, Tim	R98
TS	03.31	8.0.0	Fraud Information Gathering System (FIGS); Service description; Stage 2	WRIGHT, Tim	R99
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TS	21.133	3.2.0	3G security; Security threats and requirements	CHRISTOFFE RSSON, Per	R99
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TS	35.204	3.1.2	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	WALKER, Michael	R99
TS	35.204	4.0.0	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	WALKER, Michael	Rel-4
TS	35.204	5.0.0	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	WALKER, Michael	Rel-5
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TS	35.205	5.0.0	3G Security; Specification of the MILENAGE Algorithm Set: An example algorithm set for the 3GPP authentication and key generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 1: General	WALKER, Michael	Rel-5
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TS	35.207	5.0.0	3G Security; Specification of the MILENAGE algorithm set: An example algorithm Set for the 3GPP Authentication and Key Generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 3: Implementors' test data	WALKER, Michael	Rel-5
TS	35.208	4.0.0	3G Security; Specification of the MILENAGE algorithm set: An example algorithm Set for the 3GPP Authentication and Key Generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 4: Design conformance test data	WALKER, Michael	Rel-4
TS	35.208 35.909	5.0.0	3G Security; Specification of the MILENAGE algorithm set: An example algorithm Set for the 3GPP Authentication and Key Generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 4: Design conformance test data 3G Security; Specification of the MILENAGE algorithm set: an example algorithm set for the 3GPP authentication and key generation functions f1, t1* f6, f4, f6, f6, f6, f6, f6, f7, f8, f7, f8, f8, f8, f8, f8, f8, f8, f8, f8, f8	WALKER, Michael WALKER, Michael	Rel-5 Rel-4
TR	35.909	5.0.0	f1*, f2, f3, f4, f5 and f5*; Document 5: Summary and results of design and evaluation 3G Security; Specification of the MILENAGE algorithm set: an example algorithm set for the 3GPP authentication and key generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 5: Summary and results of design and evaluation	WALKER, Michael	Rel-5
TR	41.031	4.0.1	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	WRIGHT, Tim	Rel-4
TR TR	41.031 41.033	5.0.0 4.0.1	Fraud Information Gathering System (FIGS); Service requirements; Stage 0 Lawful Interception requirements for GSM	WRIGHT, Tim BONNER,	Rel-5 Rel-4
TR	41.033	5.0.0	Lawful Interception requirements for GSM	BONNER,	Rel-5
TS	41.061	4.0.0	General Packet Radio Service (GPRS); GPRS ciphering algorithm	Brye WALKER, Michael	Rel-4
TS	42.009	4.0.0	requirements Security Aspects	Michael CHRISTOFFE RSSON, Per	Rel-4
TS	42.031	4.0.0	Fraud Information Gathering System (FIGS); Service description; Stage 1	WRIGHT, Tim	Rel-4
TS	42.031	5.0.0	Fraud Information Gathering System (FIGS); Service description; Stage 1	WRIGHT, Tim	Rel-5
TS	42.033	4.0.0	Lawful Interception; Stage 1	BONNER, Brye	Rel-4
TS	42.033	5.0.0	Lawful Interception; Stage 1	BONNER, Brye	Rel-5
TS	43.020	4.0.0	Security-related network functions	GILBERT, Henri	Rel-4
TS	43.020	5.0.0	Security-related network functions	GILBERT, Henri	Rel-5
TS	43.031 43.031	4.0.0 5.0.0	Fraud Information Gathering System (FIGS); Service description; Stage 2 Fraud Information Gathering System (FIGS); Service description; Stage 2	WRIGHT, Tim WRIGHT, Tim	Rel-4 Rel-5
TS	43.031	4.0.0	Lawful Interception; Stage 2	BONNER, Brye	Rel-5
TS	43.033	5.0.0	Lawful Interception; Stage 2	BONNER, Brye	Rel-5
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TS	55.216	6.0.0	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 1: A5/3 and GEA3 specification	CHRISTOFFE RSSON, Per *Added by M Pope	Rel-6
TS	55.217	6.0.0	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 2: Implementors' test data	CHRISTOFFE RSSON, Per *Added by M Pope	Rel-6
TS	55.218	6.0.0	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 3: Design and conformance test data	CHRISTOFFE RSSON, Per *Added by M Pope	Rel-6
TR	55.919	6.0.0	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 4: Design and evaluation report	CHRISTOFFE RSSON, Per *Added by M Pope	Rel-6

Annex D: List of CRs to specifications under SA WG3 responsibility agreed at this meeting

Spec	CR	Rev	Phase	Subject	Cat	Cur Vers	WG meeting	WG TD	WG status
33.107	028	-	Rel-5	Event Time	F	5.4.0	S3-25	S3-020489	agreed
33.108	002		Rel-5	Essential corrections to the Annex C.1 (ULIC)	F	5.1.0	S3-25	S3-020491	agreed
33.108	003		Rel-5	Missing PDP Context Modification event	F	5.1.0	S3-25	S3-020492	agreed
33.108	003		Rel-6	Aggregation of IRI Records	В	5.1.0	S3-25	S3-020493	agreed
33.203	024	-	Rel-5	Correction of IP address acquisition in P-CSCF	F	5.3.0	S3-25	S3-020553	agreed
33.203	025	-	Rel-5	Sending error response when P-CSCF receives unacceptable proposal	F	5.3.0	S3-25	S3-020554	agreed
33.203	026	-	Rel-5	The use of SAs in user authentication failures	F	5.3.0	S3-25	S3-020558	agreed
33.203	027	-	Rel-5	Clean up one Editor's note in 33.203	F	5.3.0	S3-25	S3-020559	agreed
33.210	003	-	Rel-5	Adding requirement to provide mandatory support for 3DES encryption in NDS/IP. Remove AES references and dependencies	F	5.1.0	S3-25	S3-020563	agreed
33.203	028	-	Rel-5	Indication in the UE that the SA is no longer active in P-CSCF	F	5.3.0	S3-25	S3-020555	agreed

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Annex E: List of Liaisons

E.1 Liaisons to the meeting

TD number	Title	Source TD	Comment/Status
S3-020457	Secure registration of IP addresses	N1-021848	Revised CR from S3-020375 in S3-020553
S3-020458	LS on on Diameter security issues	N4-020994	Response in S3-020547
S3-020459	LS on use of IP as transport for the Inter-GMLC Interface	N4-020999	Noted
S3-020460	IMS authentication vector distribution on the Cx interface	N4-021031	Response to SA WG3 questions. Noted
S3-020461	LS back to SA1 and SA2 on enhanced user privacy and new security requirements for LCS	N5-020564	Noted
S3-020462	LS reply on Packet Switched Streaming (PSS) in Rel-6 Work Programme	S1-021504	Noted
S3-020463	Liaison Statement on subscriber certificates	S1-021685	Response to SA WG3 on Subscriber Certificates. Noted.
S3-020464	LS reply on "Answer to "LS on PSS Release 6 work programme""	S1-021700	Noted
S3-020465	Support of LCS enhanced user privacy in OSA	S1-021717	Noted
S3-020466	Reply LS on Push Security	S1-021734	P Howard to lead e-mail discussion if any issues are identified in the draft TS
S3-020467	New requirements about functionality to make subscription to different domains independent or linked based on operator decision	S1-021831	Attached CR had been rejected in SA#17. Response LS in S3-020561
S3-020468	Response to T3-020406/S1-021427 (Response "Liaison Statement on Access to IMS Services using 3GPP release 99 and release 4 UICCs" (S1-020577))	S1-021835	Noted. Response LS in S3-020561
S3-020469	LS on Speech Enabled Services	S1-021846	TR 22.977 and TS 22.243 should be reviewed and contribution to e-mail group. L Finklestein to create response LS to SA WG1 by 4 November
S3-020470	Draft Working Item Description PSS Rel-6 and LS response to: "Answer to Liaison Statement regarding PSS Release 6 work pro-gramme" (S2-022050/ S4 (02)0375) from SA2, and "LS reply on Packet Switched Streaming (PSS) in Rel-6 Work Programme" (S5-024235/S4(0)0376) from SA5	S4-020484	No comments on WID. Noted
S3-020471	LS on Subscriber Certificates	T3-020628	Response to SA WG3 on Subscriber Certificates. Noted.
S3-020472	LS on User Equipment Management Feasibility Study (TR 32.802)	T3-020666	Noted
S3-020473	LS on Rel-6 WID for User Equipment Management	T3-020667	Noted
S3-020474	Response LS on Security enhancements for GERAN	GP-022819	Reply LS in S3-020566. P Howard to develop WID for next meeting
S3-020475	Liaison on Security and Charging Issues with use of HTTP within IMS	S2-022609	Reply LS in S3-020572
S3-020476	LS on 3GPP System to WLAN Inter working architecture	S2-022611	LS response to SA WG2 in S3-020586
S3-020477	Reply LS on "Gb evolution"	S2-022618	Noted
S3-020478	LS to 3GPP TSG WG CN4, CN, SA3, SA2, and GSMA SerG on the protocol development for the GMLC Lr-interface	SI1102059	LS provided in S3-020582
S3-020479	LS response on subscriber certificates	N1-022051	Noted
S3-020480	Liaison statement on Interoperability Issues and SIP in IMS	N1-022160	Response in SP-020550

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TD number	Title	Source TD	Comment/Status
S3-020481	LS on Status of protocol work on Ze interface	N4-021259	Noted
S3-020482	LS on re-used of START value for ciphering of RB using RLC TM during SRNS relocation	R2-022684	Agreed change needed in Rel-4. Response LS in S3-020564
S3-020483	LS to SA3 on Group release security solution	R2-022702	Other contributions considered. Need for protection to be discussed over e-mail. Response LS in S3-020565
S3-020485	Response to IETF LS on Interoperability Issues and SIP in IMS	SP-020627	Noted
S3-020497	LS on change to LI email subscription and access controlled SA3-LI document area	S3LI02_155r1	Return to LI to clarify reasons for the closing of FTP site
S3-020540	Reply LS on "Gb evolution"	GP-022821	Noted.

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E.2 Liaisons from the meeting

TD number	Title	Comment/Status	TO	CC
S3-020576	Response LS to CN WG4, SA WG5: adopts the security requirements in chapter 1.8	Approved	SA WG5 CN WG4	
S3-020577	New requirements about functionality to make subscription to different domains independent or linked based on operator decision	Approved	SA WG1 SA WG2 SA WG5	T WG3
S3-020578	Liaison statement on Interoperability Issues and SIP in IMS	Approved	TSG CN TSG SA CN WG1 SA WG1 SA WG2	SA Wg4 SA WG5 CN WG2 CN WG3 CN WG4 CN WG5
S3-020579	LS to CN WG1 on CR impacts in S3-020555 (Monika)	Approved. TDs 555 and 558 appended	CN WG1	
S3-020580	LS to CN WG1 on IETF Sec-agree alternative (K Boman)	Approved. TDs 386 and 516 appended	CN WG1	
S3-020582	LS on Lr interface security	Approved	LiF SIG	SA WG2 CN WG4
S3-020583	LS to RAN2: Reuse of COUNT-C Values for Ciphering of RB Using RLC TM During Handover	Approved	RAN WG2	
S3-020584	LS to RAN2: Group Release security solution	Approved	RAN WG2	
S3-020586	Reply LS to SA WG2 on 3GPP System to WLAN Inter working architecture	Approved	SA WG2	SA WG1
S3-020587	Liaison to SA WG2 on HTTP Security investigation within IMS	Approved. TD 528 appended	SA WG2	SA WG1 SA WG5
S3-020588	LS to SA WG2 on Presence General Requirements (K Boman)	Approved. TDs 507 and 508 appended	SA WG2	SA WG1
S3-020589	LS to GERAN cc SA WG2:Security enhancements for GERAN	Approved	TSG GERAN	SA WG1 SA WG2

Annex F: Actions from the meeting

- AP 25/01: P. Howard to lead an e-mail discussion group to discuss IST issues and report to next SA WG3 meeting.
- AP 25/02: (B. Wilhelm / C. Brookson) LI group to consider implications of Subscriber Certificate work on LI.
- AP 25/03: C. Brookson to circulate draft 33.900 to SA WG3 for update and approval at next meeting as a Rel-6 TR.
- AP 25/04: C. Brookson to ask operators whether there is any support for FIGS in Release 6 and report to SA WG3 meeting #26.
- AP 25/05: B. Wilhelm to ask the LI group to provide more information on the reasons for the restricted access to the LI FTP area, in order for a better understanding of the issues involved for SA WG3 and TSG SA to be gained in considering the request (re: TD S3-020497 / S3LI02_155r1).
- AP 25/06: A. Escott to lead e-mail discussion group on registration of SA lifetimes and provide a CR for SA WG3 meeting #26.
- AP 25/07: B. Owen to lead an e-mail discussion to conclude on the need to secure the Group Release function.
- AP 25/08: P. Christoffersson (mechanism) and G. Rose (CR to 33.102) to co-ordinate the use of f8 to provide protection for Group Release mechanism, if the SA WG3 e-mail discussion on the need to have protection concludes that protection is desirable.
- AP 25/09: P. Howard to develop WID for GERAN Security Enhancements (Rel-6).
- AP 25/10: K. Boman to clarify the use of the term EDGE for CS and PS domains in TR 55.919 (CR to be drafted).
- AP 25/11: P. Howard to lead e-mail discussion on Push Security issues (TS 22.174) and co-ordinate any comments to SA WG1.