Source: **SA WG3 Secretary (MCC)**

Title: **Reports of SA WG3 meetings since TSG SA#21**

Document for: **Information**

Agenda Item: **7.3.1**

SA WG3 has held 2 full meetings and a joint meeting with CN WG1 experts since TSG SA#21, as follows:

Meeting	Date	Location	Host
Joint SA WG3/CN WG1 session on IMS security	6 October 2003	Povoa de Varzim, Portugal	EF3
SA WG3 meeting #30	6-10 October 2003	Povoa de Varzim, Portugal	EF3
SA WG3 meeting #31	18-21 November 2003	Munich, Germany	EF3

Attached are the approved reports of joint SA WG3 / CN WG1 meeting, SA WG3 #30 meeting and the draft report of meeting #31.

3GPP TSG SA WG3 (Security) meeting #30 **Report version 1.0.0**

6 October 2003

Povoa de Varzim, Portugal

Source:	**Secretary of SA WG3 (M. Pope, MCC)**
Title:	**Report of joint SA WG3/CN WG1 session on IMS security. 6 October 2003**
Document Status:	**Approved at SA WG3 meeting #31**

1 Opening of the meeting

The SA WG3 Chairman opened the joint meeting and welcomed delegates to Porto. A role call was made around the room. Conclusions of the joint session were to be presented in SA WG3 meeting #30 on Tuesday 7th October and all potential SA WG3 decisions were to be presented for endorsement.

2 Agreement of the agenda and meeting objectives

TD S3-030483 Draft agenda for joint SA WG3/CN WG1 session on IMS security. The draft agenda was introduced by the SA WG3 Chairman and was approved.

2.1 3GPP IPR Declaration

The chairman made the following call for IPRs, and asked ETSI members to check the latest version of ETSI's policy available on the web server:

> The attention of the members of this Technical Specification Group is drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective** Organizational Partners **of Essential IPRs they become aware of**.
>
> The members take note that they are hereby invited:
>
> - to investigate in their company whether their company does own IPRs which are, or are likely to become Essential in respect of the work of the Technical Specification Group.
>
> - to notify the Director-General, or the Chairman of their **respective** Organizational Partners, of all potential IPRs that their company may own, by means of the IPR Statement and the Licensing declaration forms (e.g. see the ETSI IPR forms http://webapp.etsi.org/Ipr/).

3. Assignment of input documents

The relevant documents were identified for discussion from the SA WG3 meeting #30 document list.

4. Status of relevant specifications

4.1 SA WG3 specifications on IMS

Mr. K Boman, Ericsson welcomed CN WG1 experts to the joint discussions and outlined the status of IMS work in SA WG3 and the issues being tackled.

4.2 CN1 specifications on IMS

TD S3-030500 Liaison statement (from CN WG1) on requesting a joint CN1-SA3 meeting. The LS was introduced for information, as the joint meeting was taking place. The LS was noted.

5. Technical issues in Release 5

5.1 RES/XRES generation and usage

TD S3-030493 Proposed CRs to 33.203: Correcting the text on sending an authentication response (Rel-5). This was introduced by 3. It was reported that the corresponding changes in TS 22.228 and TS 22.229 should not be a problem for CN WG1. It was agreed that the changes in 5.1.1 should be made into a note and the reason for change should refer to the pending CN WG1 CRs. With these changes, the CR was then agreed (to be endorsed by SA WG3 meeting).

TD S3-030494 Proposed CRs to 33.203: Correcting the text on sending an authentication response (Rel-6). This was a Release 6 mirror CR to the CR in TD S3-030493. The CR would be updated to reflect the changes agreed for the CR in TD S3-030493 and the CR was then agreed (to be endorsed by SA WG3 meeting).

5.2 Security Association (SA) management issues

TD S3-030554 Handling of Security Associations. This was introduced by Siemens in order to clarify the behaviour of the P-CSCF in case a REGISTER request from the UE containing an authentication response indicates that the authentication challenge was invalid (indicated by the AUTS parameter in the REGISTER) and to clarify the necessary parameters for IPSec in a re-REGISTER request. There was some discussion on the re-use of the security client parameters rather than generating new parameters and either deleting the old SAs or letting them expire naturally, as this would then allow the use of the same procedures whatever happens and simplify the P-CSCF state machine. It was noted that there were proposals from Nokia on the generation of new parameters in case of failure and this would be look at later in the meeting. There would be a slight security risk while there are more than one SA at the same time (i.e. the correct SA and the invalid SA which has not yet expired) although it was recognised that the risk appeared to be low. It was decided to re-discuss this after the proposed CRs to 33.203.

For the second proposal, there was a request from CN WG1 that the Security-Verify header should be sent in Re-registration anyhow, again as this allows a simplification of the UE procedures and may be useful for a future implementation where this parameter may be useful. It was agreed that the re-registration should be treated in the same way as an initial registration and Siemens agreed to write the necessary CRs to include this in TS 22.229. Delegates were also asked to double-check that no changes would be needed in TS 33.203.

TD S3-030560 Correction and Alignment of SA handling procedures. This was introduced by 3 and proposed some of small corrections to the SA handling procedures in TS 33.203. It also noted that the text in TS 24.229 on SA handling is not inline with TS 33.203 and proposed changes that could be made to TS 24.229 to align it with TS 33.203. It was recognised that in the TCP case, the SIP message needs to be sent over the old SA, and in the UDP case this is not always necessary. It was thought best to clarify this in the CN WG1 specifications, rather than in TS 33.203. There was much discussion on the wording of the proposals and it was clear that the full understanding of the mechanisms was not fully understood. It was decided to discuss this further in an evening session and attempt to produce a revised version of the proposals which is clear to everyone. After the evening session, CRs provided for SA WG3 consideration in TD S3-030603 and TD S3-030604.

TD S3-030563 Proposed CR to 33.203: Lifetime of old SAs (Rel-5). This was introduced by Nokia and proposed clarification to the SA WG3 specification on the lifetime of old SAs. It was agreed to take the concepts proposed in this CR along with those in TD S3-030560 in the evening session and try to provide a combined CR to 33.203.

Secretary Note: **These CRs were discussed in SA WG3, were updated in TD S3-030619 and TD S3-030620 respectively and were approved.**

TD S3-030567 Proposed CR to 33.203: SA Management (Rel-5). This was introduced by Nokia and proposed text to allow any SAs established with a synchronisation failure could expiry naturally via their

expiry timers. It was reported that if this was accepted, then possible abnormal cases (e.g. a register message received on this old SA) would need to be investigated. It was concluded that the acceptability to allow the Temporary SAs to expire rather than deleting them depends on the value of the expiry timer chosen by CN WG1 as this would be directly related to the seriousness of a DoS attack against user registration. It was agreed that the impacts of these changes on the specifications should be investigated in the evening session.

Report from the evening session on handling of multiple SAs at the P-CSCF:

Agreement found during SA WG3/CN WG1 evening session (6th October 2003).

1. AGREEMENT

It was agreed that the following paragraphs should be added to 24.229 in the P-CSCF section:

Paragraph 1:
Message on SA2 drop SA1 (reduce Lifetime of SA1 to 64*T1)

Paragraph 2:
Message on SA1 don't drop anything

Paragraph 3:
at the point the 200 OK for the Authentication is sent out, all SA's that did not protect the first REGISTER are dropped

unprotected REGISTER means that after 200 OK all old SA's are dropped

Paragraph 4:
SA1 expires SA2 taken into use automatically

The UE cases were regarded as required to be re-worded, but this should be a "easy piece".

2. OLD MATERIAL

Below is the material that was written down during the evening session, before the above conclusion was drawn. There might be mistakes in the below material – it was not checked again and it is just included for information.

Scenario A: old SA1 established
new SA2 established
nothing sent forth/back since that

All following messages in the cases are received at the P-CSCF from the UE
SAx = a set of two pairs of SAs

(*) including REGISTER = case 4

Paragraph 1:

Case 1	Request(*) on SA2	drop SA1 (reduce Lifetime of SA1 to 64*T1)
Case 6	Response on SA2	drop SA1 (reduce Lifetime of SA1 to 64*T1)
Case 4	REG on SA2	drop SA1 (reduce Lifetime of SA1 to 64*T1)

Receipt of REG on SA2:
- if re-authentication happens, delete SA1 after 200 OK sent
- if no re-authentication, reduce Lifetime of SA1 to 64*T1 after 200 OK sent

Paragraph 2:

Case 2	Request on SA1	don't drop anything
Case 7	Response on SA1	don't drop anything

Paragraph 3:

Case 3	REG unprotected	drop SA1 and SA2 (after 200 OK sent out)

Paragraph 4:		
Case 5	REG on SA1	drop SA2 (after 200 OK sent out)
Paragraph 5:		
Case 8	SA1 expires	SA2 taken into use automatically

TD S3-030568 Proposed CR to 33.203: SA procedures (Rel-5). This was introduced by Nokia and proposed to clarify the SA management procedures in TS 33.203. It was clarified that the SM1 referred to is the one in the same SA, and not related to a new unprotected registration request. It was agreed to clarify this and the CR was updated in TD S3-030594.

Secretary Note: **This CR was discussed in SA WG3, and was updated in TD S3-030609 and approved.**

TD S3-030569 Proposed CR to 33.203: SA parameters and management (Rel-5). This was introduced by Nokia. It was discussed and agreed to revise the proposed changes just to correct the specification where it is wrong, and not to make the changes that do not change the functionality. It was also clarified that the re-use of an existing TCP connection should not be mandated, as a second connection may be set up on demand. It was also considered that the figure 1 should be left in, but clarified that this is a possible example for information. Modifications were therefore agreed and the CR was updated in TD S3-030596.

Secretary Note: **This CR was discussed in SA WG3, and was updated in TD S3-030610 and approved.**

TD S3-030570 Security issues. This was introduced by Nokia and discussed. Some parts were covered by discussions on other documents. **It was discussed and agreed tat the content of "Security Server" shall be mirrored in the "Security Verify header". CN WG1 were asked to take this into account in their work.**

5.3 Clean-up and alignment of TS 33.203 and TS 24.229

TD S3-030562 Proposed CR to 33.203: Terminology alignment (Rel-5). This was introduced by Nokia. Auth_Failure was changed to Error_Response to align with Stage 3 terminology and other changes were proposed to clarify and correct the terminology of 33.203. It was commented that there are many other items which may need to be changed if 4xx_Auth_Failure is accepted to be changed and that the Stage 2 terminology need not be exactly the same as the Stage 3 protocol names. It was considered that the change of 4xx_Auth_Failure was unnecessary from a Stage 2 viewpoint. Other editorial clean-up changes may be included in other related CRs and proposed for Rel-6 (to be decided by SA WG3). The changes in 7.3.1.1 and 7.3.2.2 were agreed for Rel-6 and the references will be changed in another related CR, checking other occurrences of superseded references. SA WG3 were asked to check with SA WG2 specifications on whether any IMPI related information is stored in the I-CSCF in the case of Authentication failure. If none, as stated by CN WG1 experts, then the sentence in 6.1.2.2 can be deleted (for Rel-6). A revised CR was provided in TD S3-030597.

Secretary Note: **This CR was discussed in SA WG3, and was updated in TD S3-030613 and approved.**

TD S3-030566 Proposed CR to 33.203: Reject instead of discard (Rel-5). This was introduced by Nokia. There was some confusion over the proposal and it was thought that such a change should be made symmetrical for the UE and the P-CSCF. The CR was updated in TD S3-030598.

Secretary Note: **This CR was discussed in SA WG3, and was updated in TD S3-030614 and approved.**

5.4 Trusted domain concept

TD S3-030564 Trustworthiness of the previous hop (IMS?) network (Rel-6). It was clarified that it was the assumption for CN WG1 that Rel-5 is a **closed (trusted) network** and therefore this change is only necessary for Rel-6. Documents presented below were considered and this contribution revisited. It was decided that SA WG3 should analyse this and try to provide a solution for Rel-6 as soon as possible. Contributions were invited to SA WG3 on this issue for Rel-6.

TD S3-030526 Proposed CR to 33.203: UE populates RAND and AUTN when sending Digest response to the network (Rel-5). This was introduced by Nokia. It was noted that the AUTN parameter was already in Digest and the Stage 3 specification and it was not the intension of the Stage 2 specification to list all possible parameters in the messages, but only those parameters necessary to perform the Security procedures. It was decided to reject this CR and instead to send a LS to CN WG4 and CN WG1 in order to clarify that the non-security Related parameters are also included as required by RFC 3310. The LS was provided in TD S3-030599.

Secretary Note: **This LS was discussed in SA WG3, and was updated in TD S3-030616 and approved.**

TD S3-030527 Proposed CR to 33.203: UE populates RAND and AUTN when sending Digest response to the network (Rel-6). This was a mirror CR to TD S3-030526 for Rel-6 and was also rejected and the LS in TD S3-030599 was sent instead.

6. Technical issues in release 6

6.1 Openness of IMS

TD S3-030497 Liaison statement (from CN WG1) on Profiling of RFC3325 for IMS. This was introduced by Nokia and reported the assumptions made by CN WG1 regarding trust models for IMS. CN WG1 have assumed that the Rel-5 IMS is a closed, trusted domain. For Rel-6, an open domain is to be expected and the trust models and mechanisms need to be developed. It was reported that the SA WG3 assumption is that Technical Trust is built upon "**Interconnect Agreements**". It was clarified that SA WG3 concur with CN WG1 that for release 5 IMS, the 3GPP IMS Networks form the Trusted domain and P-Asserted-Identities should only be sent to recognised IMS networks. NDS (or proprietary security systems) is designed for and will be used between Operators to establish the trust relationships. It was decided to consider the other related contributions. This was further discussed in the evening session and it was concluded that it was not necessary to send a reply LS on this subject to CN WG1.

TD S3-030565 Trustworthiness of the next hop (IMS?) network. This was introduced by Nokia and described some methods for handling and forwarding IMS data to trusted and non-trusted networks. This was proposed for Rel-6 and it was noted that the proposal 3 would only work for Rel-5. It was noted that the source network would need to be verified as well as the next-hop network to fully secure this system. It was agreed that SA WG3 need to ensure there are adequate mechanisms to enable the Closed IMS domain for Rel-5 and need to identify the methods needed for the Rel-6 IMS Interconnected networks. For Rel-5, approach 3 was considered acceptable and it was suggested that this is covered by Annex C of TS 33.102. This was to be checked and clarified with CN WG1 experts in the evening session. For Rel-6 approach 1 was considered a good basis for further development of a more future-proof solution. It was decided that SA WG3 should discuss this at their meeting and try to find a solution to satisfy CN WG1 timescales.

TD S3-030541 Proposed CR to 33.203: Introducing the SIP Privacy mechanism (Rel-6). This was introduced by Ericsson. There was some discussion and some criticism that the CR was written more like a Stage 3 specification. It was reported that the mechanism was already available in Rel-5 as described. It was clarified that this is not strictly a Security issue, but due to misunderstandings in other groups, it was decided to clarify the Privacy mechanisms in the specifications. It was agreed to accept these changes in paragraph 1 in 5.3 for Rel-5 and to develop further if needed for Rel-6. References to RFCs were considered necessary and contribution was requested to SA WG3 delegates, using this contribution as a basis, ensuring that Stage 2 and Stage 3 content are appropriate.

7. Any other business

There were no specific contributions under this agenda item.

8. Close of the Monday joint session

The Chairman thanked SA WG3 and CN WG1 delegates for their co-operation and participation in the discussions and set the details for an evening session to discuss outstanding items, which would be reported back to the SA WG3 meeting on Tuesday 7 October. The result of this evening session is reported under agenda item 5.2.

3GPP TSG SA WG3 (Security) meeting #30 **Report**

6-10 October 2003, Povoa de Varzim, Portugal

Source:	**Secretary of SA WG3 (M. Pope)**
Title:	**Report of SA3#30 - version 1.0.0**
Status:	**Approved at SA WG3 meeting #31**

Fisherman Statue, Povoa de Varzim, Portugal

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1 Opening of the meeting

The SA WG3 Chairman, Mr. V. Niemi, opened the meeting and Welcomed delegates to Portugal on behalf of the European Friends of 3GPP (EF3).

2 Agreement of the agenda and meeting objectives

TD S3-030495 Revised Draft Agenda for SA WG3 meeting #30. This was introduced by the SA WG3 Chairman.

Priorities:

1 Progress of IMS Security issues. See results from joint meeting with CN WG1 on IMS.
2 Progress specifications for Rel-6 in order to send to TSG SA Plenary for Information or Approval in December 2003.

2.1 3GPP IPR Declaration

The Chairman made the following call for IPRs, and asked ETSI members to check the latest version of ETSI's policy available on the web server:

> The attention of the members of this Technical Specification Group is drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective** Organizational Partners **of Essential IPRs they become aware of**.
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> The members take note that they are hereby invited:
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> - to investigate in their company whether their company does own IPRs which are, or are likely to become Essential in respect of the work of the Technical Specification Group.
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> - to notify the Director-General, or the Chairman of their **respective** Organizational Partners, of all potential IPRs that their company may own, by means of the IPR Statement and the Licensing declaration forms (e.g. see the ETSI IPR forms http://webapp.etsi.org/Ipr/).

3 Assignment of input documents

The available documents were allocated to their relevant agenda items.

4. Conclusions from the 6 October joint IMS session with CN1

TS S3-030483: Draft agenda for joint SA3-CN1 session on IMS security. The draft agenda for the joint meeting was reviewed and the SA WG3 Chairman provided a verbal report of the handling of agenda items. Resulting output documents to SA WG3 for approval and discussion were added under agenda item 7.1 of this meeting.

For the Stage 2 of Privacy, it had been agreed that the work is under SA WG3 responsibility, but there may already exist the necessary Stage 2 work in TS 22.229. SA WG3 agreed to consider the Stage 2 requirements and to check whether everything is covered, along with a LS to SA WG2 to check on the suitability of the Stage 2 privacy work. The output for this can be found in TD S3-030600. The proposed LS in TD S3-030579 had not been dealt with in the joint session and was decided to handle it while CN WG1 experts were available.

TS S3-030579: Proposed LS (to SA WG1): The requirement and feasibility of IMS watcher authentication. This was introduced by Nokia and asked SA WG1 to evaluate the need for IMS watcher authentication, based on some issues identified by SA WG3 in the proposed system. There was a discussion on the requirements for IMS watcher authentication and there were different opinions on the expected Presence service requirements and scope of the services which may be provided using Presence. CN WG1 delegates were against the idea adding an authentication mechanism on top of IMS Authentication. There was some argument that this mechanism could be used for e.g. a *NetMeeting*-like service for, e.g. corporate IMS

systems, to give users control over access to their personal data (e.g. by distributing passwords, etc.). It was agreed that any agreed LS on Presence should be copied to CN WG1. The LS was revised in TD S3-030654 and approved.

5 Meeting reports

5.1 Approval of the report of SA3#29, San Francisco, USA, 15-18 July, 2003

TS S3-030592: Documents approved by e-mail after SA WG3 meeting #29. These documents were approved by e-mail after the last meeting. This was noted and delegates were asked to check if any approved documents were missing and inform the SA WG3 Secretary.

TS S3-030481: Draft report of TSG SA meeting #29. The draft report was reviewed and approved. The SA WG3 Secretary will accept the revision marks and add it to the 3GPP FTP server as version 1.0.0.

November meeting: This could not be hosted co-located with the LI group by the DTI, so it had been arranged to hold it at Siemens Conference Centre, Munich, hosted by the European Friends of 3GPP (EF3).

February 2004 meeting: The host was still not confirmed. M. Pope agreed to check if ETSI could host this as a backup.

May 2004 meeting: It was reported that this could be based in Jeju Island, South Korea, which is difficult to travel to and delegates were asked to consider the acceptability of this venue.

Actions from the meeting:

AP 29/01: M Pope to get a new TS number for use to provide the draft A5/4 and GEA4 document. The MCC specifications manager asked for details of the number of documents to be allocated numbers and their Titles, Rapporteurs, Releases, WIDs, etc. M Pope will obtain the necessary information and inform the SA WG3 Members of the allocated numbers over e-mail. Considered Completed.

AP 29/02: M Blommaert and P Howard to chair e-mail discussions on Early release IMEISV transfer and produce CRs for comment by 29 August, Approval 5 September 2003. There were no comments, and CRs created were approved at SA#21. Completed.

AP 29/03: M. Blommaert to run e-mail discussion to discuss what should be done with the information in TD S3-030402. Response LSs were provided to this meeting. Completed.

AP 29/04: A. Palanigounder to lead an e-mail discussion and draft an LS in response to TD S3-030428 (Denial of Service attacks against the 3GPP WLAN Interworking system). Comments before 6 August, draft response LS 8 August and Approval for transmission 15 August 2003. LS created, approved and transmitted. Completed.

AP 29/05: S. Nguyen Ngoc was asked to lead an e-mail discussion over LSs in TD S3-030433 and to produce a response LS. Comments before 6 August, draft response LS 8 August and Approval for transmission 15 August 2003. LS created, approved and transmitted. Completed.

AP 29/06: C. Blanchard to lead an e-mail discussion over LSs in TD S3-030427 and to produce a response LS. Comments before 6 August, draft response LS 8 August and Approval for transmission 15 August 2003. LS created, approved and transmitted. Completed.

AP 29/07: P. Howard to lead an e-mail discussion on Trust Model and provide a contribution to SA WG3 meeting#30. There had been no input on this and it was suggested that this should be re-discussed after the discussion of contributions at this meeting. The draft TS contains a new table covering this action. Completed.

AP 29/08: B. Owen to lead an e-mail discussion on TD S3-030316 (UE security aspects of the GUP architecture). Comments before 6 August, draft response LS 8 August and Approval for transmission 15 August 2003. There had been no input on this on the e-mail discussion. To be re-considered after GUP discussions at this meeting. Completed.

AP 29/09: G. Horn to lead an e-mail discussion on open issues related to Key Management of HTTP-based services. Deadline for collection of issues: 27 August 2003. The results were handled in the MBMS ad-hoc meeting. Completed.

AP 29/10: Tao Haukka to provide draft LS to SA WG1 on IMS watcher authentication for discussion at SA WG3 meeting #30. The results are provided as input to this meeting. Completed.

AP 29/11: C. Blanchard to set up a discussion group and elaborate the MBMS Key Management requirements based on TD S3-030335. Dealt with at the MBMS ad-hoc meeting and CRs and LS to this meeting. Completed.

AP 29/12: M. Pope to check if an ad-hoc meeting can be held at ETSI premises 3 - 4 September 2003 (20 delegates). This was not possible, the ad-hoc meeting was held in Antwerp. Completed.

5.2 Report from SA3 ad hoc meeting on GAA and MBMS, Antwerp, Belgium, 3 - 4 September, 2003

TS S3-030482: Draft Report of MBMS / GAA ad-hoc meeting. P. Howard provided the report of the ad-hoc meeting and was reviewed.

Actions from the meeting:

AP 0309/01: G. Horn to update the diagram in section 6.2 of TD S3z030011 so that it captures the architectural solutions under consideration for GAA. Completed.

AP 0309/02: Chairman to raise SA WG3 comments on MBMS architecture TS 23.246 at the TSG SA #21 plenary meeting. Completed.

AP 0309/03: A. Escott to obtain clarification on what is meant by the inclusion of security functions in Figure 7 of the MBMS architecture TS 23.246v2.0.0. Completed.

AP 0309/04: C. Blanchard to distribute any proposed pseudo CRs arising from AP29/11 which add potentially controversial MBMS security requirements to the SA WG3 email list for comment prior to SA3#30. Completed. The results are provided in **TD S3-030513, TD S3-030514 and TD S3-030515**. Completed.

P. Howard was thanked for the report which was then approved.

5.3 Report from SA#21, Frankfurt, Germany, 22-25 September, 2003

TS S3-030496: SA WG3 Chairmans Report from SA#21 plenary. The SA WG3 Chairman reported the handling of SA WG3 contribution to TSG SA #21.

1. *In all technical areas except Lawful interception, all our CR's were approved as submitted.*
2. *In the area of lawful interception, the category of a CR was changed in several cases from D (editorial modification) to F (correction). One CR (SP-030477) against 33.106 marked as "editorial modification" was rejected because it proposed to introduce an item into the reference list but it did not introduce any change in the specification where this item is referenced to.*
   It was emphasized that category D is intended exclusively for grammatical improvements, e.g. correcting spelling errors. No CR in category D can introduce any changes (however small) in the system. Furthermore, it is not a responsibility of either MCC or the WG (or SWG) chairpersons to correct the cover sheets. All people preparing CRs were encouraged to consult TR 21.801 "Specification drafting rules".
3. *Our proposed WID for "Key Management of group keys for Voice Group Call Services" was approved as submitted (SP-030491).*
4. *Some concern was raised with the timing of LI subgroup meetings: if the LI meeting is scheduled too close to the SA plenary meeting then CRs approved in the LI meeting cannot typically be done against the correct version of the specification. This happened also this time but Maurice managed to correct the CRs. There is a risk that the same problem recurs next time as LI group meeting was held simultaneously with SA#21. Therefore, I propose LI group converts any CRs accepted in Jackson Hole meeting (22-24 September) into correct form (i.e. against spec versions that exist after SA#21) before we submit them to SA plenary #22 in December.*
5. *Dr. Raziq Yaqub gave a presentation about the current stage of our Feasibility study work on (U)SIM Security Reuse by Peripheral Devices. It was explicitly explained (and also mentioned in the SA#21 meeting minutes) that the presentation was an individual company contribution with no endorsement whatsoever by SA3.*
6. *I participated also the OMA-3GPP workshop on Monday 15 September. The most immediate affect to our work was the agreement that joint meetings and liaison between OMA and 3GPP work groups are possible (and they are even encouraged). However, it was stressed that agreements reached in joint meetings are not binding; they have to be endorsed by both parties. This kind of endorsement already occurred in SA plenary for the workshop conclusions (SP-030516).*
   One consequence is that we can now send our LS (S3-030459) to OMA SEC/SCT WG and begin preparing for a joint meeting in the area of subscriber certificates.
   In addition to the workshop conclusions, it was agreed in the SA#21 that Iain Sharp (TSG T vice chair) continues to maintain a living document of OMA dependencies (i.e. a list of OMA deliverables such that 3GPP is dependent on them) in a manner similar to what Stephen Hayes (TSG CN chair) has been doing for IETF dependencies.
7. *Issues in SA1 area:*
   - *SA1 is still struggling with their reply to our earlier reply LS (S3-030273) on "Privacy and Security Requirements within GSM/UMTS Devices";*
   - *One CR (SP-030459) adds an authentication requirement in the security section of LCS stage 1 spec;*
   - *Another CR (SP-030469) cleans up the security section of GUP stage 1 spec.*
8. *Issues in SA2 area:*
   - *As agreed in our September ad hoc, I raised the issues with the security section of MBMS stage 2 spec 22.246;*
   - *The conclusion was to replace the security section with a reference to our MBMS security spec 33.246. This change would be implemented later with a CR against 22.246. The possibility to access MBMS services with a SIM has to be raised in SA3 if there is still interest in pursuing this path further. (We noted in Antwerp that this late requirement in 22.246 was against the agreement reached in the joint SA2/SA3 MBMS session in February.);*
   - *A new WID "Impacts of Speech Enabled Services on IMS, PS and CS domains" (SP-030539) has the following under the section of security aspects: "Access to Voice Recognition platforms in authenticated and authorised manner. Privacy rules may need to be defined for the access to Voice Recognition platforms.";*
   - *WLAN interworking stage 2 TS 22.234 was not approved because some more study is required to be able to confirm the tunnelling solution for scenario 3. One of the issues to be studied is lawful interception. However, the content of the draft TS is stable for scenarios 1 and 2 and the content of scenario 3 part is seen as the working assumption*
9. *Issues in CN area:*
   - *The WID for CN4 stage 3 work on the area of bootstrapping interfaces was approved.*
10. *Issues in T area:*
    - *T3 has to know very soon whether they need to do work for MBMS in release 6.*
11. *General issues about the Rel. 6 dates:*
    - *the decision of the freezing date of Rel-6 is going to be done in December 2003.*
    - *SA#21 estimated that the stage 1 content of Rel-6 is now stabilized although there is a caveat that co-operation with OMA may lead to some new requirements.*

The SA WG3 Chairman was thanked for his work at the TSG meeting and for the report back to the group. The report was then noted.

5.4 Report from SA3 LI #10, Jackson Hole, WY, USA, 22-24 September, 2003

It was verbally reported that the Vice Chairman Bernd Adams has resigned and is replaced by Burkhard Kubbutat (O2 Germany). The draft report of the meeting was provided in TD S3-030605 for information and was noted.

TS S3-030491: LS (from SA WG3 LI Group) on new acronym. This informed SA WG3 of the intention to use the acronym "Access Network Provider", ANP instead of "AN". This was agreed.

TS S3-030530: Proposed CR to 33.108: LI Reporting of Dialled Digits (Rel-6). The CR was updated slightly in TD S3-030606 to add "intercept" to the note and remove Italics from the added text. The CR was then approved. **The LI Group were asked to check that the change made is acceptable before the next SA WG3 meeting**.

TS S3-030531: Proposed CR to 33.107: MSISDN/IMEI clarification for GPRS interception (Rel-6). The CR was updated slightly in TD S3-030607 to add "intercept" to the note and remove Italics from the added text. The CR was then approved. **The LI Group were asked to check that the change made is acceptable before the next SA WG3 meeting**.

TS S3-030532: Proposed CR to 33.108: Correction to Annex G on TCP based transport (Rel-5). This CR was approved.

TS S3-030533: Proposed CR to 33.108: Correction to Annex G on TCP based transport (Rel-6). The Category was revised from "**F**" to "**A**", as this was a mirror CR, in TD S3-030608 which was approved.

6 Reports and Liaisons from other groups

6.1 3GPP working groups

TS S3-030501: LS (from CN WG2) on SA3 on Legal Interception of SCP initiated calls. This was provided by CN WG2 to the LI group and it was decided to note it at SA WG3 and leave it to the LI Group to deal with appropriately.

TS S3-030506: LS (from SA WG4) on cipher suite for DRM-protected streamed media for PSS. This was introduced by the SA WG3 Chairman and reported the DRM assumptions currently held by SA WG4 and asked for verification from SA WG3 on this. The attachment (S4-030639) was also introduced by Nokia. It was agreed that this subject would need analysis and further discussion within SA WG3 and it was decided to provide a response LS to SA WG4 informing them that the choice of ciphering suite would need further investigation by SA WG3. Comments were requested to P. Howard in order to develop the LS overnight, which was provided in TD S3-030621, which was modified in TD S3-030650 which was approved.

TS S3-030505: Liaison (from SA WG4) Response to OMA. This LS was copied to SA WG3 and concerned the information given to OMA in TD S3-030506, where SA WG4 reported that verification on the DMA assumptions would be sought from SA WG3. The LS was noted.

6.2 IETF

There were no specific contributions under this agenda item.

6.3 ETSI SAGE

TS S3-030489: Proposed CR to 55.205: Correction of reference. This CR corrected the numbers of referenced TSs. The CR was approved.

It was reported that the backup-algorithm work was currently under funding discussions with the GSMA. This was noted.

6.4 GSMA SG

TD S3-030490: LS (from GSMA SG) on introduction of A5/3 in GSM handsets. This was introduced by C. Brookson and requested SA WG3 to agree to the principle as a matter of priority due to recent reported attacks on algorithms, to introduce the both the algorithm and a **key separating mechanism** by the end of 2004 and that these security features should be a part of Rel-6. It was noted that the GSMA SG were working on potential solutions to introduce the mechanism, but this was not yet finalised. Further contributions to the meeting on this issue would be addressed later in the meeting (see agenda item 7.6).

Charles Brookson then gave a report of the GSMA SG activities. On IMEI he described the latest industry initiatives. The GSMA CEO Board had recommended to Operators to connect to the CEIR in Dublin. In addition the GSMA and EICTA (The European Mobile Manufacturers body) had written to the EU TCAM describing a proposed scheme to clearly identify mobiles which had the IMEI easily changed. TD S3-030633 is a copy of the letter sent which was provided for information and was noted.

Recently GPRS over-billing had been mentioned in recent press reports. This had previously been discussed in SA3 and it was decided to further address the proposed solutions on the email list.

AP 30/01: Eric Gauthier (Orange, Switzerland) to lead an e-mail discussion on GPRS over-billing.

6.5 3GPP2

There were no specific contributions under this agenda item. It was reported that the major topic in 3GPP2 is WLAN Interworking.

6.6 OMA

There were no specific contributions under this agenda item.

6.7 Other groups

TS S3-030486: "Letter from TIA TR-45 LAES ad-hoc Chairman to the SA WG3 Chairman: PN-4465-RV1 (to be published as J-STD-025-B)". This was considered best to be forwarded to the LI Group and was forwarded to them for consideration. The LS was then noted.

7 Work areas

7.1 IP multimedia subsystem (IMS)

TD S3-030594 Proposed CR to 33.203: SA procedures (Rel-5). This contained re-wording for the CR discussed in the joint CN WG1 meeting. The summary of change was updated and the new CR provided in TD S3-030609 which was approved. A mirror CR to Rel-6 was provided in TD S3-030611 and approved.

TD S3-030596 Proposed CR to 33.203: SA parameters and management. (Rel-5). This contained changes to the CR discussed in the joint CN WG1 meeting. The CR was corrected editorially and updated in TD S3-030610 which was approved. A mirror CR to Rel-6 was provided in TD S3-030612 and approved.

TD S3-030597 Proposed CR to 33.203: Terminology alignment (Rel-6). The CR was corrected to the Rel-6 version of the specification and was updated in TD S3-030613 which was approved. It was noted that the CR affects the ME and CN which was not marked on the cover sheet. **M. Pope agreed to update the cover sheet when preparing the CR for presentation to TSG SA**.

TD S3-030598 Proposed CR to 33.203: Terminology alignment (Rel-6). The CR was corrected editorially and updated in TD S3-030614 which was approved. A mirror CR to Rel-6 was provided in TD S3-030615 and approved.

TD S3-030599 LS to CN 4, CN1 on IMS AKA: UE populating RAND and AUTN parameters in responding to challenge. This was introduced by Nokia and was reviewed. There were some comments for clarification and it was decided to set up a drafting group to review the CN WG4 specification for relevance to their work, and to review the text in order to avoid any possible confusion by the receiving groups. This was done and the LS was revised in TD S3-030616 which was approved.

TD S3-030600 Proposed CR to 33.203: Introducing the SIP Privacy mechanism in Stage 2 specifications (Rel-5). This was introduced by Ericsson and contained changes to the CR discussed in the joint CN WG1 meeting (related to TD S3-030541). The CR was reviewed and updated in TD S3-030617 which was updated in TD S3-030648 and approved. A LS to SA WG2 asking them to review this CR was provided in TD S3-030318 which was updated in TD S3-030649 and approved.

TD S3-030601: Proposed CRs to 33.203: Correcting the text on sending an authentication response (Rel-5). This CR was reviewed and approved.

TD S3-030602: Proposed CRs to 33.203: Correcting the text on sending an authentication response (Rel-6) This CR was reviewed and approved.

TD S3-030603: Proposed CRs to 33.203: Correcting the SA handling procedures (Rel-5). The CR was reviewed and updated in TD S3-030619 which was approved.

TD S3-030604: Proposed CRs to 33.203: Correcting the SA handling procedures (Rel-6). The CR was reviewed and updated in TD S3-030620 which was approved.

TS S3-030485: LS reply on Rel-5 transport of unknown SIP signalling elements. This was introduced by the SA WG3 Chairman. The LS was a response to an LS from CN WG1. SA WG5 reported that there is no problem for charging on unknown elements. The LS was noted.

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

There were no specific contributions under this agenda item.

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

There were no specific contributions under this agenda item. NDS/IP was discussed with contributions under the IMS agenda item.

7.4 Network domain security: Authentication Framework (NDS/AF)

TS S3-030487: "Draft TS 33.310 V0.5.0: Network Domain Security; Authentication Framework". This was provided for information and use for further updates at the meeting and was noted. The Rapporteur reported that this should be ready for sending to TSG SA for information in December 2003.

TS S3-030535: Pseudo CR to 33.310: Removal of support for delta CRLs (Rel-6). This was introduced by Siemens on behalf of Siemens, Nokia, SSH, T-Mobile and Vodafone. This Pseudo-CR was approved for inclusion by the editor in the draft TS.

TS S3-030572: Adding domain component support to NDS/AF certificate profiles. This was introduced by Nokia and discussed the addition of domain component (dc) support to the certificate subject and issuer names in NDS/AF certificate protocols and to agree to the addition of the Pseudo-CR provided in TD S3-030573 to the draft TS. It was commented that the X.500 mentioned in the contribution was in fact X.400, this was noted. The principle was agreed.

TS S3-030573: Pseudo CR to 33.310: Adding domain component support to NDS/AF certificate profiles. This was introduced by Nokia on behalf of Nokia, Siemens, SSH and T-Mobile. This Pseudo-CR was approved for inclusion by the editor in the draft TS.

TS S3-030574: Pseudo CR to 33.310: Clarifications to usage of certificate repositories. This was introduced by Nokia on behalf of Nokia, Siemens, SSH and T-Mobile. This Pseudo-CR was approved for inclusion by the editor in the draft TS.

TS S3-030589: Pseudo CR to 33.310: Clarification on the use of PSK as a fallback mechanism. This was introduced by vodafone on behalf of Vodafone, Nokia, Siemens and SSH. It was comented that this fall-back system would be improtant and should be further developed in the specifications. It was agreed that this could be considered by delegates and this could be seperated into a new section in the future if considered appropriate, based on contribution at the next SA WG3 meeting. This Pseudo-CR was approved for inclusion by the editor in the draft TS.

TS S3-030590: Pseudo CR to 33.310: Correction of typos. This Pseudo-CR was approved for inclusion by the editor in the draft TS. **Future such small editorial corrections can be done by the editor without a Pseudo-CR.**

7.5 UTRAN network access security

TS S3-030499: Reply to LS (from CN WG1 - N1-031052) on 'Effects of service 27/38 on 2G/3G Interworking and emergency call' from SA WG3. This was introduced by Siemens and asked SA WG3 and T WG3 to add a scenario SCN-2a to the specifications where appropriate. A response from T WG3 was provided in TD S3-030510. It was noted that the GSM cipher key is derived from the SIM/USIM, rather than the SIM as stated in the LS.

AP 30/02: M. Blommaert to check with authors of TD S3-030499 whether the quote on SIM is their understanding or an editorial error in the LS.

TS S3-030510: LS (from T WG3) on the effects of USIM services 27 and 38. This was introduced by Siemens and reported on the action taken by T WG3 for the addition of these requirements in their specifications and proposed that more detail should be included in core specifications, rather than in a TR. It was reported that the CR attached had been approved at TSG T meeting #21. This was acknowledged and the LS was noted.

TS S3-030585: Effects of service 27/38 on 2G/3G Interworking and emergency call. This was introduced by Siemens and proposed that SA WG3 discuss and decide whether T3-030694 provides adequate description from a 3GPP specification viewpoint or whether this should be documented in an appropriate 3GPP document. If SA WG3 decide not to document the detailed scenarios then suggested to send it to GSMA to document the scenarios in a public GSMA document. The following options were proposed and discussed:

1) SA WG3 should develop the documentation and provide the agreed text to the GSMA SIM Group for inclusion in a public GSMA document;
2) Included as a new SA WG3 TR;
3) Added as an informative annex to TS 33.102;
4) Mandate the scenarios in T WG3 specifications (SIM specifications).

It was decided to create a LS to GSMA SG (copied to SCAG) to ask them to discuss the impacts and suitability of mandating these Services. This was provided in TD S3-030624 which was approved.

TS S3-030549: Proposed CR to 33.102: Handling of key sets at inter-system change (Rel-5). This was introduced by Ericsson. The CR was updated to clarify it in TD S3-030625 which was approved. A Rel-6 mirror CR was provided in TD S3-030626 which was approved.

TD S3-030627: Reply LS (from SA WG2) on "Security issues regarding multiple PDP contexts in GPRS". This was introduced by Vodafone and asked SA WG3 to discuss the security problem regarding multiple active connections. Discussion papers were provided by Nokia in TD S3-030575 and Vodafone and Ericsson in TD S3-030587 which were considered:

TS S3-030575: Analysis of proposed network based access control solution for multiple PDP contexts. This was introduced by Nokia and discussed a threat model and proposed solutions. The SA WG2 proposed solution was shown not to provide a defence against the threat model and Nokia proposed that a terminal-based solution (e.g. a personal firewall implementation in the terminal) should be the preferred solution to the threat.

Vodafone commented that the threat model proposed in the contribution does not cover all expected scenarios for the 3GPP system (e.g. a PC using GPRS to set up Telnet sessions, rather than the assumed mobile devices) and proposed that a combination of Network-based and terminal-based solutions should be used in a complementary way in order not to restrict the services which can be provided to Corporate users from the Network Operator.

TS S3-030587: Multiple PDP context security issue. This was introduced by Vodafone on behalf of Vodafone and Ericsson and discussed the threat and proposed that a flexible, standardised, Network-based solution should be used in conjunction with the use of terminal-based solutions.

Nokia commented that the threat in the single PDP context issue when connected to the public Internet is the same as in the Multiple-PDP context when connected through a Corporate Network to the Internet and there can be no real protection against this in a Network-based solution.

It was decided to have a detailed discussion in an evening session in order to determine the way forward and attempt to come to an agreement on the solution to be developed by SA WG3 and reported to SA WG2. An LS was developed in the discussion session and provided in TD S3-030634 which was discussed and approved.

7.6 GERAN network access security

There was an analysis of proposals made at SA WG3 #29 meeting and were 2 proposals for countering the recently reported A5/2 threat:

TS S3-030584: Evaluation of secure algorithm negotiation proposals. This was introduced by Siemens and described an analysis of different proposals available at SA WG3 meeting #29. Siemens concluded that the special-RAND mechanism was the only mechanism, available at SA WG3 meeting #29, which provides the required security. Siemens also suggested that this mechanism requires further analysis to overcome identified issues.

TS S3-030542: Enhancements to GSM/UMTS AKA. This was introduced by Ericsson and suggested enhancements to key management for GSM and UMTS to limit the impact of the attack on A5/2. The proposal is to generate *algorithm-dependent* Keys so that the same key is not used for different algorithms.

It was commented that this mechanism would need to be secured to prevent MITM bidding down from support of this mechanism to no support of the mechanism and that this requires some secure signalling mechanism of the network capabilities to the UE. Ericsson reported that this could be used as a complementary mechanism to other proposals.

TS S3-030588: Further development of the Special RAND mechanism. This was introduced by Vodafone on behalf of Vodafone and Orange and discussed the mechanism of Special-RAND which is used to restrict the encryption algorithms with which an authentication vector may be used. In case the RAND does not have the initial "Special-RAND" signature bits, then the RAND is processed in the normal way. Vodafone and Orange proposed that SA WG3 adopt this mechanism for Rel-6 and develop the corresponding 3GPP security specifications, involving other 3GPP Groups to develop their specifications within the Rel-6 time frame.

It was commented that this mechanism assumes the network capabilities are signalled between the Visited and Home Network in a secure way.

It was noted that there are still many open issues which need to be analysed in order to make a decision on the best mechanisms to choose. After some discussion it was agreed that the proposal for Special-RAND would be used as a basis for the solution and the independent key proposal would be taken into consideration for further development. Concerning TD S3-030584 analysis, **The working assumption proposed, that the Special-RAND mechanism will be considered for use with further analysis to be done, was adopted by SA WG3**. It was also noted that the implementation cut-off date for A5/3 (currently agreed as October 2004) should be reviewed when the new protection (e.g. Special-RAND) mechanism is more stable. It was noted that it would be advantageous to have the new protection mechanism in place at the A5/3 cut-off date, rather than having to introduce it afterwards. **ETSI SAGE were asked to verify that the reduction of effective RAND to 80-bits does not have any significant consequences**. It was agreed to send an LS to CN WG1 and CN WG4 informing them of the agreement to develop the Special-RAND mechanism and attaching an updated version of TD S3-030588 in TD S3-030651. This was provided in TD S3-030629 which was updated in TD S3-030652 and approved (TD S3-030651 was attached).

7.7 Immediate service termination (IST)

There were no specific contributions under this agenda item.

7.8 Fraud information gathering system (FIGS)

There were no specific contributions under this agenda item.

7.9 GAA and support for subscriber certificates

TS S3-030484: LS Response (from SA WG2) on new interface names. This was introduced by Nokia and requested SA WG3 to reconsider the use of reference points Ba and Bb and to use the "Z" interface labels. This was noted. Other LSs were considered and a response was provided in TD S3-030635 which was approved.

TS S3-030502: LS Response (from CN WG4) on Stage 3 level specification directions for support for subscriber certificate work item. This was introduced by Ericsson and asked SA WG3 to provide CN WG4 with clear guidance on Stage 3 requirements for Support for Subscriber Certificates. A reply LS was provided in TD S3-030636 which was updated in TD S3-030653 and approved.

TS S3-030512: Liaison Statement (from SA WG2) on Generic Authentication Architecture. This was introduced by Nortel Networks and asked SA WG3 to develop guidelines for GAA authentication and to try to avoid multiple new solutions where possible. This had been discussed in the MBMB/GAA ad-hoc meeting and was therefore noted.

TS S3-030498: Reply LS (from CN WG1) on stage 3 level specification directions for support for subscriber certificate work item. The use of Protocol A was acceptable, but the use of Protocol B would need further analysis by SA WG3. The LS was then noted.

TS S3-030488: Draft 3GPP TS 33.109 V0.3.0: Bootstrapping of application security using AKA and Support for Subscriber Certificates; System Description. This was introduced by Nokia and included changes agreed since the previous version. The Editor was asked to include revision marks for future updates. The draft TS was then noted.

TS S3-030536: Subscriber Certificate Profiles. This was introduced by Nokia and described the status of Subscriber Certificate Profiles in standardisation bodies. It then proposes a Pseudo-CR to include a description of WAP Certificate and CRL profiles descriptions. It needed to be clarified whether this scheme would allow only a pointer to the Certificate to be sent over the radio interface, rather than the whole Certificate, for performance reasons. It was also agreed that the Editors note should stay in the draft. The Pseudo-CR was then approved for inclusion by the editor in the draft TS, leaving the editors note in place.

TS S3-030546: Generic Bootstrapping Architecture (GBA) Technical Specification and Work Item Proposal. This was introduced by Ericsson and proposed SA WG3 consider creating a new TS on Generic Bootstrapping Architecture (GBA) and to evaluate the need for a WI to manage the GBA work. The GBA TS could potentially be used for SSC, MBMS, Presence and WLAN. The Draft GBA TS and a proposed WID for GBA was attached. Nokia commented that the creation of a WID was acceptable, but that the Subscriber Certificates Draft TS should not be split up as it is a necessary part of the GAA. An off-line discussion was held and it was proposed that the following documents could be needed if the work was to be split:

- GAA - Overall TR;
- Certificate Retrieval using GBA;
- Specification of GBA;
- Authentication Proxy.

It was decided to consider the other contributions on this subject before discussing whether and how to split the work. After this, an evening discussion group was set up to agree on the split and content of the documents.

Results of GAA discussion group:

TD S3-030642: Report on GAA evening session, October 9, 2003. The report of the discussions was presented and noted. 4 TSs had been produced as follows:

> TD S3-030643: Draft TR: Generic Authentication Architecture; System Description (Rel-6).
> TD S3-030644: Draft TS: Generic Authentication Architecture; Generic Bootstrapping Architecture (Rel-6)
> TD S3-030645: Draft TS: Generic Authentication Architecture; Support for Subscriber Certificates (Rel-6). It was agreed that the Pseudo-CR in TD S3-030645 will form the baseline text of the TS, for e-mail correction. It was also agreed that Annex B of TS 33.109 will be moved to the main body of the TS.

TD S3-030646: Draft TS: Generic Authentication Architecture; Access to Network Application Function using HTTPS (Rel-6)

It was agreed to give time to check and correct the drafts and delegates were asked to provide comments to the editors. Pseudo-CRs should be written to the versions after these editorial corrections have been made.

TS S3-030537: Naming in Generic Authentication Architecture (GAA). This was introduced by Nokia and proposed a mapping between current and new interface names. The proposed interface names were as follows:

Ub **B**ootstrapping air interface (from UE to BSF)
Ua **A**pplication air interface (from UE to NAF)
Zh **H**SS interface from BSF
Zn **N**AF interface from BSF

These interface names were approved

TS S3-030551: Generic Bootstrapping Architecture evaluation. This was introduced by Siemens and continued the evaluation of alternatives for a GBA started in the Siemens contribution TD S3z030011 to the SA WG3 Ad-hoc meeting in Antwerp. Siemens asked SA WG3 to endorse the following proposal:

1. A GBA shall be based on TS 33.109, section 4. **ENDORSED.**
2. TS 33.109, section 4, shall be modified and extended to cover the case of tunnelled authentication and of authentication proxies. **ENDORSED. The position in the specifications needs to be agreed.**
3. The material in section 3.1 of this contribution shall be taken as the basis for the modification and extension of TS 33.109, section 4. With these enhancements, TS 33.109, section 4, shall constitute the mandatory part of the GBA specification. Optional further additions shall not be precluded. **NOT ENDORSED. This is dependent upon the final structuring of TS 33.109**
4. SA3 has to decide whether an optimisation, as described in section 3.2 of this contribution, shall be standardised as an option. It is proposed that this decision be taken only when the technical issues, in particular those addressed in section 3.2, are clear. **ENDORSED.**
5. A GBA should respect the requirements on a GAA defined in S3z030003. An analysis needs to be written to check that the decisions taken at SA3#30 are in line with the requirements. **ENDORSED.**
6. A GBA should respect the HSS-related guidelines in S3-030460. An analysis needs to be written to check that the decisions taken at SA3#30 are in line with the requirements. **ENDORSED.**
7. SA3 must decide whether and how the GBA should apply to 3GPP Release 6 features. **ENDORSED.**
8. Detailed security solutions for a particular 3GPP Release 6 feature shall be specified in the pertinent TS, but as much reference as possible should be made to the updated TS 33.109. **ENDORSED - some Features related to GAA need separate discussion.**
9. A GBA shall be designed in such a way that it is compatible with the use of reverse http authentication proxies. **ENDORSED. An agreed definition of the term "reverse http authentication proxy" is needed.**
10. A GBA shall be designed in such a way that it addresses man-in-the-middle attacks with tunnelled authentication. **ENDORSED.**

TS S3-030540: Protocol between authentication proxy and application server. This was introduced by Ericsson and discussed the interface between authentication proxy and application servers. Ericsson proposed that SA WG3 adopt a working assumption that 3GPP shall develop a solution for this interface because there is no standard available and to use ***cookies*** in the solution because cookies were originally developed for solving the session management problem, and they are currently used to tie the end-user identity to HTTP session. A Pseudo-CR was attached including these proposals. TD S3-030555 contained a related proposal in section 3.3, which was also considered.

TS S3-030540 assumed the following requirements for the solution which were reviewed:

REQ 1: Authentication proxy shall be able to authenticate the end-user identity using the means of Generic Bootstrapping Architecture. **ENDORSED.**

REQ 2: Authentication proxy shall be able to send the end-user identity to the application server at the beginning of new HTTP session. **ENDORSED.**

REQ 3: Application servers shall be able to use appropriate session management mechanisms with the client. **Needs reformulation before endorsing.**

REQ 4: The client shall be able to create several parallel HTTP sessions via the authentication proxy to different application servers. **Needs reformulation before endorsing.**

An evening session was held to discuss the possible splitting of the work into different documents, and the results of the discussions were presented in TD S3-030630:

1. *It is agreed to split to 4 specifications:*
   - *GAA, a TR gives a description of the overall architecture, and relation between each functionality. The TR will also provide some guidelines on criteria of deploying the alternative mechanisms to the services. Editor will be Annelies.*
   - *GBA, a TS, shall be largely based on the section 4 of the 33.109, gives description of the BSF functionality. Editor will be Tao Haukka.*
   - *SSC, a TS, shall be largely based on the section 5 and Annex A of the 33.109. Editor will be Pekka Laitinen and Tao Haukka.*
   - *HTTPS, a TS shall describe the TLS tunnel (33.109 v0.3.0 protocol B) by means of the GBA and SSC. Editor will be Bengt Sahlin.*
2. *No new WID to be generated, all concrete work will be under the original one with no updating.*
3. *Rapporteur of the WI is Tao Haukka.*
4. *All the work will be finished within the R6 timeframe as planed for the WI.*
5. *The Table of Contents for every specification is to be provided for Thursday evening session.*
6. *The final Table of Contents is to be endorsed by the this meeting.*

There was some objection to this splitting, and it was commented that the Presence requirements have been available from SA WG1 for some time, and also that the Presence TS needs to be ready for presentation to TSG SA in December 2003 and there was concern about being able to complete the work in time for this. there was some discussion on this and it was recognised that more evening discussion would be needed between interested companies and initial drafting of the documents should start for presentation to the meeting on Friday morning. **Material should be taken from the agreed documents on this subject in order to have reasonably acceptable and stable TSs and TRs**.

An evening discussion was held on TD S3-030540 and the Pseudo-CR was revised in TD S3-030631. This Pseudo-CR was approved for inclusion by the editor in the draft TS.

TS S3-030553: Difficulties in using one TLS tunnel to access different servers behind an authentication proxy. This was introduced by Siemens and addressed two problems, “name based virtual hosts over TLS” and “using a single TLS connection to access different hosts”. It was commented that the authentication Proxy is not well-defined and different understandings of the functionality of this existed. Ericsson reported that their intention for a solution was similar to the Workaround 3 in this contribution (section 4.3.3).

The SA WG3 Chairman summarised that it had been asked whether the GBA cannot be used for Application Servers without Proxy functionality. It was also a working assumption that Authentication of the different services should be harmonised, as far as practical, across the Services. It had also been assumed that the use of Authentication Proxy is optional.

The SA WG3 Chairman also summarised that **for HTTP-based services**, SA WG3 have a Working Assumption that for each of the Rel-6 Services, SA WG3 will decide which mechanisms are to be used and only one way will be specified for each Service. Although it has not been decided whether GBA or GAA will be used for the Presence Service, if GBA is chosen, we would need to use either an Authentication Proxy or the Application Server (i.e. the Presence Server) with the BSF. If the Authentication Proxy is identified, should it be made mandatory for the Presence Service.

It was decided to check other contributions before deciding whether the SA WG3 Working Assumptions need to be modified as a result of the Siemens analysis:

Ericsson stated that they thought that the mechanisms described need further security analysis before agreeing to them.

3 things to decide:

a) Use Authentication Proxy

b) Don't use Authentication Proxy
c) If Authentication Proxy is used, Should it be Mandated or Not?

It was agreed that it needs to be confirmed whether the Authentication Proxy will be transparent to the terminal or not before it can be decided whether it can be Mandated, as if not transparent, then the terminal implementation would need to be mandated. The current Working Assumption should be reviewed at the next meeting after this is known.

SA WG3 delegates were asked to study this issue and contribute to the next meeting in order for a decision to be made and the work progress.

TS S3-030555: Using shared key TLS with GAA NAFs. This was introduced by Nokia and described how shared key TLS can be used in GAA. Nokia concluded that this provides an attractive way to use GBA based shared secret within GAA. It also does not require any changes in TLS protocol itself. However, minor modifications in TLS implementations are needed. This was noted and should be kept in mind when developing solutions.

TS S3-030576: Comparison of different solutions for GBA and AP based AS: standard TLS versus shared secret based TLS. This was introduced by Alcatel and was mainly in line with the contribution TD S3-030555.

TS S3-030556: Use of shared keys in the TLS protocol: IETF status update. This was introduced by Nokia and provided information on the IETF Draft. It reported that this was intended to become an informational RFC and appears likely to be completed in the Rel-6 time frame.

TS S3-030545: Initiation of bootstrapping procedure. This was introduced by Ericsson and proposed the addition of the Bootstrapping initiation procedure in an attached Pseudo-CR. Changes were agreed to the editors note, and the changes were then agreed. The editor was asked to include the agreed changes in the draft TS.

TS S3-030538: Pseudo CR to draft TS on Subscriber Certificates: Requirements for A and C interface. This was introduced by Nokia. For Clause 4.1.4, an editors note should be added to show the difference between the meaning of bullets 1 and 2. For Clause 4.1.5, the 3rd bullet was clarified to allow the vectors to be sent in batches. 4th bullet point should be clarified with an editors note that there are open issues on the GAA profiles and the 6th bullet was clarified as all procedures in the BSF are initiated by the BSF. An additional bullet should be added stating that it is desirable to allow re-use of existing interfaces to implement the Zh interface. **With these changes**, the Pseudo-CR was approved for inclusion by the editor in the draft TS.

It was agreed that the interface names should be updated with the ones agreed at this meeting and editors of the draft TSs and TRs were tasked to update their documents for the next meeting (rather than asking for Pseudo-CRs to do this).

NOTE: A response to the LS from CN WG1 in TD S3-030502 was provided in TD S3-030636 (see below).

TS S3-030552: Key separation in a Generic Bootstrapping Architecture. This was introduced by Siemens and proposed that SA WG3 adopt the mechanisms discussed in the contribution. It was clarified that there should be no restrictions set on the Authentication Proxy with this mechanism. It was clarified that the threat in Variant 1 was tackled by the BSF deriving a key from NAF1 and the attacked server NAF1 can only obtain keys from the BSF which are specific to NAF1 and cannot be used with the rogue server. The proposals were considered in order and the following agreements made:

1. *The Generic Bootstrapping Architecture is meant to be a generic tool to provide shared keys to UEs and application servers, independent of particular key uses. Section 2 showed threats, which become possible if only one application server is successfully attacked. SA3 is asked to endorse that the threats should be mitigated by appropriate provisions in the standard. In particular, it shall be prevented that a security breach in one application server can spread across the entire system.* Agreed.

2. *It was proposed in section 3 to limit the effect of a security breach in one part of the system to a small part of the system by introducing key derivation for the keys shared between UE and NAF. SA3 is asked to endorse the use of a suitable key derivation procedure.* It was recognised that further

discussion is needed on the choice of key derivation mechanisms which binds keys with adequate identity to mitigate the threat. Agreed to look for a suitable solution.

3. *Section 4 proposed certain alternatives for the NAF identifier which is input to the key derivation parameters. The NAF identifier would determine the degree of assurance the UE gets about the identity of the NAF in NAF-to-UE authentication. SA3 is asked to agree to study only alternatives 1 (use DNS server name) or 2 (use defined parts of DNS server name) further and select between these alternatives at the next meeting.* It was decided to allow delegates to analyse this proposal and make a decision at the next meeting based on available scheme proposals.

4. *Section 5 proposed a flexible mechanism to signal that one out of possibly multiple key derivation schemes be used with a certain key. As a minimum, the mechanism could be used to signal whether no key derivation or some pre-determined key derivation is used. SA3 is asked to endorse the use of this flexible signalling mechanism.* It was decided to allow delegates to analyse this proposal and make adopt this at the next meeting if there are no alternative proposals.

TS S3-030558: GAA-Application-Profiles definition. This was introduced by Nokia and provided a description of how the requirements in draft TS 33.109, Clause A.2.4 (home operator control) could be implemented. Nokia recommended to send this contribution to CN WG4 as an LS to guide them on their stage 3 specification work for the C/Zh and D/Zn interfaces. It was not considered appropriate to send this Stage 3 information to CN WG4 as a Liaison from SA WG3, so Nokia were encouraged to input this to CN WG4 as a company input.

TS S3-030561: Pseudo-CR to 33.109: Informative annex on key pair storage. This was provided by Gemplus and SchlumbergerSema and proposed a new Annex C to cover Key Pair Storage, as decided in the previous meeting to include in the draft TS as an informative Annex. There were some comments and suggestions for enhancement of the annex with additional threats and modifications to the text, which, due to lack of time, were deferred for e-mail discussion to be run by Mireille Pauliac, with 2 weeks for comments, 1 further week to check the implementation in the draft TS to be used for any Pseudo-CRs at the next meeting.

AP 30/03: M. Pauliac to run an e-mail discussion on the SSC Informative Annex on Key Pair Storage. 2 weeks for comments, 1 further week to check the implementation in the draft TS to be used for any Pseudo-CRs at the next meeting.

7.10 WLAN interworking

TS S3-030492: Draft TS 33.234 V0.6.0 (2003-09): Wireless Local Area Network (WLAN) Interworking Security; (Release 6). It was noted that the interfaces needed correction in Figure 4.1. There were contributions to correct reference points, so this should be corrected by the next meeting anyhow. There are empty clauses in the document which will be considered for deletion at the next meeting if there is no input. It is intended to finalise this for presentation to TSG SA for information in December 2003.

TS S3-030508: LS response (from T WG2) to SA2 on UE Tunnelling. This was introduced by Nokia and was provided for information. The LS was noted.

TS S3-030547: Pseudo-CR to 33.234: Re-authentication procedures. This was introduced by Ericsson and discussed. The WLAN-AN initiation of re-authentication was questioned and further clarification was requested from Ericsson. Contributions were invited to the next meeting for the Stage 2 re-authentication mechanism. The document was revised to take comments into account in TD S3-030638 which was approved for inclusion by the editor in the draft TS. If there was an unwanted change between the two versions this can be dealt with by further Pseudo-CRs.

TS S3-030548: Pseudo-CR to 33.234: Alignment with WLAN architecture definition. This was introduced by Ericsson and discussed. The Wp interface should be added between WAG and PDG in figure 4.2, rather than Wn. With this change, this Pseudo-CR was approved for inclusion by the editor in the draft TS.

TS S3-030550: Evaluation of alternatives for secure set-up of UE initiated tunnels. This was introduced by Siemens and analysed possibilities for secure set-up of UE initiated tunnels. The use of IKEv2 was questioned as the preferred solution, as this could be done with IKE, which is available already. The conclusions on the use of Certificates were also questioned.

Siemens proposed 3 working assumptions and asked SA WG3 to endorse them:

WA1: Use IPsec ESP to protect the tunnels between UE and PDG required by scenario 3.
Endorsed as a Working Assumption.

WA2: The security mechanisms used in context with the IP tunnel in scenario 3 are to be independent of the link layer security in scenario 2.
Endorsed as a Working Assumption. (It was noted that the independence requirement is not for security reasons). It was agreed that if the solution developed implies significant inefficiencies then this would be reported to SA WG2 for possible revision of this independence requirement.

WA3: SA WG3 will concentrate their further study on IKE and IKEv2.
The following modified Working Assumption was endorsed: SA WG3 will concentrate their further study on IKE and IKEv2 for setting up the keys for IPsec ESP.

Siemens also concluded that SA WG3 need to solve the following tasks relating to the security of scenario 3 and asked SA WG3 to endorse them:

TD1: Define a profile of IPsec ESP for use with scenario 3.
Endorsed as a Task for SA WG3.

TD2: Standardise the set-up of security associations for IPsec ESP between UE and PDG.
Endorsed as a Task for SA WG3.

It was agreed that the security solution is in line with the requirements for charging, Lawful Interception and migration to further scenarios.

TS S3-030557: UE-Initiated Tunnelling with IKEv2. This was introduced by Nokia and proposed that SA WG3 studies IPsec with IKEv2 for a secure VPN solution for UE-initiated tunnelling in 3GPP-WLAN interworking scenario 3 and takes under further investigation the related design details. This proposal was covered by earlier discussions so the contribution was noted. It was noted that the LI impacts of the tunnelling solution should be analysed by the LI Group.

AP 30/04: B. Wilhelm to ask LI group to investigate the LI impacts of the tunnelling solution for WLAN interworking.

7.11 Visibility and configurability of security

There were no specific contributions under this agenda item.

7.12 Push

There were no specific contributions under this agenda item.

7.13 Priority

There were no specific contributions under this agenda item.

7.14 Location services (LCS)

There were no specific contributions under this agenda item.

7.15 Feasibility Study on (U)SIM Security Reuse by Peripheral Devices

TS S3-030595: Technical Report on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces (Release 6). This was introduced by T-Mobile on behalf of Toshiba, Intel, T-Mobile, Telcordia, Thomson, Fujitsu, HP, RIM, SmartTrust, BT Group PLC and Alcatel and included the changes agreed by the conference-call group since the last meeting of SA WG3. The draft TR was noted.

It was also noted that the SIM specification is frozen at Release 4 and cannot be modified as suggested in section 4.3, issues 2 and 3 and the possibilities to modify the U(SIM) needs to be modified to "USIM".

It was clarified that the ownership and control of the UICC remains with the operator which issued the UICC.

It was noted that Comments fields (i.e. before the clause 5 heading) and other editorial items would need to be tidied up to put them into normal 3GPP drafting rules format before presentation to TSG SA. **It was agreed that from the SA WG3 viewpoint, ISIM could be included in the scope of the feasibility study**. It was noted that the addition to the scope was badly formulated and should be removed or clarified.

The security issues in clause 6.3 should also be reviewed to clarify the assumptions made for successful attacks.

The downgrading of the bullet 9 to a note in clause 5 was considered confusing and the note should be re-worded to clarify the meaning.

TS S3-030571: High Level Requirements for UICC re-use by peripheral Devices on Local Interfaces. This was introduced by **3** and proposed several high level requirements for the study item on re-using a UICC over a local interface for acceptance by SA WG3. C. Blanchard agreed to help in the drafting of a Pseudo-CR for the draft TR. It was clarified that it needs to be assumed that there will be only 1 application on the UICC (i.e. current UICCs) which will be shared between devices.

The editor of the feasibility study was asked to incorporate the comments raised at the meeting and to distribute the updated version to the SA WG3 list in order that delegates can provide any necessary Pseudo-CRs to the next SA WG3 meeting.

7.16 Open service architecture (OSA)

There were no specific contributions under this agenda item.

7.17 Generic user profile (GUP)

TS S3-030509: LS response (from T WG2) on usage of GUP reference points. This was introduced by the SA WG3 Chairman and was copied to SA WG3 for information. The LS was noted.

TS S3-030581: GUP security directions. This was introduced by Nokia and was provided in order to start the work on the Generic User Profile (GUP) Security. Nokia proposed that SA WG3 should discuss the handling of the GUP security work to support the work of CN WG4 and SA WG2, including the scope and format of the security work (e.g. via CRs to relevant TSs). Nokia also suggested that CN WG4 specifications should be mentioned in the SA WG3 GUP Security WID. Furthermore it was suggested that SA WG3 should consider taking the Liberty Alliance Project ID-WSF security solutions as the basis for the work. The requirements leading to the adoption of the Liberty Alliance work was questioned. Nokia agreed to try to provide additional information on their work and report back to SA WG3. It was also reported that the Liberty Alliance specifications may not be openly available which would make a problem for referencing from 3GPP specifications. This would need to be investigated.

AP 30/05: B Owen to respond to LSs on GUP from meeting #29, informing the senders that there are still open issues in SA WG3.

7.18 Presence

TS S3-030525: Draft TR 33.9bc V0.6.0 Presence Service; Security. This was introduced by the editor (K. Boman) and included changes agreed at the last meeting. The TR was noted.

TS S3-030524: Draft TS 33.1bc V0.1.0 Presence Service; Security. This was introduced by the editor (K. Boman) and was an implementation of the text that he was asked to insert into the new TS at the previous SA WG3 meeting.

NOTE: The draft TS had not been allocated a specification number officially, but was likely to be allocated to TS 33.141.

TS S3-030578: P-CR for Presence TR 33.abc v0.6.0. This was introduced by Nokia. There was some concern over the apparent mandating of the Authentication Proxy (NAF). It was clarified that this was not the intention at this time. It was also clarified that the proposal was based on the shared-key TLS (which is not currently agreed in SA WG3). The changes in clause 6.2 were agreed with some changes which were noted by the Editor for inclusion in the draft TS.

The draft TS for presence security was updated with the agreed changes and provided in TD S3-030647 which was agreed as a basis for further Pseudo-CRs.

7.19 User equipment management (UEM)

There were no specific contributions under this agenda item.

7.20 Multimedia broadcast/multicast service (MBMS)

TS S3-030517: Latest version of MBMS TS. This was provided for information and was noted.

TS S3-030503: Reply LS (from SA WG1) on clarification of MBMS charging issues. This was introduced by the SA WG3 Chairman. This had been considered in the MBMS ad-hoc meeting and was noted.

TS S3-030504: LS (from SA WG1) regarding progress of work for MBMS User Services. This was introduced by Motorola and was copied to SA WG3 for information. The LS was noted.

TS S3-030507: LS (from SA WG4) on “Update of WID on MBMS". This was introduced by Nokia and informed SA WG3 that the WID for MBMS had been updated. The LS was noted.

TS S3-030511: LS (from T WG3) on potential USIM impact of the MBMS security framework. This had been considered in the MBMA ad-hoc meeting and was noted. The SA WG3 Chairman reminded delegates that TSG SA had asked SA WG3 to inform T WG3 as soon as possible about the MBMS security impacts on the USIM. Based on the current agreements in SA WG3 an LS to reply to T WG3 informing them that they can start work will be provided by e-mail approval.

AP 30/06: J. Abellan to draft an LS reply to TD S3-030511 for e-mail approval. Drafting by 14 October, Comments by 20 October and Approval 23 October 2003. This LS was discussed and approved over e-mail and allocated to TD S3-030660 (for information to SA WG3 at meeting #31).

TS S3-030528: Progress report on MBMS 3GPP2 solution. This was provided by BT, Gemplus, Oberthur, Qualcomm and SchlumbergerSema. It was suggested that this is used for detailed discussion of the proposals at the meeting. The report was then noted.

TS S3-030582: Pseudo-CR to 33.246: MBMS broadcast security requirements clarification. This Pseudo-CR was revised in TD S3-030640 and approved.

TS S3-030513: Proposed CR to TS 33.246 MBMS Security Requirements CR (non controversial) - (Rel-6). Many changes were made to the proposals and the Pseudo-CR was updated in TD S3-030641 which was approved for inclusion by the editor in the draft TS..

TS S3-030514: Proposed CR to TS 33.246 MBMS Security Requirements CR (controversial) - (Rel-6). This Pseudo-CR was rejected as more contribution on the Key Management Centre position in the architecture and functionality is needed. Contribution was invited on the various proposals in the Pseudo-CR.

TS S3-030519: Re-keying resource , security and quality. Postponed: Contribution invited on proposals for next meeting.

TS S3-030522: Differentiation of MBMS traffic protection mechanisms. Postponed: Contribution invited on proposals for next meeting.

TS S3-030523: MBMS service activation and Initial TEK distribution. Postponed: Contribution invited on proposals for next meeting.

TS S3-030529: MBMS Usage and Quality of Service based on BAK Distribution. Postponed: Contribution invited on proposals for next meeting.

TS S3-030521: Simple PTP method in detail. This was introduced by Huawei Technologies Co., Ltd and proposed that if simple PTP model is accepted, a figure and explanation is added to the draft TS. There was

no agreement on the choice of mechanism reached at the meeting. This should be reconsidered if appropriate when agreement is reached.

TS S3-030520: Improved combined re-keying method. This was introduced by Huawei Technologies Co., Ltd and proposed that if combined re-keying method is accepted, then SA WG3 select either clause 2.1 or clause 2.2 of the contribution to enhance the combined re-keying performance. There was no agreement on the choice of mechanism reached at the meeting. This should be reconsidered if appropriate when agreement is reached.

TS S3-030539: Key management considerations for MBMS. This was introduced by Ericsson and discussed different key management methods that are non-UICC based and UICC based. Ericsson concluded that the UICC based solutions need further study. The OTA contribution in TD S3-030534 was considered. The contribution was then noted.

TS S3-030534: Over-The-Air (OTA) technology. This was provided by Gemplus, Oberthur and Schlumberger. It was recommended to adopt the MBMS 3GPP2 solution for MBMS security. The backward compatibility issues for pre-Rel-6 UICCs may be solved using OTA mechanisms for Remote Applet/File Management in order to properly update the legacy USIMs. It was asked whether the OTA security issues for MMS presented to the meeting were applicable to MBMS. This required more investigation. The authors were thanked for doing this study and presenting the results to the meeting. The contribution was then noted.

TS S3-030583: Key distribution protocol selection. This was introduced by Siemens and studied the Key distribution protocol selection issues. Siemens concluded that OTA has been restricted by design to be used only by the Home Network. If OTA is selected as the Key distribution mechanism to transfer an MBMS key to the card then many application servers will need to be connected to the Home Network OTA server. The OTA server in the Home Network will also get knowledge of MBMS keys of Visited Network MBMS services. It was mentioned that the indicated problems could be overcome by various means that were for further study. The contribution was noted.

TS S3-030586: MBMS Key distribution. Siemens introduced the conclusion of this contribution which proposed that SA WG3 adopt the working assumption that an authentication proxy with shared TLS tunnel shall not be used for MBMS key distribution. **This Working Assumption was adopted**.

TS S3-030580: MBMS – Overhead of the Re-keying. This was introduced by Nokia and provided an analysis on the overheads in data for Combined and PTP Re-Keying methods. Operators had been asked at the previous meeting to investigate how important it is to offer MBMS without an upgrade to the UICC. In practice, it was reported that at least the OTA upgrade of the UICC to support MBMS was important. It was clarified that pre-Rel-6 UICC can support OTA if it implements the optional USIM Toolkit feature (and has sufficient free space for the application). Operators indicated that this was an acceptable pre-requisite for the support of MBMS with pre-Rel-6 UICC. With this agreement, companies were asked to indicate support for each of the methods. **The document was noted and delegates were asked to consider the order of preference for each of the 3 methods so that a decision can be made at the next SA WG3 meeting.**

TS S3-030515: Proposed Draft LS on clarification of MBMS Service Requirements/assumptions. The CR did not reflect agreements that have been reached at this meeting, and substantial changes would be required. As the Author was no longer at the meeting and the timescales for this were not critical to the work, the LS was not approved. The Author will be informed of this and may re-submit another LS to the next meeting if he wishes.

TS S3-030544: 3GPP Over the Air (OTA) procedures applied to BAK Distribution and MBMS Subscription management. There was insufficient time to deal with this document and delegates asked to consider the contents and send any comments to the authors.

7.21 Key Management of group keys for Voice Group Call Services

TS S3-030559: Voice Group Call Services. This was provided by Vodafone and Siemens and proposed that SA WG3 adopt the following principles:

1. For each voice group up to 15 group keys can be defined (identified by a group key number).
   Endorsed.
2. The group keys are stored in
   - the group call register (GCR) on the network side (which is co-located to an MSC),
   - USIM on the UE side.
   Endorsed.
3. On call set-up the GCR selects one group key and sends it to the BSS and the group key number to the UE which fetches the corresponding key from the USIM.
   Endorsed.
4. A key management centre (KMC) takes care that the group keys are up to date at all locations and are exchanged from time to time (which is up to the operator's policy).
   Endorsed. It was recognised that the Keys must be refreshed frequently enough. A study is needed to determine an appropriate Key refresh rate.
5. The interface between KMC and the GCRs and between the KMC and the USIM are out of scope of the 3GPP specifications. However for the latter transmission via OTA is recommended.
   Further study is needed on whether this interface should be in the Scope of 3GPP.
6. The KMC is out of scope of 3GPP specification. In an informative annex the most important tasks of the KMC can be described.
7. For encryption the same algorithms are used as for normal GSM-speech calls (i.e. A5/0-A5/7).
   Endorsed, it was recognised that the Key Management system will need to be investigated to ensure regular Key refreshing.
8. It is FFS how the UE gets the information which cipher algorithm is used for a group call. There are two options: signal the cipher algorithm via the air-interface or store it on the USIM.
   First sentence is endorsed. The second sentence requires further investigation and LS to T WG3.

A proposed CR to 43.020 was attached and it was proposed to send this with a liaison statement to T WG3 requesting them to make the appropriate changes to their specifications.

It was commented that the security of such a service would need consideration, in order to counter the possible voice stream key repeat (i.e. regular key changes / SQN system) which implies key distribution and management issues.

It was commented that draft CRs had been sent to SA WG1 along with LSs asking if this service is still required. It appeared that the answer was yes. The proposals were reviewed and agreed as shown above. The CR could not be approved as it stood as the proposals had not been agreed without change. It was agreed to provide an LS to T WG3, to be approved by e-mail. **M. Blommaert agreed to provide the LS by 14 October and run the e-mail approval process. Comments by 20 October, approval 23 October 2003**. TD S3-030639 was allocated for the approved LS.

7.22 Guide to 3G security (TR 33.900)

There were no specific contributions under this agenda item.

8 Review and update of work programme

AP 30/07: Rapporteurs of SA WG3 Work Items to provide the SA WG3 Secretary with updates to the Work Plan by 24 October 2003.

9 Future meeting dates and venues

TD S3-030628: Invitation to SA WG3 meeting #31, Munich, Germany. This was provided for information as the deadline for Hotel booking is fairly short, delegates were asked to register and book the Hotel in good time for the meeting. The invitation was then noted.

The planned meetings were as follows:

Meeting	Date	Location	Host
S3#31	18-21 November 2003	Munich, Germany	European Friends of 3GPP
S3#32	**09-13 February 2004**	Australia (TBC)	Qualcomm (TBC)
S3#33	**04-07 May 2004**	Korea (TBC)	Samsung (TBC)
S3#34	06-09 July 2004 (TBC)	USA (TBC)	"NA Friends of 3GPP" (TBC)
S3#35	October 2004	Host required	Host required

LI meetings planned

Meeting	Date	Location	Host
SA3 LI-#11	18-20 November 2003	London	DTI
SA3 LI-#12	27-29 January 2004	USA (TBA)	FBI (TBA)
SA3 LI-#13	14-16 April 2004	Europe (TBA)	TBA
SA3 LI-#14	20-22 July 2004	Combined with ETSI TC LI (Location TBA)	TBA
SA3 LI-#15	12-14 October 2004	USA (TBA)	TBA

TSGs RAN/CN/T and SA Plenary meeting schedule

Meeting	2003	Location	Primary Host
TSG RAN/CN/T #22	9-12 December 2003	Hawaii, USA	NA Friends of 3GPP
TSG SA #22	15-18 December 2003	Hawaii, USA	NA Friends of 3GPP
Meeting	**2004 DRAFT TBD**	**Location**	**Primary Host**
TSG#23	March 9-12 & 15-18 2004	Phoenix, USA	
TSG#24	June 1-4 & 7-10 2004	Korea	
TSG#25	7-10 & 13-16 September 2004	USA	
TSG#26	7-10 & 13-16 December 2004	To Be Decided	

10 Any other business

TD S3-030637 MMS Charging Principles Handbook. This was presented by Ansgar Bergmann and described the current GSMA MMS Charging principles handbook. Mr Bergmann was thanked for his presentation which was noted.

TD S3-030622 First draft of MMS Security Paper - version 0.1.1. This was presented by Ansgar Bergmann for information as an introduction to the status of MMS security work in the GSMA. This interesting report should be further considered by delegates and contribution and comments should be sent to Mr. Ansgar Bergmann or Mr. Stefan Andersson. The document was then noted.

Close

The Chairman, V. Niemi, thanked delegates for their hard work during the meeting and the Hosts for the facilities. He thanked Sebastien Nguyen Ngoc had announced that this was his last regular attendance to the SA WG3 meetings. He was applauded and thanked for his excellent work in the group and wished good luck with his future work. He then closed the meeting.

Annex A: List of attendees at the SA WG3#30 meeting and Voting List

A.1 List of attendees

Name	Company	e-mail	Mobile Phone	Phone	Fax	3GPP ORG	
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50 attendees

A.2 SA WG3 Voting list

Based on the attendees lists for meetings #28, #29 and #30, the following companies are eligible to vote at SA WG3 meeting #31:

Company	Country	Status	Partner Org
3	GB	3GPPMEMBER	ETSI
ALCATEL S.A.	FR	3GPPMEMBER	ETSI
AT&T Wireless Services, Inc.	US	3GPPMEMBER	T1
BT Group Plc	GB	3GPPMEMBER	ETSI
BMWi	DE	3GPPMEMBER	ETSI
China Mobile Com. Corporation	CN	3GPPMEMBER	CCSA
DTI	GB	3GPPMEMBER	ETSI
GEMPLUS S.A.	FR	3GPPMEMBER	ETSI
GIESECKE & DEVRIENT GmbH	DE	3GPPMEMBER	ETSI
HUAWEI TECHNOLOGIES Co. Ltd.	CN	3GPPMEMBER	ETSI
Intel Corporation S.A.	BE	3GPPMEMBER	ETSI
Lucent Technologies	US	3GPPMEMBER	T1
Lucent Technologies N. S. UK	GB	3GPPMEMBER	ETSI
Mitsubishi Electric Co.	JP	3GPPMEMBER	ARIB
mmO2 plc	GB	3GPPMEMBER	ETSI
MOTOROLA JAPAN LTD	JP	3GPPMEMBER	ARIB
MOTOROLA Ltd	GB	3GPPMEMBER	ETSI
NEC EUROPE 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
Nortel Networks	US	3GPPMEMBER	T1
NTT DoCoMo Inc.	JP	3GPPMEMBER	ARIB
OBERTHUR CARD SYSTEMS S.A.	FR	3GPPMEMBER	ETSI
ORANGE SA	FR	3GPPMEMBER	ETSI
QUALCOMM EUROPE S.A.R.L.	FR	3GPPMEMBER	ETSI
RIM	CA	3GPPMEMBER	ETSI
Samsung Electronics Co., Ltd	KR	3GPPMEMBER	TTA
SAMSUNG Electronics	GB	3GPPMEMBER	ETSI
SchlumbergerSema	FR	3GPPMEMBER	ETSI
SIEMENS AG	DE	3GPPMEMBER	ETSI
Siemens nv/sa	BE	3GPPMEMBER	ETSI
SSH Communications Security	FI	3GPPMEMBER	ETSI
T-MOBILE DEUTSCHLAND	DE	3GPPMEMBER	ETSI
TELECOM ITALIA S.p.A.	IT	3GPPMEMBER	ETSI
ERICSSON LM	SE	3GPPMEMBER	ETSI
TELENOR AS	NO	3GPPMEMBER	ETSI
TeliaSonera AB	SE	3GPPMEMBER	ETSI
Toshiba Corporation	JP	3GPPMEMBER	ARIB
TruePosition Inc.	US	3GPPMEMBER	ETSI
Vodafone D2 GmbH	DE	3GPPMEMBER	ETSI
VODAFONE Group Plc	GB	3GPPMEMBER	ETSI

43 Individual Member Companies

Annex B: List of documents

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030480	Draft Agenda for SA WG3 meeting #30	SA WG3 Chairman	2	Approval	S3-030495	Revised in S3-030495
S3-030481	Draft report of TSG SA meeting #29	SA WG3 Secretary	5.1	Approval		Approved.
S3-030482	Draft Report of MBMS / GAA ad-hoc meeting	SA WG3 Vice-Chairman (P. Howard)	5.2	Approval		Approved
S3-030483	Draft agenda for joint SA3-CN1 session on IMS security	SA WG3 Chairman	4 + Joint	Approval		Approved. Also reviewed at S3 meeting
S3-030484	LS Response (from SA WG2) on new interface names	SA WG2	7.9	Action		Request to use Z interface names noted
S3-030485	LS reply on Rel-5 transport of unknown SIP signalling elements	SA WG5	7.1	Information		Noted
S3-030486	Letter to SA WG3 Chairman: PN-4465-RV1 (to be published as J-STD-025-B)	Chair, TIA TR-45 LAES Ad Hoc (Mrs. Terri L. Brooks)	6.7	Action		Noted. LI Group asked to look at this LS
S3-030487	Draft TS 33.310 V0.5.0: Network Domain Security; Authentication Framework	NDS/AF Rapporteur	7.4	Information		Noted. To be used for further updates
S3-030488	Draft 3GPP TS 33.109 V0.3.0: Bootstrapping of application security using AKA and Support for Subscriber Certificates; System Description	Editor	7.9	Information		Noted. Rev marks to be used in future
S3-030489	Proposed CR to 55.205: Correction of reference	TeliaSonera	6.3	Approval		Approved
S3-030490	LS (from GSMA-SG) on introduction of A5/3 in GSM handsets	GSMA SG	6.4	Action		Taken into account in discussions
S3-030491	LS (from SA WG3 LI Group) on new acronym	SA WG3-LI Group	5.4	Action		ANP acronym agreed
S3-030492	Draft TS 33.234 V0.6.0 (2003-09): Wireless Local Area Network (WLAN) Interworking Security; (Release 6)	Rapporteur	7.10	Information		Noted. To be finalised for submission to SA for info Nov 2003
S3-030493	Proposed CRs to 33.203: Correcting the text on sending an authentication response (Rel-5)	3	Joint - 5.1	Approval		Agreed with changes - to be endorsed by SA WG3 (in S3-030601)
S3-030494	Proposed CRs to 33.203: Correcting the text on sending an authentication response (Rel-6)	3	Joint - 5.1	Approval		Agreed with changes - to be endorsed by SA WG3 (in S3-030602)
S3-030495	Revised Draft Agenda for SA WG3 meeting #30	SA WG3 Chairman	2	Approval		Approved
S3-030496	SA WG3 Chairmans Report from SA#21 plenary	SA WG3 Chairman	5.3	Information		Noted
S3-030497	Liaison statement (from CN WG1) on Profiling of RFC3325 for IMS	CN WG1	Joint - 6.1	Action		Dealt with in joint session. No response LS needed
S3-030498	Reply LS (from CN WG1) on stage 3 level specification directions for support for subscriber certificate work item	CN WG1	7.9	Action		Protocol A OK, Protocol B for analysis.
S3-030499	Reply to LS (from CN WG1 - N1-031052) on 'Effects of service 27/38 on 2G/3G Interworking and emergency call' from SA3	CN WG1	7.5	Action		Discussed with S3-030510 and S3-030585. LS in S3-030624
S3-030500	Liaison statement (from CN WG1) on requesting a joint CN1-SA3 meeting	CN WG1	Joint -6.1	Action		Noted
S3-030501	LS (from CN WG2) on SA3 on Legal Interception of SCP initiated calls	CN WG2	6.1	Action		Noted. LI Group to deal with this LS.
S3-030502	LS Response (from CN WG4) on Stage 3 level specification directions for support for subscriber certificate work item	CN WG4	7.9	Action		Response LS in S3-030635
S3-030503	Reply LS (from SA WG1) on clarification of MBMS charging issues	SA WG1	7.20	Information		Noted
S3-030504	LS (from SA WG1) regarding progress of work for MBMS User Services	SA WG1	7.20	Information		Noted
S3-030505	Liaison (from SA WG4) Response to OMA	SA WG4	6.1	Information		Noted
S3-030506	LS (from SA WG4) on cipher suite for DRM-protected streamed media for PSS	SA WG4	6.1	Action		Response LS in S3-030621
S3-030507	LS (from SA WG4) on "Update of WID on MBMS"	SA WG4	7.20	Information		Noted
S3-030508	LS response (from T WG2) to SA2 on UE Tunnelling	T WG2	7.20	Information		Noted

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030509	LS response (from T WG2) on usage of GUP reference points	T WG2	7.10	Information		Noted
S3-030510	LS (from T WG3) on the effects of USIM services 27 and 38	T WG3	7.17	Action		Discussed with S3-030499 and S3-030585. Noted. LS in S3-030624
S3-030511	LS (from T WG3) on potential USIM impact of the MBMS security framework	T WG3	7.5	Action		Noted
S3-030512	Liaison Statement (from SA WG2) on Generic Authentication Architecture	SA WG3	7.9	Action		Dealt with in ad-hoc meeting. Noted
S3-030513	Proposed Pseudo-CR to TS 33.246 MBMS Security Requirements CR (non controversial) - (Rel-6)	BT Group	7.20	Approval	S3-030641	revised in S3-030641
S3-030514	Proposed Pseudo-CR to TS 33.246 MBMS Security Requirements CR (controversial) - (Rel-6)	BT Group	7.20	Approval		Rejected. Contribution invited on proposals in this Pseudo-CR
S3-030515	Proposed Draft LS on clarification of MBMS Service Requirements/assumptions	BT Group	7.20	Approval		Postponed to next meeting as agreements have changed since written
S3-030516	Documents approved by e-mail after SA WG3 meeting #29	SA WG3 Secretary	5.1	Information	S3-030592	Updated in S3-030592
S3-030517	Latest version of MBMS TS	Rapporteur	7.20	Information		Noted
S3-030518	Proposed Technical Report on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces v0.0.7 (Release 6)	Toshiba, Intel, T-Mobile, Nokia, Telcordia, Thomson, Fujitsu, HP, RIM, SmartTrust, BT Group PLC, Alcatel	7.15	Information	S3-030595	Revised in S3-030595 due to word processor errors
S3-030519	Re-keying resource , security and quality	Huawei Technologies Co., Ltd	7.20	Discussion		Postponed: Contribution invited on proposals
S3-030520	Improved combined re-keying method	Huawei Technologies Co., Ltd	7.20	Discussion / Decision		Depends on acceptance of combined re-keying. Return
S3-030521	Simple PTP method in detail	Huawei Technologies Co., Ltd	7.20	Discussion / Decision		Depends on acceptance of Simple PTP. Return
S3-030522	Differentiation of MBMS traffic protection mechanisms	Samsung Electronics	7.20	Discussion / Decision		Postponed: Contribution invited on proposals
S3-030523	MBMS service activation and Initial TEK distribution	Samsung Electronics	7.20	Discussion / Decision		Postponed: Contribution invited on proposals
S3-030524	Draft TS 33.cde V0.1.0 Presence Service; Security	Rapporteur	7.18	Information		Noted
S3-030525	Draft TR 33.cde V0.6.0 Presence Service; Security	Rapporteur	7.18	Information		Noted
S3-030526	Proposed CR to 33.203: UE populates RAND and AUTN when sending Digest response to the network (Rel-5)	Nokia	Joint - 5.5	Approval		Rejected. LS to CN1, CN4 produced in S3-030599
S3-030527	Proposed CR to 33.203: UE populates RAND and AUTN when sending Digest response to the network (Rel-6)	Nokia	Joint - 5.5	Approval		Rejected. LS to CN1, CN4 produced in S3-030599
S3-030528	Progress report on MBMS 3GPP2 solution	BT, Gemplus, Oberthur, QUALCOMM, SchlumbergerSema	7.20	Discussion / Decision		Noted. Take into account for detailed proposals
S3-030529	MBMS Usage and Quality of Service based on BAK Distribution	Gemplus, Oberthur, QUALCOMM Europe, SchlumbergerSema	7.20	Discussion		Postponed: Contribution invited on proposals
S3-030530	Proposed CR to 33.108: LI Reporting of Dialed Digits (Rel-6)	SA WG3 LI Group	5.4	Approval	S3-030606	Updated to latest version of 33.108. Revised in S3-030606
S3-030531	Proposed CR to 33.107: MSISDN/IMEI clarification for GPRS interception (Rel-6)	SA WG3 LI Group	5.4	Approval	S3-030607	Updated to Rel-6 version of 33.107. Revised in S3-030607
S3-030532	Proposed CR to 33.108: Correction to Annex G on TCP based transport (Rel-5)	SA WG3 LI Group	5.4	Approval		Updated to latest version of 33.108. Approved.

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030533	Proposed CR to 33.108: Correction to Annex G on TCP based transport (Rel-6)	SA WG3 LI Group	5.4	Approval	S3-030608	Updated to latest version of 33.108. Category corrected in S3-030608
S3-030534	Over-The-Air (OTA) technology	Gemplus, Oberthur, Schlumberger	7.20	Discussion / Decision		Noted
S3-030535	Pseudo CR to 33.310: Removal of support for delta CRLs (Rel-6)	Nokia, Siemens, SSH, T-Mobile, Vodafone	7.4	Approval		Approved
S3-030536	Subscriber Certificate Profiles	Nokia	7.9	Information		Presented and noted. Pseudo-CR agreed, but keep editors note
S3-030537	Naming in Generic Authentication Architecture (GAA)	Nokia	7.9	Discussion / Decision		Interface names approved
S3-030538	Pseudo CR to draft TS on Subscriber Certificates: Requirements for A and C interface	Nokia	7.9	Approval		Agreed with changes
S3-030539	Key management considerations for MBMS	Ericsson	7.20	Discussion / Decision		Noted
S3-030540	Protocol between authentication proxy and application server	Ericsson	7.9	Discussion / Decision		Pseudo-CR Updated in S3-030631
S3-030541	Proposed CR to 33.203: Introducing the SIP Privacy mechanism (Rel-6)	Ericsson	Joint - 6.1	Approval	S3-030600	Needs to be written to version 6.0.0. 1st para of 5.3 accepted for Rel-5. Revised in S3-030600
S3-030542	Enhancements to GSM/UMTS AKA	Ericsson	7.6	Discussion		Taken with S3-030584 and S3-030588. Special-RAND adopted for development. LS in S3-030629
S3-030543	IMS R5 profile of RFC 3329	Ericsson	7.1	Information	S3-030593	Revised in S3-030593
S3-030544	3GPP Over the Air (OTA) procedures applied to BAK Distribution and MBMS Subscription management	Schlumberger, QUALCOMM, GEMPLUS, OCS	7.20	Discussion / Decision		No time - delegates to send comments to authors
S3-030545	Initiation of bootstrapping procedure	Ericsson	7.9	Discussion / Decision		Agreed with modification
S3-030546	Generic Bootstrapping Architecture (GBA) Technical Specification and Work Item Proposal	Ericsson	7.9	Discussion / Decision		Draft TS and WID attached.
S3-030547	Pseudo-CR to 33.234: Re-authentication procedures	Ericsson	7.10	Approval	S3-030638	Revised in S3-030638
S3-030548	Pseudo-CR to 33.234: Alignment with WLAN architecture definition	Ericsson	7.10	Approval		Approved with minor change
S3-030549	Proposed CR to 33.102: Handling of key sets at inter-system change (Rel-5)	Ericsson	7.5	Approval	S3-030625	Revised in S3-030625
S3-030550	Evaluation of alternatives for secure set-up of UE initiated tunnels	Siemens	7.10	Discussion / Decision		Some working assumptions endorsed
S3-030551	Generic Bootstrapping Architecture evaluation	Siemens	7.9	Discussion / Decision		Proposals endorsed depending other discussions
S3-030552	Key separation in a Generic Bootstrapping Architecture	Siemens	7.9	Discussion / Decision		Proposals 1 and 2 accepted other proposals for further consideration for decision at next meeting
S3-030553	Difficulties in using one TLS tunnel to access different servers behind an authentication proxy	Siemens	7.9	Discussion / Decision		Need contribution to next meeting confirming transparency of Auth Proxy
S3-030554	Handling of Security Associations	Siemens	Joint - 5.2	Discussion / Decision		Return when Nokia CRs discussed
S3-030555	Using shared key TLS with GAA NAFs	Nokia	7.9	Discussion / Decision		Noted. To be kept in mind for discussion of solutions
S3-030556	Use of shared keys in the TLS protocol: IETF status update	Nokia	7.9	Information		Noted. Inf. RFC is likely to be ready for Rel-6
S3-030557	UE-Initiated Tunneling with IKEv2	Nokia	7.10	Discussion		Handled in evening session

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030558	GAA-Application-Profiles definition	Nokia	7.9	Discussion		Nokia to input to CN4 as company input
S3-030559	Voice Group Call Services	Vodafone, Siemens	7.21	Discussion / Decision		Most principles endorsed
S3-030560	Correction and Alignment of SA handling procedures	3	Joint - 5.2	Discussion / Approval		Reviewed in evening session. CRs provided for SA WG3 in S3-030603 and S3-030604
S3-030561	Pseudo-CR to 33.109: Informative annex on key pair storage	Gemplus, Schlumberger	7.9	Approval		Deferred to e-mail approval
S3-030562	Proposed CR to 33.203: Terminology alignment (Rel-5)	Nokia	Joint - 5.3	Approval	S3-030597	Some parts agreed for Rel-6 and included in S3-030597
S3-030563	Proposed CR to 33.203: Lifetime of old SAs (Rel-5)	Nokia	Joint - 5.2	Approval		Reviewed in evening session. To be developed off-line for next S3 meeting
S3-030564	Trustworthiness of the previous hop (IMS?) network (Rel-6)	Nokia	Joint - 5.4	Discussion		SA WG3 to consider a solution. Contributions invited
S3-030565	Trustworthiness of the next hop (IMS?) network	Nokia	Joint - 5.4	Discussion		Solution 3 for Rel-5, Solution 1 as basis for Rel-6. To be verified and elaborated by SA WG3
S3-030566	Proposed CR to 33.203: Reject instead of discard (Rel-5)	Nokia	Joint - 5.3	Approval	S3-030598	Agreed to update the CR to make symmetric for P-CSCF and UE unprotected ports in S3-030598.
S3-030567	Proposed CR to 33.203: SA Management (Rel-5)	Nokia	Joint - 5.2	Approval		Reviewed in evening session. CN1 can continue their work based on clarifications
S3-030568	Proposed CR to 33.203: SA procedures (Rel-5)	Nokia	Joint - 5.2	Approval	S3-030594	Updated in S3-030594
S3-030569	Proposed CR to 33.203: SA parameters and management. (Rel-5)	Nokia	Joint - 5.2	Approval	S3-030596	Updated in S3-030596
S3-030570	Security issues	Nokia	Joint - 5.2	Discussion		It was discussed and agreed tat the content of "Security Server" shall be mirrored in the "Security Verify header". CN WG1 were asked to take this into account in their work.
S3-030571	High Level Requirements for UICC re-use by peripheral Devices on Local Interfaces	3	7.15	Discussion / Decision		agreements to be edited into draft FS
S3-030572	Adding domain component support to NDS/AF certificate profiles	Nokia, Siemens, SSH, T-Mobile	7.4	Discussion / Decision		Agreed to add this proposal.
S3-030573	Pseudo Cr to 33.310: Adding domain component support to NDS/AF certificate profiles	Nokia, Siemens, SSH, T-Mobile	7.4	Approval		Approved
S3-030574	Pseudo CR to 33.310: Clarifications to usage of certificate repositories	Nokia, Siemens, SSH, T-Mobile, Vodafone	7.4	Approval		Approved
S3-030575	Analysis of proposed network based access control solution for multiple PDP contexts	Nokia	7.5	Discussion / Decision		Terminal-based solution proposed. Network-based proposed in S3-030587. To be further discussed.
S3-030576	Comparison of different solutions for GBA and AP based AS: standard TLS versus shared secret based TLS	Alcatel	7.9	Discussion		Mainly in line with S3-030555.
S3-030577	WITHDRAWN - Proposed CR to 33.203: Clarifying formulation and notation related to protected port numbers (Rel-6)	Alcatel	7.1	Approval		WITHDRAWN
S3-030578	P-CR for Presence TR 33.abc v0.6.0	Nokia	7.18	Discussion / Approval		Clause 6.2 with modifications accepted for insertion in the new TS

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030579	Proposed LS (to SA WG1): The requirement and feasibility of IMS watcher authentication	Nokia	4	Approval	S3-030654	Reviewed for CN1 experts to comment. Revised in S3-030654
S3-030580	MBMS – Overhead of the Re-keying	Nokia	7.20	Discussion		Noted. Companies to consider their preferences for methods for decision at next meeting
S3-030581	GUP security directions	Nokia	7.17	Discussion		Nokia to get more info on Liberty Alliance. B Owen to send LS to groups about open issues
S3-030582	Pseudo-CR to 33.246: MBMS broadcast security requirements clarification	Nokia	7.20	Approval	S3-030640	revised in S3-030640
S3-030583	Key distribution protocol selection	Siemens	7.20	Discussion / Decision		Noted
S3-030584	Evaluation of secure algorithm negotiation proposals	Siemens	7.6	Discussion / Decision		Taken with S3-030542 and S3-030588. Special-RAND adopted for development. LS in S3-030629
S3-030585	Effects of service 27/38 on 2G/3G Interworking and emergency call	Siemens	7.5	Discussion / Decision		Used as basis for LS to GSMA SG / SCAG in S3-030624
S3-030586	MBMS Key distribution	Siemens	7.20	Discussion		Working Assumption adopted
S3-030587	Multiple PDP context security issue	Ericsson, Vodafone	7.5	Discussion / Decision		Network-based solution proposed. Terminal-based proposed in S3-030575. To be further discussed.
S3-030588	Further development of the Special RAND mechanism	Orange, Vodafone	7.6	Discussion / Decision	S3-030651	Taken with S3-030542 and S3-030584. Special-RAND adopted for development. Revised in S3-030651
S3-030589	Pseudo CR to 33.310: Clarification on the use of PSK as a fallback mechanism	Nokia, Siemens, SSH, Vodafone	7.4	Approval		Approved
S3-030590	Pseudo CR to 33.310: Correction of typos	Nokia, Siemens, SSH, Vodafone	7.4	Approval		Approved
S3-030591	Documents approved by e-mail after SA WG3 meeting #29	SA WG3 Secretary	5.1	Information	S3-030592	WITHDRAWN due to missing entry in cover table
S3-030592	Documents approved by e-mail after SA WG3 meeting #29	SA WG3 Secretary	5.1	Information		Noted
S3-030593	IMS R5 profile of RFC 3329	Ericsson	Joint - 5.5	Information		Noted
S3-030594	Proposed CR to 33.203: SA procedures (Rel-5)	Nokia	7.1	Approval	S3-030609	Revised in S3-030609
S3-030595	Technical Report on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces (Release 6)	Toshiba, Intel, T-Mobile, Telcordia, Thomson, Fujitsu, HP, RIM, SmartTrust, BT Group PLC, Alcatel	7.15	Information		Editor to update with agreed comments from discussion and distribute on e-mail list
S3-030596	Proposed CR to 33.203: SA parameters and management. (Rel-5)	Nokia	7.1	Approval	S3-030610	Revised in S3-030610
S3-030597	Proposed CR to 33.203: Terminology alignment (Rel-5)	Nokia	7.1	Approval	S3-030613	Revised in S3-030613
S3-030598	Proposed CR to 33.203: Reject instead of discard (Rel-6)	Nokia	7.1	Approval	S3-030615	Revised in S3-030615
S3-030599	LS to CN 4, CN1 on IMS AKA: UE populating RAND and AUTN parameters in responding to challenge	SA WG3	7.1	Approval	S3-030616	Revised in S3-030616
S3-030600	Proposed CR to 33.203: Introducing the SIP Privacy mechanism in Stage 2 specifications (Rel-5)	Ericsson	7.1	Approval	S3-030617	Revised in S3-030617

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030601	Proposed CRs to 33.203: Correcting the text on sending an authentication response (Rel-5)	3	7.1	Approval		Approved
S3-030602	Proposed CRs to 33.203: Correcting the text on sending an authentication response (Rel-6)	3	7.1	Approval		Approved
S3-030603	Proposed CRs to 33.203: Correcting the SA handling procedures (Rel-5)	Joint CN1 meeting (A Escott)	7.1	Approval	S3-030619	Revised editorially in S3-030619
S3-030604	Proposed CRs to 33.203: Correcting the SA handling procedures (Rel-6)	Joint CN1 meeting (A Escott)	7.1	Approval	S3-030620	Revised editorially in S3-030620
S3-030605	Draft Report of SA WG3 LI meeting in Jackson Hole	SA WG3 LI Group	5.4	Information		Noted
S3-030606	Proposed CR to 33.108: LI Reporting of Dialed Digits (Rel-6)	SA WG3 LI Group	5.4	Approval		Approved
S3-030607	Proposed CR to 33.107: MSISDN/IMEI clarification for GPRS interception (Rel-6)	SA WG3 LI Group	5.4	Approval		Approved
S3-030608	Proposed CR to 33.108: Correction to Annex G on TCP based transport (Rel-6)	SA WG3 LI Group	5.4	Approval		Approved
S3-030609	Proposed CR to 33.203: SA procedures (Rel-5)	Nokia	7.1	Approval		Approved
S3-030610	Proposed CR to 33.203: SA parameters and management. (Rel-5)	Nokia	7.1	Approval		Approved
S3-030611	Proposed CR to 33.203: SA procedures (Rel-6)	Nokia	7.1	Approval		Approved
S3-030612	Proposed CR to 33.203: SA parameters and management. (Rel-6)	Nokia	7.1	Approval		Approved
S3-030613	Proposed CR to 33.203: Terminology alignment (Rel-5)	Nokia	7.1	Approval		Approved
S3-030614	Proposed CR to 33.203: Reject instead of discard (Rel-5)	Nokia	7.1	Approval		Approved
S3-030615	Proposed CR to 33.203: Reject instead of discard (Rel-6)	Nokia	7.1	Approval		Approved
S3-030616	LS to CN 4, CN1 on IMS AKA: UE populating RAND and AUTN parameters in responding to challenge	SA WG3	7.1	Approval		Approved
S3-030617	Proposed CR to 33.203: Introducing the SIP Privacy mechanism in Stage 2 specifications (Rel-5)	Ericsson	7.1	Approval	S3-030648	Revised in S3-030648
S3-030618	LS to SA WG2: Introducing the Privacy Mechanism in Stage 2	Ericsson	7.1	Approval	S3-030649	Revised in S3-030649
S3-030619	Proposed CRs to 33.203: Correcting the SA handling procedures (Rel-5)	Joint CN1 meeting (A Escott)	7.1	Approval		Approved
S3-030620	Proposed CRs to 33.203: Correcting the SA handling procedures (Rel-6)	Joint CN1 meeting (A Escott)	7.1	Approval		Approved
S3-030621	Reply LS on cipher suite for DRM-protected streamed media for PSS	SA WG3	6.1	Approval	S3-030650	Revised in S3-030650
S3-030622	First draft of MMS Security Paper - version 0.1.1	A Bergmann, MMS TF	10	Information		Presented and noted
S3-030623	WITHDRAWN - Invitation to SA WG3 meeting #31, Munich, Germany	EF3	9	Information		WITHDRAWN - Cut-off date wrong for hotel booking
S3-030624	LS to GSMA SG, SCAG on 2G/3G interworking Emergency Call Scenarios	SA WG3	7.5	Approval		Approved
S3-030625	Proposed CR to 33.102: Handling of key sets at inter-system change (Rel-5)	Ericsson	7.5	Approval		Approved
S3-030626	Proposed CR to 33.102: Handling of key sets at inter-system change (Rel-6)	Ericsson	7.5	Approval		Approved
S3-030627	Reply LS (from SA WG2) on "Security issues regarding multiple PDP contexts in GPRS"	SA WG2	7.5	Action		Noted. Threat analysis in S3-030575
S3-030628	Invitation to SA WG3 meeting #31, Munich, Germany	EF3	9	Information		Noted
S3-030629	LS on Special-RAND mechanism	SA WG3	7.5	Approval	S3-030652	Revised in S3-030652
S3-030630	Results of Wed evening session for 33.109 split	Discussion Group	7.9	Information		Noted. Evening session to draft 4 proposed TSs/TRs
S3-030631	Pseudo-CR: Protocol between authentication proxy and application server	Ericsson	7.9	Approval		Revised in S3-030632
S3-030632	Pseudo-CR: Protocol between authentication proxy and application server	Ericsson	7.9	Approval		Approved

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030633	GSM Association and EICTA joint statement: IMEI Integrity on the theft of mobile phones	GSMA, EICTA	6.4	Information		Noted
S3-030634	Reply LS on "Security issues regarding multiple PDP contexts in GPRS"	Discussion Group	7.9	Approval		Approved
S3-030635	LS Response on “new interface names”	SA WG3	7.9	Approval		Approved
S3-030636	LS to CN WG, CN WG4 - Interface requirements	SA WG3	7.9	Approval	S3-030653	revised in S3-030653
S3-030637	MMS Charging Principles Handbook	Fred Hillebrand (Ansgar Bergmann)	10	Information		Presented and Noted
S3-030638	Pseudo-CR to 33.234: Re-authentication procedures	Ericsson	7.10	Approval		Approved
S3-030639	LS to T3 and SA1 on Group Voice Call requirements	SA WG3	7.21	E-mail Approval		E-mail approved 21 October
S3-030640	Pseudo-CR to 33.246: MBMS broadcast security requirements clarification	Nokia	7.20	Approval		Approved
S3-030641	Proposed Pseudo-CR to TS 33.246 MBMS Security Requirements CR (non controversial) - (Rel-6)	BT Group	7.20	Approval		Approved
S3-030642	Report on GAA evening session, October 9, 2003	GAA discussion group	7.9	Information		Noted
S3-030643	Draft TS: Generic Authentication Architecture; System Description (Release 6)	GAA discussion group	7.9	Information		Noted
S3-030644	Draft TS: Generic Authentication Architecture; Generic Bootstrapping Architecture (Release 6)	GAA discussion group	7.9	Information		Noted
S3-030645	Draft TS: Generic Authentication Architecture; Support for Subscriber Certificates (Release 6)	GAA discussion group	7.9	Information		Noted
S3-030646	Draft TS: Generic Authentication Architecture; Access to Network Application Function using HTTPS (Release 6)	GAA discussion group	7.9	Information		Noted
S3-030647	Draft TS 33.cde V0.1.1 Presence Service; Security	Rapporteur	7.18	Information		Noted
S3-030648	Proposed CR to 33.203: Introducing the SIP Privacy mechanism in Stage 2 specifications (Rel-5)	Ericsson	7.1	Approval		Approved
S3-030649	LS to SA WG2: Introducing the Privacy Mechanism in Stage 2	SA WG3	7.1	Approval		Approved
S3-030650	Reply LS on cipher suite for DRM-protected streamed media for PSS	SA WG3	6.1	Approval		Approved
S3-030651	Further development of the Special RAND mechanism	Orange, Vodafone	7.6	Discussion / Decision		attach to LS in S3-030652
S3-030652	LS on Special-RAND mechanism	SA WG3	7.5	Approval		Approved
S3-030653	LS to CN WG, CN WG4 - Interface requirements	SA WG3	7.9	Approval		Approved
S3-030654	LS on the requirement and feasibility of IMS watcher authentication	SA WG3	4	Approval		Approved

Annex C: Status of specifications under SA WG3 responsibility

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
Release 1999 GSM Specifications and Reports							
TR	01.31	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	8.0.0	R99	S3	WRIGHT, Tim	
TR	01.33	Lawful Interception requirements for GSM	8.0.0	R99	S3	MCKIBBEN, Bernie	
TS	01.61	General Packet Radio Service (GPRS); GPRS ciphering algorithm requirements	8.0.0	R99	S3	WALKER, Michael	
TS	02.09	Security aspects	8.0.1	R99	S3	CHRISTOFFERSSON, Per	
TS	02.33	Lawful Interception (LI); Stage 1	8.0.1	R99	S3	MCKIBBEN, Bernie	
TS	03.20	Security-related Network Functions	8.1.0	R99	S3	NGUYEN NGOC, Sebastien	
TS	03.33	Lawful Interception; Stage 2	8.1.0	R99	S3	MCKIBBEN, Bernie	
Release 1999 3GPP Specifications and Reports							
TS	21.133	3G security; Security threats and requirements	3.2.0	R99	S3	CHRISTOFFERSSON, Per	
TS	22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	3.2.1	R99	S3	NGUYEN NGOC, Sebastien	Transfer>TSG#4
TS	22.031	Fraud Information Gathering System (FIGS); Service description; Stage 1	3.0.0	R99	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 02.31 R99 and 42.031 Rel-4 & Rel-5 -> 22.031.
TS	22.032	Immediate Service Termination (IST); Service description; Stage 1	3.0.0	R99	S3	WRIGHT, Tim	SP-16: created to take over from 02.32 (R99) and 42.032 (Rel-4 onwards).
TS	23.031	Fraud Information Gathering System (FIGS); Service description; Stage 2	3.0.0	R99	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 03.31 R99 and 43.031 Rel-4 & Rel-5 -> 23.031.
TS	23.035	Immediate Service Termination (IST); Stage 2	3.1.0	R99	S3	WRIGHT, Tim	SP-16: created to take over from 03.35 (R99) and 43.035 (Rel-4 onwards).
TS	33.102	3G security; Security architecture	3.13.0	R99	S3	BLOMMAERT, Marc	
TS	33.103	3G security; Integration guidelines	3.7.0	R99	S3	BLANCHARD, Colin	
TS	33.105	Cryptographic Algorithm requirements	3.8.0	R99	S3	CHIKAZAWA, Takeshi	
TS	33.106	Lawful interception requirements	3.1.0	R99	S3	WILHELM, Berthold	
TS	33.107	3G security; Lawful interception architecture and functions	3.5.0	R99	S3	WILHELM, Berthold	
TS	33.120	Security Objectives and Principles	3.0.0	R99	S3	WRIGHT, Tim	
TR	33.901	Criteria for cryptographic Algorithm design process	3.0.0	R99	S3	BLOM, Rolf	
TR	33.902	Formal Analysis of the 3G Authentication Protocol	3.1.0	R99	S3	HORN, Guenther	
TR	33.908	3G Security; General report on the design, specification and evaluation of 3GPP standard confidentiality and integrity algorithms	3.0.0	R99	S3	WALKER, Michael	TSG#7: S3-000105=NP-000049
TS	35.201	Specification of the 3GPP confidentiality and integrity algorithms; Document 1: f8 and f9 specifications	3.2.0	R99	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.202	Specification of the 3GPP confidentiality and integrity algorithms; Document 2: Kasumi algorithm specification	3.1.2	R99	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.203	Specification of the 3GPP confidentiality and integrity algorithms; Document 3: Implementors' test data	3.1.2	R99	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
TS	35.204	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	3.1.2	R99	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
Release 4 3GPP Specifications and Reports							
TS	21.133	3G security; Security threats and requirements	4.1.0	Rel-4	S3	CHRISTOFFERSSON, Per	
TS	22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	4.1.0	Rel-4	S3	NGUYEN NGOC, Sebastien	Transfer>TSG#4
TS	22.031	Fraud Information Gathering System (FIGS); Service description; Stage 1	4.0.0	Rel-4	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 02.31 R99 and 42.031 Rel-4 & Rel-5 -> 22.031.
TS	22.032	Immediate Service Termination (IST); Service description; Stage 1	4.0.0	Rel-4	S3	WRIGHT, Tim	SP-16: created to take over from 02.32 (R99) and 42.032 (Rel-4 onwards).
TS	23.031	Fraud Information Gathering System (FIGS); Service description; Stage 2	4.0.0	Rel-4	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 03.31 R99 and 43.031 Rel-4 & Rel-5 -> 23.031.
TS	23.035	Immediate Service Termination (IST); Stage 2	4.1.0	Rel-4	S3	WRIGHT, Tim	SP-16: created to take over from 03.35 (R99) and 43.035 (Rel-4 onwards).
TS	33.102	3G security; Security architecture	4.5.0	Rel-4	S3	BLOMMAERT, Marc	
TS	33.103	3G security; Integration guidelines	4.2.0	Rel-4	S3	BLANCHARD, Colin	
TS	33.105	Cryptographic Algorithm requirements	4.1.0	Rel-4	S3	CHIKAZAWA, Takeshi	
TS	33.106	Lawful interception requirements	4.0.0	Rel-4	S3	WILHELM, Berthold	
TS	33.107	3G security; Lawful interception architecture and functions	4.3.0	Rel-4	S3	WILHELM, Berthold	
TS	33.120	Security Objectives and Principles	4.0.0	Rel-4	S3	WRIGHT, Tim	
TS	33.200	3G Security; Network Domain Security (NDS); Mobile Application Part (MAP) application layer security	4.3.0	Rel-4	S3	ESCOTT, Adrian	2001-05-24: title grows MAP; see 33.210 for IP equivalent.
TR	33.901	Criteria for cryptographic Algorithm design process	4.0.0	Rel-4	S3	BLOM, Rolf	
TR	33.902	Formal Analysis of the 3G Authentication Protocol	4.0.0	Rel-4	S3	HORN, Guenther	
TR	33.903	Access Security for IP based services	none	Rel-4	S3	VACANT,	
TR	33.908	3G Security; General report on the design, specification and evaluation of 3GPP standard confidentiality and integrity algorithms	4.0.0	Rel-4	S3	WALKER, Michael	TSG#7: S3-000105=NP-000049
TR	33.909	3G Security; Report on the design and evaluation of the MILENAGE algorithm set; Deliverable 5: An example algorithm for the 3GPP authentication and key generation functions	4.0.1	Rel-4	S3	WALKER, Michael	TSG#7: Is a reference in 33.908. Was withdrawn, but reinstated at TSG#10.
TS	35.201	Specification of the 3GPP confidentiality and integrity algorithms; Document 1: f8 and f9 specifications	4.1.0	Rel-4	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.202	Specification of the 3GPP confidentiality and integrity algorithms; Document 2: Kasumi algorithm specification	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.203	Specification of the 3GPP confidentiality and integrity algorithms; Document 3: Implementors' test data	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.204	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.205	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	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE. 2002-06: clarified that deliverable is TS not TR.

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
TS	35.206	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 2: Algorithm specification	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE
TS	35.207	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	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE
TS	35.208	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	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE
TR	35.909	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	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE
TR	41.031	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	4.0.1	Rel-4	S3	WRIGHT, Tim	
TR	41.033	Lawful Interception requirements for GSM	4.0.1	Rel-4	S3	MCKIBBEN, Bernie	
TS	41.061	General Packet Radio Service (GPRS); GPRS ciphering algorithm requirements	4.0.0	Rel-4	S3	WALKER, Michael	
TS	42.009	Security Aspects	4.0.0	Rel-4	S3	CHRISTOFFERSSON, Per	
TS	42.033	Lawful Interception; Stage 1	4.0.0	Rel-4	S3	MCKIBBEN, Bernie	
TS	43.020	Security-related network functions	4.0.0	Rel-4	S3	GILBERT, Henri	
TS	43.033	Lawful Interception; Stage 2	4.0.0	Rel-4	S3	MCKIBBEN, Bernie	
Release 5 3GPP Specifications and Reports							
TS	22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	5.0.0	Rel-5	S3	NGUYEN NGOC, Sebastien	Transfer>TSG#4
TS	22.031	Fraud Information Gathering System (FIGS); Service description; Stage 1	5.0.0	Rel-5	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 02.31 R99 and 42.031 Rel-4 & Rel-5 -> 22.031.
TS	22.032	Immediate Service Termination (IST); Service description; Stage 1	5.0.0	Rel-5	S3	WRIGHT, Tim	SP-16: created to take over from 02.32 (R99) and 42.032 (Rel-4 onwards).
TS	23.031	Fraud Information Gathering System (FIGS); Service description; Stage 2	5.0.0	Rel-5	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 03.31 R99 and 43.031 Rel-4 & Rel-5 -> 23.031.
TS	23.035	Immediate Service Termination (IST); Stage 2	5.1.0	Rel-5	S3	WRIGHT, Tim	SP-16: created to take over from 03.35 (R99) and 43.035 (Rel-4 onwards).
TS	33.102	3G security; Security architecture	5.3.0	Rel-5	S3	BLOMMAERT, Marc	
TS	33.106	Lawful interception requirements	5.1.0	Rel-5	S3	WILHELM, Berthold	
TS	33.107	3G security; Lawful interception architecture and functions	5.6.0	Rel-5	S3	WILHELM, Berthold	
TS	33.108	3G security; Handover interface for Lawful Interception (LI)	5.5.0	Rel-5	S3	WILHELM, Berthold	2001-12-04 Title changed from "Lawful Interception; Interface between core network and law agency equipment" (Berthold.Wilhelm@RegTP.de).
TS	33.200	3G Security; Network Domain Security (NDS); Mobile Application Part (MAP) application layer security	5.1.0	Rel-5	S3	ESCOTT, Adrian	2001-05-24: title grows MAP; see 33.210 for IP equivalent.
TS	33.201	Access domain security	none	Rel-5	S3	POPE, Maurice	

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
TS	33.203	3G security; Access security for IP-based services	5.7.0	Rel-5	S3	BOMAN, Krister	
TS	33.210	3G security; Network Domain Security (NDS); IP network layer security	5.5.0	Rel-5	S3	KOIEN, Geir	2001-05-24: 33.200 split into MAP (33.200) and IP (33.210).
TR	33.900	Guide to 3G security	0.4.1	Rel-5	S3	BROOKSON, Charles	
TR	33.903	Access Security for IP based services	none	Rel-5	S3	VACANT,	
TS	35.201	Specification of the 3GPP confidentiality and integrity algorithms; Document 1: f8 and f9 specifications	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.202	Specification of the 3GPP confidentiality and integrity algorithms; Document 2: Kasumi algorithm specification	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.203	Specification of the 3GPP confidentiality and integrity algorithms; Document 3: Implementors' test data	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.204	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.205	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	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE. 2002-06: clarified that deliverable is TS not TR.
TS	35.206	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 2: Algorithm specification	5.1.0	Rel-5	S3	WALKER, Michael	ex SAGE
TS	35.207	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	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE
TS	35.208	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	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE
TR	35.909	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	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE
TR	41.031	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	5.0.0	Rel-5	S3	WRIGHT, Tim	
TR	41.033	Lawful Interception requirements for GSM	5.0.0	Rel-5	S3	MCKIBBEN, Bernie	
TS	42.033	Lawful Interception; Stage 1	5.0.0	Rel-5	S3	MCKIBBEN, Bernie	
TS	43.020	Security-related network functions	5.0.0	Rel-5	S3	GILBERT, Henri	
TS	43.033	Lawful Interception; Stage 2	5.0.0	Rel-5	S3	MCKIBBEN, Bernie	
Release 6 3GPP Specifications and Reports							
TS	33.102	3G security; Security architecture	6.0.0	Rel-6	S3	BLOMMAERT, Marc	Created by CRs @TSG SA#21
TS	33.107	3G security; Lawful interception architecture and functions	6.0.0	Rel-6	S3	WILHELM, Berthold	Created by CRs @TSG SA#21
TS	33.108	3G security; Handover interface for Lawful Interception (LI)	6.3.0	Rel-6	S3	WILHELM, Berthold	2001-12-04 Title changed from "Lawful Interception; Interface between core network and law agency equipment" (Berthold.Wilhelm@RegTP.de).

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
TS	33.203	3G security; Access security for IP-based services	6.0.0	Rel-6	S3	BOMAN, Krister	Created by CRs @TSG SA#21
TS	33.210	3G security; Network Domain Security (NDS); IP network layer security	6.3.0	Rel-6	S3	KOIEN, Geir	2001-05-24: 33.200 split into MAP (33.200) and IP (33.210).
TR	33.810	3G Security; Network Domain Security / Authentication Framework (NDS/AF); Feasibility Study to support NDS/IP evolution	6.0.0	Rel-6	S3	N, A	2002-07-22: was formerly 33.910.
TS	55.205	Specification of the GSM-MILENAGE algorithms: An example algorithm set for the GSM Authentication and Key Generation Functions A3 and A8	6.0.0	Rel-6	S3	WALKER, Michael	Not subject to export control.
TS	55.216	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	6.2.0	Rel-6	S3	N, A	
TS	55.217	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 2: Implementors' test data	6.1.0	Rel-6	S3	N, A	
TS	55.218	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	6.1.0	Rel-6	S3	N, A	
TR	55.919	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 4: Design and evaluation report	6.1.0	Rel-6	S3	N, A	

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	WI
33.102	183	-	Rel-5	Handling of key sets at inter-system change	F	5.3.0	S3-30	S3-030625	SEC1-NDS, IMS-ASEC
33.102	184	-	Rel-6	Handling of key sets at inter-system change	A	6.0.0	S3-30	S3-030626	SEC1-NDS, IMS-ASEC
33.107	034	-	Rel-6	MSISDN/IMEI clarification for GPRS interception	F	6.0.0	S3-30	S3-030607	SEC1-LI
33.108	027	-	Rel-5	Correction to Annex G on TCP based transport	F	5.5.0	S3-30	S3-030532	SEC1-LI
33.108	028	-	Rel-6	Correction to Annex G on TCP based transport	A	6.3.0	S3-30	S3-030608	SEC1-LI
33.108	029	-	Rel-6	LI Reporting of Dialed Digits	B	6.3.0	S3-30	S3-030606	SEC1-LI
33.203	047	-	Rel-5	Correcting the text on sending an authentication response	F	5.7.0	S3-30	S3-030601	IMS-ASEC
33.203	048	-	Rel-6	Correcting the text on sending an authentication response	A	6.0.0	S3-30	S3-030602	IMS-ASEC
33.203	049	-	Rel-5	SA procedures	F	5.7.0	S3-30	S3-030609	IMS-ASEC
33.203	050	-	Rel-6	SA procedures	A	6.0.0	S3-30	S3-030611	IMS-ASEC
33.203	051	-	Rel-5	SA parameters and management	F	5.7.0	S3-30	S3-030610	IMS-ASEC
33.203	052	-	Rel-6	SA parameters and management	A	6.0.0	S3-30	S3-030612	IMS-ASEC
33.203	053	-	Rel-5	Reject or discard of messages	F	5.7.0	S3-30	S3-030614	IMS-ASEC
33.203	054	-	Rel-6	Reject or discard of messages	A	6.0.0	S3-30	S3-030615	IMS-ASEC
33.203	055	-	Rel-5	Correcting the SA handling procedures	F	5.7.0	S3-30	S3-030619	IMS-ASEC
33.203	056	-	Rel-6	Correcting the SA handling procedures	A	6.0.0	S3-30	S3-030620	IMS-ASEC
33.203	057	-	Rel-6	Terminology alignment	F	6.0.0	S3-30	S3-030613	IMS-ASEC
33.203	058	-	Rel-5	Introducing the SIP Privacy mechanism in Stage 2 specifications	F	5.7.0	S3-30	S3-030648	IMS-ASEC
55.205	001	-	Rel-6	Correction of reference	D	6.0.0	S3-30	S3-030489	SEC1-CSALGO1

Annex E: List of Liaisons

E.1 Liaisons to the meeting

TD number	Title	Source TD	Comment/Status
S3-030484	LS Response (from SA WG2) on new interface names	S2-033235	Request to use Z interface names noted
S3-030485	LS reply on Rel-5 transport of unknown SIP signalling elements	S5-034447	Noted
S3-030486	Letter to SA WG3 Chairman: PN-4465-RV1 (to be published as J-STD-025-B)	<none>	Noted. LI Group asked to look at this LS
S3-030490	LS (from GSMA-SG) on introduction of A5/3 in GSM handsets	SG Doc XX_03	Taken into account in discussions
S3-030491	LS (from SA WG3 LI Group) on new acronym	S3LI03_084	ANP acronym agreed
S3-030497	Liaison statement (from CN WG1) on Profiling of RFC3325 for IMS	N1-031199	Dealt with in joint session. No response LS needed
S3-030498	Reply LS (from CN WG1) on stage 3 level specification directions for support for subscriber certificate work item	N1-031200	Protocol A OK, Protocol B for analysis.
S3-030499	Reply to LS (from CN WG1 - N1-031052) on 'Effects of service 27/38 on 2G/3G Interworking and emergency call' from SA3	N1-031201	Discussed with S3-030510 and S3-030585. LS in S3-030624
S3-030500	Liaison statement (from CN WG1) on requesting a joint CN1-SA3 meeting	N1-031330	Noted
S3-030501	LS (from CN WG2) on SA3 on Legal Interception of SCP initiated calls	N2-030437	Noted. LI Group to deal with this LS.
S3-030502	LS Response (from CN WG4) on Stage 3 level specification directions for support for subscriber certificate work item	N4-031061	Response LS in S3-030635
S3-030503	Reply LS (from SA WG1) on clarification of MBMS charging issues	S1-030997	Noted
S3-030504	LS (from SA WG1) regarding progress of work for MBMS User Services	S1-031002	Noted
S3-030505	Liaison (from SA WG4) Response to OMA	S4-030647	Noted
S3-030506	LS (from SA WG4) on cipher suite for DRM-protected streamed media for PSS	S4-030660	Response LS in S3-030621
S3-030507	LS (from SA WG4) on "Update of WID on MBMS"	S4-030670	Noted
S3-030508	LS response (from T WG2) to SA2 on UE Tunnelling	T2-030516	Noted
S3-030509	LS response (from T WG2) on usage of GUP reference points	T2-030518	Noted
S3-030510	LS (from T WG3) on the effects of USIM services 27 and 38	T3-030693	Discussed with S3-030499 and S3-030585. Noted. LS in S3-030624
S3-030511	LS (from T WG3) on potential USIM impact of the MBMS security framework	T3-030697	Noted
S3-030512	Liaison Statement (from SA WG2) on Generic Authentication Architecture	S2-033262	Dealt with in ad-hoc meeting. Noted
S3-030627	Reply LS (from SA WG2) on "Security issues regarding multiple PDP contexts in GPRS"	S2-033240	Noted. Threat analysis in S3-030575
S3-030633	GSM Association and EICTA joint statement: IMEI Integrity on the theft of mobile phones	<None>	Noted

E.2 Liaisons from the meeting

TD number	Title	Comment/Status	TO	CC
S3-030616	LS to CN 4, CN1 on IMS AKA: UE populating RAND and AUTN parameters in responding to challenge	Approved	**CN WG1, CN WG4**	**--**
S3-030624	LS to GSMA SG, SCAG on 2G/3G interworking Emergency Call Scenarios	Approved. Attached S3-030585	**GSMA SG**	**T WG3**
S3-030634	Reply LS on "Security issues regarding multiple PDP contexts in GPRS"	Approved	**SA WG2, CN WG4**	**--**
S3-030635	LS Response on "new interface names"	Approved	**SA WG2, CN WG1, CN WG4**	**SA WG5**
S3-030639	LS to T3 and SA1 on Group Voice Call requirements	**For e-mail discussion and approval by 23 October**. Attached S3-030559	**T WG3, SA WG1**	**ETSI EP RT**

TD number	Title	Comment/Status	TO	CC
S3-030649	LS to SA WG2: Introducing the Privacy Mechanism in Stage 2	Approved Attached S3-030648	**SA WG2**	**CN WG1**
S3-030650	Reply LS on cipher suite for DRM-protected streamed media for PSS	Approved	**OMA-SEC, OMA-DRM+DL, 3GPP SA WG4**	**--**
S3-030652	LS on Special-RAND mechanism	Approved Attached S3-030651	**CN WG1, CN WG4, GERAN WG2**	**T WG2**
S3-030653	LS to CN WG, CN WG4 - Interface requirements	Approved	**CN WG1, CN WG4**	**--**
S3-030654	LS on the requirement and feasibility of IMS watcher authentication	Approved	**SA WG1, SA WG2, CN WG1**	**--**

Annex F: Actions from the meeting

AP 30/01: Eric Gauthier (Orange, Switzerland) to lead an e-mail discussion on GPRS over-billing.

AP 30/02: M. Blommaert to check with authors of TD S3-030499 whether the quote on SIM is their understanding or an editorial error in the LS.

AP 30/03: M. Pauliac to run an e-mail discussion on the SSC Informative Annex on Key Pair Storage. 2 weeks for comments, 1 further week to check the implementation in the draft TS to be used for any Pseudo-CRs at the next meeting.

AP 30/04: B. Wilhelm to ask LI group to investigate the LI impacts of the tunnelling solution for WLAN interworking.

AP 30/05: B Owen to respond to LSs on GUP from meeting #29, informing the senders that there are still open issues in SA WG3.

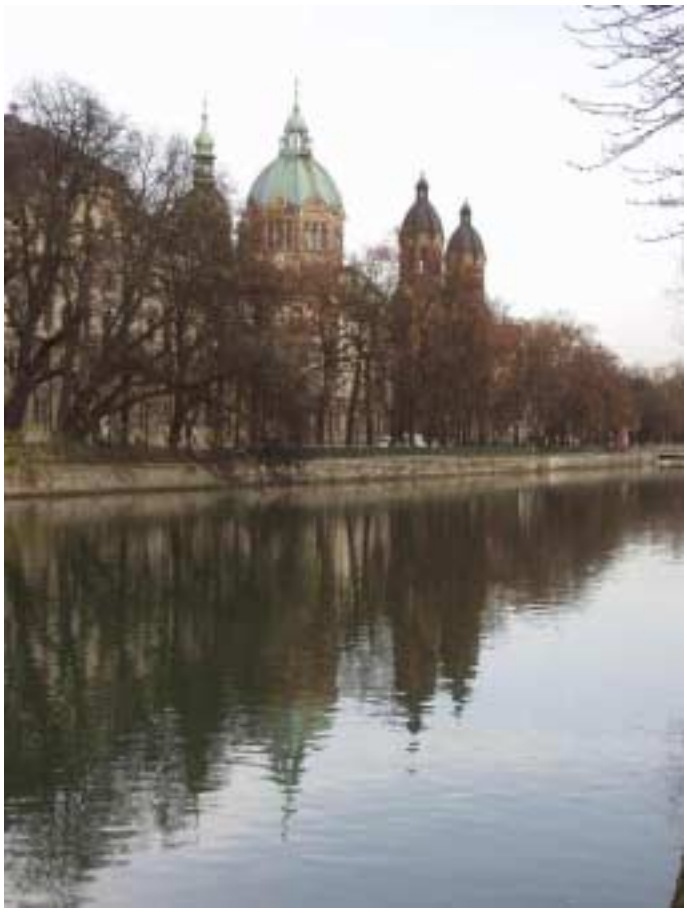
AP 30/06: J. Abellan to draft an LS reply to TD S3-030511 for e-mail approval. Drafting by 14 October, Comments by 20 October and Approval 23 October 2003.

AP 30/07: Rapporteurs of SA WG3 Work Items to provide the SA WG3 Secretary with updates to the Work Plan by 24 October 2003.

3GPP TSG SA WG3 (Security) meeting #31 **Draft Report**

18-21 November 2003, Munich, Germany

Source:	**Secretary of SA WG3 (M. Pope, MCC)**
Title:	**Draft report of SA WG3 meeting #31**
Status:	**Version 0.0.6 (with revision marks)**
For:	**Approval**



River Isar from Volksbad, Munich, Germany

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1 Opening of the meeting

The SA WG3 Chairman, Mr. V. Niemi, opened the meeting and Welcomed delegates to Munich on behalf of the European Friends of 3GPP (EF3). The meeting was hosted in the Siemens Conference Centre. G. Horn, Siemens welcomed delegates to the Conference Centre and informed them of the domestic arrangements for the meeting.

2 Agreement of the agenda and meeting objectives

TD TD S3-030655: Draft agenda for SA WG3 meeting #31. Draft Agenda for SA WG3 meeting #31. This was introduced by the SA WG3 Chairman.

Objectives:

Technical items in Agenda Item 6 will be taken in reverse order, i.e. starting with 6.22, 6.21, 6.20, etc. It was also agreed that GAA should be taken before Presence for practical reasons (i.e. 6.9 followed by 6.18). The priority for the meeting was to get all draft TSs and TRs in form ready for presentation to TSG SA for information in the December TSG Plenary.

The agenda was then approved.

2.1 3GPP IPR Declaration

The Chairman made the following call for IPRs, and asked ETSI members to check the latest version of ETSI's policy available on the web server:

> The attention of the members of this Technical Specification Group is drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective** Organizational Partners **of Essential IPRs they become aware of**.
>
> The members take note that they are hereby invited:
>
> - to investigate in their company whether their company does own IPRs which are, or are likely to become Essential in respect of the work of the Technical Specification Group.
>
> - to notify the Director-General, or the Chairman of their **respective** Organizational Partners, of all potential IPRs that their company may own, by means of the IPR Statement and the Licensing declaration forms (e.g. see the ETSI IPR forms http://webapp.etsi.org/Ipr/).

3 Assignment of input documents

The available documents were allocated to their relevant agenda items.

4 Meeting reports

4.1 Approval of the report of SA3#30, Povoa de Varzim, 6-10 October, 2003

TD S3-030656: Draft Report of SA WG3 meeting #30. The draft report was reviewed on-line and comments provided.

Actions from the meeting:

AP 30/01: Eric Gauthier (Orange, Switzerland) to lead an e-mail discussion on GPRS over-billing.
Discussion started. Proposal that GPRS over-billing issues can be overcome when GPRS contexts are initiated by the network (pushed). SA WG2 are considering this proposal. Another Proposal to look at the problem in a general way and other scenarios were requested from Members and the possible (maybe partial) standardisation of the Firewall interfaces is being considered. For Firewall companies, their advice is being asked and they can either become 3GPP Members or Eric will act as a proxy between their views and bringing them to SA WG3 for consideration. **Information on this will be sent to the SA WG3 e-mail list.** SA WG2 work results need to be considered before deciding on the final way forward. It was agreed to hold an evening session on this issue lead by E. Gauthier. This was then completed.

AP 31/01: B. Sahlin to send IETF firewall-standardisation information to the e-mail list.

AP 30/02: M. Blommaert to check with authors of TD S3-030499 whether the quote on SIM is their understanding or an editorial error in the LS.
It was reported that this was an editorial error in Release 1999 which had already been corrected in Rel-5. Completed.

AP 30/03: M. Pauliac to run an e-mail discussion on the SSC Informative Annex on Key Pair Storage. 2 weeks for comments, 1 further week to check the implementation in the draft TS to be used for any Pseudo-CRs at the next meeting.
Completed. Document provided to this meeting.

AP 30/04: B. Wilhelm to ask LI group to investigate the LI impacts of the tunnelling solution for WLAN interworking.
Ongoing. e-mail discussion initiated. Discussion expected in the parallel LI meeting in London.

AP 31/02: B. Owen to contact SA WG3 LI group for results of LI impact of tunnelling solution for WLAN during the meeting.

AP 30/05: B Owen to respond to LSs on GUP from meeting #29, informing the senders that there are still open issues in SA WG3.
Completed. e-mail sent to contact persons.

AP 30/06: J. Abellan to draft an LS reply to TD S3-030511 for e-mail approval. Drafting by 14 October, Comments by 20 October and Approval 23 October 2003.
Completed.

AP 30/07: Rapporteurs of SA WG3 Work Items to provide the SA WG3 Secretary with updates to the Work Plan by 24 October 2003.
Completed. Rapporteurs were asked to make more effort to provide updates to the Work Plan.

The updated report was then approved and will be placed on the FTP server as version 1.0.0.

Secretary's note: The Attendees list and Voting list will be updated and verified before placing version 1.0.0 on the FTP server.

TD S3-030657: Draft Report of Joint SA WG3 / CN WG1 session 7 October 2003. The draft report was reviewed on-line and was endorsed without change.

5 Reports and Liaisons from other groups

5.1 3GPP working groups

TD S3-030671: LS on security of the Diameter protocol for the Gq interface. This was introduced by France Telecom and asked SA WG3 to give guidance on the following security issues with the Diameter protocol:

- *requirement of end-to-end security if the third party AF is located within an un-trusted domain;*
- *use of the Diameter CMS Security Application draft for end-to-end security and availability of the RFC in the Release 6 timeframe.*

A related LS had been sent to SA WG2 in S3-030444 and it was agreed to provide a new LS to CN WG3, copied to SA WG2 attaching the LS and adding the clarification that if NDS/IP is used, then there cannot be any un-trusted proxies in the link in order to preserve security. It was also noted that the IETF document is not in the Rel-6 dependency list. This LS was drafted in TD S3-030765 and reviewed. It was modified slightly in TD S3-030810 and approved.

TD S3-030680: LS (from SA WG1) on Privacy and Security Requirements within GSM/UMTS Devices. This was introduced by Vodafone and asked SA WG3 to investigate how unauthorised access shall be prevented to user and network operator confidential information in GSM and UMTS devices and that SA WG1 would also welcome SA WG3's recommendations for any new Stage 1 requirements that are identified during the investigation. SA WG3 considered that the solutions should be done in other bodies than 3GPP (e.g. JAVA community), whereas the need to provide some high-level requirements should be investigated and decided by SA WG1. An LS response was drafted in TD S3-030766 which was modified slightly in TD S3-030809 and approved.

TD S3-030687: CR to 33.108: CS Section for 33.108 – User data packet transfer (Rel-6). This was for discussion and finalisation in the parallel LI Group meeting and will be provided to SA WG3 for e-mail approval when agreed by the LI Group. The CR was noted at this time.

TD S3-030688: CR to 33.108: CS Section for 33.108 – LI Management Operation (Rel-6). This was for discussion and finalisation in the parallel LI Group meeting and will be provided to SA WG3 for e-mail approval when agreed by the LI Group. The CR was noted at this time.

5.2 IETF

There were no specific contributions under this agenda item.

5.3 ETSI SAGE

Per Christoffersson reported on issues raised within SAGE:

SAGE had an action on the suitability of reducing the Randomness of RAND from 128 to 80 bits in order to use the special-RAND was discussed and investigated by SAGE and it was concluded that this was acceptable. It was further reported that the conclusions allowed a reduction down to 64 bits as a minimum for RAND.

A5/3 - CC, EDGE and GEA3 variations. Difference is bit-pattern. Shall stay with same inputs for A5/4 or produce 3 new inputs? - SAGE require more time to investigate and SAGE therefore asked for a delay of another meeting before submission to SA WG3.

5.4 GSMA SG

~~A verbal report was provided by E. Gaultier : IMEI Integrity - Has become a priority WI for the GSM SG and a document defining the sets of Sec Requirements is being developed, which will be sent out to manufactures soon.~~

GSMA SG report and LS:

TD S3-030682: LS (from GSMA SG) on solutions to solve the A5/2 issue. This LS was introduced by Louis Finkelstein, Motorola (on behalf of Charles Brookson) and requested operators and manufacturers to comment on the impact of the various solutions to solve the A5/2 issue. The solutions include removing A5/2 from the handsets, offering A5/1 (and maybe A5/3) to a wider group of operators, increase the number of authentications, allowing the users to select which algorithm their handset support, the special RAND solution, solutions that require changes to both the mobile and visited and home networks. The GSMA SG invited comments from Operators, GSMA and Manufacturers on the following:

- Removal of A5/2 from the handset;
- Wider availability of A5/1;
- Increase in the number of authentications;
- User configurability of the handset;
- Infrastructure impact;
- Updates to BTSs, BSCs and MSCs;
- Network timing.

It was reported that the GSMA had already started a survey amongst Operators and will collate the results.

Delegates were asked to take this LS back to their companies for internal discussion and comment, and to respond to the GSMA SG via David Maxwell dmaxwell@gsm.org. The LS was noted by SA WG3.

Eric Gauthier then gave a report of the GSMA SG activities. On the IMEI he indicated that IMEI integrity is now a priority work item for the GSMA board. GSMA SG is finalising a document that defines handset security requirement with the input from TWG and EICTA. GSMA will then send this document to manufacturers. In addition, a RFI was sent out to various organisations to request information on a service called Wireless Response Emergency Service. This service is similar to the CERT service but specialised from mobile operators and equipment manufacturers. Regarding the LS "Effects of Service 27/38 on 2G/3G Interworking and Emergency Call" that GSMA SG received from SA WG3: GSMA SG gave guidance based on SA WG3 views that there might be security risks. GSMA SG realizes that there may be other considerations (legal, licence, etc.) so GSMA SG passed the LS on to other GSMA Groups (e.g. SERG).

Tuesday evening session on GPRS Over-billing:

During the Tuesday evening session on GPRS Over-billing (GOB) chaired by Eric Gauthier, the participants brainstormed on different similar attack scenarios. No other scenarios were identified although the GOB scenario could be used for different purposes (such as scanning the customer terminal). There are two current solutions to GOB: one based on a GTP-aware firewall and the other based on synchronisation between the GGSN and the Gi firewall. It was agreed that the first solution could not be standardised by 3GPP. However the second one should be considered. An example of synchronisation protocol between the GGSN and the Gi firewall is RADIUS. Although, 5 out of 6 of the manufacturers present said their GGSN supported the RADIUS protocol, other alternatives should also be considered such as other IETF standards (e.g. a recent Midcom proposal) and protocols standardised by SA WG2 (e.g. recent proposal to synchronise the GGSN and the application server). Furthermore, the GOB scenario should also be considered in a WLAN interworking environment. Finally it was agreed that standardisation and/or guidelines to operators should be considered to solve this issue.

~~TD S3-030682: LS (from GSMA SG) on request for information on impact on equipment of solutions. This was introduced by Motorola on behalf of C. Brookson (GSMA SG Chairman), who could not attend the meeting. The GSMA SG invited comments from Operators, GSMA and Manufacturers on the following:~~

- ~~Removal of A5/2 from the handset;~~
- ~~Wider availability of A5/1;~~
- ~~Increase in the number of authentications;~~
- ~~User configurability of the handset;~~
- ~~Infrastructure impact;~~
- ~~Updates to BTSs, BSCs and MSCs;~~
- ~~Network timing.~~

~~It was reported that the GSMA had already started a survey amongst Operators and will collate the results.~~**~~MOVED ABOVE.~~**

~~It was considered likely that a separate letter to Manufacturers should have been sent by the GSMA.~~

TD S3-030694: MMS Security Considerations Version 1.0.0. This was introduced by the MMS Representative (A. Bergmann). The purpose of the task was to study the security related issues of MMS and to produce input to SA WG3, the GSMA SG and OMA, in order to motivate work on countermeasures. It was also a part of the task to suggest countermeasures and security requirements, where applicable. The document therefore analysed threats and countermeasures. Mr. Bergmann was thanked for the presentation of the document and delegates were asked to consider the content in their companies and work. Companies were asked to look into possibility of the provision of human resources for the work on MMS and to try to organise a MMS Workshop in January/February 2004 on the organisation and content of the standardisation work across the different involved bodies.

The document was then noted. It was decided to run an e-mail discussion to plan the work for standardisation across the different involved bodies and what will be standardised. A. Bergmann agreed to chair this discussion and potentially arrange the MMS Workshop in January/February 2004.

AP 31/03: A. Bergmann to run an e-mail discussion on the MMS standardisation work and to organise a Workshop in January/February 2004 across the involved bodies if necessary.

5.5 3GPP2

There were no specific contributions under this agenda item.

5.6 OMA

There were no specific contributions under this agenda item.

5.7 Other groups

TD S3-030718: Presentation Slides: Liberty Alliance Project - Setting the Standard for Federated Network Identity. An updated version in TD S3-030764 was presented by Nokia and provided an overview of the Liberty Alliance Project. The presentation was provided for information and was noted.

TD S3-030719: Presentation Slides: Potential synergies between Liberty and 3GPP. This was presented by Nokia and provided potential synergies between Liberty and 3GPP. The presentation was provided for information and was noted.

Delegates were encouraged to contact the presenter off-line for more information or specific questions.

TD S3-030757: T1P1.5 Lawful Intercept. This was provided by T1P1.5 and detailed the comments to a Ballot on an LI document. It was considered that the LI Group should check this document and in particular the adverse comments that are made about TS 33.108. SA WG3 LI Group were asked to report back to SA WG3 any issues raised by this document and comments. The document was noted at this time.

6 Work areas

NOTE: TSs and TRs agreed here for presentation to TSG SA #22~~1~~: Any comments need to be sent to the editors by 30 November 2003. The editors are to send them to M. Pope for editorial clean-up and presentation to TSG SA by 5 December 2003.

6.1 IP multimedia subsystem (IMS)

TD S3-030712: Proposed CR to 33.203: Ensuring the correct RAND is used in synchronization failures (Rel-5). This was introduced by **3** on behalf of **3**, Nokia, Vodafone and Ericsson. The CR was updated to clarify the text in TD S3-030768 and was approved.

TD S3-030713: Proposed CR to 33.203: Ensuring the correct RAND is used in synchronization failures (Rel-6). The CR was updated to clarify the text in TD S3-030769 and was approved.

TD S3-030726: Proposed CR to 33.203: Network behaviour of accepting initial requests (Rel-5). This was introduced by Nokia. There was some reservation over the scope of the proposal, as some appeared to be in the domain of CN WG1. It was agreed to work on this off-line to create a new version. This was provided in TD S3-030770 with a Rel-6 "mirror" CR provided in TD S3-030771 which were both approved.

TD S3-030670: LS (from CN WG1) on Introducing the Privacy Mechanism in Stage 2. This was introduced by Lucent Technologies and was produced in response to the LS from SA WG3 in TD S3-030649. CN WG1 asked SA WG3 to revise the CR to make the appropriate references to RFCs. A CR approved at the previous meeting (TD S3-030648) was considered for modification in line with this LS and the one from SA WG1 in TD S3-030675 (see below).

TD S3-030675: Response (from SA WG2) for Introducing the Privacy Mechanism in Stage 2. This was introduced by Ericsson and asked SA WG3 to include a reference to TS 23.228 in section 5.3. It was agreed to do this and provide an updated version of the CR in TD S3-030648 from the previous meeting in TD S3-030772 which was approved.

TD S3-030798: This was introduced by **3** and proposed corrections to already approved CRs where a reference had been missed in the original CRs in TD S3-030601 and TD S3-030602. The updated CRs were provided in TD S3-030799 and TD S3-030800. This proposal was agreed and the CRs in TD S3-030799 and TD S3-030800 were approved to replace the CRs in TD S3-030601 and TD S3-030602.

TD S3-030725: Proposed CR to 33.203: Removing anti-replay requirement from Confidentiality clause (Rel-6). It was noted that the cover sheet showed the changes to be for Rel-5, although the editorial change was really for Rel-6. This CR was corrected for presentation to TSG SA in TD S3-030812 which was approved.

TD S3-030727: NDS and Openness of IMS. This was introduced by Nokia and proposed that SA WG3 endorse the following conclusions:

1. SA WG3 should decide the levels of security listed in section 3 of the contribution, and the security requirements associated with them, for Rel-6..
2. The NDS/IP TS 33.210 is proposed to cover the first level security in the informative annex.
3. TLS is proposed to resolve the second level of security for interworking scenario with non-IMS as the baseline for further development.

It was decided that these proposals should be discussed over e-mail for contribution and decision at the next meeting. T. Haukka agreed to run the e-mail discussion on this.

AP 31/04: T Haukka to run an e-mail discussion on TD S3-030727. Comments by 23 December 2003, conclusions to e-mail list 15 January 2004.

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

There were no specific contributions under this agenda item.

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

There were no specific contributions under this agenda item.

6.4 Network domain security: Authentication Framework (NDS/AF)

TD S3-030661: TS 33.310 V0.6.0: Network Domain Security; Authentication Framework (Rel-6). The updated draft TS was noted.

TD S3-030705: Pseudo-CR to 33.310: Removing outdated editor's notes. This editorial Pseudo-CR was agreed for inclusion by the editor in the draft TS.

TD S3-030677: Pseudo-CR to 33.310: Clarification of SEG certificate profiling. This was introduced by Siemens on behalf of Nokia, Siemens, T-Mobile and Vodafone. This Pseudo-CR was agreed for inclusion by the editor in the draft TS.

TD S3-030691: Pseudo-CR to 33.310: Removal of unnecessary restriction on serial number. This was introduced by Siemens on behalf of Siemens, Nokia, SSH and T-mobile. This Pseudo-CR was agreed for inclusion by the editor in the draft TS.

TD S3-030706: Pseudo-CR to 33.310: Recommendation to SEG certificate and IKE profiling. This was introduced by Nokia on behalf of Nokia, Siemens and Vodafone. This Pseudo-CR was agreed for inclusion by the editor in the draft TS.

TD S3-030707: Pseudo-CR to 33.310: Local repository access clarification. This was introduced by Nokia on behalf of Nokia, Siemens, T-Mobile and Vodafone. This Pseudo-CR was agreed for inclusion by the editor in the draft TS.

The Rapporteur was asked to update draft TS 33.310 with the agreed changes and distribute it to M. Pope for presentation to TSG SA #22 for information.

6.5 UTRAN network access security

TD S3-030754: Enhancements to GSM/UMTS AKA. This was introduced by Ericsson and proposed a key separation mechanism for use as a stronger mechanism to guard against A5/2 attacks. It was clarified that this was a more long-term solution for consideration post-Rel-6. Contributions were invited on this over the e-mail list.

TD S3-030753: CR's on "Handling of key sets at inter-system change". This was introduced by Ericsson and proposed to withdraw documents TD S3-030625 and TD S3-030626 (CRs to 33.102: Handling of key sets at inter-system change, originally proposed by Ericsson and approved by SA WG3) and that these documents are not forwarded to the next TSG SA plenary in December 2003 because other WGs have not agreed equivalent changes and a complete package of CRs should be approved at the same time. It was decided to wait until the outcome of the stage 3 work is known and then re-develop alignment CRs for the stage 2. **These CRs were therefore postponed and will not be presented to TSG SA for approval.**

TD S3-030672: LS to SA3 on Clarification on use of Re-attempt Information element in Authentication Failure Report service. This was introduced by the SA WG3 Chairman. CN WG4 asked SA WG3:

Question 1: *What is the purpose of the 'Re-attempt' parameter to be included in Authentication Failure Report Service? Particularly, how the HLR utilize this information.*
Question 2: *What is a situation where 'Re-attempt' parameter is set in VLR and SGSN.*

It was agreed to have an e-mail discussion on this lead by C. Blanchard.

AP 31/05: C. Blanchard to lead an e-mail discussion on the questions from CN WG4 in TD S3-030672. Discussion and comment deadline 17 December 2003. Draft response created by 24 December 2003. Approved response by 5 January 2004.

6.6 GERAN network access security

TD S3-030668: Reply LS (from CN WG1)on Special-RAND mechanism. A proposed response to this LS from France telecom was provided in TD S3-030693, section 4, which was considered. The proposed replies were agreed and included in a response LS in TD S3-030802 which was approved.

TD S3-030669: LS on Special-RAND mechanism. This was introduced by Siemens. This was provided by CN WG4 for information and was in-line with SA WG3 activities. The LS was noted.

TD S3-030693: More elements on the Special RAND mechanism. Section 4 of this contribution was used as a response to TD S3-030668. This was introduced by Orange and suggested that SA WG3 endorse the principle of limiting the standardisation work for special RAND to special RAND format and UE behaviour, as the HLR/AuC internal procedure is out of the scope of 3GPP. **SA WG3 agreed as a principle that the main focus of the SA WG3 special RAND work was for the special RAND format and the UE behaviour. The internal HLR/AuC behaviour will not be standardised by SA WG3.** It was recognised that this decision may need to be reviewed in the light of any issues that come to the attention of SA WG3 in the future. It was also noted that the Emergency call issues need to be studied for any possible impact of the special RAND work.

Orange also proposed that additional information over the use of the mechanism is included into some GSMA document as recommendation to operators. This was considered to be the responsibility of the GSMA and Orange were invited to contact the GSMA on this matter.

TD S3-030698: Proposed CR to 43.020: Introducing the special RAND mechanism (Rel-6). This was introduced by Orange on behalf of Orange and Vodafone and proposes the changes needed to introduce the special RAND mechanism into TS 43.020. It was recognised that there were other changes needed to the affected sections and it was considered bad practice to approve these changes now and then further change the specification in the near future (including a statement about the bit-ordering assumptions in the document). As this was a Rel-6 change, the CR was endorsed as a basis for further elaboration for final approval at the next meeting. **S. Fouquet agreed to co-ordinate inputs to these sections and provide an updated CR for the next meeting**.

TD S3-030761: Proposed CR to 33.102: Introducing the special RAND mechanism (Rel-6). This was introduced by Vodafone on behalf of Orange and Vodafone and proposed the introduction of equivalent mechanism as for TD S3-030698 into 33.102. It was agreed that this could await approval until when the CR to 43.020 is finalised and updated if necessary for the next meeting.

6.7 Immediate service termination (IST)

There were no specific contributions under this agenda item.

6.8 Fraud information gathering system (FIGS)

There were no specific contributions under this agenda item.

6.9 GAA and support for subscriber certificates

TD S3-030662: TS 33.220 V0.1.1: Generic Authentication Architecture (GAA); Generic Bootstrapping Architecture (Rel-6). This was introduced by the Rapporteur and included changes agreed by SA WG3. The document was noted and used for updates with Pseudo CRs below. Completeness estimate: 45%

TD S3-030728: Pseudo-CR to 33.220: Bootstrapping procedure: merging of last two messages. This was introduced by Nokia. This Pseudo-CR was approved for inclusion by the editor in the draft TS.

TD S3-030743: Key separation in a Generic Bootstrapping Architecture. This was introduced by Siemens and proposes some changes to the draft TS and a Pseudo-CR was attached to implement the proposed changes. A parameter n is proposed for use to generate keys based upon parts of the DNS name of the NAF, allowing differentiation from the full DNS name to up to the rightmost 7 parts of the DNS name. It was clarified that AKA is always run once to derive Kc and then once again to provide the differentiable Key and that only one key is distributed to an individual NAF. The change in section 4.2.2.1 was changed to read: "The BSF can restrict the applicability of the key material to a defined set of NAFs by using a suitable key derivation procedure." The use of "NAF_Id" was agreed to be changed to "NAF_Id_n". The Pseudo-CR was updated with agreed changes and updated in TD S3-030793 which was agreed for inclusion in the draft TS. **P. Christoffersson agreed to ask SAGE to advise SA WG3 on suitable algorithm(s) for this mechanism, taking into account the AKA-EAP and AKA-SIM key derivation functions.**

TD S3-030704: Pseudo-CR to 33.220: Transaction Identifier independence for different NAFs or NAF groups. This was introduced by Huawei Technologies Co., Ltd. After some discussion it was thought that other issues on synchronisation and lifetime need to be finalised and then this issue can be correctly dealt with. The Pseudo-CR was therefore rejected at this time and the issue should be revisited when the other issues are stabilised. New contributions were invited on this.

TD S3-030729: UE triggered unsolicited push from BSF to NAFs. This was introduced by Nokia and discussed and proposed a possibility for UE to trigger BSF to do an unsolicited push of transaction identifier (TID), NAF specific shared secret (Ks_naf), and optional subscriber profile information (TID, Ks_naf, and the profile are later referred as “bootstrapping information”) to one or more NAFs in order to simplify procedures during shared secret usage over Ua interface. Overhead issues were raised and it was considered that some evaluation of this was needed. The attached Pseudo-CR was therefore rejected at this time and the issue should be revisited when the overhead issue is stabilised. New contributions were invited on this.

TD S3-030742: Application specific user profiles in GBA. This was introduced by Nortel Networks and proposed that the requirements with respect to transferring application-specific user/subscriber profiles from HSS to BSF (and BSF to NAF) be removed from the GBA. A Pseudo-CR implementing this was attached to the contribution. The Pseudo-CR was modified to re-insert the requirements on the Z-interfaces and to add editors notes and was updated in TD S3-030794 which was agreed for inclusion by the editor in the draft TS.

TD S3-030663: TS 33.221 V0.1.1: Generic Authentication Architecture (GAA); Support for Subscriber Certificates (Rel-6). This was introduced by the Rapporteur and contained the changes agreed by SA WG3. The draft TS was noted and used for further Pseudo-CRs.

TD S3-030667: "Updated Annex C to 33.109: Key pair storage". This was introduced by the Rapporteur and proposed to add a new informative annex to the draft TS. This was agreed.

TD S3-030683: Pseudo-CR to 33.221: Results of risk analysis in the “Key Pair Storage” informative annex. This was introduced by Gemplus on behalf of Gemplus, Giesecke & Devrient, Oberthur, Schlumberger. It was commented that the informative annex should not mandate functionality and that the operator should be allowed the choice of storage of the Private keys. The Pseudo-CR was revised in line with comments in TD S3-030795 which was agreed for inclusion by the editor in the draft TS.

TD S3-030686: Pseudo-CR to 33.221: on clarifications on Certificate enrolment using pre-certified keys. This was introduced by Schlumberger on behalf of Schlumberger, OCS and Gemplus. The proposal for "4.1 (really 4.3) was removed and a better position will be sought for the text. The CR was updated off-line to include comments received and re-presented in TD S3-030796 and the Pseudo-CR was agreed for inclusion by the editor in the draft TS.

TD S3-030684: Pseudo-CR to 33.221: on enrolment of keys in a UICC application. This was introduced by Schlumberger on behalf of Schlumberger, OCS and Gemplus. It was agreed that the occurrences of UICC should be replaced with WIM where appropriate and a note added stating that other applications may act like the WIM and be done in the same way. The CR was updated off-line to include comments received and re-presented in TD S3-030797 and the Pseudo-CR was agreed for inclusion by the editor in the draft TS.

TD S3-030685: Pseudo-CR to 33.221: on on-board key generation in a UICC. This was introduced by Schlumberger on behalf of Schlumberger, OCS and Gemplus. This Pseudo-CR was agreed for inclusion by the editor in the draft TS.

TD S3-030730: Subscriber Certificate Enrolment Protocol. This was introduced by Nokia and discussed Subscriber Certificate Enrolment Protocol solutions. Nokia concluded that the enrolment of subscriber certificates as specified in the contribution has several synergies with the OMA based enrolment:

- 3GPP specifications are in line with OMA specifications.
- The OMA PKI portal may be also used in subscriber certificate enrolment provided that PKI portal is able to do GBA base authentication, i.e. it assumes the role of a NAF.
- Code from OMA based enrolment may be reused on the UE for doing the subscriber certificate enrolment.

Nokia proposed that SA WG3 endorse the subscriber certificate enrolment procedures described in the contribution (section 2.3) as the working assumption for TS SSC. A Pseudo-CR implementing the proposals was attached to the contribution. This Pseudo-CR was agreed for inclusion by the editor in the draft TS.

TD S3-030664: TR 33.919 V0.1.0: Generic Authentication Architecture; System Description (Rel-6). This was introduced by the Rapporteur and was noted. The TR will be used for further Pseudo-CRs to update it.

TD S3-030716: Pseudo CR to GAA TR 33.919. This was introduced by Alcatel. This Pseudo-CR was agreed for inclusion by the editor in the draft TS.

The updated draft TR~~S~~ will be forwarded to TSG SA #22~~1~~ for information.

TD S3-030722: User authentication process decision. This was introduced by Ericsson and suggested a general approach to be considered by applications regarding the user authentication in order to make the application decision flexible. After some discussion on the proposal, it was agreed to add an editors note and incorporate it into the updated draft TS. This Pseudo-CR was then agreed for inclusion by the editor in the draft TS.

TD S3-030665: 3GPP TS 33.222 V0.1.1: Generic Authentication Architecture (GAA); Access to Network Application Functions using HTTPS (Rel-6). This was introduced by the Rapporteur and included agreed changes and was noted. The draft TS was used for Pseudo-CRs.

TD S3-030717: Organization of Presence TS and HTTPS TS. This was introduced by Ericsson on behalf of Ericsson and Nokia and asked SA WG3 to endorse the following proposals:

1. The Presence Technical Specification shall be completed for release 6. It shall describe on stage 2 level how the Presence Service can be accessed securely using HTTP over TLS.
2. In release 6, the HTTPS TS shall describe secure access using HTTP over TLS for other services than Presence. Potential services to describe are conferencing, messaging, push, etc.. To avoid duplicate work in release 6, the HTTPS TS shall reference the Presence TS when appropriate.
3. For future releases, the two Technical Specifications could be restructured when needed.

These proposals were endorsed by SA WG3 for Release 6 and onwards.

TD S3-030721 and TD S3-030732 were on the same issue and were presented in turn and considered together:

> TD S3-030721: Challenges in using shared-secret TLS with NAFs. This was introduced by Ericsson and proposed that SA WG3 adopts the following working assumptions related to the potential use of shared-secret TLS with NAFs:
>
> - Shared-secret TLS is seen as an optimisation for TLS. Both the client and the NAF must also have full TLS implementation in addition to shared-secret TLS.
> - The minimum implementation should include the normal TLS. Shared-secret TLS can only be optional for implementations.
> - The solution should include a capability for negotiating between different TLS models. In particular, the NAF should be able to inform UE that it is able to use shared-secret TLS.
> - Negotiation of TLS related security parameters needs to be further specified.
>
> TD S3-030732: Using shared key TLS with NAFs. This was introduced by Nokia and described a way of using shared-key TLS between UE and NAF. The contribution proposed a way to use GBA based shared secret within GAA. Nokia proposed to make a decision to give a priority for the GBA supported shared-key TLS over the other possible solution and if the shared-key TLS is endorsed as the working assumption, then Nokia further proposed to add this work into dependency list of IETF as done for Rel-5 work.

In summary, Nokia proposed giving priority to shared-key TLS, whereas Ericsson proposed that this should be considered as an optional-for-implementation ad-on until there is more maturity in the IETF drafts.

It was agreed that this issue should be left open until IETF status progress can be assessed and try to make a decision at the next SA WG3 meeting. **Delegates were asked to study this issue and contribute to the next meeting**.

TD S3-030720 TD S3-030731 and TD S3-030744 were on the same issue and were presented in turn and considered together:

TD S3-030720: Comparison of authentication proxy solutions. This was provided by Ericsson and recommended that SA WG3 would keep the working assumption that the Presence Ut interface would benefit for having an authentication proxy. The working assumption should be that this proxy is of type "reverse proxy". Ericsson recommended clarification of forwarding proxy issues listed in the contribution.

TD S3-030731: Proxy and various HTTP services. This was introduced by Nokia and proposed to endorse the TD S3-030555 (Using shared key TLS with GAA NAFs) solution as working assumption.

TD S3-030744: Role of Authentication Proxy (AP-NAF) – Discussion and Pseudo-CRs to TSs on GAA/HTTPS and Presence Security. This was introduced by Siemens and proposed to include the following requirement in section 5.1 (Use of authentication proxy / requirements and principles) of TS 33.222 v011 (GAA/HTTPS) and in section 5.4.1 of TS 33.141 v020 (Presence Security):

"The use of an authentication proxy should be such that there is no need to manage the authentication proxy configuration in the UE.

Note: This requirement implies that the authentication proxy should be a reverse proxy in the following sense: A reverse proxy is a web server system that is capable of serving web pages sourced from other web servers - in addition to web pages on disk or generated dynamically by CGI - making these pages look like they originated at the reverse proxy."

In summary the Ericsson and Siemens proposals were in line and the Nokia proposal could accept it if the shared-key TLS is chosen rather than the reverse-proxy solution. It was clarified that there would still be a need for configuration with shared-key TLS as for the reverse-proxy solution. It was agreed that the text proposed by Siemens would be acceptable, and an editors note would be added as follows:

Editors' note: The above requirements may be revisited after the following issues are fully studied:
- *feasibility of shared-key TLS;*
- *terminal configurability*

Nokia proposed in addition in TD S3-030731 to consider the "special cookie" discussion where the UE inserts its own ID into the HTTP message and the proxy checks that the user is authorised. G. Horn and K. Boman agreed to consider this and comment to T. Haukka before 20 December 2003.

AP 31/06: G. Horn and K. Boman to consider section 3 of TD S3-030731 and comment to T. Haukka before 20 December 2003.

TD S3-030745: Technical solutions for access to application servers via Authentication Proxy and HTTPS - Pseudo-CRs to TSs on GAA/HTTPS and Presence Security. This was introduced by Siemens and proposed to include an informative annex in both the HTTPS and Presence draft TSs, as it is currently unclear whether both TSs will be completed within the Release 6 timeframe. If both TSs are completed in time, SA WG3 may decide later that all material on authentication proxies is to be contained in TS 33.222, and that TS 33.141 only is to make reference to TS 33.222. It was decided that this could be used as a starting point for further update in the future and so the changes were accepted to be included in the draft TSs. An editors' note was added as follows:

Editors' note: The text in this informative annex may need to be revisited if changes in the main body of the text are made.

TD S3-030746: Transfer of an asserted User Identity and Location of Access Control – Discussion and Pseudo-CRs to TSs on GAA/HTTPS and Presence Security. This was introduced by Siemens and proposed to include the following requirements in TS 33.222, section 5.1, and in TS 33.141, section 5.1.4:

- *Implementation of check of asserted user identity in the AS is optional.*
- *Activation of transfer of asserted user identity shall be configurable in the AP on a per AS base.*

It was agreed to add "asserted" as shown above.

Section 2 of the contribution was left for off-line discussion.

AP 31/07: T. Haukka and K. Boman to provide any comments on section 2 of TD S3-030746 to G. Horn.

TD S3-030749: Pseudo-CR to GAA/HTTPS doc: Initial text for the TS. This was introduced by Siemens. **It was agreed that editors' notes should be added about the initiation of the bootstrapping procedure being described in the GBA TS in section 4.2 and Annex Z. It was also agreed to add an editors note to Annex Z on the issue of co-location of BSF and NAF having an impact on implementation being ffs.** This Pseudo-CR was then agreed for inclusion by the editor in the draft TS.

~~This~~ Draft TS 33.141 was not considered complete enough at this time for forwarding to TSG SA #221 ~~1~~ for information.

The Rapporteurs were asked to update draft TS 33.220 and draft TS 33.221 with the agreed changes and distribute it to M. Pope for presentation to TSG SA #22 for information.

6.10 WLAN interworking

TD S3-030689: Draft TS 33.234 V0.7.0 Wireless Local Area Network (WLAN) Interworking Security. This was introduced by the Rapporteur and included the changes agreed at the previous meeting. The draft TS was noted.

TD S3-030715: Pseudo-CR to 33.234: Clarification to re-authentication procedures. This was introduced by Nokia. This Pseudo-CR was approved for inclusion by the editor in the draft TS.

TD S3-030734: Pseudo-CR to 33.234: Re-authentication identities generation. This was introduced by Ericsson. This Pseudo-CR was approved for inclusion by the editor in the draft TS. Note: This implied the removal of the editors' note in section 7.15.

TD S3-030735: Pseudo-CR to 33.234: Editorial changes and informative annex in TS 33.234. This was introduced by Ericsson. This Pseudo-CR was approved for inclusion by the editor in the draft TS.

TD S3-030740: Pseudo-CR to 33.234: Only one active USIM application. This was introduced by Ericsson. There was some concerns over the correctness of this requirement and the author agreed to check and return with information. After checking it was found that the changes were no longer valid and the Pseudo-CR was withdrawn.

TD S3-030737: Split WLAN-UE: SIM Access Profile protocol in Bluetooth forum. This was introduced by Ericsson and proposed that SA3 discuss each proposal presented in this paper and takes a decision in order to progress the work in Bluetooth forum and also proposed that SA WG3 send an LS with the requirements in this paper to the Bluetooth Architecture Review Board (BARB) and the CAR groups, asking them to develop a new version of the SIM Access Profile for a split WLAN UE in work item WLAN Inter-working in 3GPP. It was agreed to send a LS to Bluetooth with the requirements identified and agreed after discussion of other contributions. An LS to Bluetooth groups was provided in TD S3-030780 and was reviewed and approved.

TD S3-030738: Split WLAN UE: Termination of EAP-AKA/SIM protocol. This was introduced by Ericsson and analysed different scenarios of Bluetooth security and the SIM Access Profile. The main issue from this analysis seemed to be the case when EAP-SIM protocol terminates in the Laptop and the threat exists that an attacker in the Laptop can get hold of the RAND and Kc, and distribute these publicly. Ericsson suggested that SA WG3 should consider whether this is seen as a major threat. Ericsson proposed that SA WG3 should take a decision on whether EAP-AKA and EAP-SIM shall terminate in the Laptop or the 3GPP UE. It was agreed to attach this contribution to the LS in TD S3-030780.

TD S3-030747: Pseudo-CR to TS 33.234 on Requirements on UE split. This was introduced by Siemens and proposed to include a related requirement into TS 33.234. A threat scenario was given to motivate the proposal. Revision-marked text to implement the proposal was included in the contribution. It was clarified that the threat described applied to offering service using the USIM keys and not a separate key set for a WLAN application. The proposed changes were discussed and agreed to be included with a change to make the note into an editors note, including the text "at least the Master Keys are computed". The editor was asked to make this change in the implementation.

TD S3-030739: Split WLAN-UE: Integrity protection on local interface. This was introduced by Ericsson and proposed that SA WG3 decide whether integrity protection will be required on the local interface between a Laptop and a UE. Ericsson did not see the need to add integrity protection on the local interface between the Laptop and the 3GPP UE and proposed to delete the requirement on integrity protection in TS 33.234. If SA WG3 kept the requirement, then Ericsson proposed that Bluetooth are informed of the requirement. It was agreed that ~~the integrity checking on the Bluetooth interface is implicitly covered by the underlying EAP protocol running on the link and~~ modification of EAP parameters will cause EAP to fail. It was therefore agreed to remove this requirement from the draft TS.

AP 31/08: C. Blanchard was asked to check the changes made to the figures in TS 33.234 are reflected in the SA WG2 specification where they were originally copied from.

TD S3-030733: Implications of the A5/2 Attack for 3GPP WLAN Access. This was introduced by Ericsson on behalf of Ericsson and TeliaSonera and propose to insert their analysis and recommendations on the A5/2 attack scenarios for WLAN access in an Informative Annex C.3 of TS 33.234. The threat was clarified that is the A5/2 GSM keys can be recovered, then the EAP/SIM can be exploited for WLAN terminal impersonation towards the 3GPP network. There was a comment that the issue of recovering the keys by attacking the WLAN system and exploiting the GSM network should be examined and the scope of the analysis should be increased. Contributions were invited on this. It was agreed to include an informative annex to provide this attack scenario and countermeasures.

TD S3-030676: LS (from SA WG2) on Tunnel Establishment and Security Association. This was introduced by France Telecom. SA WG2 requested SA WG3 to evaluate the SA WG2 assumption that it is possible to separate the tunnel establishment and tunnel data handling into separate nodes, noting that these nodes are both in 3G networks, and not linked over the public internet. SA WG3 were requested to provide feedback to SA WG2. TD S3-030741 was related to this and was also considered for the reply LS.

TD S3-030741: End-to-end tunnelling: Security Considerations on resolution gateways. This was introduced by Nortel Networks on behalf of Nortel Networks, Siemens AG and Nokia and proposed that SA WG3 should communicate the conclusions of the contribution to SA WG2. A comment to this contribution was provided in TD S3-030763 which was considered.

> TD S3-030763: Comments on S3-030741: Security Considerations on resolution gateways. This was introduced by Huawei Technologies Co., Ltd. and provided comments on the proposals in TD S3-030741. There was some discussion and some comments were not fully supported. Others were agreed.

It was agreed that a response LS to SA WG2 should be developed taking into account the two contributions and discussions in the meeting on them. The LS was provided in TD S3-030789 which was reviewed and updated in TD S3-030808 and approved.

TD S3-030748: Security procedures for the set up of UE-initiated tunnels in scenario 3. This was introduced by Siemens and proposed that SA WG3 endorse the accompanying CR which implements three types of changes:

- Changes to headlines of existing sections and introduction of new subsections to make room for the specification of the security for scenario 3 in TS 33.234. These affect sections 4, 5, and 6.1.1 through 6.1.4 of TS 33.234.
- Changes agreed at SA3#30 regarding the use of IPsec ESP for data protection in the tunnel. These affect sections 6.2, 6.3, and 6.6 (new) of TS 33.234.
- The working assumption on tunnel set up procedures proposed in section 2 of this contribution. These affect sections 6.1.5 (new), 6.5 (new) and Annex X (new) of TS 33.234.

The attached Pseudo-CR to 33.234 was then considered and some additions made to the editors notes in section 6.1.5. The updated Pseudo-CR was provided in TD S3-030790 which was agreed for inclusion by the editor in the draft TS.

AP 31/09: D. Mariblanca to lead an e-mail discussion on the editors note about the use of public key signatures to authenticate the PDG ~~s~~ in section 6.1.5 of the Pseudo-CR in TD S3-030790.

TD S3-030736: Security of EAP or SSID based network advertisements. This was introduced by Ericsson and concludes that neither EAP or link-layer mechanisms support the cryptographic protection of network-selection related advertisements today. Only a limited support for the protection of the chosen network is available. Ericsson suggested that this vulnerability is recognised as a current limitation and that means outside the protocols are used to mitigate its effects. Ericsson proposed sending a LS to SA WG2 informing them of this. It was reported that there is no requirement currently to cipher or protect this. An LS to SA WG2 was provided in TD S3-030791 which was updated in TD S3-030807 and was approved.

TD S3-030783: LS (from LI Group) on 3GPP WLAN interworking Lawful Interception Requirements. The SA WG3 LI Group asked SA WG3 to take the SA WG3 LI Groups' comments on WLAN interworking interception requirements of receiving unencrypted traffic in the roaming case into account when progressing work on 3GPP WLAN interworking security. There was a problem identified by SA WG3 LI Group in the roaming case as there may be an end-to-end tunnel from the roaming UE to the home network. It was commented that the Visited Network Operator is not involved in the set-up of the security tunnel. It was also commented that the Visited Network is involved in the set-up of Scenario 3, which may have an impact. The SA WG3 LI Group were asked to consider this. Delegates were asked to talk to SA WG3 LI Delegates in their companies to clarify the SA WG3 work and to clarify any issues.

TD S3-030762: Security Analysis on the SA WG2 resolution architecture. Huawei Technologies Co., Ltd. also provided a version containing revision marks from the originally submitted contribution, for easier appreciation of the changes made in TD S3-030788, however, as the original and revised documents were received after the document submission deadline, it was postponed due to lack of time. Huawei Technologies Co., Ltd. were invited to re-submit the contribution to the next meeting, if still relevant.

The Rapporteur was asked to update draft TS 33.234 with the agreed changes and distribute it to M. Pope for presentation to TSG SA #22 for information.

6.11 Visibility and configurability of security

There were no specific contributions under this agenda item.

6.12 Push

There were no specific contributions under this agenda item.

6.13 Priority

There were no specific contributions under this agenda item.

6.14 Location services (LCS)

There were no specific contributions under this agenda item.

6.15 Feasibility Study on (U)SIM Security Reuse by Peripheral Devices

TD S3-030666: Technical Report on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces (Release 6). This was introduced by the Rapporteur on behalf of Toshiba, Intel, T-Mobile, Telcordia, Thomson, Fujitsu, HP, RIM, SmartTrust, BT Group PLC, Alcatel and Gemplus and included changes agreed at the last meeting and during telephone conference calls and e-mail discussions. The TR was presented to SA WG3 for approval for presentation to TSG SA Plenary for information.

It was agreed that this was a feasibility study and therefore the title of section 6 should be "Potential requirements". It was also agreed that the title should be changed to "Feasibility Study on (U)SIM security re-use by peripheral devices on local interfaces". Comments on the requirements of section 6.1.1 were also made as the intension and expected scenarios for the potential requirements was unclear. It was clarified that the scenarios were as discussed over the conference calls and the TR outlined what would be needed for re-use of some UICC functions for Bluetooth access.

It was agreed that the scope should state that the FS would be used as a basis to future CRs to 33.234 as and when any of the proposals were developed by SA WG3. It was stated that it is not currently intended to develop this FS further into a 3GPP TS.

The rapporteur updated the document with the comments and provided the document again in TD S3-030779. The new version was reviewed and some minor changes made and the final version (without revision marks) was provided in TD S3-030792 which was **approved for presentation to TSG SA #22~~1~~ for information.**

6.16 Open service architecture (OSA)

There were no specific contributions under this agenda item.

6.17 Generic user profile (GUP)

TD S3-030759: LS (from SA WG1) on clarified requirements on synchronization for GUP. This was introduced by Ericsson and informed T WG1 about the synchronisation requirements in GUP. this was provided to SA WG3 for information and was noted. It was reported that Nokia had a proposal in line with this at the previous meeting in TD S3-030581 and delegates were asked to consider this for comments at the next meeting.

6.18 Presence

TD S3-030695: Draft TS 33.141 V0.2.0 Presence Service; Security. This was introduced by the Rapporteur and was reported as needing much more text and was about 10-15% complete. The draft TS was noted.

TD S3-030673: The requirement and feasibility of IMS watcher authentication. This was introduced by Nokia. CN WG1 asked SA WG3 to take their analysis of IMS watcher authentication requirements. The LS was noted.

TD S3-030674: Reply LS on "The requirement and feasibility of IMS watcher authentication". This was introduced by Nokia. SA WG2 informed SA WG3 that they did not have an opinion on the need for IMS watcher authentication as they considered this to be in SA WG3 competence. The LS was noted.

TD S3-030681: Reply (from SA WG1) on the requirement and feasibility of IMS watcher authentication. This was introduced by Nokia. SA WG1 informed SA WG3 that they did not any detailed requirement on the need for IMS watcher authentication as they considered that SA WG3 could find a suitable solution with the support of CN WG1 and SA WG2. SA WG1 requested a similar level of security for both IMS and non-IMS watchers. It was considered that the non-IMS watcher security should be made as good as the IMS watcher security. It was agreed that the "optionality" of password based authentication means optional for implementation. The LS was noted.

6.19 User equipment management (UEM)

There were no specific contributions under this agenda item.

6.20 Multimedia broadcast/multicast service (MBMS)

TD S3-030660: LS Response on potential USIM impact of the MBMS security framework. This LS had been approved over e-mail after SA3#30 and transmitted. The LS was noted.

TD S3-030678: Reply (from SA WG1) to LS on potential USIM impact of the MBMS security framework S1-031104; T3-030697). This was introduced by **3** and encouraged T WG3 to continue this work and informed them that SA WG1 will notify T WG3 with any further requirements as they are developed. The LS was noted.

TD S3-030756: Liaison (from Download+DRM group OMA) to 3GPP SA WG4 and SA WG3 on issues on DRM for PSS and MBMS streams. This was introduced by Ericsson. OMA DLDRM suggested that SA WG3 and SA WG4 consider the attached OMA DCF specification for the development of their specifications, specifically for the specification of the streaming mechanism for protected 3GPP PSS media. The related LS in TD S3-030758 was considered with this LS.

TD S3-030758: Liaison (from Download+DRM group OMA) to 3GPP SA WG4 and SA WG3 on issues on DRM for PSS and MBMS streams. This was introduced by Ericsson and informed SA WG4 and SA WG3 about:

- a recommendation for the choice of a stream cipher for continuous PSS media;
- Considerations on stream integrity protection for continuous PSS media;
- the DRM information to be conveyed to a terminal;
- a request from OMA DLDRM to provide a version of TS 26.244 that can be normatively referenced, by January 2004;
- a request to SA4 to include signalling of DRM support for PSS clients into the 3GPP PSS UAProf vocabulary;
- a request to SA3 for information on the requirements and solutions for protection of MBMS streams.

OMA DLDRM requested SA WG3 to note the information contained in the LS, and to reply in case there are questions or comments. OMA DLDRM would welcome a reply from SA WG3 on the requirements and solutions for protection of MBMS streams.

Following discussions and LS was produced to OMA in TD S3-030805 (see below).

TD S3-030750: Considerations on selective encryption and integrity protection for DRM protected PSS media streams. This was introduced by Ericsson, using presentation slides in TD S3-030776. Ericsson proposed:

- not to use selective encryption;
- to use integrity protection for DRM protected streams;
- that SRTP could be used for protection of PSS and MBMS streams.

More background was provided in section 2 of TD S3-030750. Details of the file format and input streaming was provided in the attachments.

It was commented that OMA DRM had not received a public review, and the proposed transform of SRTP had also not been reviewed by the IETF security experts.

It was agreed that as a principle, the 3GPP solution and OMA DRM solutions should be as closely aligned as possible.

There is an optional integrity protection in the requirements for MBMS, as there may be groups / receivers which can be fully trusted. It was noted that this was not covered by the OMA work.

The discussions resulted in the LS provided in TD S3-030777 (see below).

TD S3-030752: DRM usage for MBMS security. This was introduced by Nokia and presented principles by which Nokia proposed that the SA WG3 work on MBMS security can be aligned with the ongoing co-operation between OMA DRM group and SA WG4 group for PSS.

It was concluded after some discussion that the encryption proposals should be studied by ETSI SAGE in order to verify it's suitability. A LS to OMA should be provided informing them that AS counter mode is acceptable and selective encryption is being further studied by SA WG3. The LS was drafted in TD S3-030777 which was reviewed and updated in TD S3-030805 which was approved.

TD S3-030714: Draft TS 33.246 V0.2.2: Security of Multimedia Broadcast/Multicast Service. This was introduced by the Rapporteur and included changes agreed in discussions. The draft TS was noted.

Docs from S3#30

TD S3-030522: Differentiation of MBMS traffic protection mechanisms. This was introduced by Samsung Electronics and proposed changes to the section 5.3 *Protection of the transmitted traffic* of the draft TS to include the protection method details in the service announcement. It was considered that SA WG2 should be consulted on this proposal. An LS was provided in TD S3-030778 (see below).

TD S3-030523: MBMS service activation and Initial TEK distribution. This was introduced by Samsung Electronics and proposed changes to the section 5.2 *Key management and distribution* of the draft TS such that the network shall indicate the "Joining Availability Time" in the service announcement. It was considered that SA WG4 should also be consulted on this proposal. This was added to the LS in TD S3-030778, which was also sent to SA WG4 and copied to SA WG1 for information (see below).

TD S3-030778 LS to SA WG2, SA WG4, copied to SA WG1 on protection method indication in service announcement and Joining Availability Time. This LS was provided in response to contributions TD S3-030522 and TD S3-030523 (which were postponed from SA WG3 meeting #30). The LS was reviewed and updated in TD S3-030806 which was approved.

TD S3-030700: MBMS (re-)keying models. This was introduced by Siemens and proposed to adopt following working assumptions:

- *If only a UE-based solution will be developed then the point-to-point (re)-keying solution shall be as efficient as possible in viewpoint of consumed radio resources'. For a UE-based solution the adoption of DRM methods should be considered as they are specifically designed to run in a UE-based environment. In particular the OMA DRMDL solution should be considered for MBMS download, while for MBMS streaming more study is needed.*
  This working assumption was endorsed by SA WG3. It was noted that the point-to-multipoint also needs to be as efficient as possible and that the solution should be **ME-based**, rather than **UE-based**.
- *If a UICC-based solution will be developed then the design of a UICC-based solution shall take care that the security is as high as possible but the solution shall at the same time be cost-efficient. In particular there has to be a way to recover from the situation where secrets from within one single UICC are revealed by an attacker.*
  This working assumption was endorsed by SA WG3. It was noted that the cost-efficiency requirement holds for all potential solutions. It was commented that the impact on the breaking of a single UICC needs to be analysed to determine the recovery actions required.

Following requirement for a UICC-based solution (to be incorporated in TS 33.246) was proposed:

- *The point-to-point key delivery procedures for the 'generate KEK'-step shall give assurance to the BM-SC where the KEK has been stored. The UE shall not be able to simulate or replay any assurance indication during that procedure.*
  The requirement that the BM-SC should know where the KEK has been stored was agreed in principle by SA WG3. Note that the definition of "generate KEK" needs review and clarification before inclusion in the draft TS.

TD S3-030690: 3GPP Over the Air (OTA) procedures applied to BAK Distribution and MBMS Subscription management. This was introduced by Schlumberger on behalf of Schlumberger, Qualcomm, Gemplus and OCS. The contribution concludes that OTA mechanisms are the existing 3GPP standard way for point-to-point communication between the UICC and the network and provide all the functionality required for efficient, secure MBMS key management and proposed to reuse these existing 3GPP mechanisms for BAK distribution and MBMS management operations instead of reinventing new ones.

It was clarified that OTA is an interface between the home network and the OTA Gateway and that keys would be distributed from the BN-SC. It was noted that new interfaces would be needed for this.

TD S3-030699: MBMS UICC open issues. This was introduced by Siemens and concluded that without significant progress on the open issues highlighted in the contribution, a decision in this meeting in favour of a UICC-based solution within Rel-6 should not be made. Also the requirements on UICC-based solutions should be verified on completeness and stability before going further in that direction. Siemens clarified that many of the open issues included could be removed by the contributions present at the meeting. Comments were taken on the issues highlighted:

1-1. **The requirement for acceptable on-time deliveries of UICC-keys to late MBMS-entrants are unknown. Stringent time settings could be a problem for OTA.** It was commented that this should not be a problem in Rel-6 under normal operating conditions. Requirements were lacking on this issue.

1-2. **No solutions (i.e. selected protocols) are yet available for connection OTA-servers to MBMS-server that reside in the VN.** This was considered a general issue even for non-UICC solutions.

1-3. **The use of OTA needs to be supplemented by a terminal mechanism that requests key updates.** This was considered a general issue even for non-UICC solutions.

1-4. **No estimations of the moderate free memory amount of existing pre Rel-6 UICC in the field is available.** It was recognised that this needs further clarification ("probably" is not a sufficient definition of free-memory requirements). It was commented that the majority of current pre-Rel-6 UICCs do not have this available memory space (1 kbyte).

2-1. **No solution for key deletion to the UICC is provided.** The deletion of BAK to prevent access by stolen terminals was considered necessary and was considered an open issue.

2-2. **No solution to bootstrap the MIKEY-run (the KEK-generation) is provided.** This issue needs further consideration.

2-3. **No detailed estimation of the complexity of terminating MIKEY at the UICC is available.** This issue needs further consideration.

TD S3-030767: Impacts on the 3GPP network with a UICC based and a non-UICC based solution in MBMS. This was introduced by Ericsson and proposed that SA WG3 send a LS to SA WG2 and OMA asking whether a new interface between the BM-SC and OTA provisioning server can be standardized. Ericsson also proposed that SA WG3 should send a LS to various groups, such as SA WG2, OMA and T WG3, to comment on the issues mentioned in section 3 of the contribution and the architecture with a UICC based solution. It was commented that a proprietary OTA could be used to provide MBMS service on pre-Rel-6 UICCs (Java enabled).

TD S3-030697: MBMS Usage and Quality of Service based on BAK Distribution. This was introduced by Qualcomm on behalf of Gemplus, Oberthur, QUALCOMM Europe and SchlumbergerSema. The content of this contribution was based on SA WG1 requirements, some of which were no longer valid. It was noted that the application would need to be relied upon in this system. The document was then noted.

TD S3-030701: MBMS: Replaying of RAND values. This was introduced by Siemens and proposed to add the following requirement to the MBMS specification:

R5f: *A UICC, realizing the function of providing session keys for decrypting the streaming data at the UE, shall only give session keys back to the UE if the input values used for obtaining the session keys were fresh (have not been replayed) and came from a trusted source.*

Solutions for this requirement may be elaborated and its feasibility be decided at SA WG3 meeting #32 (Siemens withdrew the second proposal as it was obsolete due to previous agreements).

SA WG3 agreed that this requirement was needed if the UICC-based solution is chosen.

Contributions TD S3-030703 , TD S3-030751 , TD S3-030709 and TD S3-030723 were each introduced by their authors and then a general discussion was held.

TD S3-030703: Evaluation of re-keying methods. This was introduced by Huawei Technologies Co., Ltd. and proposed accepting the improved combined re-keying method or the simple PTP re-keying method:

1. If the combined re-keying method is accepted, it was proposed to adopt the improvement described in TD S3-030520 from SA WG3 meeting #30.
2 If the simple PTP re-keying method is accepted, it was proposed to add the figure and bullets proposed in TD S3-030521 from SA WG3 meeting #30 to the draft TS.

TD S3-030751: Further updates on Combined model for MBMS security. This was introduced by Nokia and proposed that the following are adopted as working assumptions in SA WG3:

1) Combined model adopted as a compromise between Simple and Two-tiered model;

2) ME based solution chosen as a solution for Rel-6;

3) GBA usage considered as a basis for authentication between UE and BM-SC;

4) In later releases, BM-SC shall be able to distinguish between different solutions used by the UE.

TD S3-030709: Composite MBMS Key Distribution. This was introduced by Samsung Electronics and proposed that SA WG3 adopt this composite method for MBMS key distribution, and especially, to select the proposed solution 2 for MBMS key distribution.

TD S3-030723: Migration of MIKEY in MBMS key management. This was introduced by Ericsson and proposed that before making a decision on key management solution SA WG3 should take a standpoint on the trust model that is applied in MBMS. That is, whether ME is trusted or not. Ericsson also proposed to adopt MIKEY as key management protocol for MBMS. MIKEY can support both ME and UICC based methods. Ericsson believed that MIKEY also provides smooth migration path to UICC based method.

Discussion of contributions TD S3-030703 , TD S3-030751 , TD S3-030709 and TD S3-030723:

Ericsson reiterated that they believed SA WG3 should make a decision taking into account the availability of a whole solution and the key management and traffic protection are linked together.

SA WG3 also needs to decide whether an ME or UICC based solution will be used.

It was proposed to try to have a combined solution taking ideas from the contributions.

It was also proposed that a migration would be needed and UICC based solution should be included for Rel-6 as it is easier to determine the UICC technology in the field than the variety of ME capabilities that will be available. Support of the UICC solution in Rel-6 would facilitate a migration path.

Ericsson commented that the cost against security strength of any mechanism also needs to be kept in mind and suggested that the MIKEY solution could be used for early deployment of a ME based solution which would include a migration path to UICC based solution if additional security was considered necessary by operators at a future time.

3 suggested a compromise to standardise both then ME and UICC based solutions for Rel-6 and allow the Market to decide on the choice. It was clarified that the UICC based solution would need to be mandated for implementation in Rel-6 networks. Ericsson suggested that the flows in figure 3 of their contribution could satisfy such a compromise solution.

Decisions: After some discussion SA WG3 agreed on the following:

It will be possible to run the whole MBMS security with ME only, but will also be possible to run key management using the UICC. A migratory path between the two solutions is needed and the solutions will be developed to allow this. Deviations between the two solutions would only be made for the benefit of the whole system (this implies the use of a 2-tiered system). The difference between the two solutions for delivering the low-level keys would be visible only inside the UE and secondly, the BMSC would know which solution is implemented in the UE side. A Rel-6 compliant UE will support both UICC based and ME based solutions and the Operator will have control over the choice of method used for MBMS services.

Telecom Italia expressed strong reservations to this compromise.

For the ME part, GBA and MIKEY (with possible 3GPP-specific enhancements, e.g. for the support of encrypted keys) will be used as a basis for the standardised solution. This does not rule out DRM based solutions, e.g. DOWNLOAD.

TD S3-030696: Adding Integrity to Counting Idle Mode terminals in MBMS. This was introduced by Qualcomm Europe and describes a concern is that a malicious UE may force a network operator to broadcast MBMS content when there are insufficient MBMS subscribers to warrant the broadcast. Therefore an attack on network resources may be launched. Qualcomm Europe proposed to add integrity to the registration procedure to prevent this attack on network resources. There was some discussion on the methods considered in RAN for counting / deciding which delivery method to use. It was reported that RAN WGs were considering connect and starting with point-to-point, then point-to-multipoint before opening up to full broadcast depending on the number of connects active. It was also reported that GERAN WGs had not yet decided on a method. It was decided that this issue should be studied by SA WG3 and contributions were invited on this subject if Members think this should be developed.

TD S3-030708: MBMS Traffic Encryption Key gradually Changing and Updating for streaming service. This was introduced by Samsung Electronics and proposed to adopt the described TEK gradually changing and updating for MBMS key management. A text proposal was provided in the contribution to implement the proposal. The idea was considered interesting, but puts an additional requirement upon the algorithm, which has already been decided upon. The cryptographic strength of this proposal would also need to be investigated. Further contribution was invited based on analysis of the issues around this.

TD S3-030710: Differentiation of MBMS traffic protection mechanisms. This was provided by Samsung Electronics at meeting #30 and had already been handled.

TD S3-030711: MBMS service activation and Initial TEK distribution. This was provided by Samsung Electronics at meeting #30 and had already been handled.

TD S3-030755: Some MBMS data flows. This was introduced by **3** and proposed some data flows to help complete the draft TS. 3 pointed out that some of the proposed changes may be controversial and delegates should study the impact of the proposals. There was some concern on the number of keys used and it was clarified that the proposal was for 2 keys for each multicast service. The Pseudo-CR was reviewed and updated in TD S3-030801 which was agreed for inclusion by the editor in the draft TS.

The Rapporteur was asked to update draft TS 33.246 with the agreed changes and distribute it to M. Pope for presentation to TSG SA #22 for information.

6.21 Key Management of group keys for Voice Group Call Services

TD S3-030658: SMG10 meeting report (extract on ASCI). This was introduced by BT Group and described the Voice Group Call Service concepts as provided in SMG 10 meeting in October 1998. The document was provided for information and was noted.

TD S3-030659: Use of the same algorithms for encryption of VGCS-calls as for normal GSM-speech calls (i.e. A5/0-A5/7). This was introduced by BT Group and makes some recommendations based on discussions previously held about Group Call Keys:

1) SA WG3 reconsider the use of a two key hierarchy;
2) SA WG3 should consider the use of additional inputs to the ciphering algorithm e.g. TETRA combines the cipher key with the Carrier Number (CN) and Base station Colour Code (CC) and Location Area identifier (LA) to prevent attacks on the encryption process by replaying cipher text to eliminate the key stream;
3) A distinguishing direction id may need to be added as an input to the ciphering algorithm.

It was clarified that the choice of ciphering algorithm was the subject of other contributions. It was commented that to obtain plaintext by the XOR technique was not a trivial task.

These recommendations had been captured in TD S3-030692 and therefore the contribution was noted.

TD S3-030692: Securing VGCS calls. This was introduced by Siemens on behalf of Siemens and Vodafone and proposed a different concept to secure GSM Voice Group Calls which has some similarities to TETRA. Some discussion on the scenarios and proposals ensued. BT Group reported that there were many services other than simple voice calls envisaged for this service and the security requirements for some are higher than simple telephone conversation protection (e.g. emergency Rail telemetry monitoring service) and key stream repeat could be a serious threat to the system.

The contribution proposed changes to the working assumptions:

C) On call set-up the GCR selects one group key and sends it to the BSS and the group key number to the UE which fetches the corresponding key from the USIM.
Comment: Changes required as the Group Key will not leave the UICC and GCR.
Proposed new text: On call set-up the GCR selects one group key, generates a temporary key with a RAND and sends the temporary key~~it~~ to the BSS and the group key number and RAND to the UE. The UE then asks the UICC to generate a temporary key based on the group key number and broadcasted information (RAND). ~~which fetches the corresponding key from the USIM.~~

D) Principle D was deleted as proposed. It was noted that Group Key Management would need further study.

E) Proposed to delete the note and to add following text: Any requirement for modification of the input parameters to A5 shall be achieved using a separate Key Modification Function (KMF). How this function is realized is currently under study.

F) Principle F was deleted as proposed.

G) Principle G was deleted as proposed.

H) Porposed to make the use of OTA for updating VGCS group keys to the UICC optional for the operator. This proposal was approved.

~~F~~ I) Principle~~s F - I were~~ was proposed for further study.

The paper concluded with the following proposals:

1) To agree that REQ-1 and REQ-2 need to be realized. **AGREED.** Depends on GERAN WG2 reply.
2) To discuss and decide if SA WG3 wants a solution for realizing REQ-3 and REQ-4 as this enhances VGCS call channel security above dedicated channel security. **Pending: Contribution invited.**
3) To wait for agreeing a solution for realizing REQ-3 and REQ-4 as inputs from GERAN 2 are needed to evaluate complexity and feasibility. **AGREED.**
4) To adopt the two-step approach and rationales from section 3 as a working assumption. **AGREED.**
5) To inform ETSI EP RT (GSM-R) on the progress of the discussions. **AGREED.** An LS was provided in TD S3-030773 which was revised in TD S3-030803~~4~~ and approved.
6) To ask T WG3 to realize the needed functions on the USIM. **AGREED.** An LS was provided in TD S3-030774 which was revised in TD S3-030804~~5~~ and approved.
7) To ask SAGE to select suitable key derivation/modification functions for both ME and UICC after deciding the input and output parameters. Minimal length of RAND should be requested. **P. Christoffersson to take early warning message to SAGE .**
8) To decide whether all VGCS network interfaces and key derivation/modification functions shall already be able to support 128-bit cipher keys although no A5 cipher algorithm are yet in the field that support 128-bit keys. At least the key modification/derivation functions should be able to handle 128-bit keys for the input and output parameters. **AGREED.**
9) To inform GERAN WG2 about the above decisions (bullet point 2 and 8) and ask them for commenting a) if potential problems with CGI at handover can be expected and b) to select the right mechanism for broadcasting a RAND, GLOBAL_COUNT to generate the short term key from. **AGREED** (also to check correctness of text changes in C) for channel use). See the LS in TD S3-030774.

TD S3-030760: Response LS (from SA WG1) on support of GSM SIM files (and services) on the USIM, and USIM changes for key management of Voice Group Call Services. This was introduced by Motorola and asked SA WG3 to continue work developing key management for ASCI / VGCS. It was noted that work is ongoing on this in SA WG3 and the LS was noted.

6.22 Guide to 3G security (TR 33.900)

There were no specific contributions under this agenda item.

7 Review and update of work programme

Due to lack of time to deal with this during the meeting, Rapporteurs and editors were given the action to provide the secretary with updates to the Work Plan for their respective Work Items. The Secretary, M. Pope undertook to send the current status in the work plan of SA WG3 Work Items on 24 November for update and return by 27 November 2003. **This was considered an important task, as TSG SA are expected to use the Work Plan status for determining the Rel-6 freeze date at TSG SA meeting #22 in December 2003.**

AP 31/010: M. Pope to send SA WG3 Work Plan status details to the mailing list on 24 November 2003. Rapporteurs and Editors to provide feedback to M. Pope by 27 November 2003 in order to have an accurate SA WG3 status in the work plan presented to TSG SA #22.

8 Future meeting dates and venues

There had been a discussion on the e-mail list following Qualcomms' announcement that they could only host the February 2004 meeting the week after planned at SA WG3 meeting #30.

More discussion was held over the meeting dates and venues. the 2-6 February overlapped with OMA meeting, 9-13 February with 3GPP2 and 16-20 February with a SA WG2 meeting. The results are shown in the table below.

The planned meetings were as follows:

Meeting	Date	Location	Host
S3#32	09-13 February 2004	Edinburgh, UK	EF3
S3#33	11-14 May 2004	Beijing, China	Samsung
S3#34	06-09 July 2004 (TBC)	USA (TBC)	"NA Friends of 3GPP" (TBC)
S3#35	5-8 October 2004	Host required (Sophia?)	Host required (ETSI/EF3?)
S3#36	23-26 November 2004 ~~(TBC)~~	Shenzhen, China	HuaWei Technologies
S3#37	February 2005	Australia (TBC)	Qualcomm (TBC)

LI meetings planned

Meeting	Date	Location	Host
SA3 LI-#12	27-29 January 2004	USA (TBA)	FBI (TBA)
SA3 LI-#13	14-16 April 2004	Europe (TBA)	TBA
SA3 LI-#14	20-22 July 2004	Combined with ETSI TC LI (Location TBA)	TBA
SA3 LI-#15	12-14 October 2004	USA (TBA)	TBA

TSGs RAN/CN/T and SA Plenary meeting schedule

Meeting	2003	Location	Primary Host
TSG RAN/CN/T #22	9-12 December 2003	Hawaii, USA	NA Friends of 3GPP
TSG SA #22	15-18 December 2003	Hawaii, USA	NA Friends of 3GPP
Meeting	**2004 DRAFT TBD**	**Location**	**Primary Host**
TSGs#23	March 9-12 & 15-18 2004	Phoenix, USA	
TSGs#24	June 1-4 & 7-10 2004	Korea	
TSGs#25	7-10 & 13-16 September 2004	USA	
TSGs#26	7-10 & 13-16 December 2004	To Be Decided	

9 Any other business

The following CRs from the LI group were received to avoid the need for e-mail approval:

TD S3-030787: Proposed CR to 33.108: Alignment of Lawful Interception identifiers length to ETSI TS 101 671 (Rel-6). This CR was approved.

TD S3-030786: Proposed CR to 33.106: References (Rel-6). There was a problem with the change to section 6 as it appeared to be incomplete. Also the base version number used was questioned. The CR was **not approved** and **the LI Group were asked to repair this over e-mail in time for TSG SA approval if possible**. The updated CR was provided in TD S3-030811.

TD S3-030785: Proposed CR to 33.108: Reporting TEL URL (Rel-6). This CR was approved. M. Pope agreed to ensure the final change section is indicated in the CR for TSG SA.

TD S3-030784: Proposed CR to 33.107: Reporting TEL URL (Rel-6). This CR was approved.

TD S3-030782: Proposed CR to 33.108: CS Section for 33.108 – LI Management Operation (Rel-6). This CR was approved. It was noted that only the content of figure B.1 has changed, not the title and M. Pope agreed to correct this before presentation to TSG SA for approval.

Secretary's note: There were significant modifications necessary, so this CR was updated in TD S3-030813 for presentation to TSG SA.

TD S3-030781: Proposed CR to 33.108: CS Section for 33.108 – User data packet transfer (Rel-6). This CR was approved. It was noted that only the presentation of changes in sections B.2 was not clear and M. Pope agreed to correct this before presentation to TSG SA for approval.

Secretary's note: There were significant modifications necessary, so this CR was updated in TD S3-030814 for presentation to TSG SA.

Close of meeting

The Chairman, V. Niemi, thanked delegates for their hard work during the meeting and the Hosts EF3 for the facilities at Siemens Conference Centre, Munich. He then closed the meeting.

It was agreed that the SA WG3 Chairman would produce a work plan for the handling of agenda items and time limits for the presentation of documents before the next meeting depending on the available contributions after the **document deadline which will be 2 February 2004 16.00 CET**.

It was agreed that contributions in direct response to input documents received could be accepted until a **second deadline of 4 February 2004, 16.00 CET**.

Annex A: List of attendees at the SA WG3#30 meeting and Voting List

A.1 List of attendees

Name	Company	e-mail	Mobile Phone	Phone	Fax	3GPP ORG	
Mr. Jorge Abellan Sevilla	SchlumbergerSema	jorge.abellan@slb.com		+33 1 46 00 59 33	+33 1 46 00 59 31	FR	ETSI
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46 Attendees

A.2 SA WG3 Voting list

Based on the attendees lists for meetings #29, #30 and #31, the following companies are eligible to vote at SA WG3 meeting #32:

Company	Country	Status	Partner Org
3	GB	3GPPMEMBER	ETSI
ALCATEL S.A.	FR	3GPPMEMBER	ETSI
AT&T Wireless Services, Inc.	US	3GPPMEMBER	T1
BMWi	DE	3GPPMEMBER	ETSI
BT Group Plc	GB	3GPPMEMBER	ETSI
China Mobile Com. Corporation	CN	3GPPMEMBER	CCSA
DTI	GB	3GPPMEMBER	ETSI
ERICSSON LM	SE	3GPPMEMBER	ETSI
GEMPLUS S.A.	FR	3GPPMEMBER	ETSI
GIESECKE & DEVRIENT GmbH	DE	3GPPMEMBER	ETSI
HEWLETT-PACKARD France	FR	3GPPMEMBER	ETSI
HUAWEI TECHNOLOGIES Co. Ltd.	CN	3GPPMEMBER	ETSI
HuaWei Technologies Co., Ltd	CN	3GPPMEMBER	CCSA
Intel Corporation S.A.	BE	3GPPMEMBER	ETSI
Lucent Technologies	US	3GPPMEMBER	T1
Lucent Technologies N. S. UK	GB	3GPPMEMBER	ETSI
Mitsubishi Electric Co.	JP	3GPPMEMBER	ARIB
mmO2 plc	GB	3GPPMEMBER	ETSI
MOTOROLA JAPAN LTD	JP	3GPPMEMBER	ARIB
MOTOROLA Ltd	GB	3GPPMEMBER	ETSI
NEC EUROPE 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	JP	3GPPMEMBER	ETSI
NTT DoCoMo Inc.	JP	3GPPMEMBER	ARIB
OBERTHUR CARD SYSTEMS S.A.	FR	3GPPMEMBER	ETSI
ORANGE SA	FR	3GPPMEMBER	ETSI
QUALCOMM EUROPE S.A.R.L.	FR	3GPPMEMBER	ETSI
RIM	CA	3GPPMEMBER	ETSI
SAMSUNG Electronics	GB	3GPPMEMBER	ETSI
Samsung Electronics Co., Ltd	KR	3GPPMEMBER	TTA
SchlumbergerSema	FR	3GPPMEMBER	ETSI
SIEMENS AG	DE	3GPPMEMBER	ETSI
Siemens nv/sa	BE	3GPPMEMBER	ETSI
T-MOBILE DEUTSCHLAND	DE	3GPPMEMBER	ETSI
TELECOM ITALIA S.p.A.	IT	3GPPMEMBER	ETSI
TELENOR AS	NO	3GPPMEMBER	ETSI
TeliaSonera AB	SE	3GPPMEMBER	ETSI
Toshiba Corporation	JP	3GPPMEMBER	ARIB
Vodafone D2 GmbH	DE	3GPPMEMBER	ETSI
VODAFONE Group Plc	GB	3GPPMEMBER	ETSI

43 Voting Members

Annex B: List of documents

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030655	Draft agenda for SA WG3 meeting #31	SA WG3 Chairman	2	Approval		Approved
S3-030656	Draft Report of SA WG3 meeting #30	SA WG3 Secretary	4.1	Approval		Modified and approved. To be put on FTP server as v1.0.0
S3-030657	Draft Report of Joint SA WG3 / CN WG1 session 7 October 2003	SA WG3 Secretary	4.1	Approval		Approved. To be put on FTP server as v1.0.0
S3-030658	SMG10 meeting report (extract on ASCI)	BT Group	6.21	Information		Noted
S3-030659	Use of the same algorithms for encryption of VGCS-calls as for normal GSM-speech calls (i.e. A5/0-A5/7)	BT Group	6.21	Discussion / Decision		Recommendations captured in S3-030692. Noted
S3-030660	LS Response on potential USIM impact of the MBMS security framework	SA WG3	6.20	Information		Approved over e-mail after SA3#30. Noted at this meeting
S3-030661	TS 33.310 V0.6.0: Network Domain Security; Authentication Framework (Rel-6)	Rapporteur	6.4	Information		Noted and used for updates.
S3-030662	TS 33.220 V0.1.1: Generic Authentication Architecture (GAA); Generic Bootstrapping Architecture (Rel-6)	Rapporteur	6.9	Information		Noted and used for updates.
S3-030663	TS 33.221 V0.1.1: Generic Authentication Architecture (GAA); Support for Subscriber Certificates (Rel-6)	Rapporteur	6.9	Information		Noted and used for updates.
S3-030664	TR 33.919 V0.1.0: Generic Authentication Architecture; System Description (Rel-6)	Rapporteur	6.9	Information		Noted and used for updates.
S3-030665	3GPP TS 33.222 V0.1.1: Generic Authentication Architecture (GAA); Access to Network Application Functions using HTTPS (Rel-6)	Rapporteur	6.9	Information		Allocated as TS 33.222. Noted
S3-030666	Technical Report on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces (Release 6)	Toshiba, Intel, T-Mobile, Telcordia, Thomson, Fujitsu, HP, RIM, SmartTrust, BT Group PLC, Alcatel, Gemplus	6.15	Approval	S3-030779	Updated with comments in S3-030779
S3-030667	Updated Annex C to 33.109: Key pair storage	Rapporteur	6.9	Information		Updated after e-mail discussion on S3-030561. Agreed to add new Annex C
S3-030668	Reply LS (from CN WG1) on Special-RAND mechanism	CN WG1	6.6	Action		Response LS in S3-030802
S3-030669	LS (from CN WG4) on Special-RAND mechanism	CN WG4	6.6	Information		Noted
S3-030670	LS (from CN WG1) on Introducing the Privacy Mechanism in Stage 2	CN WG1	6.1	Action		CR updated in line with this LS in S3-030772
S3-030671	LS (from CN WG3) on security of the Diameter protocol for the Gq interface	CN WG3	5.1	Action		Response LS in S3-030765
S3-030672	LS to SA3 on Clarification on use of Re-attempt Information element in Authentication Failure Report service	CN WG4	6.5	Action		C Blanchard to lead e-mail discussion and provide response by 5 Jan 2004
S3-030673	The requirement and feasibility of IMS watcher authentication	CN WG1	6.18	Action		Noted
S3-030674	Reply LS (from SA WG2) on "The requirement and feasibility of IMS watcher authentication"	SA WG2	6.18	Information		Noted
S3-030675	Response (from SA WG2) for Introducing the Privacy Mechanism in Stage 2	SA WG2	6.1	Action		CR updated in line with this LS in S3-030772
S3-030676	LS (from SA WG2) on Tunnel Establishment and Security Association	SA WG2	6.10	Action		Reply LS to SA2 in S3-030789
S3-030677	Pseudo-CR to 33.310: Clarification of SEG certificate profiling	Nokia, Siemens, T-Mobile, Vodafone	6.4	Approval		agreed for inclusion in draft TS
S3-030678	Reply (from SA WG1) to LS on potential USIM impact of the MBMS security framework S1-031104; T3-030697)	SA WG1	6.20	Information		Noted
S3-030679	LS (from SA WG1) on clarified requirements on synchronization for GUP	SA WG1	6.17	Information	S3-030759	Wrong CR attached - replaced by S3-030759

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030680	LS (from SA WG1) on Privacy and Security Requirements within GSM/UMTS Devices	SA WG1	5.1	Action		Response LS in S3-030766
S3-030681	Reply (from SA WG1) on the requirement and feasibility of IMS watcher authentication	SA WG1	6.18	Information		Noted
S3-030682	LS (from GSMA SG) on request for information on impact on equipment of solutions	GSMA Security Group working Party	5.4	Action		Delegates asked to discuss questions in companies and comment to GSMA. Noted.
S3-030683	Pseudo-CR to 33.221: Results of risk analysis in the "Key Pair Storage" informative annex	Gemplus, Giesecke&Devrient, Oberthur, Schlumberger	6.9	Approval	S3-030795	Revised in S3-030795
S3-030684	Pseudo-CR to 33.221: on enrollment of keys in a UICC application	Schlumberger, OCS, Gemplus	6.9	Approval	S3-030797	Revised in S3-030797
S3-030685	Pseudo-CR to 33.221: on on-board key generation in a UICC.	Schlumberger, OCS, Gemplus	6.9	Approval		Agreed for inclusion in the draft TS
S3-030686	Pseudo-CR to 33.221: on clarifications on Certificate enrollement using pre-certified keys	Schlumberger, OCS, Gemplus	6.9	Approval	S3-030796	Revised in S3-030796
S3-030687	CR to 33.108: CS Section for 33.108 – User data packet transfer (Rel-6)	SA WG3 LI Group	5.1	Approval		Under discussion in LI group. Will be provided for e-mail if agreed. Noted
S3-030688	CR to 33.108: CS Section for 33.108 – LI Management Operation (Rel-6)	SA WG3 LI Group	5.1	Approval		Under discussion in LI group. Will be provided for e-mail if agreed. Noted
S3-030689	Draft TS 33.234 V0.7.0 Wireless Local Area Network (WLAN) Interworking Security	Rapporteur	6.10	Information		Noted. Used for further updates from Pseudo-CRs
S3-030690	3GPP Over the Air (OTA) procedures applied to BAK Distribution and MBMS Subscription management	Schlumberger, QUALCOMM, GEMPLUS, OCS	6.20	Discussion / Decision		Noted. Issues need to be clarified
S3-030691	Pseudo-CR to 33.310: Removal of unnecessary restriction on serial number	Siemens, Nokia, SSH, T-mobile	6.4	Approval		agreed for inclusion in draft TS
S3-030692	Securing VGCS calls	Siemens, Vodafone	6.21	Discussion / Decision		Principles discussed and some agreed. Resulting LSs in S3-030773 and S3-030774
S3-030693	More elements on the Special RAND mechanism	Orange	6.6	Discussion / Decision		Section 4 used for LS in S3-030802. Special RAND proposal endorsed. Orange may contact GSMA about their issue
S3-030694	MMS Security Considerations Version 1.0.0	MMS Representative (A Bergmann)	5.4			Noted. A Bergmann to arrange workshop if enough resources provided
S3-030695	Draft TS 33.141 V0.2.0 Presence Service; Security	Rapporteur	6.18	Information		Noted. Estimated 10-15% complete
S3-030696	Adding Integrity to Counting Idle Mode terminals in MBMS	Qualcomm Europe	6.20	Discussion / Decision		Contribution invited if need seen for protection against this
S3-030697	MBMS Usage and Quality of Service based on BAK Distribution	Gemplus, Oberthur, QUALCOMM Europe, SchlumbergerSema	6.20	Discussion		Noted
S3-030698	Proposed CR to 43.020: Introducing the special RAND mechanism (Rel-6)	Orange, Vodafone	6.6	Approval		Related CR in S3-030761. Additional changes to be sent to S Fouquet for input to next meeting
S3-030699	MBMS UICC open issues	Siemens	6.20	Discussion / Decision		Comments recorded on each issue
S3-030700	MBMS (re-)keying models	Siemens	6.20	Discussion / Decision		Working assumptions and requirement agreed in principle

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030701	MBMS: Replaying of RAND values	Siemens	6.20	Discussion / Decision		Req needed if UICC-based solution chosen
S3-030702	Security Analysis on the SA2 resolution architecture	Huawei Technologies Co., Ltd.	6.10	Discussion	S3-030762	Revised in S3-030762
S3-030703	Evaluation of re-keying methods	Huawei Technologies Co., Ltd.	6.20	Discussion / Decision		Discussed with S3-030751, S3-030709 and S3-030723. Common decisions reached
S3-030704	Pseudo-CR to 33.220: Transaction Identifier independence for different NAFs or NAF groups	Huawei Technologies Co., Ltd.	6.9	Approval		rejected as synchronisation issues need solving before this can be agreed
S3-030705	Pseudo-CR to 33.310: Removing outdated editor's notes	Nokia, Siemens, T-Mobile, Vodafone	6.4	Approval		agreed for inclusion in draft TS
S3-030706	Pseudo-CR to 33.310: Recommendation to SEG certificate and IKE profiling	Nokia, Siemens, Vodafone	6.4	Approval		agreed for inclusion in draft TS
S3-030707	Pseudo-CR to 33.310: Local repository access clarification	Nokia, Siemens, T-Mobile, Vodafone	6.4	Approval		agreed for inclusion in draft TS
S3-030708	MBMS Traffic Encryption Key gradually Changing and Updating for streaming service	Samsung Electronics	6.20	Discussion / Decision		Further analysis of impacts needed
S3-030709	Composite MBMS Key Distribution	Samsung Electronics	6.20	Discussion / Decision		Discussed with S3-030703, S3-030751 and S3-030723. Common decisions reached
S3-030710	Differentiation of MBMS traffic protection mechanisms	Samsung Electronics	6.20	Discussion / Decision		Handled at meeting #30
S3-030711	MBMS service activation and Initial TEK distribution	Samsung Electronics	6.20	Discussion / Decision		Handled at meeting #30
S3-030712	Proposed CR to 33.203: Ensuring the correct RAND is used in synchronization failures (Rel-5)	3, Nokia, Vodafone, Ericsson	6.1	Approval	S3-030768	Revised in S3-030768
S3-030713	Proposed CR to 33.203: Ensuring the correct RAND is used in synchronization failures (Rel-6)	3, Nokia, Vodafone, Ericsson	6.1	Approval	S3-030769	Revised in S3-030769
S3-030714	Draft TS 33.246 V0.2.2: Security of Multimedia Broadcast/Multicast Service	Rapporteur	6.20	Information		noted
S3-030715	Pseudo-CR to 33.234: Clarification to reauthentication procedures	Nokia	6.10	Approval		Agreed for inclusion in the draft TS
S3-030716	Pseudo CR to GAA TR 33.919	Alcatel	6.9	Discussion / Decision		Agreed for inclusion in the draft TS
S3-030717	Organization of Presence TS and HTTPS TS	Ericsson, Nokia	6.9 / 6.18	Discussion / Decision		Proposals endorsed
S3-030718	Presentation Slides: Liberty Alliance Project - Setting the Standard for Federated Network Identity	Nokia	5.7	Information	S3-030764	revised version in S3-030764
S3-030719	Presentation Slides: Potential synergies between Liberty and 3GPP	Nokia	5.7	Information		Noted
S3-030720	Comparison of authentication proxy solutions	Ericsson	6.9 / 6.18	Discussion / Decision		Text from S3-030744 with editors note agreed
S3-030721	Challenges in using shared-secret TLS with NAFs	Ericsson	6.9 / 6.18	Discussion / Decision		No decision - delegates asked to study and contribute
S3-030722	User authentication process decision	Ericsson	6.9	Discussion / Decision		Agreed to add to draft TS. Additional editors note to be included in draft TS
S3-030723	Migration of MIKEY in MBMS key management	Ericsson	6.20	Discussion / Decision		Discussed with S3-030703, S3-030751 and S3-030709. Common decisions reached
S3-030724	Impacts on the 3GPP network with a UICC based and a non-UICC based solution in MBMS	Ericsson	6.20	Discussion / Decision	S3-030767	Revised in S3-030767
S3-030725	Proposed CR to 33.203: Removing anti-replay requirement from Confidentiality clause (Rel-6)	Ericsson	6.1	Approval	S3-030812	Corrected to Rel-6 CR in S3-030812

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030726	Proposed CR to 33.203: Network behaviour of accepting initial requests (Rel-5)	Nokia	6.1	Approval		Revised in S3-030770, mirror CR in S3-030771
S3-030727	NDS and Openness of IMS	Nokia	6.1	Discussion		To be discussed over e-mail - results by 15 Jan 2004
S3-030728	Pseudo-CR to 33.220: Bootstrapping procedure: merging of last two messages	Nokia	6.9	Approval		agreed for inclusion in draft TS
S3-030729	UE triggered unsolicited push from BSF to NAFs	Nokia	6.9	Discussion / Decision		Not agreed. Overhead issues to be investigated
S3-030730	Subscriber Certificate Enrollment Protocol	Nokia	6.9	Discussion / Decision		Agreed for inclusion in the draft TS
S3-030731	Proxy and various HTTP services	Nokia	6.9	Discussion / Decision		Text from S3-030744 with editors note agreed
S3-030732	Using shared key TLS with NAFs	Nokia	6.9	Discussion / Decision		No decision - delegates asked to study and contribute
S3-030733	Implications of the A5/2 Attack for 3GPP WLAN Access	Ericsson, TeliaSonera	6.10	Discussion / Decision		Agreed to add informative annex. Contributions on further scope of this invited
S3-030734	Pseudo-CR to 33.234: Re-authentication identities generation	Ericsson	6.10	Approval		Agreed for inclusion in draft TS
S3-030735	Pseudo-CR to 33.234: Editorial changes and informative annex in TS 33.234	Ericsson	6.10	Approval		Agreed for inclusion in draft TS
S3-030736	Security of EAP or SSID based network advertisements	Ericsson	6.10	Discussion		LS to SA2 in S3-030791
S3-030737	Split WLAN-UE: SIM Access Profile protocol in Bluetooth forum	Ericsson	6.10	Discussion / Decision		LS to be created
S3-030738	Split WLAN UE: Termination of EAP-AKA/SIM protocol	Ericsson	6.10	Discussion / Decision		Attached to LS in S3-030780
S3-030739	Split WLAN-UE: Integrity protection on local interface	Ericsson	6.10	Discussion / Decision		Agreed to remove requirement
S3-030740	Pseudo-CR to 33.234: Only one active USIM application	Ericsson	6.10	Approval		Withdrawn as redundant
S3-030741	End-to-end tunneling: Security Considerations on resolution gateways	Nortel Networks, Siemens AG, Nokia	6.10	Discussion / Decision		Comments against this in S3-030763. Discussed with other contributions and reply LS to SA2 in S3-030789
S3-030742	Application specific user profiles in GBA	Nortel Networks	6.9	Discussion / Decision		Pseudo CR updated in S3-030794
S3-030743	Key separation in a Generic Bootstrapping Architecture	Siemens	6.9	Discussion / Decision		Pseudo CR updated in S3-030793
S3-030744	Role of Authentication Proxy (AP-NAF) – Discussion and Pseudo-CRs to TSs on GAA/HTTPS and Presence Security	Siemens	6.9 / 6.18	Discussion / Decision		Text from S3-030744 with editors note agreed
S3-030745	Technical solutions for access to application servers via Authentication Proxy and HTTPS - Pseudo-CRs to TSs on GAA/HTTPS and Presence Security	Siemens	6.9 / 6.18	Discussion / Decision		Agreed to add to TSs with editors note added
S3-030746	Transfer of an asserted User Identity and Location of Access Control – Discussion and Pseudo-CRs to TSs on GAA/HTTPS and Presence Security	Siemens	6.9 / 6.18	Discussion / Decision		Agreed with "asserted" added.
S3-030747	Pseudo-CR to TS 33.234 on Requirements on UE split	Siemens	6.10	Discussion / Decision		Agreed changes, editors note to be updated
S3-030748	Security procedures for the set up of UE-initiated tunnels in scenario 3	Siemens	6.10	Discussion / Decision		Agreed to add updated Pseudo-CR in S3-030790
S3-030749	Pseudo-CR to GAA/HTTPS doc: Initial text for the TS	Siemens	6.9	Discussion / Decision		Agreed and 2 editors notes added
S3-030750	Considerations on selective encryption and integrity protection for DRM protected PSS media streams	Ericsson	6.20	Discussion		Presentation slides provided in S3-030776. LS in S3-030777

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030751	Further updates on Combined model for MBMS security	Nokia	6.20	Discussion / Decision		Discussed with S3-030703, S3-030709 and S3-030723. Common decisions reached
S3-030752	DRM usage for MBMS security	Nokia	6.20	Discussion / Decision		LS in S3-030777
S3-030753	CR's on "Handling of key sets at inter-system change"	Ericsson	6.5 / 6.6	Discussion / Decision		CRs in S3-030625 and S3-030626 were postponed
S3-030754	Enhancements to GSM/UMTS AKA	Ericsson	6.5 / 6.6	Discussion		long-term solution. Comments over e-mail requested
S3-030755	Some MBMS data flows	**3**	6.20	Discussion / Approval		attached P-CR updated in S3-030801
S3-030756	Liaison (from Download+DRM group OMA) to 3GPP SA WG4 and SA WG3 on issues on DRM for PSS and MBMS streams	Download+DRM group OMA	6.20	Discussion		LATE_DOC. Related LS in S3-030758 also considered.
S3-030757	T1P1.5 Lawful Intercept	T1P1.5 Chair	5.7	Information		LATE_DOC. LI Group to handle. Noted.
S3-030758	Liaison (from Download+DRM group OMA) to 3GPP SA WG4 and SA WG3 on issues on DRM for PSS and MBMS streams	Download+DRM group OMA	6.20	Action		LATE_DOC. Related LS in S3-030756 also considered.
S3-030759	LS (from SA WG1) on clarified requirements on synchronization for GUP	SA WG1	6.17	Information		LATE_DOC Noted
S3-030760	Response LS (from SA WG1) on support of GSM SIM files (and services) on the USIM, and USIM changes for key management of Voice Group Call Services	SA WG1	6.21	Action		LATE_DOC. Work ongoing in S3. Noted
S3-030761	Proposed CR to 33.102: Introducing the special RAND mechanism (Rel-6)	Orange, Vodafone	6.6	Approval		LATE_DOC. Related CR in S3-030698. Update if needed after 43.020 is updated at next meeting
S3-030762	Security Analysis on the SA2 resolution architecture	Huawei Technologies Co., Ltd.	6.10		S3-030788	LATE_DOC New version with rev marks in S3-030788
S3-030763	Comments on S3-030741: Security Considerations on resolution gateways	Huawei Technologies Co., Ltd.	6.10	Discussion / Decision	S3-030789	LATE_DOC Discussed with other contributions and reply LS to SA2 in S3-030789
S3-030764	Presentation Slides: Liberty Alliance Project - Setting the Standard for Federated Network Identity	Nokia	5.7	Information		Noted
S3-030765	Response LS to S3-030671 on security of the Diameter protocol for the Gq interface	SA WG3	5.1	Approval	S3-030810	Revised in S3-030810
S3-030766	Response LS to S3-030680: Reply LS on privacy and security requirements in GSM/UMTS devices	SA WG3	5.1	Approval	S3-030809	Revised in S3-030809
S3-030767	Impacts on the 3GPP network with a UICC based and a non-UICC based solution in MBMS	Ericsson	6.20	Discussion / Decision		Discussed and noted
S3-030768	Proposed CR to 33.203: Ensuring the correct RAND is used in synchronization failures (Rel-5)	3, Nokia, Vodafone, Ericsson	6.1	Approval		Approved
S3-030769	Proposed CR to 33.203: Ensuring the correct RAND is used in synchronization failures (Rel-6)	3, Nokia, Vodafone, Ericsson	6.1	Approval		Approved
S3-030770	Proposed CR to 33.203: Network behaviour of accepting initial requests (Rel-5)	Nokia	6.1	Approval		Approved
S3-030771	Proposed CR to 33.203: Network behaviour of accepting initial requests (Rel-6)	Nokia	6.1	Approval		Approved
S3-030772	Proposed CR to 33.203: Introducing the SIP Privacy mechanism in Stage 2 specifications (Rel-5)	Krister	7.1	Approval		Includes comments from CN1 and SA2. Approved
S3-030773	LS to T3 cc GSM-R on Status of VGCS work in SA3	SA WG3	6.21	Approval	S3-030803	Revised in S3-030803
S3-030774	LS to GERAN 2 on 'Ciphering for Voice Group Call Services'	SA WG3	6.21	Approval	S3-030804	Revised in S3-030804

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030775	Proposed order of handling MBMS documents	**3**	6.20	Information		Noted
S3-030776	Considerations on selective encryption and integrity protection for DRM protected PSS and MBMS media streams	Ericsson	6.20	Information		Presentation used for S3-030750. Discussed & Noted
S3-030777	LS on Protection of MBMS and DRM Streaming Services	SA WG3	6.20	Approval	S3-030805	Revised in S3-030805
S3-030778	LS to SA2 and SA4 (CC SA1) on service announcement and UE joining procedure	SA WG3	6.20	Approval	S3-030806	Revised in S3-030806
S3-030779	TR 33.8xy: Feasibility Study on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces (Release 6)	Toshiba, Intel, T-Mobile, Telcordia, Thomson, Fujitsu, HP, RIM, SmartTrust, BT Group PLC, Alcatel, Gemplus	6.15	Approval	S3-030792	Minor changes made and revisions removed. Revised in S3-030792
S3-030780	LS to Bluetooth groups: SIM Access Profile in split WLAN-UE	SA WG3	6.10	Approval		Approved
S3-030781	Proposed CR to 33.108: CS Section for 33.108 – User data packet transfer (Rel-6)	SA WG3 LI Group		Approval	S3-030814	Approved and later updated in S3-030814 by MCC
S3-030782	Proposed CR to 33.108: CS Section for 33.108 – LI Management Operation (Rel-6)	SA WG3 LI Group		Approval	S3-030813	Approved and later updated in S3-030813 by MCC
S3-030783	LS (from LI Group) on 3GPP WLAN interworking Lawful Interception Requirements	SA WG3 LI Group	6.10	Action		Delegates to talk to LI colleagues to clarify issues
S3-030784	Proposed CR to 33.107: Reporting TEL URL (Rel-6)	SA WG3 LI Group		Approval		Approved
S3-030785	Proposed CR to 33.108: Reporting TEL URL (Rel-6)	SA WG3 LI Group		Approval		Approved
S3-030786	Proposed CR to 33.106: References (Rel-6)	SA WG3 LI Group		Approval	S3-030811	Change in section 6 is corrupted. LI to repair over e-mail. New version in S3-030811
S3-030787	Proposed CR to 33.108: Alignment of Lawful Interception identifiers length to ETSI TS 101 671 (Rel-6)	SA WG3 LI Group		Approval		Approved
S3-030788	Security Analysis on the SA2 resolution architecture (with and without revision marks)	Huawei Technologies Co., Ltd.	6.10	Discussion		LATE_DOC Not dealt with. Author can submit to next meeting if still relevant
S3-030789	Reply LS to SA WG2 on Tunnel Establishment and Security Association	SA WG3	6.10	Approval	S3-030808	Revised in S3-030808
S3-030790	Pseudo-CR to 33.234: Security procedures for UE-initiated tunneling	Ericsson	6.10	Approval		Agreed for inclusion in draft TS
S3-030791	LS to SA WG2 on Security of EAP or SSID based network advertisements	SA WG3	6.10	Approval	S3-030807	Revised in S3-030807
S3-030792	TR 33.8xy: Feasibility Study on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces (Release 6)	Toshiba, Intel, T-Mobile, Telcordia, Thomson, Fujitsu, HP, RIM, SmartTrust, BT Group PLC, Alcatel, Gemplus	6.15	Approval		Approved for presentation to TSG SA for information
S3-030793	Pseudo-CR to 33.220: Key separation	Siemens	6.9	Approval		Approved. P Christofferson to ask SAGE to advise on Algs
S3-030794	Pseudo-CR to 33.220: Removal of application spefic user profile requirements from GBA	Nortel Networks	6.9	Approval		Approved for inclusion in the draft TS
S3-030795	Pseudo-CR to 33.221: Results of risk analysis in the “Key Pair Storage” informative annex	Gemplus, Giesecke&Devrient, Oberthur, Schlumberger	6.9	Approval		Approved for inclusion in the draft TS
S3-030796	Pseudo-CR to 33.221: on clarifications on Certificate enrollement using pre-certified keys	Schlumberger, OCS, Gemplus	6.9	Approval		Agreed for inclusion in the draft TS
S3-030797	Pseudo-CR to 33.221: on enrollment of keys in a UICC application	Schlumberger, OCS, Gemplus	6.9	Approval		Agreed for inclusion in the draft TS
S3-030798	Proposed correction to IMS CRs	**3**	6.1	Approval		LATE_DOC. Agreed

TD number	Title	Source	Agenda	Document for	Replaced by	Status / Comment
S3-030799	Proposed CR to 33.203: Correcting the text on sending an authentication response (Rel-5) Replacing S3-030601	**3**	6.1	Approval		LATE_DOC. Approved
S3-030800	Proposed CR to 33.203: Correcting the text on sending an authentication response (Rel-6) Replacing S3-030602	**3**	6.1	Approval		LATE_DOC. Approved
S3-030801	Pseudo-CR to MBMS draft TS: Key management	SA WG3	6.20	Approval		Agreed for inclusion in draft TS
S3-030802	Reply LS to CN1 on special-RAND	SA WG3	6.6	Approval		Approved
S3-030803	LS to T3 cc GSM-R on Status of VGCS work in SA3	SA WG3	6.21	Approval		Approved
S3-030804	LS to GERAN 2 on 'Ciphering for Voice Group Call Services'	SA WG3	6.21	Approval		Approved
S3-030805	LS on Protection of MBMS and DRM Streaming Services	SA WG3	6.20	Approval		Approved
S3-030806	LS to SA2 and SA4 (CC SA1) on service announcement and UE joining procedure	SA WG3	6.20	Approval		Approved
S3-030807	LS to SA WG2 on Security of EAP or SSID based network advertisements	SA WG3	6.10	Approval		Approved
S3-030808	Reply LS to SA WG2 on Tunnel Establishment and Security Association	SA WG3	6.10	Approval		Approved
S3-030809	Response LS to S3-030680: Reply LS on privacy and security requirements in GSM/UMTS devices	SA WG3	5.1	Approval		Approved
S3-030810	Response LS to S3-030671 on security of the Diameter protocol for the Gq interface	SA WG3	5.1	Approval		Approved
S3-030811	Proposed CR to 33.106: References (Rel-6)	SA WG3 LI Group		Approval		e-mail check ongoing
S3-030812	Proposed CR to 33.203: Removing anti-replay requirement from Confidentiality clause (Rel-6)	Ericsson	6.1	Approval		Approved
S3-030813	Proposed CR to 33.108: CS Section for 33.108 – User data packet transfer (Rel-6)	SA WG3 LI Group		Approval		Approved
S3-030814	Proposed CR to 33.108: CS Section for 33.108 – LI Management Operation (Rel-6)	SA WG3 LI Group		Approval		Approved

* Documents in blue font were created after the close of the meeting.

Annex C: Status of specifications under SA WG3 responsibility

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
Release 1999 GSM Specifications and Reports							
TR	01.31	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	8.0.0	R99	S3	WRIGHT, Tim	
TR	01.33	Lawful Interception requirements for GSM	8.0.0	R99	S3	MCKIBBEN, Bernie	
TS	01.61	General Packet Radio Service (GPRS); GPRS ciphering algorithm requirements	8.0.0	R99	S3	WALKER, Michael	
TS	02.09	Security aspects	8.0.1	R99	S3	CHRISTOFFERSSON, Per	
TS	02.33	Lawful Interception (LI); Stage 1	8.0.1	R99	S3	MCKIBBEN, Bernie	
TS	03.20	Security-related Network Functions	8.1.0	R99	S3	NGUYEN NGOC, Sebastien	
TS	03.33	Lawful Interception; Stage 2	8.1.0	R99	S3	MCKIBBEN, Bernie	
Release 1999 3GPP Specifications and Reports							
TS	21.133	3G security; Security threats and requirements	3.2.0	R99	S3	CHRISTOFFERSSON, Per	
TS	22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	3.2.1	R99	S3	NGUYEN NGOC, Sebastien	Transfer>TSG#4
TS	22.031	Fraud Information Gathering System (FIGS); Service description; Stage 1	3.0.0	R99	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 02.31 R99 and 42.031 Rel-4 & Rel-5 -> 22.031.
TS	22.032	Immediate Service Termination (IST); Service description; Stage 1	3.0.0	R99	S3	WRIGHT, Tim	SP-16: created to take over from 02.32 (R99) and 42.032 (Rel-4 onwards).
TS	23.031	Fraud Information Gathering System (FIGS); Service description; Stage 2	3.0.0	R99	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 03.31 R99 and 43.031 Rel-4 & Rel-5 -> 23.031.
TS	23.035	Immediate Service Termination (IST); Stage 2	3.1.0	R99	S3	WRIGHT, Tim	SP-16: created to take over from 03.35 (R99) and 43.035 (Rel-4 onwards).
TS	33.102	3G security; Security architecture	3.13.0	R99	S3	BLOMMAERT, Marc	
TS	33.103	3G security; Integration guidelines	3.7.0	R99	S3	BLANCHARD, Colin	
TS	33.105	Cryptographic Algorithm requirements	3.8.0	R99	S3	CHIKAZAWA, Takeshi	
TS	33.106	Lawful interception requirements	3.1.0	R99	S3	WILHELM, Berthold	
TS	33.107	3G security; Lawful interception architecture and functions	3.5.0	R99	S3	WILHELM, Berthold	
TS	33.120	Security Objectives and Principles	3.0.0	R99	S3	WRIGHT, Tim	
TR	33.901	Criteria for cryptographic Algorithm design process	3.0.0	R99	S3	BLOM, Rolf	
TR	33.902	Formal Analysis of the 3G Authentication Protocol	3.1.0	R99	S3	HORN, Guenther	
TR	33.908	3G Security; General report on the design, specification and evaluation of 3GPP standard confidentiality and integrity algorithms	3.0.0	R99	S3	WALKER, Michael	TSG#7: S3-000105=NP-000049
TS	35.201	Specification of the 3GPP confidentiality and integrity algorithms; Document 1: f8 and f9 specifications	3.2.0	R99	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.202	Specification of the 3GPP confidentiality and integrity algorithms; Document 2: Kasumi algorithm specification	3.1.2	R99	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.203	Specification of the 3GPP confidentiality and integrity algorithms; Document 3: Implementors' test data	3.1.2	R99	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.204	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	3.1.2	R99	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
Release 4 3GPP Specifications and Reports							
TS	21.133	3G security; Security threats and requirements	4.1.0	Rel-4	S3	CHRISTOFFERSSON, Per	

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
TS	22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	4.1.0	Rel-4	S3	NGUYEN NGOC, Sebastien	Transfer>TSG#4
TS	22.031	Fraud Information Gathering System (FIGS); Service description; Stage 1	4.0.0	Rel-4	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 02.31 R99 and 42.031 Rel-4 & Rel-5 -> 22.031.
TS	22.032	Immediate Service Termination (IST); Service description; Stage 1	4.0.0	Rel-4	S3	WRIGHT, Tim	SP-16: created to take over from 02.32 (R99) and 42.032 (Rel-4 onwards).
TS	23.031	Fraud Information Gathering System (FIGS); Service description; Stage 2	4.0.0	Rel-4	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 03.31 R99 and 43.031 Rel-4 & Rel-5 -> 23.031.
TS	23.035	Immediate Service Termination (IST); Stage 2	4.1.0	Rel-4	S3	WRIGHT, Tim	SP-16: created to take over from 03.35 (R99) and 43.035 (Rel-4 onwards).
TS	33.102	3G security; Security architecture	4.5.0	Rel-4	S3	BLOMMAERT, Marc	
TS	33.103	3G security; Integration guidelines	4.2.0	Rel-4	S3	BLANCHARD, Colin	
TS	33.105	Cryptographic Algorithm requirements	4.1.0	Rel-4	S3	CHIKAZAWA, Takeshi	
TS	33.106	Lawful interception requirements	4.0.0	Rel-4	S3	WILHELM, Berthold	
TS	33.107	3G security; Lawful interception architecture and functions	4.3.0	Rel-4	S3	WILHELM, Berthold	
TS	33.120	Security Objectives and Principles	4.0.0	Rel-4	S3	WRIGHT, Tim	
TS	33.200	3G Security; Network Domain Security (NDS); Mobile Application Part (MAP) application layer security	4.3.0	Rel-4	S3	ESCOTT, Adrian	2001-05-24: title grows MAP; see 33.210 for IP equivalent.
TR	33.901	Criteria for cryptographic Algorithm design process	4.0.0	Rel-4	S3	BLOM, Rolf	
TR	33.902	Formal Analysis of the 3G Authentication Protocol	4.0.0	Rel-4	S3	HORN, Guenther	
TR	33.903	Access Security for IP based services	none	Rel-4	S3	VACANT,	
TR	33.908	3G Security; General report on the design, specification and evaluation of 3GPP standard confidentiality and integrity algorithms	4.0.0	Rel-4	S3	WALKER, Michael	TSG#7: S3-000105=NP-000049
TR	33.909	3G Security; Report on the design and evaluation of the MILENAGE algorithm set; Deliverable 5: An example algorithm for the 3GPP authentication and key generation functions	4.0.1	Rel-4	S3	WALKER, Michael	TSG#7: Is a reference in 33.908. Was withdrawn, but reinstated at TSG#10.
TS	35.201	Specification of the 3GPP confidentiality and integrity algorithms; Document 1: f8 and f9 specifications	4.1.0	Rel-4	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.202	Specification of the 3GPP confidentiality and integrity algorithms; Document 2: Kasumi algorithm specification	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.203	Specification of the 3GPP confidentiality and integrity algorithms; Document 3: Implementors' test data	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.204	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.205	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	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE. 2002-06: clarified that deliverable is TS not TR.
TS	35.206	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 2: Algorithm specification	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE
TS	35.207	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	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
TS	35.208	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	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE
TR	35.909	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	4.0.0	Rel-4	S3	WALKER, Michael	ex SAGE
TR	41.031	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	4.0.1	Rel-4	S3	WRIGHT, Tim	
TR	41.033	Lawful Interception requirements for GSM	4.0.1	Rel-4	S3	MCKIBBEN, Bernie	
TS	41.061	General Packet Radio Service (GPRS); GPRS ciphering algorithm requirements	4.0.0	Rel-4	S3	WALKER, Michael	
TS	42.009	Security Aspects	4.0.0	Rel-4	S3	CHRISTOFFERSSON, Per	
TS	42.033	Lawful Interception; Stage 1	4.0.0	Rel-4	S3	MCKIBBEN, Bernie	
TS	43.020	Security-related network functions	4.0.0	Rel-4	S3	GILBERT, Henri	
TS	43.033	Lawful Interception; Stage 2	4.0.0	Rel-4	S3	MCKIBBEN, Bernie	
Release 5 3GPP Specifications and Reports							
TS	22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	5.0.0	Rel-5	S3	NGUYEN NGOC, Sebastien	Transfer>TSG#4
TS	22.031	Fraud Information Gathering System (FIGS); Service description; Stage 1	5.0.0	Rel-5	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 02.31 R99 and 42.031 Rel-4 & Rel-5 -> 22.031.
TS	22.032	Immediate Service Termination (IST); Service description; Stage 1	5.0.0	Rel-5	S3	WRIGHT, Tim	SP-16: created to take over from 02.32 (R99) and 42.032 (Rel-4 onwards).
TS	23.031	Fraud Information Gathering System (FIGS); Service description; Stage 2	5.0.0	Rel-5	S3	WRIGHT, Tim	SP-18: decided FIGS is joint GERAN/UTRAN so 03.31 R99 and 43.031 Rel-4 & Rel-5 -> 23.031.
TS	23.035	Immediate Service Termination (IST); Stage 2	5.1.0	Rel-5	S3	WRIGHT, Tim	SP-16: created to take over from 03.35 (R99) and 43.035 (Rel-4 onwards).
TS	33.102	3G security; Security architecture	5.3.0	Rel-5	S3	BLOMMAERT, Marc	
TS	33.106	Lawful interception requirements	5.1.0	Rel-5	S3	WILHELM, Berthold	
TS	33.107	3G security; Lawful interception architecture and functions	5.6.0	Rel-5	S3	WILHELM, Berthold	
TS	33.108	3G security; Handover interface for Lawful Interception (LI)	5.5.0	Rel-5	S3	WILHELM, Berthold	2001-12-04 Title changed from "Lawful Interception; Interface between core network and law agency equipment" (Berthold.Wilhelm@RegTP.de).
TS	33.200	3G Security; Network Domain Security (NDS); Mobile Application Part (MAP) application layer security	5.1.0	Rel-5	S3	ESCOTT, Adrian	2001-05-24: title grows MAP; see 33.210 for IP equivalent.
TS	33.201	Access domain security	none	Rel-5	S3	POPE, Maurice	
TS	33.203	3G security; Access security for IP-based services	5.7.0	Rel-5	S3	BOMAN, Krister	
TS	33.210	3G security; Network Domain Security (NDS); IP network layer security	5.5.0	Rel-5	S3	KOIEN, Geir	2001-05-24: 33.200 split into MAP (33.200) and IP (33.210).
TR	33.900	Guide to 3G security	0.4.1	Rel-5	S3	BROOKSON, Charles	
TR	33.903	Access Security for IP based services	none	Rel-5	S3	VACANT,	
TS	35.201	Specification of the 3GPP confidentiality and integrity algorithms; Document 1: f8 and f9 specifications	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.202	Specification of the 3GPP confidentiality and integrity algorithms; Document 2: Kasumi algorithm specification	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
TS	35.203	Specification of the 3GPP confidentiality and integrity algorithms; Document 3: Implementors' test data	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.204	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE; supplied by ETSI under licence
TS	35.205	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	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE. 2002-06: clarified that deliverable is TS not TR.
TS	35.206	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 2: Algorithm specification	5.1.0	Rel-5	S3	WALKER, Michael	ex SAGE
TS	35.207	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	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE
TS	35.208	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	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE
TR	35.909	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	5.0.0	Rel-5	S3	WALKER, Michael	ex SAGE
TR	41.031	Fraud Information Gathering System (FIGS); Service requirements; Stage 0	5.0.0	Rel-5	S3	WRIGHT, Tim	
TR	41.033	Lawful Interception requirements for GSM	5.0.0	Rel-5	S3	MCKIBBEN, Bernie	
TS	42.033	Lawful Interception; Stage 1	5.0.0	Rel-5	S3	MCKIBBEN, Bernie	
TS	43.020	Security-related network functions	5.0.0	Rel-5	S3	GILBERT, Henri	
TS	43.033	Lawful Interception; Stage 2	5.0.0	Rel-5	S3	MCKIBBEN, Bernie	
Release 6 3GPP Specifications and Reports							
TS	33.102	3G security; Security architecture	6.0.0	Rel-6	S3	BLOMMAERT, Marc	Created by CRs @TSG SA#21
TS	33.107	3G security; Lawful interception architecture and functions	6.0.0	Rel-6	S3	WILHELM, Berthold	Created by CRs @TSG SA#21
TS	33.108	3G security; Handover interface for Lawful Interception (LI)	6.3.0	Rel-6	S3	WILHELM, Berthold	2001-12-04 Title changed from "Lawful Interception; Interface between core network and law agency equipment" (Berthold.Wilhelm@RegTP.de).
TS	33.203	3G security; Access security for IP-based services	6.0.0	Rel-6	S3	BOMAN, Krister	Created by CRs @TSG SA#21
TS	33.210	3G security; Network Domain Security (NDS); IP network layer security	6.3.0	Rel-6	S3	KOIEN, Geir	2001-05-24: 33.200 split into MAP (33.200) and IP (33.210).
TR	33.810	3G Security; Network Domain Security / Authentication Framework (NDS/AF); Feasibility Study to support NDS/IP evolution	6.0.0	Rel-6	S3	N, A	2002-07-22: was formerly 33.910.
TS	55.205	Specification of the GSM-MILENAGE algorithms: An example algorithm set for the GSM Authentication and Key Generation Functions A3 and A8	6.0.0	Rel-6	S3	WALKER, Michael	Not subject to export control.
TS	55.216	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	6.2.0	Rel-6	S3	N, A	

Type	Number	Title	Ver at TSG#18	Rel	TSG/ WG	Editor	Comment
TS	55.217	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 2: Implementors' test data	6.1.0	Rel-6	S3	N, A	
TS	55.218	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	6.1.0	Rel-6	S3	N, A	
TR	55.919	Specification of the A5/3 encryption algorithms for GSM and EDGE, and the GEA3 encryption algorithm for GPRS; Document 4: Design and evaluation report	6.1.0	Rel-6	S3	N, A	

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	WI
33.106	006	-	Rel-6	Correction to lawful interception references (currently on e-mail approval)	F	5.1.0	S3-31	S3-030811	SEC1-LI
33.107	035	-	Rel-6	Reporting TEL URL	F	6.0.0	S3-31	S3-030784	SEC1-LI
33.108	030	-	Rel-6	CS Section for 33.108 – LI Management Operation (editorially corrected by MCC)	F	6.3.0	S3-31	S3-030813	SEC1-LI
33.108	031	-	Rel-6	CS Section for 33.108 – User data packet transfer (editorially corrected by MCC)	F	6.3.0	S3-31	S3-030814	SEC1-LI
33.108	032	-	Rel-6	Reporting TEL URL	B	6.3.0	S3-31	S3-030785	SEC1-LI
33.108	033	-	Rel-6	Alignment of Lawful Interception identifiers length to ETSI TS 101 671	F	6.3.0	S3-31	S3-030787	SEC1-LI
33.203	047	1	Rel-5	Correcting the text on sending an authentication response	F	5.7.0	S3-31	S3-030799	IMS-ASEC
33.203	048	1	Rel-6	Correcting the text on sending an authentication response	A	6.0.0	S3-31	S3-030800	IMS-ASEC
33.203	058	1	Rel-5	Introducing the SIP Privacy mechanism in Stage 2 specifications	F	5.7.0	S3-31	S3-030772	IMS-ASEC
33.203	059	-	Rel-6	Removing anti-replay requirement from Confidentiality clause (corrected to Rel-6 by MCC)	D	6.0.0	S3-31	S3-030812	IMS-ASEC
33.203	060	-	Rel-5	Ensuring the correct RAND is used in synchronization failures	F	5.7.0	S3-31	S3-030768	IMS-ASEC
33.203	061	-	Rel-6	Ensuring the correct RAND is used in synchronization failures	A	6.0.0	S3-31	S3-030769	IMS-ASEC
33.203	062	-	Rel-5	Network behaviour when a new REGISTER is challenged during an on going authentication	F	5.7.0	S3-31	S3-030770	IMS-ASEC
33.203	063	-	Rel-6	Network behaviour when a new REGISTER is challenged during an on going authentication	A	6.0.0	S3-31	S3-030771	IMS-ASEC

D.1 List of CRs to specifications under SA WG3 responsibility agreed at meeting #30

Some CRs agreed at meeting #30 were modified or postponed at meeting #31. The following list shows the new status of CRs from meeting #30.

Spec	CR	Rev	Phase	Subject	Cat	Cur Vers	WG meeting	WG TD	WI
33.102	183	-	Rel-5	Handling of key sets at inter-system change (Postponed at meeting #31 - Not for TSG SA#22)	F	5.3.0	S3-30	S3-030625	SEC1-NDS, IMS-ASEC
33.102	184	-	Rel-6	Handling of key sets at inter-system change (Postponed at meeting #31 - Not for TSG SA#22)	A	6.0.0	S3-30	S3-030626	SEC1-NDS, IMS-ASEC
33.107	034	-	Rel-6	MSISDN/IMEI clarification for GPRS interception	F	6.0.0	S3-30	S3-030607	SEC1-LI
33.108	027	-	Rel-5	Correction to Annex G on TCP based transport	F	5.5.0	S3-30	S3-030532	SEC1-LI
33.108	028	-	Rel-6	Correction to Annex G on TCP based transport	A	6.3.0	S3-30	S3-030608	SEC1-LI
33.108	029	-	Rel-6	LI Reporting of Dialed Digits	B	6.3.0	S3-30	S3-030606	SEC1-LI
33.203	047	-	Rel-5	Correcting the text on sending an authentication response (Revised at meeting #31)	F	5.7.0	S3-30	S3-030601	IMS-ASEC
33.203	048	-	Rel-6	Correcting the text on sending an authentication response (Revised at meeting #31)	A	6.0.0	S3-30	S3-030602	IMS-ASEC
33.203	049	-	Rel-5	SA procedures	F	5.7.0	S3-30	S3-030609	IMS-ASEC
33.203	050	-	Rel-6	SA procedures	A	6.0.0	S3-30	S3-030611	IMS-ASEC
33.203	051	-	Rel-5	SA parameters and management	F	5.7.0	S3-30	S3-030610	IMS-ASEC
33.203	052	-	Rel-6	SA parameters and management	A	6.0.0	S3-30	S3-030612	IMS-ASEC
33.203	053	-	Rel-5	Reject or discard of messages	F	5.7.0	S3-30	S3-030614	IMS-ASEC
33.203	054	-	Rel-6	Reject or discard of messages	A	6.0.0	S3-30	S3-030615	IMS-ASEC
33.203	055	-	Rel-5	Correcting the SA handling procedures	F	5.7.0	S3-30	S3-030619	IMS-ASEC
33.203	056	-	Rel-6	Correcting the SA handling procedures	A	6.0.0	S3-30	S3-030620	IMS-ASEC
33.203	057	-	Rel-6	Terminology alignment	F	6.0.0	S3-30	S3-030613	IMS-ASEC
33.203	058	-	Rel-5	Introducing the SIP Privacy mechanism in Stage 2 specifications (Revised at meeting #31)	F	5.7.0	S3-30	S3-030648	IMS-ASEC
55.205	001	-	Rel-6	Correction of reference	D	6.0.0	S3-30	S3-030489	SEC1-CSALGO1

Annex E: List of Liaisons

E.1 Liaisons to the meeting

TD number	Title	Source TD	Comment/Status
S3-030668	Reply LS (from CN WG1) on Special-RAND mechanism	N1-031612	Response LS in S3-030802
S3-030669	LS (from CN WG4) on Special-RAND mechanism	N4-031289	Noted
S3-030670	LS (from CN WG1) on Introducing the Privacy Mechanism in Stage 2	N1-031728	CR updated in line with this LS in S3-030772
S3-030671	LS (from CN WG3) on security of the Diameter protocol for the Gq interface	N3-030830	Response LS in S3-030765
S3-030672	LS to SA3 on Clarification on use of Re-attempt Information element in Authentication Failure Report service	N4-031152	C Blanchard to lead e-mail discussion and provide response by 5 Jan 2004
S3-030673	The requirement and feasibility of IMS watcher authentication	N1-031724	Noted
S3-030674	Reply LS (from SA WG2) on "The requirement and feasibility of IMS watcher authentication"	S2-033803	Noted
S3-030675	Response (from SA WG2) for Introducing the Privacy Mechanism in Stage 2	S2-033804	CR updated in line with this LS in S3-030772
S3-030676	LS (from SA WG2) on Tunnel Establishment and Security Association	S2-033813	Reply LS to SA2 in S3-030789
S3-030678	Reply (from SA WG1) to LS on potential USIM impact of the MBMS security framework S1-031104; T3-030697)	S1-031334	Noted
S3-030680	LS (from SA WG1) on Privacy and Security Requirements within GSM/UMTS Devices	S1-031312	Response LS in S3-030766
S3-030681	Reply (from SA WG1) on the requirement and feasibility of IMS watcher authentication	S1-031210	Noted
S3-030682	LS (from GSMA SG) on request for information on impact on equipment of solutions	-	Delegates asked to discuss questions in companies and comment to GSMA. Noted.
S3-030756	Liaison (from Download+DRM group OMA) to 3GPP SA WG4 and SA WG3 on issues on DRM for PSS and MBMS streams	OMA-BAC-DLDRM-2003-0264	LATE_DOC. Related LS in S3-030758 also considered.
S3-030757	T1P1.5 Lawful Intercept	-	LATE_DOC. LI Group to handle. Noted.
S3-030758	Liaison (from Download+DRM group OMA) to 3GPP SA WG4 and SA WG3 on issues on DRM for PSS and MBMS streams	OMA-BAC-DLDRM-2003-0221R3	LATE_DOC. Related LS in S3-030756 also considered.
S3-030759	LS (from SA WG1) on clarified requirements on synchronization for GUP	S1-031278	LATE_DOC Noted
S3-030760	Response LS (from SA WG1) on support of GSM SIM files (and services) on the USIM, and USIM changes for key management of Voice Group Call Services	S1-031208	LATE_DOC. Work ongoing in S3. Noted
S3-030783	LS (from LI Group) on 3GPP WLAN interworking Lawful Interception Requirements	S3LI03_124r1	Delegates to talk to LI colleagues to clarify issues

E.2 Liaisons from the meeting

TD number	Title	Comment/Status	TO	CC
S3-030780	LS to Bluetooth groups: SIM Access Profile in split WLAN-UE	Approved	**Bluetooth Architecture Review Board (BARB), Bluetooth CAR group, Bluetooth Security Expert Group**	
S3-030802	Reply LS to CN1 on special-RAND	Approved	**CN WG1**	**GERAN WG2**
S3-030803	LS to T3 cc GSM-R on Status of VGCS work in SA3	Approved	**T WG3**	**ETSI EP RT, GERAN WG2, ETSI EP SCP**
S3-030804	LS to GERAN 2 on 'Ciphering for Voice Group Call Services'	Approved	**GERAN WG2**	**ETSI EP RT, T WG3**
S3-030805	LS on Protection of MBMS and DRM Streaming Services	Approved	**SA WG4, OMA DLDRM, ETSI SAGE**	**SA WG1**
S3-030806	LS to SA2 and SA4 (CC SA1) on service announcement and UE joining procedure	Approved	**SA WG1, SA WG2, SA WG4**	**-**
S3-030807	LS to SA WG2 on Security of EAP or SSID based network advertisements	Approved	**SA WG2**	**-**
S3-030808	Reply LS to SA WG2 on Tunnel Establishment and Security Association	Approved	**SA WG2**	**-**
S3-030809	Response LS to S3-030680: Reply LS on privacy and security requirements in GSM/UMTS devices	Approved	**SA WG1**	**GSMA SeRG**
S3-030810	Response LS to S3-030671 on security of the Diameter protocol for the Gq interface	Approved	**CN WG3**	**SA WG2**

Annex F: Actions from the meeting

AP 31/01: B. Sahlin to send IETF firewall-standardisation information to the e-mail list.

AP 31/02: B. Owen to contact SA WG3 LI group for results of LI impact of tunnelling solution for WLAN during the meeting.

AP 31/03: A. Bergmann to run an e-mail discussion on the MMS standardisation work and to organise a Workshop in January/February 2004 across the involved bodies if necessary.

AP 31/04: T Haukka to run an e-mail discussion on TD S3-030727. Comments by 23 December 2003, conclusions to e-mail list 15 January 2004.

AP 31/05: C. Blanchard to lead an e-mail discussion on the questions from CN WG4 in TD S3-030672. Discussion and comment deadline 17 December 2003. Draft response created by 24 December 2003. Approved response by 5 January 2004.

AP 31/06: G. Horn and K. Boman to consider section 3 of TD S3-030731 and comment to T. Haukka before 20 December 2003.

AP 31/07: T. Haukka and K. Boman to provide any comments on section 2 of TD S3-030746 to G. Horn.

AP 31/08: C. Blanchard was asked to check the changes made to the figures in TS 33.234 are reflected in the SA WG2 specification where they were originally copied from.

AP 31/09: D. Mariblanca to lead an e-mail discussion on the editors notes in section 6.1.5 of the Pseudo-CR in TD S3-030790.

AP 31/010: M. Pope to send SA WG3 Work Plan status details to the mailing list on 24 November 2003. Rapporteurs and Editors to provide feedback to M. Pope by 27 November 2003 in order to have an accurate SA WG3 status in the work plan presented to TSG SA #22.