

14 - 17 May 2002

Victoria, Canada

Tdoc S3 LI 02\_103

**Report of the 3GPP TSG SA WG3-LI (S3-LI) meeting #2/02 on lawful interception**

**Orlando 9-11 April 2002**

Please direct all comments to  
Rupert Thorogood at [rupert.thorogood@homeoffice.gsi.gov.uk](mailto:rupert.thorogood@homeoffice.gsi.gov.uk)

Chairman:	Brye Bonner	Motorola
Support/Secretary:	Maurice Pope	ETSI
Meeting Secretary:	Rupert Thorogood	UK Home Office

List of participants: see annex A  
List of documents: see **tdoc S3LI02\_093r1**

## **1 1 Opening of Meeting**

The meeting was opened by the Chair Brye Bonner.

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SMG10-WPD specifications:

rapporteur

GSM 01.33: Lawful Interception requirements for GSM version 8.0.0

David Miles (Cellnet)

GSM 02.33: Lawful Interception - stage 1 version 8.0.0

Brye Bonner (Motorola)

GSM 03.33: Lawful Interception - stage 2 version 8.0.0  
(Siemens)

Bernhard Spalt

3G LI specifications:

3G TS 33.106 Lawful Interception Requirements version 5.0.0  
(TP)

Berthold Wilhelm (Reg)

3G TS 33.107 Lawful Interception Architecture and Functions version 5.0.0  
(TP)

Berthold Wilhelm (Reg)

3G TS 33.108 Handover Interface for Lawful Interception version 0.3.1  
(Networks)

Ron Ryan (Nortel)

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## **1 Meeting Objectives**

The Chair stated that the main issues for this meeting were:

- 1. 1. Discuss methods to improve working procedures**
- 2. 2. Discuss work schedule for 3GPP 33.108 R5 per SA and SA3 comments**
- 3. 3. Develop initial draft TS 33.108 CS**

4. 4. Finalise open issues for ASN.1

5. 5. Elect vice chair(s)

#### **Milestones:**

1. 1. Complete meeting schedule for 2002
2. 2. Draft meeting schedule for 2003

## **2 Approval of Agenda**

The agenda with working schedule in tdoc S3LI02\_070r2 was proposed by the chair. Selvam Rengasami wished to add the status of the 3GPP annexes. Ron Ryan asked about IPv6 and its impact on LI. and wished to add to agenda as Tdoc S3LI01\_095.

## **3 Election of Vice Chair.**

The Chair proposed Bernd Adams as Vice Chair to which there were no objections.

## **4 Registration and assignment of input documents**

The Registration of input documents Tdoc S3LI02\_093.

## **5 Approval of Report of previous meeting**

The final report from the S3-LI meeting in Amsterdam 29-31 January was tabled as Tdoc S3LI02\_084. After some amendment to the part referring to Tdoc S3LI01\_061 the minutes were reissued as Tdoc S3LI02\_084r1.

#### **Action Points**

AP04\_01/02 was transferred to Maurice Pope.

**AP02-13 Maurice Pope to ask chair of SA3 whether he considers it desirable for Far East members to join the LI group**

All the rest of the action points for 2001 are closed and will be removed from the list.

## **6 Reports**

### **6.1 SA3**

**6.1.1 tdoc S3LI02\_096** (SA3 document 020131) was tabled for information and noted.

**6.1.2 report of meeting SA#14 tdoc S3LI02\_097** (SA3 doc 020005). The CRs were approved and Maurice Pope will support the LI meeting where he can. He reported verbally from SA#15 that for LI specifically the question on regional requirements was discussed. It was agreed that there could be a superset for the different regions. What is actually implemented will depend on each region. In other words regional specific normative annexes can be used. 33.108 was noted for information.

**6.1.3 liaison statement TSG-CN5 reply** (S3 020046) presented by Brad Owen and concerns LI related information in CN5 following a request for any references in their specs. They say there is no reference of requirements but wish to know if there any implications. On closer examination there would appear to be difficulties and a Liaison Statement will be sent alerting them to this.

**AP02-14 Rupert Thorogood and Chair to draft LS regarding the possibility of an unlicensed provider controlling the networks**

**AP02-15 LE representatives discuss the implications of the TSG-CN5 reply**

**6.1.4 liaison statement for OoBTC** (S3-020036) **tdoc S3LI02\_079**. This was noted.

**6.1.5 liaison statement for AMR-WB** (S3-020037) **tdoc S3LI02\_080** was presented by Brad Owen. CN4 are now completing this study and wish to clarify the LI item. This concerns the application of wideband codecs on LI. This will be discussed again under 8.6

**6.1.6 liaison statement for TSG-SA WG2** (S3-020031, and S2-013330 020244 020246). This will be discussed under Agenda item 14.

**6.1.7 liaison statement for TSG-SA** (S3-020022 and S2-022161). This was deferred to agenda item 14.

## **6.2 SA2**

**6.2.1 report of meeting SA WG3#22**. This concerns the report from LI to SA3. The election of Brye Bonner as Chair was approved. LS concerning LI only may be sent directly. The Other LS were approved and/or noted. The CRs were all approved. The WI on HI was approved.

## **6.3 TC Sec LI**

Manfred Beirer gave a verbal report from the last meeting in Sophia Antipolis. He said that the first day had been a workshop on ASN.1. (See later). There were considerable

number of CRs on 201 671. It was decided that the IP HI (in fixed networks) work would be done in a dedicated meeting in London on 17 April. New arrangements for the plenary meetings had been proposed.

## **6.4 T1P1.sah**

Ron Ryan reported that a number of documents have been submitted to this meeting. They have addressed most of the issues and good progress is being made.

## **6.5 TR45 LAES**

### **6.5.1 liaison to SA3 LI**

Pierre Truong reported that the group has agreed on the high level requirements. There are two documents before this meeting as **tdoc S3LI02\_088** and **tdoc S3LI02\_089** under cover of **tdoc S3LI02\_087**.

## **6.6 TIPHON**

Ron Ryan suggested that the TIPHON report (their TD076) should be tabled and this was done as **Tdoc S3LI01\_098**. This should be studied before the next meeting.

## **7. Changes to TS 33.108**

### **7.1 review SA and SA3 comments for R5.**

It was reported that in order for CS and IMS to be in R5 the major functional content needs to be available by June 10 for SA16 approval.

### **7.2 identify needed additions and work schedule for R5.**

There was discussion on whether there should be regional standards for CS with reference to 201 671 and J-STD-025A. It was decided that the CS contribution would be done by e-mail in time for the June meeting and to request SA3 to forward it directly to SA.

**AP02-16**      **Chair to ask SA3 to approve passing the revised 33.108 directly to SA (this to include CRs to 33.107)**

### **7.3 3GPP TS 33.108**

**tdoc S3LI02\_078**. This was presented by Ron Ryan who described the recent changes.

### **7.4 CR on 33.108 Rel-5 SMS-initiator adding**

**tdoc S3LI02\_074**. Presented by Marcus Lutz to bring consistency throughout 33.108. This was agreed after minor modifications.

## **7.5 IMS interception in TS 33.108**

**tdoc S3LI02\_076.** This was presented by Bernard Spalt who identified missing parts. Furthermore there is a new event in the SIP message that requires correlation. He proposed new text for chapter 7 and extensions to 3.2 and B.3. After considerable discussion it was decided to discuss it off line.

Marcus Lutz made a contribution **tdoc S3LI02\_075** correlation of interception results between IMS and IP. He will study the matter further and discuss the proposal in June.

**tdoc S3LI02\_076r1** was presented by Bernhard Spalt. This was accepted for inclusion in 33.108 although some further study is necessary regarding SIP messages.

## **8. Finalise ASN.1 discussion**

### **8.1 Inputs and Exports.**

**tdoc S3LI02\_071** was presented by Manfred Beierer and concerned the input and export of parameters following the ASN.1 workshop. He produced a table, which showed the responsibility between Sec LI and SA3 LI, and what action was required. There were five recommendations that were noted. The action list was carefully reviewed and proposed changes will be liaised will Sec LI.

### **8.2 Object Identifiers**

**tdoc S3LI02\_072** was presented by Manfred Beierer and concerned the use of OID in OSI. This was accepted and will be incorporated in 33.108. We decided to use Hex 0 for the object identifier.

### **8.3 Liaison from TC Sec LI**

**tdoc S3LI02\_094** from the Chair of Sec LI shows the modified Object Tree. In addition it states that Sec LI is investigating the registration of ROSE operations. Finally it requests assistance in further work in the use of Object Identifiers. See **tdoc S3LI02\_100** liaison statement to Sec LI.

## **9. Identify needed changes to TS 33.108**

### **9.1 Proposed new text for TS 33.108**

**tdoc S3LI02\_077** presented by Pierre Truong and provided a matrix to cross reference the terms in the 3GPP and TIA TR45 standards. It was agreed that this should be placed in the US annex.

### **9.2 Changes to TS 33.108 to support intercept at the GGSN**

**tdoc S3LI02\_083** presented by Selvam Rengasami in the form of a CR and agreed by T1P1.sah. It clarifies the operation of the GGSN and proposes text for sections 6.6 and 6.7. This was accepted and will be incorporated.

### **9.3 Changes to TS 33.108 to add support for Serving System Reporting**

**tdoc S3LI02\_086** presented by Selvam Rengasami in the form of a CR and agreed by T1P1.sah. After considerable discussion this will be inserted but with the requirement that it will be a national option. To be presented as a revised document.

**tdoc S3LI02\_086r1** reflects the changes following discussion. After minor amendments this was approved and reissued at **r2**.

## **10. Identify needed changes to TS 33.107**

### **10.1 CR on 33.107 Rel-5 SMS Initiator adding**

**tdoc S3LI02\_073** presented by Marcus Lutz to correct some errors. Accepted as modified. This was reissued as **tdoc S3LI02\_073r1**.

### **10.2 Correlation for interception between IMS and PS**

Discussed under 7.5 above.

### **10.3 Changes to 33.107 to support interception at the GGSN**

**tdoc S3LI02\_082** presented by Selvam Rengasami. Accepted as modified but decision on placement to be decided with the Editor.

### **10.4 Inclusion of Serving System Reporting in TS 33.107**

**tdoc S3LI02\_085** presented by Selvam Rengasami and has been agreed by T1P1.sah. The concept was accepted by a revised document will be tabled to explain the extent of the changes and that it will be dependant on national requirements.

**tdoc S3LI02\_085r1** reflects the changes following discussion. After further discussion this will require further amendment and was reissued as **r2** and approved.

### **10.5 Clarification of CR to SA3#22 (S3-020130)**

Maurice Pope explained that there were two CRs sent to SA3 (on PDP context modification and QoS). These have been combined in one CR and approved by SA.

## **11. Deficiencies in TS 33.107 and TS 33.108**

### **11.1 Quantitative Aspects**

**tdoc S3LI02\_090** presented by Selvam Rengasami and seeks to address the question of multiple simultaneous interceptions on a target. He suggests that it is added to 6.4 of 33.108. This was accepted as modified with up to five LEAs.

## **11.2 reporting of packet activity IRI**

**tdoc S3LI02\_092** presented by Selvam Rengasami and concerns the reporting of packet activity in IRI interception only. This was not accepted as a concept and deferred for further study.

## **12. Identify needed changes in TS 33.106**

### **12.1 Clarify Interception capabilities**

**tdoc S3LI02\_084** presented by Selvam Rengasami and has been agreed by T1P1.sah. It proposes to update the reference in 33.106 from J-STD-025 to J-STD-25A and add sections regarding encryption, integrity of data and the need of unobtrusive interception. Following some discussion this will be revised and resubmitted.

**tdoc S3LI02\_084r1** has been modified to incorporate comments during the meeting and imports text from 101 671 and 201 158 and changed to **r2**. This will be referred back to T1P1.sah, and then reviewed again by S3LI.

### **12.2 Timing**

**tdoc S3LI02\_091** presented by Selvam Rengasami and concerns the reporting and timing of IRI. Following some discussion this will be revised and resubmitted.

**tdoc S3LI02\_091r1** reflects the changes following discussion. After minor amendments this was approved and reissued at **r2**.

## **13 Liaison Statements**

**tdoc S3LI02\_101 liaison to CN5** presented by Rupert Thorogood. After some discussion this was reissued as **r2** and approved.

**tdoc S3LI02\_102** from SA5 IP version inter-working on the transport plane. This was noted.

## **14 Any Other Business**

14.1 Stateless IPv6 interception discussion liaison statement **TSG-SA WG2 tdoc S3-020031** (S2-013330 -020244 -020245 -020246). The implication of this is all interception is done on the control plane. The IPv6 stateless address autoconfiguration is done from the user plane. Therefore the mobile communicates with another user plane UE and is assigned a new IPv6 address. If LE has a User plane application running on the LE monitor box then it will also receive the message and will look for

the new IP address. If there is no User Plane then the packets will have new IP address with no means of correlation without examining the contents of the packet.

**AP02-17 Janos Varro, Pierre Truong and Giorgi Gulbani will lead a discussion during the June meeting describing the IPv6 problem.**

#### 14.2 Working procedures

Contributors are encouraged to perform the following steps when issuing contributions for an upcoming meeting.

1. 1. Request TDOC number (password protected, ETSI distribution of new password requires a few days).
2. 2. Distribute contribution via email to LI group members.
3. 3. Send contribution to Maurice to upload to web site.

It is requested that all contributions be upload no later than Wednesday before the meeting. Contributions brought into the meeting or uploaded later than Wednesday will be discussed at the end of the meeting if time is available.

### **Future Meetings**

Budapest hosted by Ericsson 4-6 June

Late sept/early Oct in Germany hosted by t-mobile

### **Close of meeting**

The Chair thanked the delegates for their work. Bernd Adams thanked the Chair and Motorola for the excellent facilities and the delightful boat trip.



## Annex A: List of attendees

Name			Company	e-mail
Mr	Bernd	Adams	Deutsche Telekom AG	<a href="mailto:Bernd.adams@t-systems.de">Bernd.adams@t-systems.de</a>
Mr	Manfred	Beierer	Reg TP	<a href="mailto:Manfred.beierer@regtp.de">Manfred.beierer@regtp.de</a>
Ms	Brye	Bonner	Motorola	<a href="mailto:brye.bonner@motorola.com">brye.bonner@motorola.com</a>
Ms	Terri	Brooks	Nokia	<a href="mailto:Terri.brooks@nokia.com">Terri.brooks@nokia.com</a>
Mr	Donald	Codling	FBI-CIS	<a href="mailto:D.Codling1@askcaleanet">D.Codling1@askcaleanet</a>
Mr	Adrian	Escott	Hutchison 3G UK	<a href="mailto:Adrian.escott@hutchison3g.com">Adrian.escott@hutchison3g.com</a>
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Mr	Martin	Kassens	T-Mobil	<a href="mailto:Martin.kassens@t-mobil.de">Martin.kassens@t-mobil.de</a>
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Mr	Peter	Musgrove	AT&T Wireless Services	<a href="mailto:Peter.musgrove@attws.com">Peter.musgrove@attws.com</a>
Mr	Brad	Owen	Lucent Technologies NS UK	<a href="mailto:bvowen@lucent.com">bvowen@lucent.com</a>
Mr	Maurice	Pope	ETSI/MCC	<a href="mailto:Maurice.pope@etsi.fr">Maurice.pope@etsi.fr</a>
Mr	Selvam	Rengasami	Telecordia	<a href="mailto:srengasa@telcordia.com">srengasa@telcordia.com</a>
Mr	Ron	Ryan	Nortel Networks	<a href="mailto:Rryan@nortelnetworks.com">Rryan@nortelnetworks.com</a>
Mr	Michael	Schepers	D2 Vodafone	<a href="mailto:michael.schepers@D2Vodafone.de">michael.schepers@D2Vodafone.de</a>
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Mr	Rupert	Thorogood	Home Office	<a href="mailto:rupert.thorogood@homeoffice.gsi.gov.uk">rupert.thorogood@homeoffice.gsi.gov.uk</a>
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## Annex B List of Action Items

<b>AP02_01</b>	Berthold Wilhelm and Maurice Pope	to clarify 010611	closed
<b>AP02_02</b>	Giorgy Gulbani	to provide a LS to VASP	Closed
<b>AP02_03</b>	Pierre Truong	to draft a LS to SA2 SA1	Closed
<b>AP02_04</b>	Berthold Wilhelm and Maurice Pope	to discuss the status of r4 and r5 of 33.108	Closed
<b>AP02_05</b>	Chair	to draft an LS to TC LI regarding their new WI on IP interface	Closed
<b>AP02_06</b>	Robin Gape	to check the syntax with the PEX at ETSI.	Open
<b>AP02_07</b>	Manfred Beirer	to amend the chart and to carry the proposal to TC SEC LI for approval ( <b><u>tdocS3LI02_052</u></b> ).	Closed
<b>AP02_08</b>	Manfred Beirer	to make his PPT-presentation available as a separate TD to the meeting( <b><u>tdocS3LI02_053</u></b> ).	Closed
<b>AP02_09</b>	Manfred Beirer	to update his presentation for input to the next TC SEC LI meeting ( <b><u>tdocS3LI02_054</u></b> ).	Closed
<b>AP02_10</b>	Robin Gape	to provide a report from Ratingen workshop with the action points.	Closed
<b>AP02-11</b>	Chairman	to ask Maurice Pope if there are annexes specific for certain countries	Closed
<b>AP02-12</b>	Pierre Truong and Brye Bonner	to prepare and circulate a draft for e-agreement.	Closed
<b>AP02-13</b>	Maurice Pope	to ask chair of SA3 whether he considers it desirable for far east members to join the LI Group	
<b>AP02-14</b>	Rupert Thorogood and Chair	to draft LS regarding the possibility of an unlicensed provider controlling the networks	
<b>AP02-15</b>	LE representatives	discuss the implications of the TSG-CN5 reply	
<b>AP02-16</b>	Chair	to ask SA3 to approve passing the revised 33.108 directly to SA (this to include CRs to 33.107)	
<b>AP02-17</b>	Pierre Truong and Giorgi Gulbani	will produce a paper describing the IPv6 problem	
<b>AP02-18</b>	Giorgi Gulbani	to write a CR to 33.107 regarding timing deficiency	

## Annex C List of Documents

TD # S3LI02	Title	Source	Meeting	Doc for	Comments	Status
070	Draft Agenda	Chair	2002-04	Information		Accept/as modified in R2
071	ASN.1 – Imports and Exports of Parameters	Reg TP	2002-04	Discuss & Approve	Include in LI to SEC LI	Accept as modified
072	ASN.1 – Object Identifier	Reg TP	2002-04	Disc & Appr	Use HEX 0	Accept
073	CR on 33.107 Rel-5 SMS-initiator adding	Alcatel S.A.	2002-04	Disc & Appr	Table liaised to TC SEC LI	Accept as modified in R1
074	CR on 33.108 Rel-5 SMS-initiator adding	Alcatel S.A.	2002-04	Discuss & Approve		Accept as modified in R1
075	Correlation for interception between IMS and PS	Alcatel S.A.	2002-04	Disc & Appr	Rel-6?	Further study
076	IMS interception in TS 33.108	Siemens, T-Mobile, D2-Vodafone	2002-04	Decision		Accept as modified in R1
077	Proposed new text to 3GPP TS 33.108 (Version 0.7.3)	Ericsson	2002-04	Approve		Accept for US annex
078	3GPP TS 33.108 V1.0.0	Nortel	2002-04	Information		Noted
079	Liaison on LI for OoBTC (SA3-020036)	CN4	2002-04	Discuss		Noted
080	Liaison on AMR-WB (SA3-020037)	CN4	2002-04	Discuss	monitor	Noted
081	Report of SA3 LI Amsterdam	R. Thorogood	2002-04	Approve		Accept as modified in R1
082	Changes to 33.107 to support interception at a GGSN	Telcordia	2002-04	Approve		Accept
083	Changes to 33.108 to support interception at a GGSN	Telcordia	2002-04	Approve		Accept
084	Changes to 33.106 to clarify interception capabilities	Telcordia	2002-04	Approve	R2	No action-return to T1P1
085	Inclusion of Serving System IRI in TS 33.107.	Telcordia	2002-04	Approve		Accept as modified in R2
086	Changes to 33.108 to add support for Serving System Reporting	Telcordia	2002-04	Approve		Accept as modified in R2
087	Liaison from TR 45 LAES to SA3	TR 45 LAES	2002-04	Information		Noted
088	TR-45 PN-4465-RV1	TR 45 LAES	2002-04	Information		Noted
089	TR-45 Summary of CALEA requirements	TR 45 LAES	2002-04	Information		Noted
090	Identification of Deficiency in TS 33.107 and 33.108 regarding Quantitative Aspects	Telcordia	2002-04	Discuss and Approve		Accept as modified
091	Identification of Deficiency regarding	Telcordia	2002-04	Discuss		Accept as

<b>TD #</b> <b>S3LI02</b>	<b>Title</b>	<b>Source</b>	<b>Meeting</b>	<b>Doc for</b>	<b>Comments</b>	<b>Status</b>
	Timing			and Approve		modified in R2
092	Identification of Deficiency in TS 33.107 and 33.108 regarding Reporting of Packet Activity IRI	Telcordia	2002-04	Discuss and Approve	Concept for further study	No action
093	TDOC List	Chair	2002-04	Information		Noted
094	32wglitd042r2Outgoing Liaison	ETSI Sec LI Chair	2002-04	ASN.1 Information		Liaison TDOC S3LI02-100
095			2002-04			
096	Revised work item		2002-04	Update if necessary		Noted
097			2002-04			
098	TIPHON Meeting Report		2002-04	Information		Noted
099	S3 #22 Draft Meeting Report		2002-04	Information		Noted
100	Liaison to ETSI SEC LI	S3-LI	2002-04	Distribution		Accept
101	Liaison to CN5	S3-LI	2002-04	Distribution		Accept as modified in R2
102	SA5 Reply to SA2 on IP version interworking		2002-04	Information		Noted
103	Orlando Meeting Report	S3-LI	2002-04	Discuss and Approve		Draft

## **Annex D: Change Requests**

**tdoc S3LI02\_073r1 Rel-5 SMS Initiator adding**

**tdoc S3LI02\_082 interception at the GGSN**

**tdoc S3LI02\_085r1 Serving System Reporting in TS 33.107**

## **Annex E: Outgoing Liaison Statements**

**tdoc S3LI02\_100 liaison to TC SEC LI ASN.1 parameters.**

**tdoc S3LI02\_101r2 liaison to CN5 Implications for LI**