

## Final Report of the 3GPP TSG SA WG3-LI (S3-LI) meeting #6/00 on lawful interception

Sophia November 27 through November 30

Please direct all comments to Bernie McKibben at <a href="mailto:p17982@email.mot.com.by">p17982@email.mot.com.by</a> December 22, 2000
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Chairman: Bernie McKibben  
Support/Secretary: Maurice Pope

Motorola Core Networks Group  
ETSI

List of participants: see annex A  
List of documents: see annex B  
Outputs see annex C

### 1 Opening and approval of proposed agenda

The meeting was welcomed by Bernie McKibben. The domestic arrangements were given.

The proposed agenda with working schedule in **Tdoc S3LI00 109** was proposed by the chairman. The working schedule was accepted and the documents were allocated. The main issues for this meeting were:

1. Complete TS 33.106 R00 for SA3 review and comment
2. Produce initial draft of TS 33.107
3. Review revised 03.33 CR proposal from Reg TP
4. Respond to SA3 request for comments on TR 33.800

The final report from the latest S3-LI meeting in Irving during August 2000 is available in **Tdoc S3LI00 098**.

#### SMG10-WPD specifications:

GSM 01.33: Lawful Interception requirements for GSM version 7.0.0	David Miles (Cellnet)
GSM 02.33: Lawful Interception - stage 1 version 7.2.0	Bernie McKibben (Motorola)
GSM 03.33: Lawful Interception - stage 2 version 7.1.0	Bernhard Spalt (Siemens)

rapporteur

#### 3G LI specifications:

3G TS 33.106 Lawful Interception Requirements version 3.1.0	Berthold Wilhelm (Reg TP)
3G TS 33.107 Lawful Interception Architecture and Functions version 3.0.0	Berthold Wilhelm (Reg TP)

### 2 Munich workshop on GPRS HI3 FTP

A brief report on the results from the Munich workshop was given by Burkhard Kubbutat. The workshop successfully produced a revised version of the GPRS HI3 FTP annex in response to TC Sec LI questions. The final agreed upon document, S3LI00 102, was sent to TC Sec LI for approval.

### 3 TC Sec LI report

S3 LI members who also attend ETSI TC Sec LI reported the following TC Sec LI status:

- The GPRS handover interface technical report was accepted and forwarded for publication.
- ETSI 201 671 Edition 2 will be published in early 2001, possibly January.
- RegTP CR related to the CRs on this meetings tdoc list was approved by TC Sec LI.
- Progress on subgroup for IP: GPRS IP HI3 for 201 671 to be published later this year. General IP interception to be included in 201 671 sometime in 2001.
- TC Sec LI draft version of an architecture guideline is in discussion.
- Discussion of buffering of CC continues in TC Sec LI.

### 4 RegTP proposed CRs to DF3 for CS parameters

RegTP presented tdoc S3LI00 107 that adds parameters to be sent from the MSC to DF3 for correlation and traffic direction indication. The CR was modified to delete proposed specific format requirements. The modified CR was approved. RegTP prepared a corresponding CR to 33.107 for the same items, Tdoc S3LI00 113, which was also approved by the group.

Conclusion:

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Tdocs S3LI00 107 and S3LI00 113 were approved as corrected. The corrected versions were sent to SA3 for approval. SA3 approved the CRs on November 30.

### 5 Comments on TR 33.800

The group reviewed TR 33.800 as requested by SA3. S3 LI could not find any detrimental implications to lawful intercept by TR 33.800 and prepared a liaison statement to SA3 stating this conclusion. See tdoc S3LI00 117.

Conclusion:

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Tdocs S3LI00 117 was presented to SA3 to confirm that S3 LI could not see any detrimental impacts to lawful intercept within the TR.

### 6 Action items from Irving

1. Motorola presented a contribution, tdoc S3LI00 112 on SIP events intercepted at the S CSCF. After some discussion, it was agreed upon that all relevant SIP events would be intercepted rather than just a select few. The entire SIP message would be reported to DF2p. In addition to SIP events at the S CSCF, SIP events at the P CSCF would also be reported to DF2p.
2. Motorola presented a contribution, tdoc S3LI00 103, on a proposed intercept architecture for release 2000. The group added two interfaces to the diagram: one between the MSC Server and DF3, and another between the MSC Server and the MGW. Rather than defining the later interface to be intercept specific, the group agreed to recommend to CN4 that lawful intercept be added to the Mc interface. A liaison to this effect was prepared. See tdoc S3LI00 118. The liaison statement was approved by SA3 on November 30.
3. Nortel presented Tdoc S3LI00 110 on US requirements of interception during roaming scenarios. In summary, the US will require interception of session state events at the home S CSCF for roamed out subscribers.

4. Motorola presented Tdoc S3LI00 105 on interception in the visited, home and 3<sup>rd</sup> party networks. A consensus was reached upon the following conclusions:
  - Interception of bearer and events at the MSC Server, P CSCF, S CSCF and SGSN is required in the visited network
  - Interception of events at the S CSCF and GGSN is a national requirement in the home network.
  - Interception in the 3<sup>rd</sup> party network of a target IMSI registered elsewhere is not required.
5. Motorola presented Tdoc S3LI00 104 on informative call flows for a proposed annex C to 33.107. Based upon the above conclusions, the contribution will be revised by Motorola as a new annex C for 33.107. SCI and Explicit Call Transfer will be added to the scenarios presented.
6. Ericsson presented Tdoc S3LI00 111 on QoS considerations. The group reviewed and agreed upon the principles presented, but did not identify a particular text to be inserted in 33.107. The principles outlined will be referred to as interception standards are further developed.

Conclusion:

Based upon the agreed upon conclusions listed above, S3LI00 118 was submitted to SA3 for approval. It was approved by SA3 on November 30 and is on its way to CN4. Furthermore, a drafting session was held on November 30 to incorporate the agreed upon items listed above into an initial draft of TS 33.017 for release 4 and release 5. Tdoc S3LI00 116 is this initial draft of TS 33.107. This initial draft will be reviewed by S3 LI in whole at the next S3 LI meeting in January, and revised based upon action items identified at Sophia.

## 7 CR to 03.33 to remove mono delivery and address optimal routing

Previous S3 LI meetings had concluded on the need to remove the mono-delivery option for CS bearer and a method to address optimal routing in ETSI 03.33. It is believed that the CR brings 03.33 into closer alignment with the latest work being done in ETSI TC Sec LI.

Conclusion:

Tdoc S3LI00 114r1 was agreed upon and was submitted to SA3 for approval. SA3 approved the CR on November 30.

## 8 LI Management meeting

### 8.1 TIPHON

Scott Cadzow gave a presentation on the lawful intercept work within TIPHON and presented the latest draft of the TIPHON LI specifications. See Tdocs S3LI00 120 and S3LI00 121 The specification lays out a series of principles of interest to S3 LI. Based upon the results of the LI Management meeting held in early January, "The LI management meeting deleted the content of WI-08003 and reduced it to a normative statement that interception will take place in the transport plane of the access network. This avoids all together the issue of identification and distributed domains in which TIPHON is working."

Conclusion:

Given the results of the LI management meeting, and the presentation given by Scott, S3 LI believes that TIPHON LI and S3 LI efforts are consistent. S3 LI would like to thank Scott for his participation in our meeting.

## 8.2 Workshop with TC Sec LI

TC Sec LI has proposed a joint workshop with S3 LI on January 18 and 19 to work on IP related items of interest to both groups. In general, all agreed on the need for joint work shop to ensure that 3GPP and ETSI IP related specifications are harmonious. Some members expressed concern that more preparatory technical work on 3G bearer intercept was needed before a productive workshop could be held. Furthermore, some interested members could not attend the proposed January dates. Therefore, a liaison statement to TC Sec LI was prepared that proposed alternate dates as well as a list of topics to be discussed.

Conclusion:

Tdoc S3LI00-119 was prepared for transmittal to TC Sec LI. March 8 and 9 as well as April 3 and 4 were proposed as alternate dates for a joint workshop. Proposed agenda items were also included.

## 9. TS 33.106 Update for release 2000.

The initial draft of TS 33.106 was reviewed and updated based upon the agreements made based upon the results from the Irving action items. Topics on target identities, correlation and home environment intercept were clarified. The latest agreed upon version, draft 2, is tdoc S3LI00-115.

Conclusion:

Tdoc S3LI00-115 was submitted to SA3 for comment. S3 LI will revise 33.106 based upon S3 comments at the S3 LI meeting in January.

## 10. TS 33.107 drafting session

A drafting session was held on Thursday afternoon to produce an initial draft of TS 33.107 for R4 and R5 based upon the agreed release 2000 principles reached as explained in section 6 above. The following changes from R99 were made:

- The term Intercepting Network Elements, "INEs", is introduced to refer to any 3G basic service network element that provides an intercept function.
- Figure 1 is updated for R00 architecture
- SIP URL identified as currently the only target identity used at the CSCF
- Provisioning of P CSCFs and S CSCFs added
- Functions related to call content only were deleted
- RegTP on HI3 parameters for CS incorporated
- Section 8 on "Invocation of Lawful Interception for Packet Data Multi-media Service" is added. The section is derived from agreements listed in paragraph 6 above on Irving action items.
- Place holder for annex C on multi-media informative call flows added.
- Various editors notes and minor editorial corrections

Conclusion:

Tdoc S3LI00-116 documents the results from the drafting session and is an initial draft of TS 33.107 for R4 and R5. This draft will be thoroughly reviewed and updated at the S3 LI meeting in January.

## 11. MWIF and softswitch

S3 LI was made aware of recent lawful intercept efforts within MWIF and Softswitch. The group agreed

that these groups deal with technology related to S3 LI and should remain aware of their efforts.

## 12. Call for Contributions

The following contributions were solicited in order to prepare for progress on TS 33.107 at the next meeting:

- Updated flows for annex C: Motorola
- Contributions on multi-media supplementary service examples: all
- Contributions on 3G bearer delivery: all
- Input to CN4 on Mc interface: all

## 13. Open items for WPD/3G LI Joint Working Party

### 13.1 02.33 open items

- Shared Interworking Functions
- CAMEL (material completed, to be submitted to SMG for approval)
- Location Services

### 13.2 03.33 open items

- CAMEL
- Location Services

### 13.3 3G LI Requirements

- Update in light of release 2000

### 13.4 3G LI Architecture

- Update in light of release 2000

## 14 Any other business

none

## 15 Review of draft report

The draft report was available December 11, 2000. The draft report was e-mailed to the participants and was/will also be put on the 3GPP server in the S3-LI area. The report could be commented and modified until December 22, 2000. Send all comments to Bernie McKibben at [p17982@email.mot.com](mailto:p17982@email.mot.com). The meeting report will be submitted to SA3 plenary.

## 16 Future meeting dates and closing of the meeting

The following dates for **S3 LI meetings** are scheduled:

January 23, 24, 25	T-Mobil & Mannesman in Koln
March 6-8 in North America	Motorola/Nortel
Potential: April 3-4 joint with TC Sec LI	Finland by Nokia
June 6 to 8	Host requested
Aug 21-23	Host requested
Oct 23-25	Host requested

The following tentative agenda for the next SA WG3 LI meeting in January was agreed:

- 33.107 (produce an initial draft)
  - Motorola provide a revised annex C
  - S2 rep arch comments & questions
  - Written comments on Sophia draft
- Planning for a joint TC Sec LI workshop ( Actual workshop to be held later in March or April 2001)
  - 3G HI3 bearer presentation
  - 3G HI3 bearer protocol ( considerations or candidate protocols)
- CN4: intercept for Mc
- IMEI CR to 03.33
- Incorporate SA3 comments to 33.106, produce finalized CR.

The tentative list of topics was identified for the S3 LI meeting in March:

- Finalise TC Sec LI preparations
- Complete version of TS 33.107 for S3 approval.
- Workshop at end of meeting (potentially)

The chairman thanked the delegates for their active participation.

## Annex A

List of participants of the 3GPP TSG SA WG3-LI meeting #6/00 on lawful interception

<u>Name</u>	<u>Company</u>	<u>CC</u>	<u>Telephone/Fax</u>
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## Annex B

## List of documents of the S3-LI meeting #6/00 on lawful interception

Annex A: List of documents at the meeting

Number	Title	Source	Document for	Comments Status
S3LI00-102	GPRS HI3 FTP final version	workshop	Information	
S3LI00-103	Intercept Architecture	Motorola	Discussion	
S3LI00-104	Proposed informative call flows	Motorola	Discussion	
S3LI00-105r1	Decisions between home, 3 <sup>rd</sup> network	Motorola	Discussion	
S3LI00-106	Initial tdoc list for Sophia	Chairman	Discussion	
S3LI00-107r1	CR to HI3 parameters for 03.33	Reg TP	Decision	
33.800 v035	TR 33800 v35	SA3	Decision	
S3 z 000010	S3z000010 on authentication	Ericsson	Discussion	
S3LI00-108	Lawful Interception references	Brookson	Information	
S3LI00-109	Draft agenda for Sophia, November 2000	Chairman	Discussion	
S3LI00-110	US interception of roaming	Nortel	Discussion	
S3LI00-111	QoS considerations	Ericsson	Discussion	
S3LI00-112	SIP Events from Motorola	Motorola	Discussion	
S3LI00-113	CR to HI3 parameters for TS33.107	Reg TP	Decision	
S3LI00-114	CR to 03.33 for mono, optimal routing	S3 LI	Decision	
S3LI00-115	33.106 draft 2	S3 LI	Decision	
S3LI00-116	33.107 initial draft	S3 LI draft session	Discussion	
S3LI00-117	Liaison to S3 for 33.800	S3 LI	Decision	
S3LI 00-118	Intercept on Mc to C4	S3 LI	Decision	
S3LI 00-119	Liaison to TC Sec LI on Workshop	S3 LI	Decision	
S3LI00-120	TIPHON: Lawful Interception – Internal LI Interface	TIPHON	Discussion	
S3LI00-121	LI invocation in a TIPHON environment	TIPHON	Discussion	
S3 LI00-122	Final Tdoc list for Sophia	S3 LI	Information	
S3 LI00-123	Draft meeting report from Sophia	S3 LI	Discussion	



**Annex C****Agreed outputs of the SA WG3 LI meeting #4/00 August 2000  
on lawful interception**

1. S3LI00-107: CR to 03.33 for HI3 parameters
2. S3 LI00-113: CR to 33.107 for HI3 parameters
3. S3LI00-114: CR to 03.33 for mono-delivery and optimal routing
4. S3LI00-115: Draft 2 of 33.106 for R4 and R5 sent to SA3 for comment
5. S3LI00-117: Liaison to S3 on TR33.800
6. S3LI00-118: Liaison to CN4 on Mc interface
7. S3LI00-119: Liaison to TC Sec LI on IP workshop