

12-14 September, 2000

Washington D.C., USA

Tdoc S3 LI 00-086

**Report of the 3GPP TSG SA WG3-LI (formerly SMG10-WPD) meeting #3/00 on
lawful interception
Saarbrücken July 18, 19 and 20 2000**

Please direct all comments to
Bernie McKibben at p17982@email.mot.com. August 4, 2000

Chairman: Bernie McKibben Motorola Core Networks Division
Support/Secretary: to be determined

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 Berthold Wilhelm on behalf of the host Reg TP. The domestic arrangements were given.

The proposed agenda with working schedule in **Tdoc SMG10 AD054** was proposed by the chairman. The working schedule was accepted and the documents were allocated. The main issues for this meeting were:

1. Complete balance of TC Sec LI action points. (HI2 & HI3 syntax for GSM, GPRS)
2. 3GPP release 2000 work item
3. Review IP intercept developments in the North America with T1P1
4. Map out plan for CAMEL

The final report from the latest SMG10-WPD meeting in Mesa during April 2000 is available in **Tdoc SMG10 AD00 49r2**.

SMG10-WPD specifications:

rapporteur

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)

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 3GPP reporting structure

The new reporting structure of the group to SA WG3 was reviewed and warmly received. Formerly SMG10 WPD, the working group is now convened as SA WG3 LI. The 3GPP work item on LI was also reviewed and the group agreed to place high priority on its completion. Bernie McKibben, nominated by Nokia, was confirmed by vote to retain the chair of the group within the new reporting structure. No other nominations were offered. The need for a WG3 LI mailing list and reflector was recognised as the group currently uses SMG10 WPD. Also, the need to post group documents on the 3GPP web site was also recognised. Secretarial support will be requested.

3 TC Sec LI Liaison and STF

The results of the last TC Sec LI meeting and TC Sec's liaison statement , Tdoc AD00-60, were reviewed. There was a discussion of the STF, and the need to work closely on IP related work within TC Sec LI. A liaison response was prepared for TC Sec. See Tdoc AD00-73. A status on WG3 LI's work on GPRS was also included in the liaison.

4 3GPP LI Work item and contributions

The 3GPP work item as being approved by SA WG3, was reviewed by the group. Concern was expressed that not issues related to the basic release 2000 architecture will be resolved in time to be reflected properly in the intercept specifications. The group agreed that the intercept specifications will be completed for release 2000 this year, even if open issues for further study are identified in the specification. TR 23.821 was reviewed with Tdoc AD0-052 from the chair. The following are some of the areas being addressed for the specifications to be completed.

- Distinct delivery interfaces needed for bearer for CS, PS and MM?
- What impact does IPv6 have on intercept?
- Can telephony intercept event records be mapped/upgraded to MM services?
- XCDR location now in MGW, not BSS.
- Compression negotiations between MGWs.
- Will CS services be able to access multi-media functions?
- How much can intercept of the IP CN have in common with interception of GPRS and CS?
- Where are announcements inserted and intercepted?
- If the service environment stays at home, how does intercept treat roamers?
- How to handle handover between 2G and 3G networks with proper correlation.
- Is intercept within access network needed?

The following contributions were called for in regards to the 3G issues:

1. Example call scenarios for CS, PS and MM: Motorola
2. Roaming scenarios between 3G networks , and between 2G and 3G networks: Siemens
3. Target Ids for MM: T-Mobil
4. Intercepted events from the CSCF: Motorola

5. Bearer points of intercept: Mannesman

6. Issue list: Chair

To help ensure progress on the 3G specifications, Siemens recommended a workshop prior to the next meeting. Mannesman offered to host the workshop on August 17. The group agreed.

There was not sufficient time to complete a revised draft of TS 33.106 at the meeting. A draft will be completed at the September meeting.

Conclusion:

3G contributions were solicited and organisations agreed to provide needed input. A workshop will be held on August 17 at Mannesman facilities. There was not sufficient time to update a draft of TS 33.106 for S3 #14 in Oslo. The chair will provide a status report to S3 accordingly. An update of TS 33.106 is expected at the WG LI meeting in September.

5 TC Sec LI Action point: Syntax for HI2 and HI3

An HI2 workshop for GSM and GPRS was held on June 26 in Vienna. The results of the workshop, Tdoc AD0061, was presented by Rolf Schnitzler. The workshop produced a proposed syntax for GSM and GPRS HI2. Comments by the group were given on the report and accepted by the Vienna participants. The working group as a whole did not agree to the updated syntax, somewhat because more time was needed to evaluate the report which was made available on July 19.

Motorola then presented a counter proposal that represented a technology specific syntax for GPRS. It also included a proposed syntax for FTP HI3 that addressed the use of time stamps and correlation numbers. Reg TP prepared a response to the Motorola proposal that included specific modifications to the syntax. Motorola agreed to the suggested changes, but the group as a whole did not agree to the use of a dedicated tree for GPRS.

Nokia then presented a counter proposal for HI2 and HI3 GPRS syntax that used TLV, rather than ASN.1. The group as a whole did not agree to the use of TLV for HI2, as it would be unique for GPRS in 201671. As a non-formal working assumption it was concluded that for the HI2 the BER could be more easily proposed for WG LI, but for the busy GPRS HI3 interface the faster TLV encoding would be more appropriate.

The chair encouraged all groups to come to a compromise. The matter was taken up again on the final day of the meeting. The latest poll (not a formal vote) of the support for the final approaches were as follows:

Vienna report (where GPRS HI2 identifiers were mixed with other HI2 identifiers) = 5 votes

Vienna syntax to be enhanced (and GPRS HI2 syntax to be in a separate syntax tree branch) = 2 votes

Conclusion:

There was not sufficient consensus at the meeting to fix the format. Given that the Vienna results on HI2, updated with working group comments, was close to being agreed upon, the chair recommended that the group take sufficient time to consider proposal. Therefore, a vote on the Vienna proposal modified with working group comments will be taken by email on August 4. If at least one more party supports the Vienna proposal as updated at the meeting, a final version will be produced and sent to TC Sec LI as a formal recommendation from WG3 LI. The group agreed on the suggestion for an August 4 vote since the Vienna results were so close to approval. HI3 syntax will be continued at a later date if new proposals are submitted to the working group.

6 T1P1 presentation on CALEA and IP intercept in North America

Ron Ryan, the chair of T1P1s ad-hoc working group on lawful intercept, made a thorough presentation of CALEA requirements and North American standards status regarding packet data intercept. Many questions were asked and the group very much appreciated the constructive and highly informative presentation. It was recognised that intercept of multi-media might be an area where 3GPP and North American standards could be harmonised. On behalf of Nortel, Ron Ryan offered to host a joint meeting with T1P1 ad-hoc LI the week of August 28 in effort to explore the opportunities. The group agreed and set the date for the joint meeting to be August 31.

Conclusion:

Nortel has offered to sponsor the next 3GPP TSG SA WG3 LI meeting on August 29, 30 and 31. August 31 has been identified as a date for the joint meeting with T1P1 ad-hoc on LI.

7 Miscellaneous CRs to 02.33 and 03.33

A number of small CRs to 02.33 and 03.33 have been collected over the last 9 months. The chair will combine these into a single CR for presentation to SA3 #15.

8 Other topics

- The Mesa report was approved with minor formatting corrections. See tdoc AD00-49r2.
- The technical report on the GPRS HI3 interface, as prepared by Bernhard Spalt based upon the technical contribution reviewed and agreed upon by TC Sec LI at their previous meeting, was prepared and agreed upon by the group. See Tdoc 65.
- Nokia submitted 7 new contributions during the course of the meeting on topics previously addressed to some degree at previous meetings. These contributions will need to be handled at the TSA WG3 LI meeting.

9 Open items for WPD/3G LI Joint Working Party

9.1 02.33 open items

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

9.2 03.33 open items

- CAMEL
- Location Services

9.4 3G LI Requirements

- Update in light of release 2000

9.5 3G LI Architecture

- Update in light of release 2000

9.6 Output documents to TSA WG3 and SMG10 e-mail list

The following documents need to be distributed to SMG10.

- Saarbruecken report
- Status report of 3GPP requirements

9.7 Output documents to TC Sec LI

The following documents are to be submitted to TC Sec LI review

Tdoc AD0065: Technical report on GPRS HI3 informative annex per TC Sec LI work item.

10 Any other business

10.1 SA WG3 LI e-mail list

The chair will approach SA WG3 on the topic.

10.2 SMG10_WPD e-mail list

There is an e-mail list for SMG10-WPD which is called: **smg10_wpd**. If a list member wants to send a message to all the SMG10-WPD members the message just has to be mailed to: **smg10_wpd@list.etsi.fr**.

New members have to attach themselves to the SMG10-WPD list by sending the following message

subscribe smg10_wpd <persons own name> to listserv@list.etsi.fr.

The list manager (to be assigned) will receive the indication of a new member and can give permission for registration to the SMG10_WPD list, since the SMG10_WPD list is a restricted list. The list manager can remove persons from the SMG10_WPD e-mail list.

11 Review of draft report

The draft report was available July 27, 2000. The draft report was e-mailed to the participants and was/will also be put on the ETSI server in the SMG10-WPD area. The report could be commented and modified until August 4, 2000. Send all comments to Bernie McKibben at **p17982@email.mot.com**. The meeting report will be submitted to TSA WG3 LI plenary.

12 Future meeting dates and closing of the meeting

The following dates for **SA WG3 LI meetings** are scheduled:

August 17 (Workshop on 3G topics)	Mannessmann
August 29, 30 and 31	Nortel
November 27, 28, 29, 30	Motorola in Israel (to be confirmed)

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

- 1 Review output of 3G LI workshop
- 2 3G contributions
- 3 Complete TS 33.106 for release 2000
- 4 T1P1 joint meeting
- 5 HI3 GPRS
- 6 Nokia proposals

The chairman thanked the delegates for their active participation. Reg TP was thanked for hosting the meeting.

Annex A

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

<u>Name</u>	<u>Company</u>	<u>CC</u>	<u>Telephone/Fax</u>
Bernie McKibben e-mail: P17982@motorola.com	Motorola	(US)	Tel: +1 480 732 4178 Fax: +1 480 732 5117
Bernhard Spalt e-mail: bernhard.spalt@siemens.at	Siemens	(AT)	Tel: +43 5 1707 21474 Fax: +43 5 1707 51922
Leopold Murhammer e-mail: leopold.murhammer@siemens.at	Siemens	(AT)	Tel: +43 5 1707 21467 Fax: +43 5 1707 51922
Burkhard Kubbutat e-mail: burkhard.kubbutat@viaginterkom.de	Viag Interkom	(DE)	Tel: +49 89 2442 4540 Fax: +49 89 2442 4541
Rolf Schnitzler (vice chair MoU-SG) e-mail: Rolf.schnitzler@d2mannesmann.de	Mannesmann Mobilfunk	(DE)	Tel: +49 211 533 2169 Fax: +49 211 533 2144
Kai Sjöblom e-mail: kai.sjoblom@nokia.com	Nokia	(FI)	Tel: +358 50 1626 Fax: +358 9 51164474
Berthold Wilhelm e-mail: berthold.wilhelm@regtp.de	Reg TP	(DE)	Tel: +49 68193 30561 Fax: +49 68193 30725
Martin Kässens e-mail: martin.kaessens@t-mobil.de	T-Mobil	(DE)	Tel: +49 22893 63306 Fax: +49 22893 63369
Bernd Adams e-mail: bernd.adams@telekom.de	Deutsche Telecom	(DE)	Tel: +49 6151 83 3758 Fax: +49 6151 83 44611
Ron Ryan (Chair: T1P1 ad-hoc on LI) e-mail: ryan@nortelnetworks.com		(US)	Tel: +1 972 684 5444 Fax: +1 972 684 3775
Manfred Beierer e-mail: manfred.beierer@regtp.de	Reg TP	(DE)	Tel: +49 6131 18 1166 Fax: +49 6131 18 5632
Reiner Gusenburger e-mail: reiner.gusenburger@regtp.de	Reg TP	(DE)	Tel: +49 681 9330 562 Fax: +49 681 9330 725
Micheal Brooks e-mail: michael.brooks@motorola.com	Motorola	(IRE)	Tel: +353 21 807 119 Fax: +353 21 357 635

E-mail list for SMG10-WPD: smg10_wpd@list.etsi.fr

E-mail list for 3GPP TSG SA WG3-LI: 3GPP_TSG_SA_WG3_LI@LIST.ETSI.FR

Annex B

List of documents of the SA WG3 LI meeting #3/00on lawful interception

TDoc	No	status
Secure Provisioning for Multiple Agencies from Motorola revised per Bonn review	Tdoc SMG10 AD00-13R1	Distributed for Mesa
Interception of Intelligent networks from SPAN 6	Tdoc SMG10 AD00-28	Distributed for Mesa
Interception with a UMSC from Motorola	Tdoc SMG10 AD00-31	Distributed for Mesa
FTP chapter for 201 671 annex K from Nokia with new skeleton	Tdoc SMG10 AD00-46	Distributed for TC Sec LI
Annex GPRS (for ES 201 671 (Handover Interface 3 of TC SEC LI) from Siemens with new skeleton	Tdoc SMG10 AD00-47	Distributed for TC Sec LI
Liaison statement from SMG10 WPD to TC SEC to support FTP	Tdoc SMG10 AD00-48	Distributed for TC Sec LI
Mesa report	Tdoc SMG10 AD00-49r1	Distributed for Saarbruecken.
Liaison to 3GPP S3	Tdoc SMG10 AD00-50	Distributed for Saarbruecken.
3GPP release 2000 lawful interception work item	Tdoc SMG10 AD00-51	Distributed for Saarbruecken.
Issues to consider for release 2000 work item from chair	Tdoc SMG10 AD00-52	Distributed for Saarbruecken
Draft Tdoc list for Saarbruecken	Tdoc SMG10 AD00-53	Distributed for Saarbruecken.
Draft 3GPP Arch Principles for release 2000	3GPP TR 23.821 V0.2.0	Distributed for Saarbruecken.
Draft Agenda Saarbruecken	Tdoc SMG10 AD00-54	Distributed for Saarbruecken.
HI2 and HI3 Delivery syntax: Motorola	Tdoc SMG10 AD00-55	Distributed for Saarbruecken
ETSI TC Sec LI HI3 GPRS TD007 R2	Tdoc SMG10 AD00-56	Distributed for Saarbruecken
ETSI TC Sec LI work item: Description of GPRS	Tdoc SMG10 AD00-57	Distributed for Saarbruecken
ETSI TC Sec LI work item: Arch & Mech for datagram LI	Tdoc SMG10 AD00-58	Distributed for Saarbruecken
Terms of Reference for STF on Aspects of LI	Tdoc SMG10 AD00-59	Distributed for Saarbruecken
Liaison to WG SA3 LI from TC Sec (21wglitd035)	Tdoc SMG10 AD00-60	Distributed for Saarbruecken
Vienna meeting report on GPRS HI2 & HI3 syntax	Tdoc SMG10 AD00-61	Distributed for Saarbruecken
GPRS HI2 & HI3 syntax proposal from Nokia	Tdoc SMG10 AD00-62	Distributed for Saarbruecken
CALEA presentation from T1P1	Tdoc SMG10 AD00-63	Distributed for Saarbruecken
Reg TP comments on Motorola syntax proposal	Tdoc SMG10 AD00-64	Distributed for Saarbruecken
Work item on HI3 for GPRS	Tdoc SMG10 AD00-65	Distributed for Saarbruecken
Functional spec for LI of the Internet from Netherlands	Tdoc SMG10 AD00-66	Distributed for Saarbruecken
Transport of Intercepted IP traffic V0.1.0	Tdoc SMG10 AD00-67	Distributed for Saarbruecken
SGSN change event for 03.33 from Nokia	Tdoc SMG10 AD00-68	Distributed for Saarbruecken
PDP context timer for 03.33 from Nokia	Tdoc SMG10 AD00-69	Distributed for Saarbruecken
SGSN change event for 33.107 from Nokia	Tdoc SMG10 AD00-70	Distributed for Saarbruecken
PDP context timer for 33.107 from Nokia	Tdoc SMG10 AD00-71	Distributed for Saarbruecken
Sequence numbers from Nokia	Tdoc SMG10 AD00-72r1	Distributed for Saarbruecken
Liaison to TC Sec on STF and GPRS	Tdoc SMG10 AD00-73	Distributed for Saarbruecken
Sequence numbers for 03.33 from Nokia	Tdoc SMG10 AD00-74	Distributed for Saarbruecken
Sequence numbers for 33.107 from Nokia	Tdoc SMG10 AD00-75	Distributed for Saarbruecken
Draft Saarbruecken report	Tdoc WG3 LI AD00-76	Distributed post Saarbruecken

Annex C

Agreed outputs of the SA WG3 LI meeting #3/00 July 2000 on lawful interception

1. Liaison to TC Sec LI on STF and GPRS Tdoc AD00-73
2. Technical report on GPRS to TC Sec LI Tdoc AD00-65