Tdoc S3 LI 02_184

Report of the 3GPP TSG SA WG3-LI (S3-LI) meeting #4/02 on lawful interception

San Diego 12-14 November 2002

Please direct all comments to Rupert Thorogood at rupert.thorogood@homeoffice.gsi.gov.uk

Chairman: Brye Bonner   Motorola
Vice Chairman   Bernd Adams   Deutsche Telekom
Support/Secretary: Maurice Pope   ETSI
Meeting Secretary: Rupert Thorogood   UK Home Office

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

3G LI specifications:

3G TS 33.106 Lawful Interception Requirements version 5.1.0   Berthold Wilhelm (Reg TP)
3G TS 33.107 Lawful Interception Architecture and Functions version 5.4.0   Berthold Wilhelm (Reg TP)
3G TS 33.108 Handover Interface for Lawful Interception version 5.1.0   Ron Ryan (Nortel Networks)

1   Welcome and Logistics

The meeting was opened by the Chair Brye Bonner of Motorola.

The Chair welcomed the delegates and the host, Run Ku of Ericsson, also welcomed the delegates and outlined the facilities.

1.1   Approval of Agenda

The agenda with working schedule in **tdoc S3LI02_161** was proposed by the chair and agreed without modification.

1.2   Registration and assignment of input documents

The input documents are listed in Annex C.

1.3   Approval of Report of previous meeting

The report from the S3-LI meeting in Helsinki 24-26 September 2002 was tabled as **Tdoc S3LI02_159r1.** This was accepted with a minor modification in 5.12 Brad Owen pointed out that RFC2833 includes a reference to DTMF signals. The final report was re-issued as **Tdoc S3LI02_159r2** for the Helsinki meeting and **Tdoc S3LI02_183** for the San Diego meeting.

1.4 Action Points from Helsinki see Annex B

The following action points were closed**: AP02-06, AP02-15 and AP02-20.** The following action points remain open **AP02-21 and AP02-23. AP02-13** has been transferred to Brye Bonner who will take this to the SA Chair. There was some discussion on **AP02-23** and the implications of AMR-WB and whether a normal ISDN link will be practicable**.**

1.5 Review outcome of LI CRs to SA3

Berthold Wilhelm reported SA3 all CRs were approved and the liaison on Closed Doc list was not approved, more information is requested on reasons for restricted area.

1.5.1 update on closed e-mail list and FTP site for SA3-LI

Brad Owen said that there was a substantial opinion that the ftp area should be open - in other words there was little support for the idea. We reiterated that SA3LI required a certain amount of privacy in their discussion - the final documents are, of course, for normal publication. After some discussion it was decided to formulate a further liaison.

AP02_24 Koen Jaspers to formulate new document reinforcing the arguments.

2 Reports

2.1 SA3 WG3

2.1.1 Discussion by SA3 on SA3_LI documents.

This refers to annex F of our meeting reports and the comments from SA3 regarding the upkeep of the specifications.

There was some debate on the duties of rapporteur of documents especially TS 33.108 where the rapporteur may be asked by other groups to explain the documents. It was verified that Ron Ryan should be editor/rapporteur but could not attend SA3 meetings.

Berthold Wilhelm and Charles Brookson to address subscriber certificates, which is a WI from SA 3 for authentication. This WI is still under discussion.

Brad Owen reported that there is a further WI on presence (ability of the network to track).

2.2 SA #17

There was no report.

2.3 ETSI TC LI

ETSI TC LI tdoc S3LI02-171 was presented by Giorgi Gulbani who confirmed that Peter van der Arend was now chair.

There was a question on the ordering of the half bytes (Manfred Beierer's paper). This is still under discussion for the next TC LI meeting. It is recommended that the manufacturers evaluate possible impact with the ordering of the half bytes. We will hold 138r1.

The next TC LI meeting will be 4-6 March in Sophia Antipolis.

AP02_25 Manfred will initiate an e-mail to elicit a response from TC LI for 3GPP LI meeting in February.

AP02_26 LI members to check with their companies for incompatibility on 138r1 (half bytes question).

2.4 T1P1.SAH

Ron Ryan reported verbally that T1P1met last week and continued on the review of 33.108 with respect to CALEA requirements. Tdoc 162 summarises the work over past three months. Meeting report is available for circulation.

2.5 TR45 LAES

Terri Brooks reported that a new version of the Summary of CALEA Requirements document will be ready for distribution soon. The liaison that introduces this document also introduces a proposed new schedule for PN-4465-RV1, to be published as J-STD-025-B. This is the revision which refines the original packet data solution from J-STD-025 Lawfully Authorized Electronic Surveillance. The proposed schedule moves the ballot approval date from December of 2002 to February of 2003. This proposal from the LAES Ad Hoc group will be finalized at the December ad hoc meeting, and submitted to the December TR-45 Committee meeting for approval.

J-STD-025-A, the version of the document which added several "punch list" features, is currently out for ballot.   Four of these features were called under legal question by the US District Court of Appeals before the document could go to ANSI publication. These features have been reinstated recently by the FCC and the document is out for default ballot (only specified sections available for comment) at this time.

Additional discussion:

PN-4465-RV1 will be added to the February 2003 agenda for review by the 3GPP SA3 LI group.

Brye Bonner will bring the high level requirements to the next meeting by which time there will have been two more meetings.

2.6 TIPHON

There was no formal report however it was noted from ETSI TC LI that LI work was continuing and that TC LI should coordinate the work.

3. Liaisons

3.1 CN3: LS on SCUDIF and Lawful Interception tdoc N3-020860

3.1 CN3 LS on SCUDIF (Services Changes UDI Fallback, where handset establishes a MM call but would fall back to voice) and Lawful Interception (**tdoc S3LI02_178** (tdoc N3-020860)).
This is a response to our request on whether there are LI implications. They do not consider that there is. SCUDIF calls would be handled as normal CS data calls. It is in their spec until it is absorbed into 33.106. The LS from CN4 816 now **tdoc S3LI02_179**.

The group felt that there should be an LS to CN3 and CN4.

AP02_27 Bernhard Spalt will draft an LS to both CN3 and CN4 as **tdoc S3LI02-180.**

4. TS 33.106 Rel 5 and Rel.6

4.1 Updates to Release 5   33.106 v 5.1.0

No contributions

4.2 Contribution toward release 6

4.2.1 **New Requirements on Interworking tdoc S3LI02_167** presented by Giorgi Gulbani of Nokia this is a rel 6 CR. Interworking of SGSN's from different vendors. After some discussion it was decided to withdraw the CR.

5. TS33.107 Rel.5 and Rel. 6

5.1 Updates to Rel 5 33.107 v5.4.0

5.1.1. **Incorrect Implementation of the Serving System Reporting tdoc S3LI02_163** presented by Giorgi and proposes to move the service system reporting from PS domain to CS domain.
After considerable discussion it was decided not to support this change.

Meeting note: 33.107 section 6.3 should indicate that serving system is a national option and that fig 15 has an omission.

AP02_28 Giorgi to write a CR for the corrections to 33.107 arising from 5.1.1 as tdoc 181.

5.1.2 **Essential Correction to the LI Events generated during inter-SGSN when PDP Context is active tdoc S3LI02-165.** This was presented by Giorgi Gulbani on behalf of Nokia, Siemens, Alcatel and Motorola. There was some misunderstanding of this CR and it was held open until the other CRs had

been addressed (see S3LI02_166) The part concerning the Old Location Field in 7.4.4 was accepted as a concept and the rest of the contribution was held open noting that PDP context is already active and being intercepted.

This was later revisited after discussing 8.1.2. Although Siemens will not support the change the document was accepted as **tdoc S3LI02_165r1**.

5.2　Contributions towards Release 6

5.2.1 Packet Activity tdoc **S3LI02_173** presented by Selvam Rengasami on packet activity and IRI reporting and is a modified version of a previous contribution. The basic idea is to retrieve the IRI information. This discussion revealed the continued uncertainty regarding header and content. There is a disparity between the requirement of IRI in voice and IRI in packet. Until this is defined it is thought that the technical solution cannot be found.

Meeting note: Giorgi Gulbani produced a copy of 23002-550 section 4.2 figure O-a which shows that the HSS is common to PS and CS domains the 3GPP Network Architecture document.

6. Review Assignments for liaisons and CRs to SA3.

tdoc S3LI02_180 is a LS to CN3 and CN 4 on SCUDIF and LI. However, after a lengthy discussion is was proposed to hold this LS until the next meeting. In the meantime Selvam Rengasami and Rhys Atkins will obtain the spec and identify the issues.

AP02-29　　Selvam Rengasami and Rhys Atkins to investigate and report on SCUDIF for the next meeting.

Meeting Note: further discussion on the restricted server question. Discussion document to be **tdoc S3LI02_182.**

7. Review liaisons and CRs to SA3.

CR on 33.107 Essential correction to the LI events generated during inter-SGSN RAU when PDP is active tdoc S3LI_165r1. This was accepted after some corrections as **tdoc S3LI_165r2**.

CR on 33.107 Incorrect implementation of the Serving System reporting tdoc S3LI_181r1. This was agreed.

LS on change to LI subscription tdoc S3LI_182. This is a revision of the previous LS to SA3 regarding a closed ftp for 3GPP LI. This was accepted.

See also section 11.

8. TS 33.108　Rel. 5 and Rel. 6

8.1 Updates to Release 5   33108-v.5.1.0

8.1.1 Incorrect Implementation of the Serving System Reporting   tdoc S3LI02_164
(Nokia) Noted.

8.1.2 Essential correction to the LI events generated during RAU when PDP context is active tdoc S3LI02_166 presented by Giorgi Gulbani on behalf of Nokia, Alcatel. Siemens and Motorola (See also 165) describes changes required in 33.108. After some amendment this was accepted as **tdoc S3LI02_166r1.**

8.1.3 Changes to TS33.108 for US LI Requirements tdoc S3LI02_162r1 presented by Ron Ryan on behalf of Nortel, AWS, Cingular, Motorola and Nokia. This contains a number of changes to 33.108 to address US CALEA requirements. T1P1 had done another review and considered it necessary to amend some text. After some discussion it was agreed to amend the scope to define the application of national law. There were numerous other changes and it was agreed to accept the document as **tdoc S3LI02_162r2.**

8.1.4 ASN.1 Ordering of the half-bytes in an Octet String tdoc S3LI02_138r1 presented by Manfred Beierer and was previously presented and agreed to at the Helsinki meeting (see item 2.3)..

8.2 Contributions towards Release 6

8.2.1 New Requirements on Interworking tdoc S3LI02_168 presented by Giorgi Gulbani resulting from a CR on 33.106 with different encoding for correlation number by SGSNs from different vendors. He proposes a change in ASN.1 coding. There was no support for the proposal in its present form but it was suggested that this could form an informative annex. Bernhard Spalt will attempt an annex.

AP02_30   Bernhard Spalt to draft an informative annex based on **tdoc S3LI02_168**

8.2.2 Mapping from TS 101 671 to TS 33.108 CS part tdoc S3LI02_170 presented by Rhys Arkins. This was prepared in conjunction with Bernhard Spalt (see **tdoc S3LI02_176** below). It tabulates the differences between TS 101 671 and TS 33.108 for circuit switching.

8.2.3 CS Chapters for 33.108 **tdoc S3LI02_176** presented by Bernhard Spalt following the proposal above in **tdoc S3LI02_170.** Refer also to **tdoc S3LI02_177** which comments on   **tdoc S3LI02_170.** The debate concerns which sections should be in or out. The main disagreement was whether the CS section should be in 107 or 108. Koen Jaspers pointed out that in any event security had not been addressed. The group then reviewed each point in the two documents and Ericsson and Siemens will produce a new CR for the next meeting.

AP02_31   Bernhard Spalt and Rhys Atkins to produce a new CR based on **tdoc S3LI02_176**
for the next meeting

8.2.4 33.108 Packet Activity   tdoc S3LI02_174

This was noted.

9. New Business

9.1.1 The implications of the loss of Technical Officer support from ETSI were discussed without resolution.

9.1.2 IMS Dialled digit extraction tdoc S3LI_172 presented by Selvam Rengasami who pointed out that in accordance with the IUR it was necessary to extract post dialled digits. There are two options : interception at the xGSN or interception at DF3. It was queried if xGSN would normally look at dialled digits. It was also queried whether the DF3 was so equipped. It was pointed out that the information exists in the SIP. The general view was that neither option was practicable because of the additional functionality or processing required. Other means were discussed such as, an option to extract the information using the H248 packets. Selvam will investigate this and report to the next meeting.

AP02_32 Selvam Rengasami and others to research other solutions to the dialled digit extraction question.

9.1.3 Implication of the introduction of Real Time traffic on LI and the handover of the intercepted data tdoc S3LI_169 presented by Giorgi Gulbani who pointed out that the QoS of the intercepted traffic should correspond with the QoS provided to the target. He proposes a number of solutions including a layer over UDP requiring specific software. As there is some doubt about using TCP/IP for handling real time LI traffic there is support for the (R)UDP layer.

10. Review Assignments for liaisons and CRs

see 6

11. Review change request outputs

Also see section 7.

CR on 33.108 Essential correction to the LI events generated during inter-SGSN RAU when PDP is active tdoc S3LI_166r1. This was accepted after some corrections as **tdoc S3LI_166r2**.

Changes to TS33.108 for US LI Requirements tdoc S3LI02_162r1 This was accepted after some corrections as **tdoc S3LI02_162r2.**

12. Review liaison outputs

see 7

13 Review meeting output

All agreed.

14. Discuss February meeting agenda, work plan

19-21 February, Paris, hosted by Aqsacom   (Wednesday to Friday)

15. Review Action Points

see annex B

16. Other business

Koen Jaspers raised the question of the wireless LAN as access to the 3G networks (SA3 WI seen at last meeting). Brad Owen says that SA2 are looking at access and charging. Agreed to wait for next meeting.

17. Close of meeting

2003 meeting dates and venues

Please note February meeting will run from Wednesday – Friday

> 19-21 February, Paris, hosted by Aqsacom
> 20-22 May, to be advised, hosted by European Friends of 3GPP (changed from 14-16 May)
> 23-25 September, US, host to be advised (changed from 17-19 September)
> 18-20 November, London, Department of Trade and Industry

The Chair thanks Ericsson for their fine facilities and for the splendid dinner on Wednesday evening.

Working procedures

> Contributors are encouraged to perform the following when issuing contributions for an upcoming meeting.
> 1. Request TDOC number.
> 2. Distribute contribution via email to LI group members.
> 3. Send contribution to Maurice to upload.
>
> For the next meeting the cut off date for contributions to be distributed and uploaded is February 12.

It is requested that all contributions be upload no later than Wednesday before the meeting. Contributions brought into the meeting or distributed/uploaded later than Wednesday will be discussed at the end of the meeting if time is available. The meeting schedule will not be changed to accommodate late contributions.

Annex A: List of attendees

Name			Company	e-mail
Mr	Bernd	Adams	Deutsche Telekom AG	Bernd.adams@t-systems.com
Mr	Rhys	Arkins	LM Ericsson	Rhys.arkins@ericsson.com.au
Mr	Manfred	Beierer	Reg TP	Manfred.beierer@regtp.de
Ms	Brye	Bonner	Motorola	brye.bonner@motorola.com
Ms	Terri	Brooks	Nokia	Terri.brooks@nokia.com
Mr	Giorgi	Gulbani	Nokia	Giorgi.gulbani@nokia.com
Mr	Koen	Jaspers	MoJ, PIDS	Kbj@xs4all.nl
Mr	Run	Ku	Ericsson	R.Ku@ericsson.com
Mr	Antti	Laurila	Nokia	Antti.k.laurita@nokia.com
Mr	James	Lovelace	FBI CALEA	jlovelace@leo.gov
Mr	Peter	Musgrove	AT&T Wireless Services	Peter.musgrove@attws.com
Mr	Brad	Owen	Lucent Technologies NS UK	bvowen@lucent.com
Ms	Bonnie	Petti	Verizon Wireless	Bonnie.petti@verizonwireless.com
Mr	Selvam	Rengasami	Telecordia	srengasa@telcordia.com
Mr	Ron	Ryan	Nortel Networks	rryan@nortelnetworks.com
Mr	Jorma	Seurujarvi	Nokia	Jorma.seurujarvi@nokia.com
Mr	Bernhard	Spalt	Siemens AG	Bernhard.spalt@siemens.com
Mr	Rupert	Thorogood	Home Office	rupert.thorogood@homeoffice.gsi.gov.uk
Mr	Berthold	Wilhelm	Reg TP	Berthold.Wilhelm@regtp.de
Mr	Jean-F	Zell	AQSACOM	Jeanfrancois.zell@aqsacom.com

Annex B List of Action Items

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

AP02-19	Marcus Lutz	to monitor the IMS charging ID situation	Closed
AP02-20	**All**	To respond to Koen Jaspers regarding the Dutch Freedom of Information law	Closed
AP02-21	Maurice Pope	ask IT department for no more anonymous access to the LI ftp from Jan 1.	Open
AP02-22	Chair	to send LS to SA3 and SA to request them regarding the proposed restriction of the 3GPP LI group document access with target date of Jan 1.	Closed
AP02-23	Michael Schepers	to provide an input for the next meeting on the LI implications for AMR-WB	Open
AP02_24	Koen Jaspers	to formulate new document reinforcing the arguments.	Closed
AP02_25	Manfred Beierer	will initiate an e-mail to elicit a response from TC LI for 3GPP LI meeting in February.	Open
AP02_26	the group	- check with their companies for incompatibility on 138r1 (half bytes question)	Open
AP02_27	Bernhard Spalt	will draft a LS to both CN3 and CN4 as **tdoc S3LI02-180**	Void
AP02_28	Giorgi Gulbani	to write a CR for the corrections to 33.107 arising from 5.1.1 as tdoc 181.	Closed
AP02-29	Selvam Rengasami and Rhys Atkins	to investigate and report on SCUDIF for the next meeting.	Open
AP02_30	Bernhard Spalt	to draft an informative annex based on **tdoc S3LI02_168**	Open
AP02_31	Bernhard Spalt and Rhys Atkins	to produce a new CR based on **tdoc S3LI02_176** for the next meeting	Open
AP02_32	Selvam Rengasami and others	to research other solutions to the dialled digit extraction question	Open

Annex C List of Documents

TD # S3LI02	Title	Source	Meeting	Doc for	Comments	Status
159r1	Draft Meeting report from Helsinki	Secretariat	2002-09	Approval	Update to 159r2. New doc number 183	Approved
161	Draft Agenda	Chair	2002-11	Approval		Approved

TD # S3LI02	Title	Source	Meeting	Doc for	Comments	Status
138r1	ASN.1 Ordering of the half-bytes in an Octet string	RegTP	2002-09	Approval	Defer until February meeting to allow ETSI to evaluate possible impact	Approved at September meeting
162	Changes to TS 33.108 for U.S. LI Requirements	Multiple companies	2002-11	Approval	Approved as modified For SA3	162R2
163	Incorrect Implementation of the Serving System Reporting 33.107	Nokia	2002-11	Approval	Discussed new CR for missing functionality	New CR tdoc 181
164	Incorrect Implementation of the Serving System Reporting 33.108	Nokia	2002-11	Approval	Companion doc for 33.107	Noted
165	Essential Correction to the LI Events Generated During Inter-SGSN RAU when PDP Context is Active 33.107	Nokia	2002-11	Approval	Discussed Approved as modified	165r2 to SA3
166	Essential Correction to the LI Events Generated during RAU when PDP Context is Active 33.108	Nokia	2002-11	Approval	Approved as modified	166r2 to SA3
167	33.107 New Requirements on Interworking	Nokia	2002-11	Approval	Discussed	Withdrawn
168	33.108 New Requirements on Interworking	Nokia	2002-11	Approval	Companjion doc for 33.107	Noted
169	Real Time vs. NRT Traffic	Nokia	2002-11	Discussion	Discussed	Noted
170	Mapping from TS 101 671 to TS 33.108 CS Part	Ericsson	2002-11	Approval	Discussed	Continuing
171	ETSI TC LI liaison	Nokia	2002-11	Information	Reviewed	Noted
172	IMS Dialed Digit Extraction	Telcordia	2002-11	Discussion	Discussed	Noted
173	33.107 Packet Activity	Telcordia	2002-11	Discussion	Discussed	Noted
174	33.108 Packet Activity		2002-11	Discussion	Companion doc for 33.107	Noted
175	Establishment of SA 007	Siemens	2002-11	Discussion	Discussed	Noted
176	CS Chapters for 33.108	Siemens	2002-11	Approval	Discussed	Continuing
177	CS comments to TDOC 170	Siemens	2002-11	Discussion	Discussed	Noted
178	LS on SCUDIF	CN3.	2002-11	Information	Discussed	Noted
179	CR on SCUDIF	CN3	2002-11	Information	Discussed	Noted
180	LS to CN3 on SCUDIF – Ericsson/Telcordia report in Feb	Siemens	2002-11			Void
181	CR on missing Serving System Information from 33.107	Nokia	2002-11	Approval	To SA3	181r2
182	Liaison on Closed Document List	KPN	2002-11	Approval	To SA3	182
183	Final Report from Helsinki	Secretariat	2002-11	Approval	To SA3	183
184	Draft meeting report from San Diego		2002-11	Approval		

Annex D List of Change Requests

TD # S3LI02	Title
138r1	CR for 33.108 ASN.1 Ordering of the half-bytes in an Octet string (hold to February)
165r2	CR for 33.107 Essential Correction to the LI Events Generated During Inter-SGSN RAU when PDP Context is Active
166r2	CR for 33.108 Essential Correction to the LI Events Generated During Inter-SGSN RAU when PDP Context is Active 33.107
181r2	CR for 33.107 CR on missing Serving System Information from 33.107
162r2	Changes to TS 33.108 for U.S. LI Requirements

Annex E List of Liaison Statements

TD # S3LI02	Title
182	LS to SA3 and SA Closed Document List

Annex F List of Related Specifications

SMG10-WPD spécifications: rapporteur

GSM 01.33: Lawful Interception requirements for GSM version 8.0.0   Brye Bonner (Motorola)
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   Brye Bonner (Motorola)