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Discussion:	
Meeting Report:	X
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Report of WG LI meeting Sophia Antipolis 19th-21st October 1999

Introduction

The sixteenth meeting of the TC Security ad-hoc group on legal interception (step 3) took place 19th to 21st of October 1999 in Sophia Antipolis, France, by kind invitation of ETSI. The Chair extends his thanks to Sabine Beauvois for her assistance in sorting out rooms.

Working procedure

The meeting addressed its work in plenary session, and split in to task groups as required.

Electronically assisted meeting

The meeting, being held on ETSI premises, attempted to use the electronic aids offered by ETSI. The results were much more satisfactory than had been the case six weeks previously. Extensive use was made of floppy disks to copy documents to delegates who had not, for one reason or another, been able to access the ETSI network.

Other documents

Please note: these minutes should be read in conjunction with the issues list for ES 201 671, TD009, and the document list for the 16th meeting (TD000 to that meeting).

Attendees

The meeting attendees are listed in Annexe 1.

Apologies for non-attendance were received from: Charles Brookson and Klaus Rosenschild.

Minutes of the previous meeting

These (TD004) had previously been reviewed and agreed by e-mail.

Chair's report to the meeting

The chair had made a written report to the meeting (TD003) which was presented verbally.

Previous action points

Completed: AP25/99, AP31/99, AP33/99, AP34/99, AP35/99, AP36/99, AP37/99, AP38/99, AP44/99, AP45/99

Discharged & overtaken by events: AP40/99, AP41/99, AP42/99, AP43/99

Continues: AP32/99, AP39/99

Intellectual property

IPR declarations

The Chair called for declarations of essential IPR in line with the ETSI IPR policy. No such declarations were made.

Other IPR

TDs 028-033 identified various patents which appeared to have some connection to LI.

Nokia WO 99/17499 (TD028)

This patent in the name of Nokia relates to GPRS LI. It was noted by the meeting and will be revisited in Oslo. *(Method and arrangement for intercepting a target mobile station (MS) in a GPRS network. A legal interception node (LIN) is installed into the land-based portion of the radio network. An "intercepted" status is defined for mobile stations (MS) that are to be intercepted…)*

Motorola WO 99/29089 (TD029)

This patent was noted by the meeting and will be revisited in Oslo. *(A method and apparatus for centralizing the administration of **intercept** lists include a master **intercept** list (305) and an interface (510) which communicates with switches (410). Switches (410) may or may not include local **intercept** lists (415)…)*

Ericsson WO 99/27716 (TD030) and Ericsson WO 98/48574 (TD033)

These were referred to SPAN6:

*(WO 99/27716: A telecommunications system and method for allowing a real-time lookup into a database within the Intelligent Network (IN) to determine regulatory requirements in a specific area. For example, the present invention makes use of the Intelligent Network (IN) to perform filtering of lawful **intercept** calls by including within the database valid legal **intercept**/country combinations…)* [Note: this patent also appears to be of relevance to **SMG10/WPD** and **WG LI**.]

(WO 98/48574 A first service control point (SCP) for providing law enforcement related call interception capability and a second SCP for providing conventional Intelligent Network (IN) subscriber service features are both provided within an IN based telecommunications network. Two types of trigger flags are then associated with a service switching point (SSP) serving a particular subscriber…)

Ericsson WO 97/42784 (TD031)

This was referred to SMG10. *(Billing identification numbers supplied to law enforcement agencies for monitored cellular calls are used to retrieve toll tickets generated by the cellular network (10). By processing the toll tickets, an identification is made by the agency of the A-party (24) to and routing of the monitored cellular call. Calling line identification (CLI) information is supplied to the monitoring law enforcement agency for each monitored call…)*

Ericsson WO 98/52337 (TD032)

This seems to apply to ES 201 671 delivery. This will be revisited in Oslo. (The full text needs to be made available.) *(Each network handled call (24, 60, 62), including its original leg and all subsequently initiated related call legs, is assigned a single unique identification number (B-1D). When a determination is made that the call (including any leg thereof) is to be monitored by a law enforcement agency, a switch handling the call requests (R1, R2, R3, R4, R5) a trunk connection (34) from a monitoring center (28). This request includes the assigned unique identification number. The monitoring centre then compares the included identification number with previously received identification numbers (52) associated with active call monitoring operations…)*

AP46/99 **Chair** to copy minutes of 16th meeting to SMG10/WPD drawing their attention to the IPR section of the minutes.

AP47/99 **Chair** to copy minutes of 16th meeting to SPAN6/SG drawing their attention to the IPR section of the minutes.

Requirements

Liaison with PCWG

STC & IUR groups

A verbal report was given.

Revision of ETR 331

Location dependent interception

It was agreed that Location dependent interception would be included in to the revision of ETR 331 and followed through. This will include at least TIPHON and GPRS.

AP48/99 Editor ETR 331 to prepare a proposed part 3 for the next meeting.

Revision of ES 201 671

Comments from SMG10/WPD were presented in TD056, which replaced TD039 which is **withdrawn** The resolution of the comments is recorded below. The initial issues list was TD005.

General approach

Annex B

All comments in TD056 which relate to Annex B are to be reviewed.

Data transmission (Section 8.1)

The question of national consistency for the protocol stack was raised.

AP49/99 **Koen Jaspers** to provide text for section 8.1 on national consistency.

Delivery of call calling line identity

The question was asked as to what information should go in this field. This had always been left open, pending a strong section on security. Contributions are requested.

HI1 definition in Annex A.3

It was noted that this syntax definition is not supported by any previous text.

GSM information encoding

It was agreed that branches relating to GSM would be introduced to the information syntax tree of Annex A.

AP50/99 **Editor** to generate suitable stubs for GSM HI2 and HI3 in the syntax tree.

AP51/99 **Chair SMG10/WPD** to provide suitable branches for GSM HI2 and HI3 in the syntax tree.

LEMF requirements

A new annex is needed to describe LEMF requirements. Section 12.4 to be deleted, and information moved to that annex for review and revision.

Location dependent interception

It was agreed that Location dependent interception will be included in to the revision of ES 201 671.

AP52/99 **Chair SMG10/WPD** to arrange for the production of suitable text to describe location dependent interception for the revision ES 201 671.

MAP parameters

ES 201 671 will be revised to permit direct expression of MAP parameters, rather than being mapped via ISUP, where appropriate.

Maximum number of intercepts

Strong support was expressed for the maximum number of intercepts being 5. [Note: Informative annex A of ES 201 158 suggest a figure of 3.]

Mono delivery

This was discussed. SMG10 will make a change request to abolish mono delivery, which the meeting agreed was antiquated and not appropriate to modern service-rich networks. (Mono handover is only described in ES 201 671 because it is asked for in GSM 03.33)

AP65/99 **Chair SMG10/WPD** to raise a change request to abolish mono delivery for GSM speech.

References

Technology specific references will be added to support the technology specific annexes.

Release causes

GSM specific causes to be added to 8.4.2 numbered paragraph 4).

AP53/99 **Chair SMG10/WPD** to provide a list of GSM specific release causes for ES 201 671 paragraph 8.4.2 numbered paragraph 4).

Scope

The technologies covered in the handover specification shall be included in the scope statement.

AP54/99 **Editor ES 201 671** to include the technologies covered in the handover specification in the scope statement.

Storage of CC (the content of communication)

A proposal from CSELT, in TD045, suggested the possibility to store CC if the network is unable to make real-time delivery, perhaps because of a network fault.

The Chair suggested that the LI Architecture documents should make statements on buffering. [Note: storage of CC is specifically disallowed by the current issue of ETR 331.]

Technology specific sections.

It was agreed that technology specific normative annexes relating to GSM (circuit switched), GPRS, TETRA and TIPHON and other technologies would be introduced in to ES 201 671. The existing ISDN specific material would be moved to a normative annex.

AP55/99 **Chair SMG10/WPD** to provide text for a normative Annex on GSM.

AP56/99 **Chair SMG10/WPD** to provide text for a normative Annex on GPRS.

AP57/99 **Chair TIPHON WP8** to provide text for a normative Annex on TIPHON.

AP58/99 **Scott Cadzow** to provide a name of someone who can provide text for a normative Annex on TETRA.

AP59/99 **Editor ES 201 671** to propose arrangements for a normative Annex on ISDN.

Unexplained ASN.1 parameters

A number of ASN.1 parameters are not explained. Suitable explanations will be included in the revision of ES 201 671.

Use of UUS1 to label delivery calls

The meeting was asked why UUS1 had been used to label delivery calls. It was explained that UUS1 had been chosen to meet the expressed user requirements for delivery. The use of sub-addressing does not fully meet those requirements, and is included only for the benefit of under-developed networks which do not fully support UUS1. A GSM network may readily generate and transport UUS1 information elements. Any problems due to the use of UUS1 arise at the local switch which provides access to the LEMF.

Use of UUS3 as a bearer for HI2

TD045 from CSELT stated that Italy proposed to use UUS3 as a bearer for HI2 information relating to 64 kbit/s circuit switched calls. The Chair noted that ES 201 671 does not prohibit such an arrangement, but rather leaves the choice of mechanism to the parties concerned.

Agreed amendments

The following amendments were agreed by the meeting:

	Note at top of p35, para 9.3.1. Add a footnote "Not all networks will support such a transition. Exceptionally, it may be necessary to send an alerting message before the connected message."
	IIF should always be referred to as an interception function (**not** intercepting)
	In section 3.1: Activation & deactivation of supplementary services should refer to supplementary services only.
	In section 3.1: Call definition does not include SMS. SMS needs a non call related definition.
	In section 3.2: GPRS is General…
	In section 3.2: add MSISDN
	In section 3.2: Delete PSPDN (not used)
	Section 4.2: requires clarification.
	In section 4.3 **and elsewhere** it should be made clear that certain information might not be available, or it might not be feasible to provide that information. (Minute writer's note: This already seems to be covered in section 5.2, sixth paragraph "…The IIF is not required to make any attempt to request explicitly, via special call handling procedures, extra information, e.g. a calling party number, which has not already been supplied by a signalling system."
	Page 17, 3rd para: add that the separation is as seen from outside the network, or by a party who is not authorised to see the information.
	Delete LEA from paragraph 2 of section 10.4.

Numbering

It was agreed to list target identities according to technologies.

AP60/99 Editor ES 201671 to prepare placeholders for technology specific target identifiers in the technology specific annexes.

Input on the mapping of identifiers across the handover interface will be welcome at the next meeting.

GPRS

HI3 labelling for GPRS

GSM03.33 does not give any requirements for the labelling of PDUs. TD044 makes some proposals, but makes no claim that these are correct. Other TDs suggested minimum or extensive labelling. Clear and defensible requirements are required. The meeting was unable to reach any definitive conclusion.

HI2 Mechanism for GPRS

It was agreed that the existing mechanism for the transfer of HI2 information is suitable for GPRS. Nokia disagreed. A proposal to specify FTP as a transfer mechanism found no acceptance beyond Nokia.

HI3 mechanism for GPRS

The approach outlined in TD006, based on the earlier consensus within WG LI, was not universally accepted. An alternative approach was suggested based on the use of a variant of GTP to transfer GPRS PDUs. This was described in TD011 (Siemens). A similar, but different in detail, proposal was made in TD052 (Nokia). A further proposal from Nokia to specify FTP as a transfer mechanism (TD048) found no acceptance beyond Nokia.

Some of the differences between TD011 and TD052 are related to the presumed requirements for labelling of PDUs.

TD050 is a set of criteria for evaluating candidate HI3 mechanisms, to which an extra agreed criterion was added: "Availability of technology". [The revised paper is available on the ETSI web site.]

The chair of WG LI and the acting Chair of SMG10/WPD agreed to prepare a joint letter considering the two options and offering conclusions to allow work to proceed.

AP61/99 **Chair WG LI** and **acting Chair SMG10/WPD** (Rolf Schnitzler) to prepare an agreed letter on GPRS HI3 mechanisms.

Security

The meeting noted that inputs on security are still required.

LI Architecture

A new version of the LI architecture document (TD007) was presented to the meeting by Stefan Björnson. The point was made that LI is much more a service rather than a network operation. Comments and suggested text are required for the Oslo meeting.

Scott Cadzow offered to sketch the TETRA LI architecture.

AP62/99 **Scott Cadzow** to sketch the TETRA LI architecture.

Satellites

It was agreed that Koen Jaspers, Tony Youel and the Chair would draft, and the Chair would send, a reply to STF 126's question on LI for satellite systems.

AP63/99 **Koen Jaspers**, **Tony Youel** and the **Chair** to draft reply to STF 126 question on LI and satellites.

AP64/99 **Chair** to send reply on LI and satellites to STF 126.

Problem identification

International handover

Delegates from Italy suggested that they may be able to prepare a paper on international handover to the next WG LI meeting.

Work in other arenas

3GPP

No report. TDs 040 and 041 were available to the meeting, and are latest drafts of the 3GPP work.

EP UMTS

TD017 was a reply from EP UMTS to the WG's earlier liaison.

SPAN6/SG

A joint meeting was held with SPAN6/SG on the 20th October, and is recorded in SPAN6/WG minutes.

PCWG

See report above.

SMG10/WPD

Reports

No formal report was made to the meeting, though delegates who are also members of SMG10/WPD took an active part in the meeting. Issues of 3GPP and GPRS are noted above.

Joint meeting

SMG10/WPD had asked (TD042, paragraph 12) for a joint meeting to be set up for the development of the revision of ES 201 671. The Chair announced, in line with TD003, that delegates to SMG10/WPD are very welcome to join the meetings of TC Security WG LI whilst the development of ES 201 671 to address GPRS proceeds. This solution was felt to minimise the number of meetings for all parties concerned.

The Chair looked forward to the two groups moving forward in the future.

TIPHON

EP TIPHON have now established EP TIPHON WG8 on Security. The meeting sends its congratulations to Melinda Shore on her election as the first Chair of the group.

Future meetings

Future meetings are proposed as follows:

LI WorkingGroup	TC Securityplenarymeeting
23-24 November1999,Mainz	
11-13 a.m.January 2000	10,13 p.m.-14 January2000,Oslo (*Brrrr*.)
March2000 ***Hostrequired***	
8-9 May 2000,UK	10-11 May 2000UK (hostBT)
July 2000 ***Hostrequired***	
4-5 September2000,Zurich	6-7 September2000,Zurich
October2000 ***Hostrequired***	
11-12 December,Mainz, Germany	13-14 December,Mainz, Germany
	March2001?

Please note that the arrangements for TC Security plenary meetings for January 2000 and beyondaresubjectto review.

1999_10_19_secli_Sophia_meeting.doc

Annexe1 List of attendees

Name	Organisation
BerndAdams	DeutscheTelekomAG
PetervanderArend	KPN
StefanBjörnson	EricssonRadio SystemsAB
MatthieuCornillault	Alcatel
ScottCadzow	STF 114
Ian Deakin	Motorola
Robin Gape	BT (chair ad-hoc groupLI)
MichaelGundlach	SiemensAG
Jari Haatainen	NBI, Finland
WilliamHarbison	Nortel Networks
HåkanHjelmestam	Telia Promotor
Koen Jaspers	ITO (NL)
Tom Johnston	ICO
Florentijn van Kampen	KPN Research

[1] These dates were changed at the plenary meeting. If the new arrangements are a success, then subsequent plenary meetings will adopt a similar timetable.

Name	Organisation
Markus Lutz	Alcatel Germany
Theo Metzger	RegTP Germany
Cristiano Nesi	CSELT – Telecom Italia
Herbert Paulis	Siemens
Bruno Pellero	LI expert (Italy)
Harri Rasilainen	(ETSI)
Philippe Rolland	AQSACOM
Brita Rosenlund	Telenor
Stefano Sartor	Ministero delle Comunicazioni, Italy
Rolf Schnitzler	MMO
Eric Seitz	Nortel DASA
Kai Sjöblom	Nokia
Bernhard Spalt	Siemens AG
Jürgen Sternkopf	Ericsson GmbH
Tony Youel	UK HO

Annex e 2 documents to the meeting

As these minutes are written, all documents available electronically have been placed in the following URL:

http://docbox.etsi.org/Tech-Org/security/Document/security/LI/1999-10%20Sophia%20Antipolis/

Documents are listed in file 16wglitd000.htm in that directory.

Annex e 3 New and continuing action points

AP32/99 Chair to circulate the first draft of revised ETR 331 to SMG10/WPD, 3GPP etc.

AP39/99 WG LI members to contribute to the LI architecture document.

AP46/99 **Chair** to copy minutes of 16th meeting to SMG10/WPD drawing their attention to the IPR section of the minutes.

AP47/99 **Chair** to copy minutes of 16th meeting to SPAN6/SG drawing their attention to the IPR section of the minutes.

AP48/99 **Editor ETR 331** to prepare a proposed part 3 for the next meeting.

AP49/99 **Koen Jaspers** to provide text for section 8.1 on national consistency.

AP50/99 **Editor** to generate suitable stubs for GSM HI2 and HI3 in the syntax tree.

AP51/99 **Chair SMG10/WPD** to provide suitable branches for GSM HI2 and HI3 in the syntax tree.

AP52/99 **Chair SMG10/WPD** to arrange for the production of suitable text to describe location dependent interception for the revision ES 201671.

AP53/99 **Chair SMG10/WPD** to provide a list of GSM specific release causes for ES 201671 paragraph 8.4.2 numbered paragraph 4).

AP54/99 **Editor ES 201671** to include the technologies covered in the handover specification in the scope statement.

AP55/99 **Chair SMG10/WPD** to provide text for a normative Annex on GSM.

AP56/99 **Chair SMG10/WPD** to provide text for a normative Annex on GPRS.

AP57/99 **Chair TIPHON WP8** to provide text for a normative Annex on TIPHON.

AP58/99 **Scott Cadzow** to provide a name of someone who can provide text for a normative Annex on TETRA.

AP59/99 **Editor ES 201671** to propose arrangements for a normative Annex on ISDN.

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