

**3GPP TSG SA WG3 Security — S3#20**  
**16 - 19 October, 2001, Sydney, Australia**

**S3-010485**

3GPP LI  
 Saarbruecken August 21-23

Tdoc S3LI01\_104

CR-Form-v3
<h2 style="margin: 0;">CHANGE REQUEST</h2> <p style="margin: 10px 0;">                 ⌘ <b>33.107 CR xxx</b> ⌘ rev <b>-</b> ⌘ Current version: <b>4.1.0</b> ⌘             </p>

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Start of secondary interception of an active PDP context		
<b>Source:</b>	⌘ SA WG3-LI		
<b>Work item code:</b>	⌘ Security	<b>Date:</b>	⌘ Aug 13, 2001
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ REL-4
	Use <u>one</u> of the following categories: <b>F</b> (essential correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (Addition of feature), <b>C</b> (Functional modification of feature) <b>D</b> (Editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

<b>Reason for change:</b>	⌘ Lack of "Start of interception of active PDP context" message, when another LEA (second or higher) requests interception of an already being intercepted target, which has at least one active PDP context.
<b>Summary of change:</b>	⌘ <u>Enable two implementation solutions: One will involve DF2 only, which will need to remember the LEAs, which have already requested interception on the subject, and to forward the "Start of interception of active PDP context" IRI report only to the new LEAs. This solution will require DF2 also to store the information of the active PDP contexts.</u> <u>The alternative implementation solution requires the ADMF to resend the activation request, which will trigger the SGSN to resend the "Start of interception of active PDP context" IRI report to DF2. DF2 then will need to remember the LEAs, which have already requested interception on the subject, and to forward the "Start of interception of active PDP context" IRI report only to the new LEAs.</u>
<b>Consequences if not approved:</b>	⌘ Missing capability of reliable secondary interception.

<b>Clauses affected:</b>	⌘ 5.1.1		
<b>Other specs Affected:</b>	⌘ <input type="checkbox"/> Other core specifications	⌘ <input type="checkbox"/>	
	<input type="checkbox"/> Test specifications		
	<input type="checkbox"/> O&M Specifications		
<b>Other comments:</b>	⌘		

## 5.1.1 X1\_1-interface

The messages sent from the ADMF to the 3G ICEs (X1\_1-interface) contain the:

- target identities (MSISDN, IMSI, IMEI or SIP URL) (see note 4);
- information whether the Content of Communication (CC) shall be provided (see note 1);
- address of Delivery Function 2 (DF2) for the intercept related information (see note 2);
- address of Delivery Function 3 (DF3) for the intercepted content of communications (see note 3);
- IA in case of location dependent interception.

NOTE 1: As an option, the filtering whether intercept product and/or intercept related information has to be provided can be part of the delivery functions. (Note that intercept product options do not apply at the CSCF). If the option is used, the corresponding information can be omitted on the X1\_1-interface, while "information not present" means "intercept product and related information has to be provided" for the ICE. Furthermore the delivery function which is not requested has to be "pseudo-activated", in order to prevent error cases at invocation.

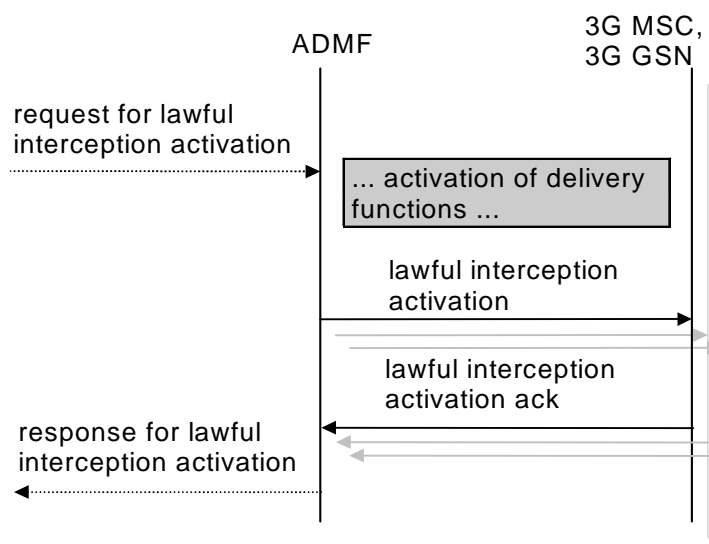
NOTE 2: As an option, only a single DF2 is used by and known to every 3G ICE. In this case the address of DF2 can be omitted.

NOTE 3: As an option, only a single DF3 is used by and known to every 3G ICE (except at the CSCFs). In this case the address of DF3 can be omitted.

NOTE 4: Since the IMEI is not available, interception of IMEI is not applicable at the 3G Gateway.

NOTE 5: Interception at the CSCFs is based only upon SIP URL. However, SIP URL as a target identity is not supported the other ICEs.

If after activation subsequently Content of Communications (CC) or Intercept Related Information (IRI) has to be activated (or deactivated) an "activation change request" with the same identity of the target is to be sent.



**Figure 3: Information flow on X1\_1-interface for Lawful Interception activation**

Interception of a target can be activated on request from different LEAs and each LEA may request interception via a different identity. In this case, each target identity on which to intercept will need to be sent via separate activation messages from ADMF to the 3G ICEs on the X1\_1-interface. Each activation can be for IRI only, or both CC and IRI.

When several LEAs request activation on the same identity then the ADMF determines that there are existing activations on the identity. In this case, the ADMF may (as an implementation option) will not send an additional

activation message to the 3G ICEs. ~~except w~~When the activation needs to change from IRI only to CC and IRI. ~~In that case~~ an activation change message will be sent to the 3G ICEs.

In case of a secondary interception activation only the relevant LEAs will get the relevant IRIs.