3GPP TSG-SA WG3 LI Meeting   *Tdoc S3LI02_085R1*
Orlando, Florida 09 – 11 April 2002

CR-Form-v4

CHANGE REQUEST

| ⌘ | **33.107** CR **CRNum** | ⌘ | rev | **-** | ⌘ | Current version: | **5.1.0** | ⌘ |

*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 **X**

Title:	⌘	Inclusion of Serving System IRI in TS 33.107.
Source:	⌘	Telcordia Technologies
Work item code:	⌘		***Date:*** ⌘ 09 April 2002

Category:	⌘ **C**	***Release:*** ⌘ Rel-5

Use one of the following categories:
   F *(correction)*
   A *(corresponds to a correction in an earlier release)*
   B *(addition of feature),*
   C *(functional modification of feature)*
   D *(editorial modification)*
Detailed explanations of the above categories can
be found in 3GPP TR 21.900.

Use one 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)

Reason for change:	⌘	Add the ability to report when an intercept subject is roaming.
Summary of change:	⌘	Add Annex D to TS 33.107.
Consequences if not approved:	⌘	Does not meet US requirements.

Clauses affected:	⌘	New Clause D
Other specs affected:	⌘ **X** Other core specifications ⌘ 33.108 ☐ Test specifications ☐ O&M Specifications	
Other comments:	⌘	This CR has been agreed to by T1P1.SAH

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

7.3 Provision of Intercept Related Information

Intercept Related Information (Events) are necessary at the Mobile Station Attach, Mobile Station Detach, PDP Context Activation, Start of intercept with PDP context active, PDP Context Deactivation, RA update, Serving System and SMS events.

Figure 21 shows the transfer of intercept related information to the DF2. If an event for / from a mobile subscriber occurs, the 3G GSN or the 3G Home Location Register (HLR) sends the relevant data to the DF2.

See section 7A for multi-media Intercept Related Information produced at the CSCF.
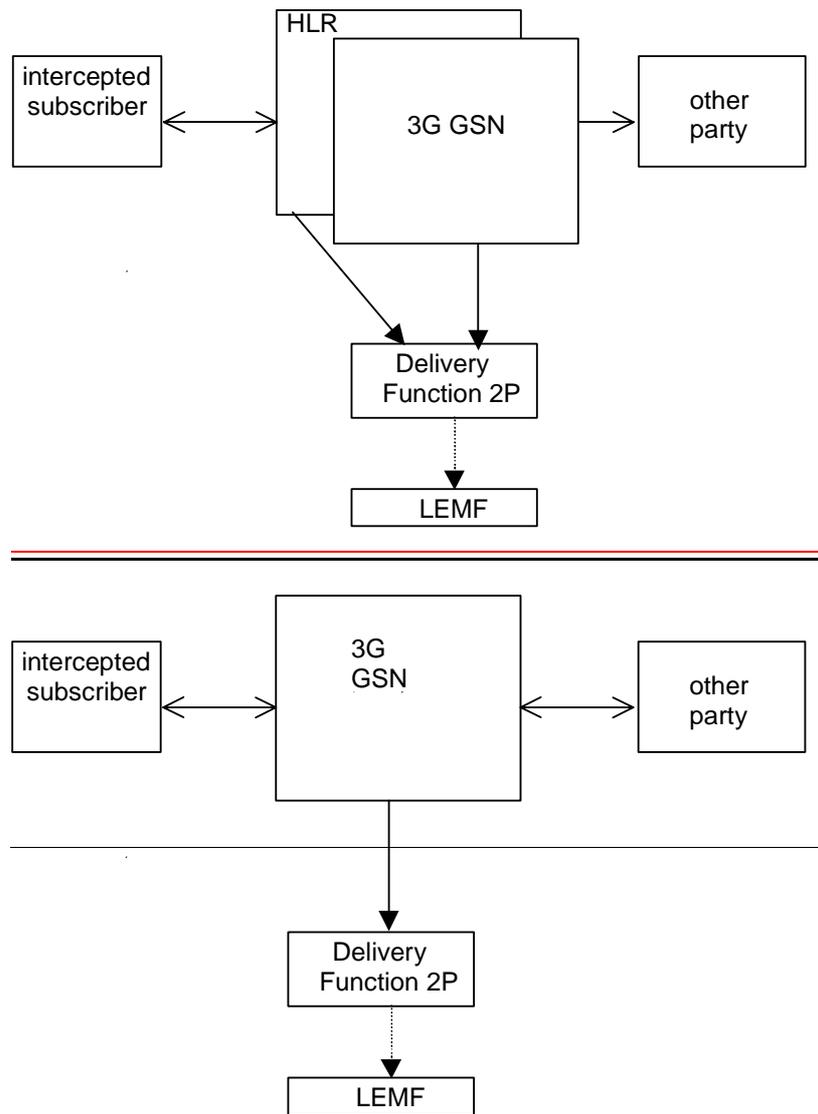
Figure 21: Provision of Intercept Related Information

7.3.1   X2-interface

The following information needs to be transferred from the 3G GSN or the 3G HLR to the DF2 in order to allow a DF2 to perform its functionality:

-    target identity (MSISDN, IMSI, IMEI);

-    events and associated parameters as defined in section 7.3.2 and 7.4 may be provided;

-    the target location (if available) or the IAs in case of location dependent interception.

-    Correlation number

The IRI should be sent to DF2 with a reliable transport mechanism.

7.3.2   Structure of the events

There are seven eight different events in which the information is sent to the DF2 if this is required. Details are described in the following section. The events for interception are configurable (if they are sent to DF2) in the 3G GSN or the 3G HLR and can be suppressed in the DF2.

The following events are applicable to 3G SGSN:

- Mobile Station Attach;

- Mobile Station Detach;

- PDP context activation;

- Start of intercept with PDP context active;

- PDP context deactivation;

- RA update;

- SMS.

  NOTE: 3G GGSN interception is a national option. Location information may not be available in this case.

The following events are applicable to the 3G GGSN:

- PDP context activation ;

- PDP context deactivation ;

- Start of interception with PDP context active.

The following events are applicable to the HLR:

- Roaming.

A set of fields as shown below is used to generate the events. The events transmit the information from 3G GSN or 3G HLR to DF2. This set of fields as shown below can be extended in the 3G GSN or 3G HLR, if this is necessary as a national option. DF2 can extend this information if this is necessary as a national option e.g. a unique number for each surveillance warrant.

Table 2: Information Events for Packet Data Event Records

Observed MSISDN MSISDN of the target subscriber (monitored subscriber)
Observed IMSI IMSI of the target subscriber (monitored subscriber)
Observed IMEI IMEI of the target subscriber (monitored subscriber),it shall be checked for each activation over the radio interface.
Event type Description which type of event is delivered: MS attach, MS detach, PDP context activation, Start of intercept with PDP context active, PDP context deactivation, SMS, Serving System, Cell and/or RA update,
Event date Date of the event generation in the 3G GSN or the 3G HLR.
Event time Time of the event generation in the 3G GSN or the 3G HLR.
PDP address The PDP address of the target subscriber. Note that this address might be dynamic.
Access Point Name The APN of the access point. (Typically the GGSN of the other party)
Location Information Location Information is the service area identity, RAI and/or location area identity that is present at the GSN at the time of event record production.
PDP Type The used PDP type.
Correlation Number The correlation number is used to correlate CC and IRI.
SMS The SMS content with header which is sent with the SMS-service. The header also includes the SMS-Centre address.
Network Element IdentifierUnique identifier for the element reporting the ICE.
Failed attach reason Reason for failed attach of the target subscriber.
Failed context activation reason Reason for failed context activation of the target subscriber.
IAs The observed Interception Areas
Serving System Address Information about the serving system (e.g., serving SGSN number and **or** serving SGSN address)

7.4.10   Serving System

The Serving System report event is generated at the 3G HLR, when the 3G HLR has detected that the intercept subject has roamed. The fields will be delivered to the DF2 if available:

Observed MSISDN
Observed IMSI
Observed IMEI
Event Type
Event Time
Event Date
Network Element Identifier
Serving System Address

Annex D (normative):
U.S. Serving System Reporting

D.1 Serving system reporting from GPRS HLR

The Serving System event reports the NOW/AP/SvP providing service to an intercept subject with terminal mobility, when the terminal is authorized for service.

A Serving System is reported from the GPRS HLR when a mobile terminal is authorized for service with another NOW/AP/SvP or in another service area.

Figure D.1 shows the transfer of intercept related information to the DF2.
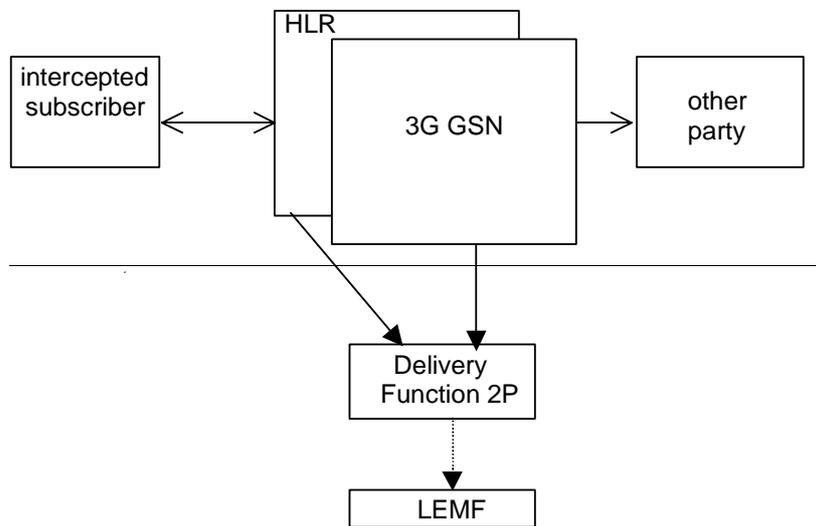
Figure D.1: Serving System Reporting from GPRS Home HLR

D.2 Serving System Fields

The following information will be delivered to the DF2 for each Serving System event:

Observed MSISDN
Observed IMSI
Observed IMEI
Event Type
Event Time
Event Date
Network Element Identifier
Serving System Address

Serving System Address Information about the serving system (e.g., serving SGSN number and **or** serving SGSN address)