

14 - 17 May 2002, Victoria, Canada

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| CR-Form-v4 | |
| CHANGE REQUEST | |
| ⌘ 33.107 CR CRNum ⌘ rev - ⌘ | Current version: 5.2.1 ⌘ |

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

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|------------------------|---|-----------------|---|
| 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 <u>one</u> 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 <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) |

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|--------------------------------------|--|
| Reason for change: | ⌘ Add the ability to report when an intercept subject is roaming. |
| Summary of change: | ⌘ Add clause 7.4.9 (serving system) and related changes to other clauses in TS 33.107. |
| Consequences if not approved: | ⌘ Does not meet US requirements. |

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|------------------------------|---|---|--------|
| Clauses affected: | ⌘ 7.3; 7.3.1; 7.3.2; (new) 7.4.9 | | |
| Other specs affected: | ⌘ <input checked="" type="checkbox"/> Other core specifications | ⌘ | 33.108 |
| | <input type="checkbox"/> Test specifications | | |
| | <input type="checkbox"/> O&M Specifications | | |
| Other comments: | ⌘ This CR has been agreed to by T1P1.SAH | | |

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 Home Location Register (HLR) sends the relevant data to the DF2.

See section 7A for multi-media Intercept Related Information produced at the CSCF.

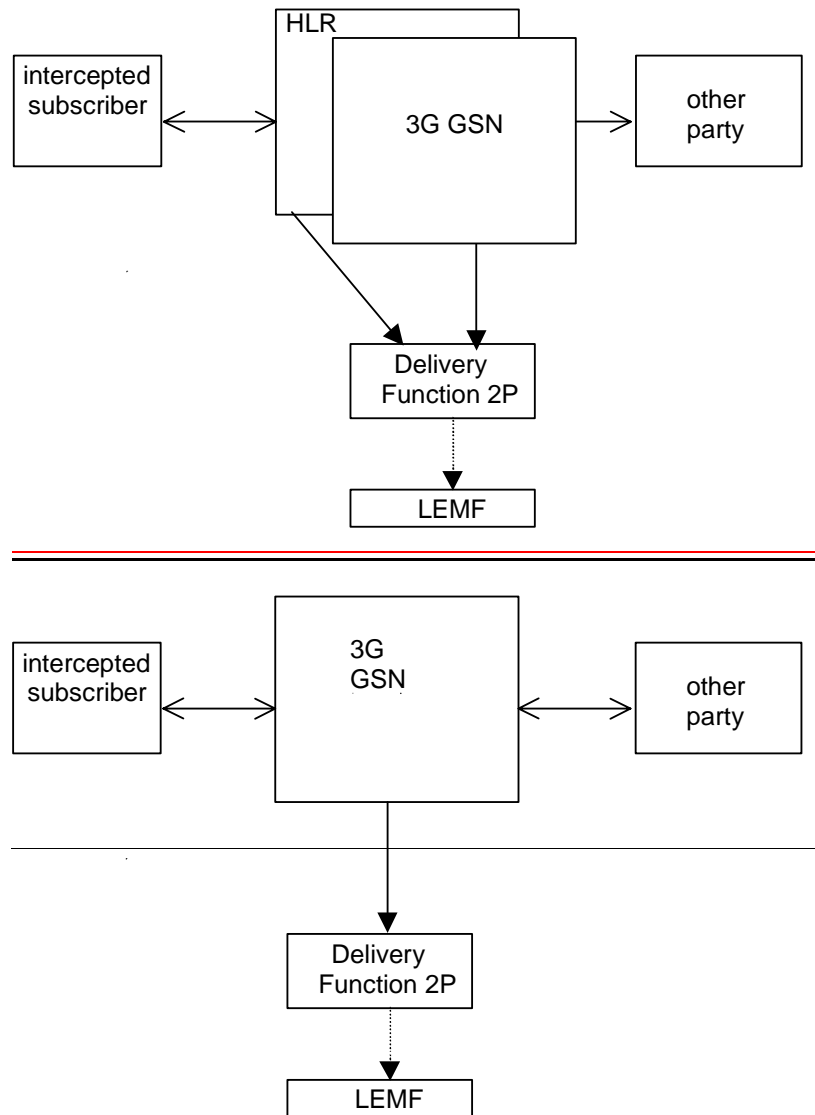


Figure 21: Provision of Intercept Related Information

7.3.1 X2-interface

The following information needs to be transferred from the 3G GSN or the 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 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 HLR to DF2. This set of fields as shown below can be extended in the 3G GSN or 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, <u>Serving System</u> , Cell and/or RA update, |
| Event date Date of the event generation in the 3G GSN or the HLR. |
| Event time Time of the event generation in the 3G GSN or the 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 Identifier Unique 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 |
| Session Initiator The initiator of the PDP context activation, deactivation or modification request either the network or the 3G MS |
| Initiator SMS indicator whether the SMS is MO or MT |
| Deactivation / termination cause The termination cause of the PDP context |
| QoS This field indicates the Quality of Service associated with the PDP Context procedure |
| <u>Serving System Address</u> <u>Information about the serving system (e.g., serving SGSN number and or serving SGSN address)</u> |

7.4.9 Serving System

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

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|-----------------------------------|
| <u>Observed MSISDN</u> |
| <u>Observed IMSI</u> |
| <u>Observed IMEI</u> |
| <u>Event Type</u> |
| <u>Event Time</u> |
| <u>Event Date</u> |
| <u>Network Element Identifier</u> |
| <u>Serving System Address</u> |