Technical Specification Group Services and System Aspects
Meeting #28, Quebec, Canada, 6-8 June 2005

TSGS#27(05) 0258

Source: SA3

Title: CRs to 33.108 on Correction on IMS correlation for LI (Rel-6)

Document for: Approval

Agenda Item: 7.3.3

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-28	SP-050258	33.108	072	-	Rel-6	F	Correction on IMS correlation	6.8.2	6.9.0	S3-050202

3GPP TSG-SA3-LI Meeting #17 ***Tdoc ⌘S3LI05_050r2***
Sophia Antipolis, France, 5-7 April 2005

CR-Form-v7.1

CHANGE REQUEST

⌘ **33.108** **CR** **072** ⌘ **rev** **-** ⌘ Current version: **6.8.2** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	Correction on IMS correlation
Source:	⌘	SA3-LI
Work item code:	⌘	SEC1-LI
Date:	⌘	06/04/2005
Category:	⌘	**F**
Release:	⌘	Rel-6

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:
Ph2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*
Rel-7 *(Release 7)*

Reason for change:	⌘	In TS 33.108 there are some ambiguities between the correlation number which is used in the PS domain and the correlation number provided by the CSCF.
Summary of change:	⌘	The difference between the correlation number used in the PS domain (SGSN, GGSN) and the correlation number provided by the CSCF in IMS domain is clarified.
Consequences if not approved:	⌘	Different implementations, which would result in wrong interpretation of the decoded parameter at LEMF.

Clauses affected:	⌘	7.1, 7.1.1, 7.1.3, 7.2

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.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.

*** FIRST MODIFICATION ***

7.1 Identifiers

Specific identifiers are necessary to identify a target for interception uniquely and to correlate between the data, which is conveyed over the different handover interfaces (HI2 and HI3). The identifiers are defined in the subsections below.

For the delivery of CC and IRI the SGSN, GGSN and CSCF's provide correlation numbers and target identities to the HI2 and HI3. The correlation number provided in the PS domain (SGSN, GGSN) is unique per PDP context and is used to correlate CC with IRI and the different IRI's of one PDP context.

Interception is performed on an IMS identifier(s) associated with the intercept subject including identifiers such as SIP-URL and Tel-URL [30].

*** NEXT MODIFICATION ***

7.1.1 Lawful interception identifier

For each target identity related to an interception measure, the authorized operator (NO/AN/SP) shall assign a special Lawful Interception Identifier (LIID), which has been agreed between the LEA and theoperator (NO/AN/SP).

Using an indirect identification, pointing to a target identity makes it easier to keep the knowledge about a specific interception target limited within the authorized operator (NO/AN/SP) and the handling agents at the LEA.

The LIID is a component of the CC delivery procedure and of the IRI records. It shall be used within any information exchanged at the handover interfaces HI2 and HI3 for identification and correlation purposes.

The LIID format shall consist of alphanumeric characters. It might for example, among other information, contain a lawful authorization reference number, and the date, when the lawful authorization was issued.

The authorized operator (NO/AN/SP) shall either enter, based on an agreement with each LEA, a unique LIID for each target identity of the interception subject or a single LIID for multiple target identities all pertaining to the same interception subject.

Note that, in order to simplify the use of the LIID at LEMF for the purpose of correlating IMS signalling with GSN CC, the use of a single LIID in association with potentially numerous IMS identities (SIP and TEL URIs) is recommended.

If more than one LEA intercepts the same target identity, there shall be unique LIIDs assigned relating to each LEA.

*** NEXT MODIFICATION ***

7.1.3 Correlation number

The GPRS Correlation Number is unique per PDP context and used for the following purposes:

- correlate CC with GSN IRI,
- correlate different GSN IRI records within one PDP context.

As an example, in the UMTS system, the Correlation Number may be the combination of GGSN address and charging ID.

NOTE: It is an implementation matter how CSCF generates Correlation number value. However, in this release CSCF should use gPRSCorrelationNumber ASN.1 parameter as a container.

*** NEXT MODIFICATION ***

7.2 IRI for IMS

In addition, information on non-transmission related actions of a target constitute IRI and is sent via HI2, e.g. information on subscriber controlled input.

The IRI may be subdivided into the following categories:

1. Control information for HI2 (e.g. correlation information).
2. Basic data context information, for standard data transmission between two parties (e.g. SIP-message).

For each event, a Record is sent to the LEMF, if this is required. The following table gives the mapping between event type received at DF2 level and record type sent to the LEMF.

Table 7.1: Mapping between IMS Events and HI2 Records Type

Event	IRI Record Type
SIP-Message	REPORT

A set of information is used to generate the record. The records used transmit the information from mediation function to LEMF. This set of information can be extended in the CSCF or DF2 MF, if new IEs are available and if this is necessary in a specific country. The following table gives the mapping between information received per event and information sent in records.

Table 7.2: Mapping between IMS Events Information and IRI Information

Parameter	Description	HI2 ASN.1 parameter
Observed SIP URI	Observed SIP URI	partyInformation (sip-uri)
Observed TEL URL	Observed TEL URL	partyInformation (tel-url)
Event type	IMS Event	iMSevent
Event date	Date of the event generation in the CSCF	timeStamp
Event time	Time of the event generation in the CSCF	
Network identifier	Unique number of the intercepting CSCF	networkIdentifier
Correlation number	Unique number for each PDP context delivered to the LEMF, to help the LEA, to have a correlation between each PDP Context and the IRI.	gPRSCorrelationNumber
Lawful interception identifier	Unique number for each lawful authorization.	lawfulInterceptionIdentifier
SIP message	Either whole SIP message, or SIP message header. SIP message header is used if warrant requires only IRI. In such case, specific content in the SIPMessage (e.g. 'Message', etc.) must be deleted.	sIPMessage

NOTE 1: LIID parameter must be present in each record sent to the LEMF.
NOTE 2: Details for the parameter SIP message. If the warrant requires only signaling information, specific content in the parameter 'SIP message' like IMS (Immediate Messaging) has to be deleted/filtered.
NOTE 3: In case of IMS event reporting, the gPRSCorrelationNumber HI2 ASN.1 parameter, which is also used in the IRIs coming from PS nodes, is used as container.

*** END OF MODIFICATIONS ***