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# 1. Functional description (FN)

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## 1.1 Feature title

### Call Interception Configuration and Subscriber Tables

## 1.2 Feature synopsis

This feature, AD7877, creates two tables: Configuration Table, called GINTCNFG, and Subscriber Table, called GCALLINT, for Call Interception (CI) on the Mobile Services Switching Center (MSC). Call Intercept is a mechanism that allows security agencies (i.e. police and government authorized officials) to establish surveillance and record the mobile activities of target subscribers within a GSM network. Call Interception permits the surveillance organization to easily monitor the calls originated from or terminated to a target subscriber (both call content and call/non-call associated data) and the ability to monitor mobility events of the selected subscriber from a remote surveillance facility. Each surveillance facility selects a list of certain mobile subscribers to be monitored, in which only one security agency can monitor a particular target mobile subscriber (MS) at a time. Any calls originating from or terminating to the target mobile subscriber (MS) are intercepted and presented to the Monitoring Center(s). The *Call Contents* and *Call Associated Data* of the intercepted call are delivered to the monitoring center over separate interfaces. For an activated target subscriber, the Mobile Switching Center (MSC) generates *Non Call Associated Data* for non-call related mobility related events. For more information on call/non-call associated data, see features AD7879 Call Interception Monitoring feature, AD8095 GSM Call Intercept, and AD7881 Call Interception Event Record Generation.

## 1.3 Functional overview

The configuration data for a particular agency is provided in the Configuration Table, called GINTCNFG. The key to the table is the Security Agency's name.

The data corresponding to each key, up to a maximum of five (5), contains the local port identifier of the CI application on the switch, remote port identifier and the IP address of the facility that establishes data connections (see Feature AD7879 for details). This table is to be datafilled first.

The target subscriber data provided in the table GCALLINT is datafilled by the Call Intercept Provisioning Center (CIPC) and the relevant data is downloaded to the DMS-MSC. It contains the target subscriber's IMSI as the key. The data corresponding to each key contains the security agency identifier, directory number, warrant identifier, and delivery option information for each subscriber being monitored.

Access to the table GINTCNFG is only allowed by the user "SURVMSC". However, the system administrator controls the password for users, including the user "SURVMSC", and can gain access to the tables by altering the user SURVMSC's password, logging in as SURVMSC, and entering the table GINTCNFG. The DMOPRO and DUMPTAB functions can only be performed by the user 'SURVMSC'. Creation of Journal Files will not be affected by this feature, however applying Journal Files for this table must be done by the user 'SURVMSC'. Use of the command JFPRINT is not restricted.

## 1.4 Feature description

### 1.4.1 The Configuration Data for GINTCNFG Table

The maximum number of security agencies supported for Call Interception System (CIS) in GSM06 is five (5). This table is datafilled by the service provider.

The configuration data includes:

- **Monitoring Agent** - The Security Agency Identifier is the key to the tuple. It is an alphanumeric string up to 8 characters in length, up to a maximum of 5, that uniquely identifies the monitoring agency that is requesting call intercept on a particular subscriber. The value of this field is assigned by the authorized operator at the tuple creation time.
- **Local Port ID** - This is the local port identifier of the CI application on the switch (1 to 32767).
- **Remote Port ID** - The facility is identified by a remote port id (1 to 32767)
- **Remote Port IP Address** - This is the IP address of the facility that makes data connections (up to 4 bytes long).

## 1.4.2 The Provisioning Data for GCALLINT Table

The maximum number of IMSIs that can be provisioned for monitoring is 1024 per security agency. Provisioning of the target subscribers (for both home PLMN subscribers and roamers) is done by the security agency at the Provisioning Center and down-loaded to the MSCs.

The provisioning data includes:

- Target Subscriber - Subscribers are marked for call intercept by specifying the subscriber's IMSI up to 15 digits in length. A target subscriber can only be provisioned by one monitoring agency at a time in GSM06.
- Monitoring Agent - The Security Agency Identifier, is an alphanumeric string up to 8 characters in length that uniquely identifies the monitoring agency that is requesting call intercept on a particular subscriber. This security agency identifier must correspond with the security agency names identified in the GINTCNFG table.
- Route DN - The Routing Directory Number, up to 24 digits in length, is the address of the monitoring center to send the call content of the intercepted subscriber's call(s).
- Warrant ID - The Warrant Identifier, an alphanumeric string up to 20 characters in length, represents an authorization for the security agency/ service provider to monitor a particular subscriber.
- Optionality of Delivery Indication - Indication whether call-content only, call/non-call associated data only or both are required to be delivered to the Monitoring Center.

The provisioning information on the target subscriber will be stored in the GCALLINT table at the MSC. Only one security agency may monitor a subscriber at a time. Any requests for monitoring a currently provisioned subscriber will be rejected at the CIPC. For more information on CIPC, see feature AD8095 GSM Call Intercept.

## 1.4.3 Example

**Table 1 : GINTCNFG Table Tuple**

MONAGENT	LOCPORT	REMPORT	RIPADDR
AGENT1	(2222	2223	47 28 29 73)\$
AGENT2	(1111	1112	33 77 55 92)\$

**Table 2 : GCALLINT Table Tuple**

<b>IMSI</b>	<b>MONAGENT</b>	<b>ROUT_DN</b>	<b>WARRANT_ID</b>	<b>DELOPT</b>
214612552000003	(AGENT1	2146843452	GQV2356	Both)\$
989999887677776	(AGENT2	2145556788	ABJ4522	Call_Content)\$

**1.4.4 Message Protocols**

Not applicable.

**1.5 Supplementary information: Engineering/Hardware**

**1.5.1 Engineering hardware information**

Not Applicable

**1.6 Supplementary information: DDOC sections**

**1.6.1 Logs (LG)**

Not Applicable.

**1.6.2 Data schema (DS)**

Refer to the DS section of this document.

**1.6.3 Man machine interface (MM)**

Not Applicable.

**1.6.4 Operational measurements (OM)**

Not Applicable.

**1.6.5 AMA/Billing information (AM)**

Not Applicable.

**1.7 Feature impact**

**1.7.1 Interactions**

This feature interacts with the features listed in the references.

### 1.7.2 Restrictions/limitations<sup>1</sup>

- In GSM06, a maximum of 5 monitoring agencies are supported per MSC.
- Up to 1024 target subscribers are provisionable per monitoring agency per MSC.
- Only one monitoring agency may monitor a subscriber. Any requests for monitoring a currently provisioned subscriber will be rejected.
- The GINTCNFG table is to be datafilled first before any tuple is added to the GCALLINT table.

## 1.8 Definitions & abbreviations

<b>CI</b>	Call Interception
<b>CIPC</b>	Call Intercept Provisioning Center
<b>CIS</b>	Call Interception System
<b>DMS</b>	Digital Multiplex Switch
<b>DN</b>	Directory Number
<b>IMSI</b>	International Mobile Subscriber Identity
<b>MAPCI</b>	Maintenance Administration Position Command Interpreter
<b>MSC</b>	Mobile services Switching Center
<b>PLMN</b>	Public Land Mobile Network

## 1.9 References

AD7879	Call Interception Monitoring Feature
AD7881	Call Interception Event Record Generation
AD7882	Call Interception Invocation
AD8094	OMC02 Base for ISE and CI
AD8095	GSM Call Intercept

<sup>1</sup>For restrictions on the CIPC, please refer to the feature AD8095 GSM Call Intercept

