



MANUAL ANSWITCH V6

# *Manual anSwitch V6*

## *Lawful Interception*

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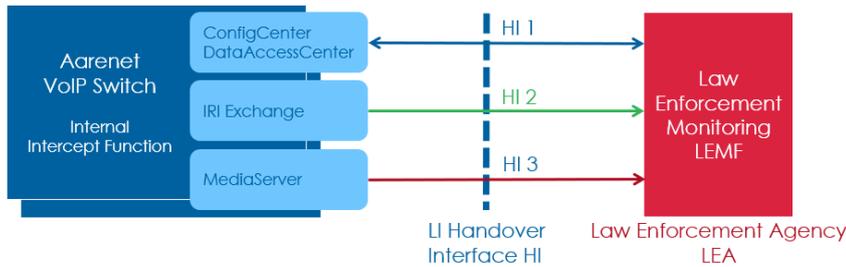
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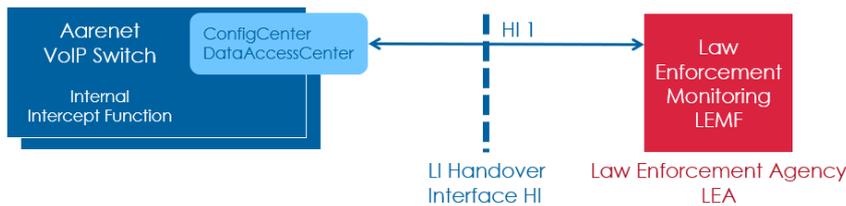
# 1 Concept Lawful Interception

- ▶ The Aarenet VoIP Switch has implemented the feature Legal Interception LI according the ETSI standard ETSI TS 201 671.
- ▶ Therefore the Aarenet VoIP Switch supports the concept of Handover Interface HI ports:
  - ▶ HI 1: Administrative Information
  - ▶ HI 2: Intercept Information
  - ▶ HI 3: Content of Communication ...



## 1.1 Connection (HI 1)

- ▶ The HI 1 port is used to hand over all needed information for starting, modifying and terminating a legal interception:
  - ▶ The lawful authorization toward the law enforcement agency and the service provider .
  - ▶ This stage is covered by national law procedures
  - ▶ Needed technical information from the Law Enforcement Agency LEA for identifying and configuration of the interception:
    - ▶ Lawful Interception Identifier LIID
    - ▶ Communication Identity Number CIN
    - ▶ Operator Identifier ID
    - ▶ Telephone number to intercept
    - ▶ Destination addresses for sending IRI-Records (HI 2) and media streams (HI 3)



**Note** It is the responsibility of the telephony provider to administrate and organize the Lawful Interception LI according to the country laws.

**Note** It must be assured that only authorized users can manage legal interception on the Aarenet VoIP Switch. It is advised that a special role "LI-Supervisor" is implemented in the ConfigCenter which is assigned to the authorized personnel.

**Note** For the implementation of the LI service an Aarenet system engineer is needed.

### 1.1.1 Configuration via ConfigurationCenter

A Lawful Interception job can be enabled/disabled via the ConfigurationCenter GUI.

For this purpose, there is a new administrator role which ensures that the LI administrator has access to the required information (and only to this information).

A "normal" administrator does not see this information.

#### ▶ Managing HII actions via the ConfigCenter:

- ▶ A special role "LI-Supervisor" makes sure that only authorized personnel can manage legal interception.
- ▶ Any other ConfigCenter role will not have access to the LI parameters.
- ▶ Only the needed configurations are visible and configurable.
- ▶ The data transfer is secured by the HTTPS protocol.

#### ▶ Configuring and activating a "Legal Interception":

1. Activate or deactivate a LI by selecting "Lawful Interception" at the requested telephone number "Target Number" by selecting "Lawful Interception".
2. Configure the Lawful Interception Identifier:
  - ▶ "Target Number": Displays the telephone number that is supervised
  - ▶ "Lawful Interception Identifier": Configure the Lawful Interception Identifier LIID.



ConfigCenter	"Addresses" > Tab "Advanced"
AdminCenter	-
Online Help	-

### 1.1.2 Configuration via DataAccessCenter

Alternatively, a Lawful Interception job can also be configured via the DataAccessCenter API:

HTTPS is used as the transport for the XML document.

The client application must authenticate using HTTP digest authentication.

The XML document looks like this:

```

1 <dam1 command="write">
2   <lawfulInterception>
3     <targetNumber>0319802811</targetNumber>
4     <lawfullInterceptionIdentifier>201108018006820</lawfullInterceptionIdentifier>
5     <operatorIdentifier>90379</operatorIdentifier>
6   </lawfulInterception>
7 </dam1>
```

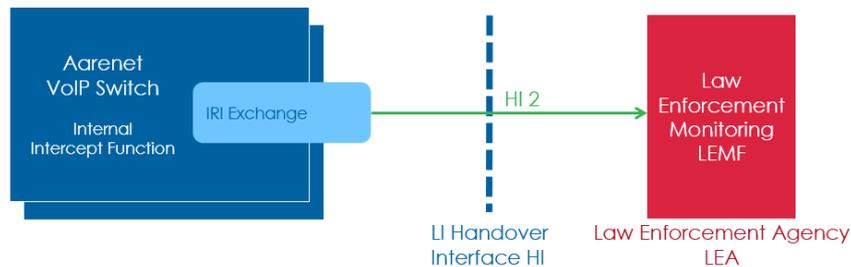
## 1.2 Data transfer (HI 2)

On a call to and from a destination under LI, one file is created at the start and another at the end.

These files contain the ASN1-coded IRI-Begin-Record and IRI-End-Record fields (according to the ETSI ES 201 671 standard).

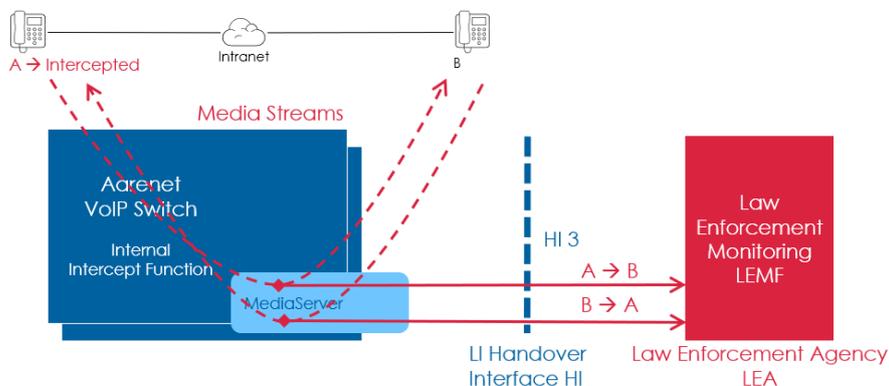
The files are copied to the LEMF in a script via FTP/SFTP.

- ▶ The HI 2 port is used to transfer Intercept Related Information IRI from the Aarenet VoIP Switch to the Law Enforcement Monitoring LEMF.



### 1.3 Listening (HI 3)

- ▶ The HI3 port streams the media (Content of the Communication CC) of the intercepted telephone connection to the LEMF.
- ▶ The MediaServer of the Aarenet VoIP Switch streams two media streams (A → B and B → A) toward the LEMF facility.



The meta information of the LI call is communicated to the SIP gateway as "isup" parameter. The SIP gateway then inserts this into the SS7 message as the Calling and Called Party subaddress.

The following parameters are included in the subaddresses

- ▶ Calling Party Subaddress
  - ▶ Lawfull Interception Identifier (LIID)
  - ▶ Direction
  - ▶ Sevice Octets
- ▶ Called-Party-Subaddress
  - ▶ Operator ID
  - ▶ CIN
  - ▶ CCLID
  - ▶ National Parameters

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