DT GSM(2G), UMTS (3G), LTE (4G) - IMSI/IMEI Catcher

General principles

The IMSI Catcher is an advanced system that is designed to detect presence of GSM, 3G or 4G handsets depending on version in the place of interest. As indicated on the image below, the entire system is based on a laptop and a smart compact BTS. The IMSI Catcher is an active system and as such, it forces a target phones in its vicinity to register to it.

The DT GSM IMSI Catcher supports multiple operators and can be easily upgraded to FULL GSM of Active Interception System (SAI)

System has two basic operation modes:

1. Random (all handsets);
2. IMSI or/and IMEI (only targets).

The system operates invisibly, so that the mobile station subscriber is unable todetect it. The system does not interfere with the external mobile operator networks. The IMSI Catcher implements special sophisticated algorithms in order to avoid the need to transmit high power to force cellular target phones to make the hand over from the real operator network to the system's compact BTS. By utilizing this unique algorithm, even phones located very close to the real BTS and relatively far away from the IMSI Catcher will be

forced to make a handover into the IMSI Catcher and by that, system effective range is extended compared to other active solutions.

The IMSI Catcher applications:

- IMSI/IMEI catching – in this mode the system detects identities of all GSM phones within it's effective range.
- Selective jamming of communication – in this mode system operator can block communication of GSM phones defined as targets.
- Presence verification - This operational mode is intended to detect and select targets of interest (according to IMSI/IMEI identifications) from the total number of subscribers located within operational area of the system.
- Data Analysis / Target Correlation - This mode allows the system to detect identities of mobile phones (IMSI/IMEI) which belong to particular targets.
- Direction Finding Support – the system forces target's phone to get into transmit mode (without any visible mark) so that DF / Homing systems can track the transmission direction to identify the target mobile.
- Virtual Privet Network – mobile phones connected to the system can communicate with each other, even without GSM coverage whatsoever in the region.

Based on the above technical capabilities, the system can support variety of operational needs such as:

- Detection of identities of all GSM (or 3G & 4G) mobile phones in the areas of interest;
- For 3G and 4G IMSI catcher versions to downgrade targets to 2G for further interception
- Identifying of mobile phones which belong to particular targets;
- Selective jamming of GSM phones in restricted areas (prisons, embassies, etc);
- Presence detection of targets in specific area of interest (border crossing, airports, public areas);
- Communication support of emergency forces in disaster areas (VPN);
- Detect location of hidden mobiles (prisons, classified places);

System can operate with variety of power sources such as AC supply, batteries, car supply etc and by that, it can be installed and operated in many types of applications and environments (fixed installation, remote control configuration, transportable, vehicular, man pack)