

PROTECTION & INTERCEPTION

COMPANY PROFILE AND CAPABILITIES 2025

DISCOVERY
ENGINEERING



Discovery Engineering provides a full range of services for the design, installation, commissioning and maintenance of various types of interception systems

Tactics

- Interception and tracking of IMSI/IMEI of mobile subscribers
- Active interception of voice and data traffic in 2G/3G/4G with downgrade to 2G
- Passive voice interception in 2G networks
- Combination of passive and active interception systems to achieve maximum benefits
- Combination of multiple interception systems into a single network with central control
- Interception of voice and data traffic in 3G and 4G networks without switching to 2G
- Tactical Wi-Fi interception
- Active suppression systems for convoy and VIP protection
- Drone protection systems
- Experience of using in regions of real combat operations

Strategy

- Interception of voice traffic and geolocation via SS7 network
- Infection of computer targets running Mac OS, Windows; mobile targets running IOS, Android
- Strategic interception hosted on operator platforms
- Remote penetration systems for obtaining information or covert control

Iridium
Thuraya
Inmarsat
VSAT

Cover more than 95% of all communications in total



There are two main types of interception systems

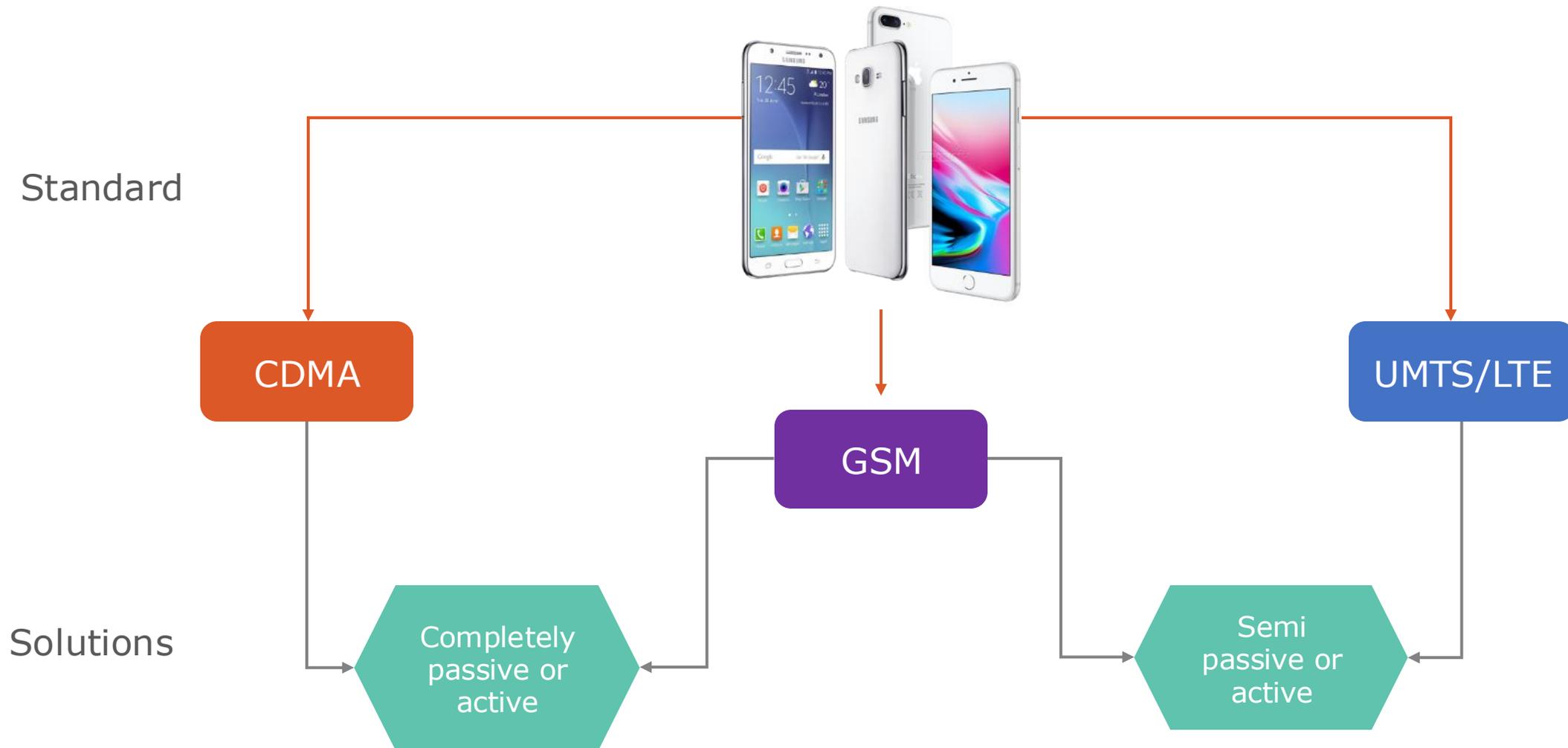
1. Strategic Solution - Fixed Installation, Rack Mount, Multi-User, Administrative Post, Large Antennas, Large Screens

2. Tactical solution - typically small system size, one or two users, short deployment time



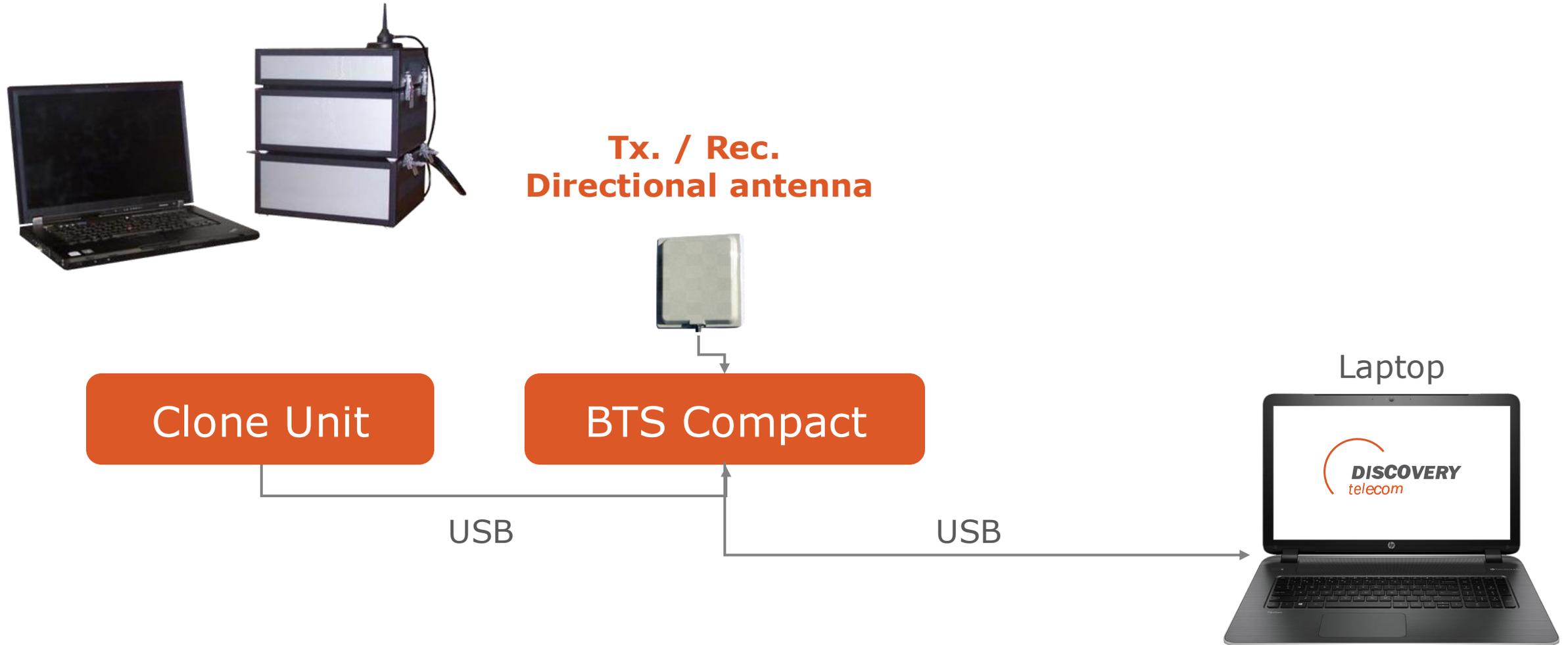


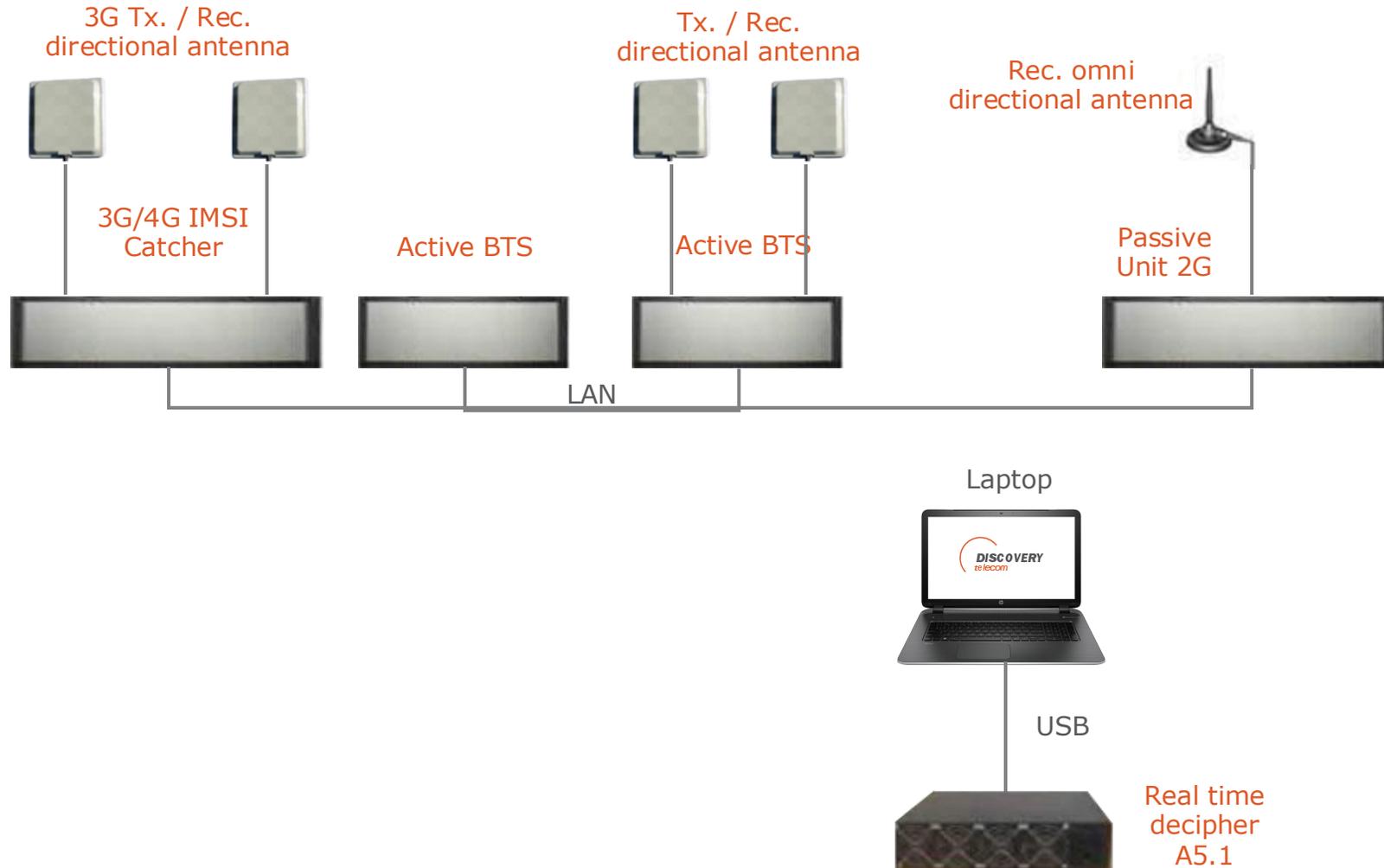
1. TACTICAL CELLULAR INTERCEPTORS





2. ACTIVE 2G SOLUTIONS





Active interception with BTS in the middle

Targets



← Network simulation

Subscriber imitation →



Operator base station



SAI operations as parts of a network

The SAI system is a modular GSM active interceptor capable of real-time interception of incoming and outgoing A5/1 and A5/2 sessions

Operational applications

1. Presence Check
2. IMSI/IMEI Catcher Function
3. Monitoring
4. Selective Jamming
5. Target Deception
6. Directional Finding Support



Main areas of application

- IMSI/IMEI catcher, presence check
- Call, SMS and DTMF monitoring
- Selective communication monitoring for targeted call and SMS jamming
- Targeted deception and manipulation
- Communication capabilities for specific users
- Detection of real phone numbers
- Variety of operating configurations
- Target location determination using homing devices or direction finding systems

- All in one - interception, monitoring, decryption, A5.2 and A5.1 in real time, deception and much more
- No cooperation with the provider
- Dual-band GSM interception system
- Minimum configuration - 6 sessions (voice and SMS)
- Can process A5.1 and A5.2 in real time (no need for additional devices)
- Interception of incoming and outgoing calls
- All calls are registered in the system database
- Supports direction finders with silent calling
- The system identifies the target phone number
- Setup time is only a few minutes
- Selective jamming, call interruption
- Can send fake calls and SMS
- Edit SMS messages sent to the destination on the fly
- Operating modes: random or targeted, local or remote control
- External power amplifiers are optional

3. IMSI CATCHERS



- Allows detection of 3G and 4G mobile phones, listing their identification data – (IMSI, IMEI, TMSI, model, origin, etc.)
- The operator can selectively switch 3G/4G mobile phones to 2G mode
- IMSI CATCHER measures the distance to the target with high accuracy
- Available as a separate device or as part of a semi-passive system

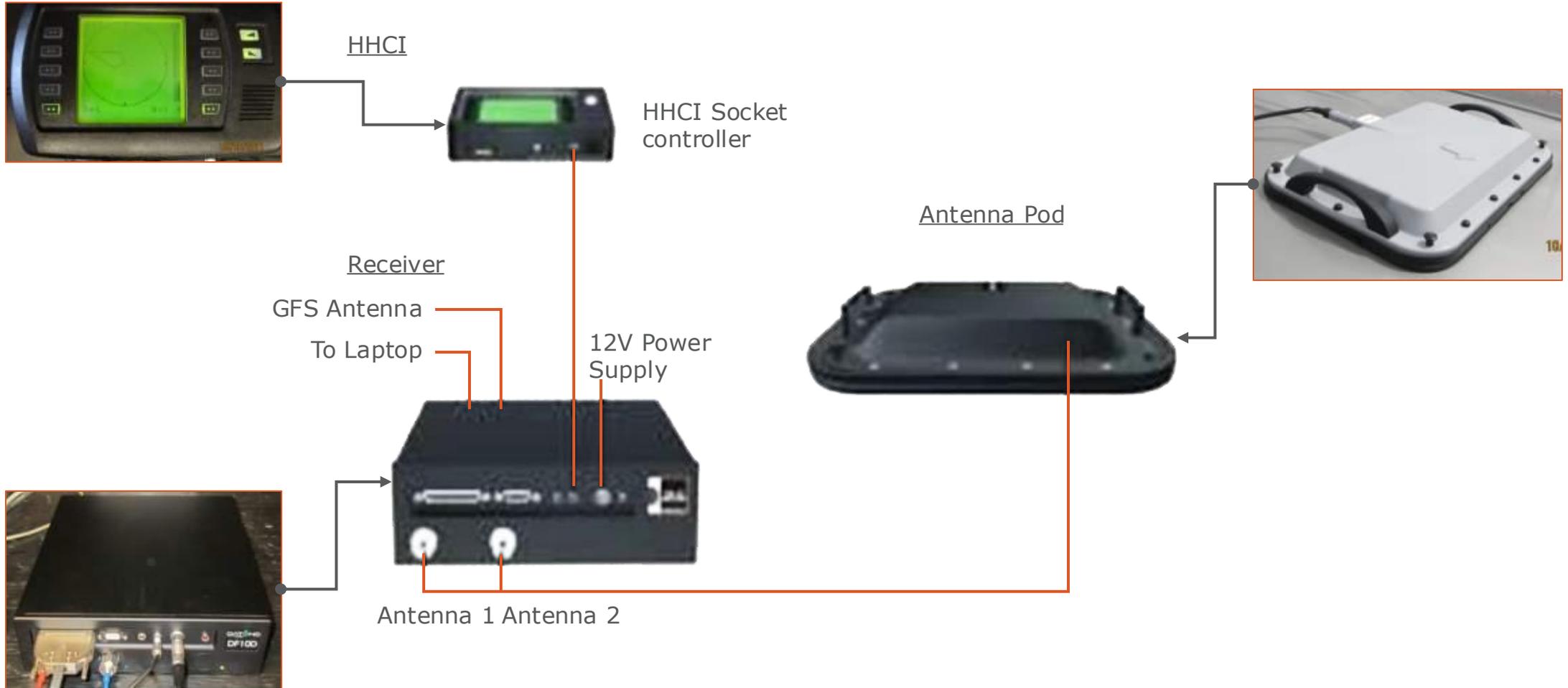
- 3G/4G IMSI CATCHER can be deployed in various form factors according to operational needs



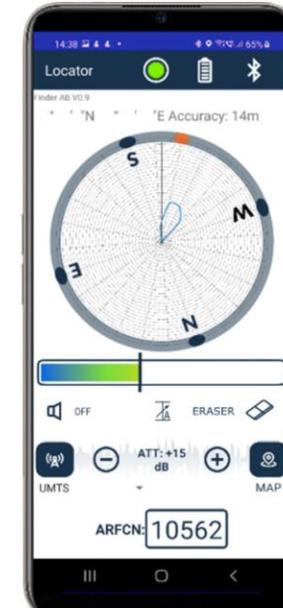
- Checking the presence of 3G/4G mobile communications to detect specific targets
- Selective blocking of 3G/4G mobile communications
- Blocking of specific 3G/4G networks
- Transition of specific 3G/4G mobile phones to 2G (GSM) for interception by a 2G interceptor
- Mobile identification by mobile device model and country of origin
- Target distance from the system



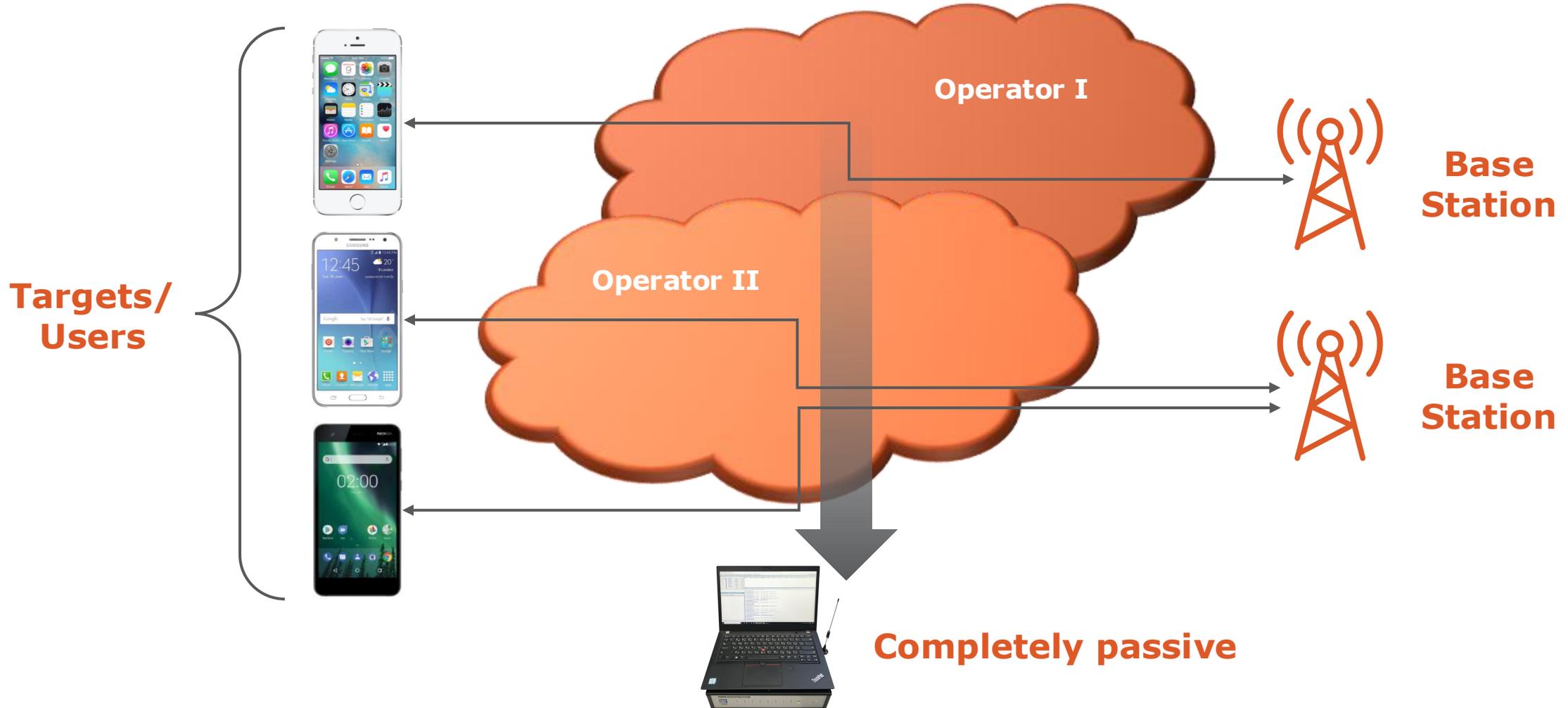
4. GSM/UMTS/LTE DIRECTION FINDING SOLUTIONS



- Works in conjunction with an active system and/or IMSI catcher
- An active system controls a target mobile station and causes it to transmit on a specific frequency that is tracked by a mobile or stationary direction finder



5. NARROWBAND MULTI CHANNEL PASSIVE SOLUTIONS

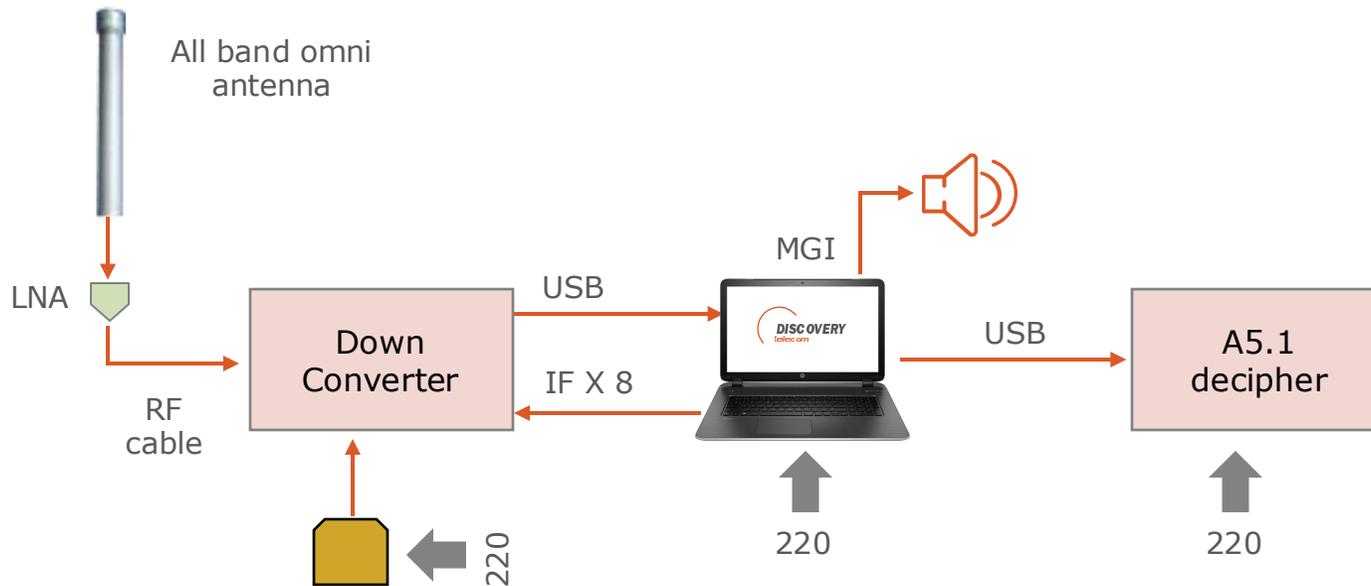




- The SPI passive interception system is designed for over-the-air interception of cellular communications in GSM networks
- A fully passive GSM monitoring system in real time
- The standard configuration contains 96 receivers, 48 for forward channels and 48 for reverse channels. It allows:
 - Intercept up to 48 simultaneous duplex calls
 - Cover all local BTS at a certain time
- The basic system includes a software decoder A5.2 and an external decoder A5.1
- SPI is a four-band system 850/900/1800/1900 MHz
- Each receiver can be configured for any band, any channel and any operator
- SPI supports several operating modes, such as: target mode and random mode
- In random mode, the operator can activate various filters to detect mobile devices of interest
- All intercepted information is stored in the system database

6. WIDEBAND MULTI CHANNEL PASSIVE SOLUTIONS

Fully passive GSM interception system



MGI with down converter and A 5.1 decipher inside

- MGI — fully passive system
- Wideband GSM interception
- Basic configuration intercepts and records 128 GSM channels (1024 voice channels)
- Intercept multiple GSM providers simultaneously
- Intercept all 2G frequency ranges
- Intercept voice, SMS, DTMF
- Decrypts A5.1 and A5.2 in real time up to 24 keys/s

Tactical, rapid deployment



Workstation for remote operations



Remote decipher A5.1
in 19" rack

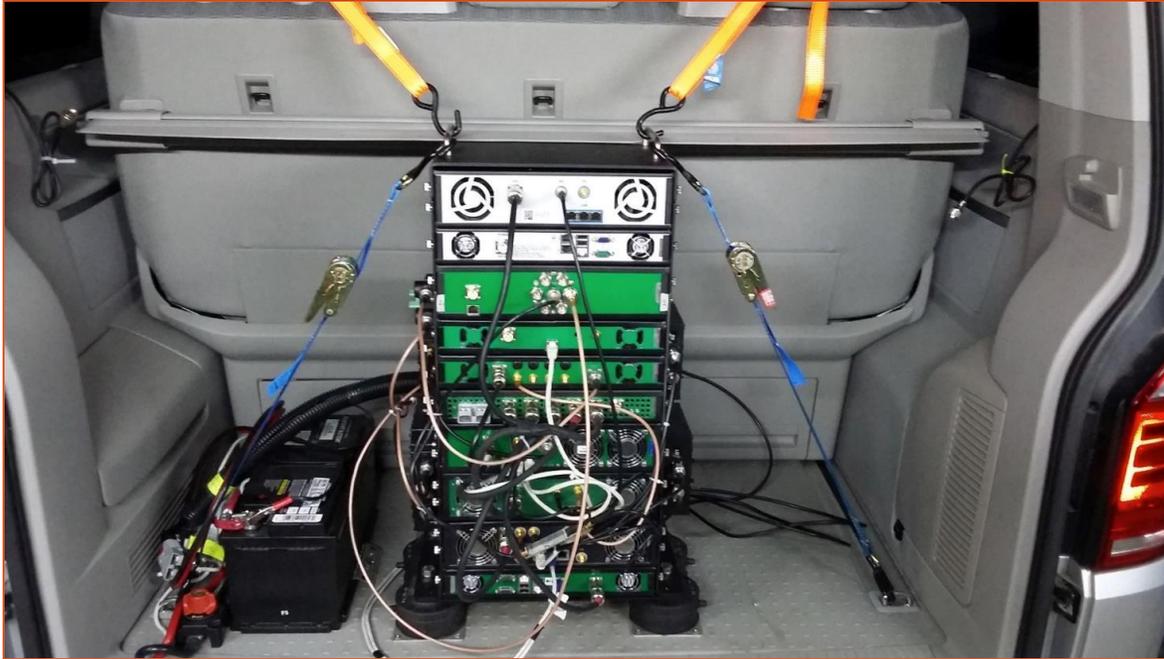


In the form of a portable case
"all inside"



Multi-channel system in the car

For installation in a vehicle or
headquarters, quick deployment



An example of quick installation of passive and active systems in a vehicle in field conditions



An example of a major installation of passive and active systems in a vehicle under production conditions



7. COMMERCIAL APPLICATIONS

VPN GSM - Virtual Private Network 2G/3G

Provision of local, independent GSM communications services to authorized personnel (embassies, army camps, delivery services)

SAR - Search and rescue independent GSM communication for authorized personnel

SAS – SMS advertising sending

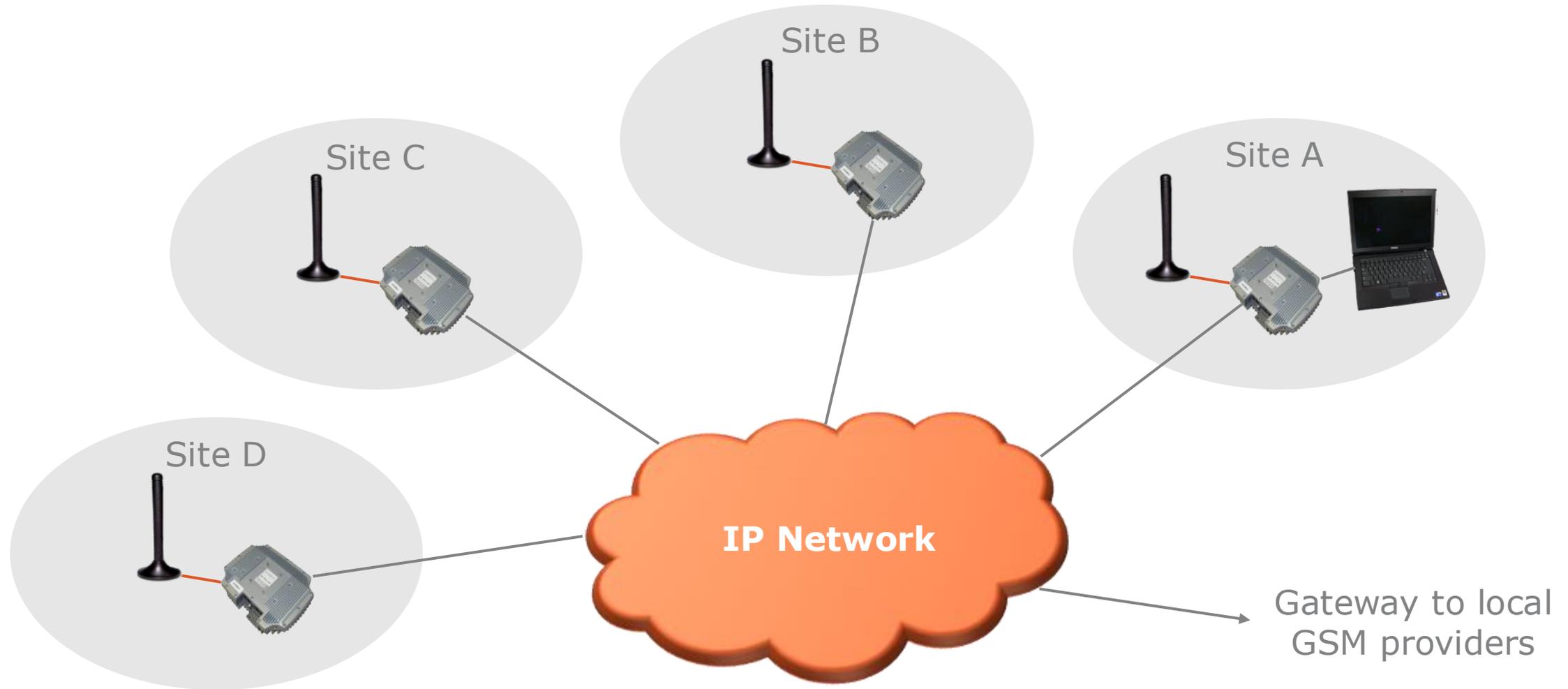
- Independent SMS messaging system
- Creation a local GSM or UMTS environment that can provide services to local personnel
- The external GSM operator network will not be connected to the network, which means higher security, no eavesdropping, no fees
- The list of authorized personnel can be controlled and changed by the system operator
- People can use their GSM mobile phones regardless of the source source



8. GSM/3G EMERGENCY NETWORK







- Up to 1000 IMSI HLR/VLR
- Each unit supports one RF channel
- Voice and SMS services
- Call hold, call waiting, speed dial, caller ID, etc.
- Call forwarding
- Prioritization of different users
- Session Initiated Protocol (SIP) for external connection to commercial GSM networks
- Output power up to 5W with omnidirectional antenna
- Provides secure, independent, stand-alone GSM communication for palaces, VIP offices, etc.
- Provides GSM communication in disaster areas where the GSM network has failed
- Provides GSM communication for remote army camps or protected army camps
- Can support internal GSM communication of VIPs for security purposes while offering connection to external providers using the appropriate prefix

9. SAS - SMS ADVERTISING SYSTEM

- The SMS messaging system allows the user to independently send SMS messages to all mobile phones in the area or selected groups
- No mobile phone numbers are required, there is no charge for this, any language is supported
- Variety of uses, for example:

Advertising in shopping malls, at exhibitions, in large stores

On trains, advertising about stores near stations

In emergency zones to notify or warn people nearby

By the police in accident zones

- The solutions we offer are to use GSM SMS as a broadcasting tool for commercial or security purposes
- Create GSM message to each owner of a mobile phone based on their position relative to the SMS sender
- There is no need to know the public mobile phone number for the system to work
- There is also no need to know the commercial provider with whom the mobile phone is registered



1. Detection of relevant 2G,3G,4G phones in the coverage area
2. Sending SMS to target phones without needing to know their public numbers
3. Can send messages to users of specific operators
4. Ability to control the transmission power, maximum power up to 50W
5. Ability to remotely control the sending via an Internet connection
6. One operator can manage multiple systems that are deployed in different places to increase the coverage area

- This app allows you to send a welcome message to new arrivals in the area
- Suitable for places such as shopping malls, parks, large conferences, etc.
- Suitable for fixed installation



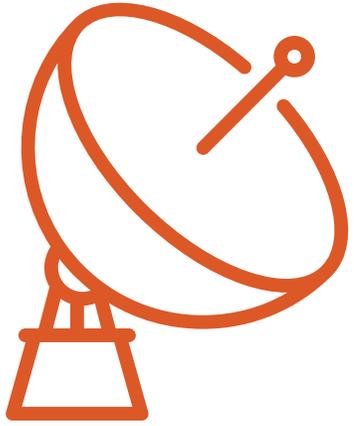
- The system sends SMS to mobile phones detected in restricted areas or areas where no one should enter
- Examples are borders, sensitive areas, etc.





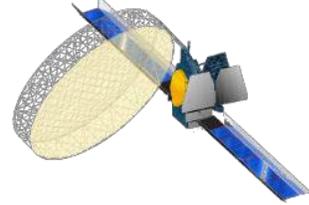
In cases where large-scale evacuation is required due to a disaster or for defence reasons, SAS can extend its range and coverage area





10. SATELLITE COMMUNICATIONS INTERCEPTION SYSTEMS

Systems



Iridium

Thuraya

Inmarsat

VSAT

Solutions

Tactical
System

Strategic
system



IRIDIUM



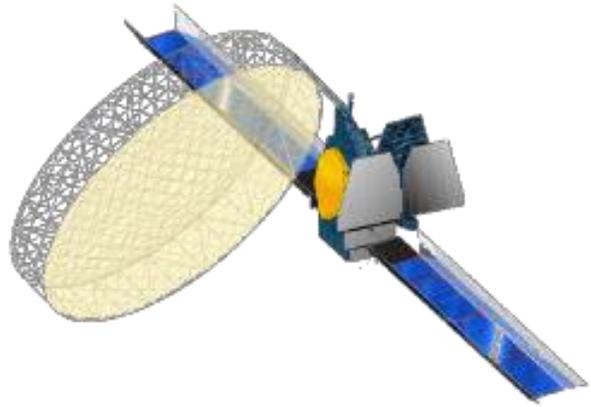
L-band
antenna



Includes specialized
equipment and unique
software



**IRIDIUM
portable
system**



THURAYA







Thuraya Fixed Interception System



11. SURVEILLANCE SYSTEMS

Opto-acoustic microphone

Main

- Optoacoustic Laser Microphone
- Long Distance Audio Monitoring Device
- Laser power up to 10/18/35mW
- Motorized Lens / 12VDC
- Remote Version with COFDM Transmission, Pan and Lens Control
- Digital Adaptive Audio Filtering

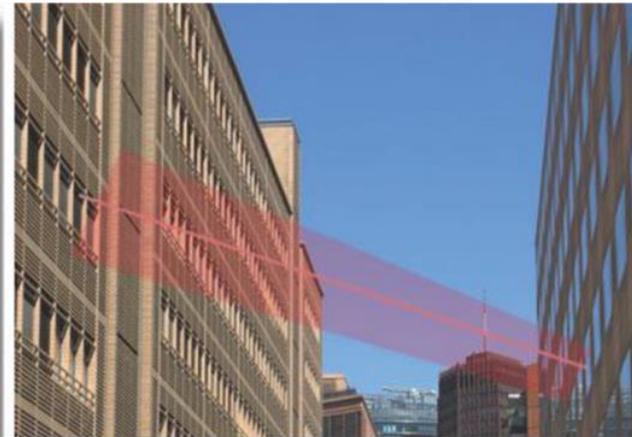
General specification

- Acoustic surveillance and observation up to 300m depending on the output power
- The spoken word will be captured from any compatible material such as paper, metal, plastic, textile, etc.
- Independent of the viewing angle of the target
- Easy to operate the transmitter and receiver in one optical unit
- Quick setup and targeting with the built-in parallax-free camera
- Long working distance with invisible eye-safe class 1 laser (10mW)
- Reduced interference from ambient noise; not affected by acoustic noise between the sensor and the target
- Allows monitoring through glass windows in indoor spaces such as rooms, cars, airplanes, etc.





**Opto-acoustic
microphone**



**Installation and
use examples**

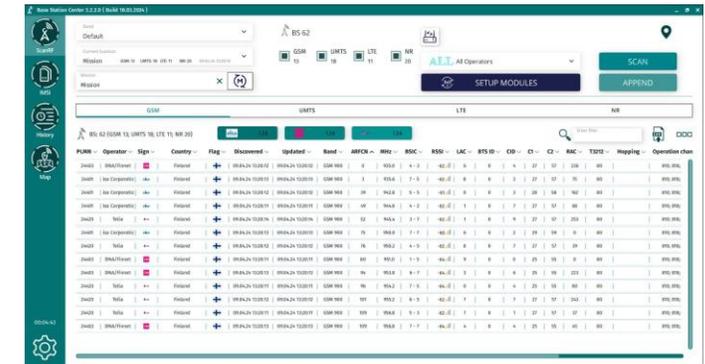
12. PROTECTION SYSTEMS

BTS scanner for detection, identification and localization of illegal GSM, UMTS, LTE, 5G NR base stations, IMSI catchers and SMS senders



In a plastic or metal case IP-65. And also in the form of a smartphone

- By scanning all available providers/frequency bands/radio access technologies, the BTS scanner scans the surrounding environment. Any BTS using mobile networks to transmit information will be shown and identified on the map
- 4-channel BTS scanner
- Protects cellular networks from illegal interference
- Detects any base stations in 5G, LTE, UMTS and GSM networks
- Quickly scans all available 2G, 3G, 4G, 5G bands
- Records all information about mobile base stations in the area



PLMN	Operator	Sign	Country	Flag	Discovered	Updated	Band	ARFCN	MHz	BSC	BSCID	LAC	BTS ID	CD	C1	C2	T321	Multiplex	Operation Chan	
24401	Elia Corporation	+	FR	FR	+	2025-06-05 10:23	UMTS	10723	3G	PS	468	N/A	2100	0	0	0	0	0	0	0
24401	Elia Corporation	+	FR	FR	+	2025-06-05 10:23	UMTS	10723	3G	PS	468	N/A	2100	0	0	0	0	0	0	0
24403	Orange	+	FR	FR	+	2025-06-05 10:23	UMTS	10723	3G	PS	468	N/A	2100	0	0	0	0	0	0	0
24420	Orange	+	FR	FR	+	2025-06-05 10:23	UMTS	10723	3G	PS	468	N/A	2100	0	0	0	0	0	0	0

- Powerful wide-range jammers to protect convoys from UAVs and landmines
- Up to 30 frequency modules; each module up to 150 watts
- Up to 30 directional or omnidirectional antennas in Thule roof rack or low-profile radio roof plus 4 whip antennas on front/rear bumper
- Pre-configured or fully programmable by end user
- Fixed or semi-mobile installation
- Touchscreen remote control or traditional switches and LED remote control



- Convoy Protection
- UAV Protection
- Personal Protection



**THANKS FOR
WATCHING**