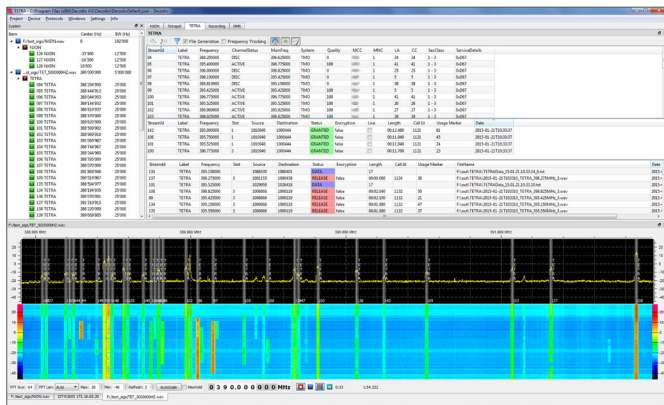# DECODIO SIGINT/COMINT

Decodio is specialised in software-defined radio technologies and offers an advanced and flexible communication interception solution.

Extensive PMR protocol support and fast scanning and triggering provide quick and efficient signal interception.

HIGH THROUGHPUT

The solution allows real-time monitoring of 256 simultaneous channels over an instantaneous bandwidth of up to 27 MHz in mobile setups and up to 50 MHz in fixed installations. Thanks to a fast frequency sweeping feature, monitoring and scanning can be performed over an extended frequency range going from 9 kHz to 6 GHz.

Channelizing

Digital protocols

Web-based network activity

EXTENSIVE DIGITAL PROTOCOL SUPPORT

With full support for TETRA, Tetrapol, NXDN, DMR, dPMR and P25, all practical mobile radio networks can be monitored. Full logging of broadcast information, data transmissions (such as SDS/text messages and position reports) and voice content is available. A cryptographic API is also available to access encrypted communications.
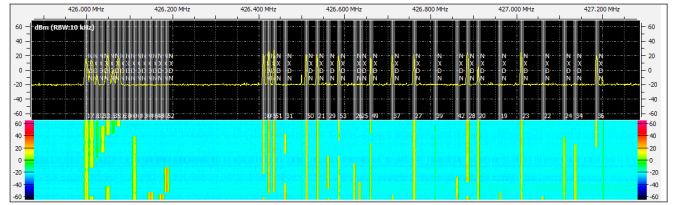
CONTINUOUS LOGGING AND REAL-TIME ANALYSIS

The system is able to extract and analyse narrowband signals of variable bandwidths in real-time. Analog channels can be listened to and their modulation determined through comparison against known demodulation output. The symbol rate of digital channels can be automatically detected to help identify the protocol being used. The extracted information is continuously logged to a database for further analysis.

FAST SCANNING AND TRIGGERING

For all protocols, a fast scanning feature is available, which can automatically trigger alarms and record emissions as they are detected. In addition, power-level squelch criteria can be defined to trigger automatic recordings of analog streams, both in demodulated form or as IQ data.
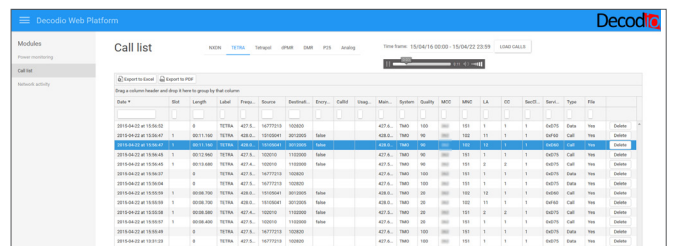
TDMA-AWARE MONITORING

By using information gained from protocol decoding, time-slots can be separated by the software and their power levels individually monitored. When using a directional antenna, the resulting in-

Web-based call list

formation can be used to determine the location of multiple users emitting on the same frequency.

WEB-BASED FRONT-END

A web-based front-end allows remote access to the communication history and real-time network activity from a wide range of devices.

FIXED AND MOBILE SETUP

The system can be deployed both as a mobile setup based on a laptop and a self-powered USB 3.0 wideband receiver, or as a more powerful fixed installation.

Thanks to the web front-end and remote control interface of the software, the receiver can remain hidden while being remotely operated from a portable device.

APPLICATIONS

SIGINT/COMINT, identification of unknown emissions, fixed and mobile monitoring stations, military signal intelligence and communication intelligence

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