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UNIVERSAL
COMMUNICATION MODULE
GSM-X

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GSM-X UNIVERSAL

Communication

- simulation of telephone line via GSM – GSM gateway
- built-in audio communicator
- dual SIM card support
- easy expansion by adding GSM-X-ETH Ethernet module

Compatibility with INTEGRA and INTEGRA Plus

- quick data transmission
- reporting events from control panel via RS-232 interface
- automatic composition of SMS notifications from event list (INTEGRA Plus)
- remote management of control panels by using GUARDX program
- remote configuration of control panels by using DLOADX program

Interaction with all control panels

- programmable inputs
- outputs with remote control capability
- converting audio reporting (PSTN) into audio (GSM), SMS, TCP/UDP formats

Reporting events

- Dual Path Reporting compliant with EN 50136*
- reporting sources:
  - control panel audio reporting
  - internal events
  - input violation
  - output status change
- reporting paths:
  - audio (GSM)
  - SMS
  - Ethernet* (TCP/UDP)
  - GPRS (TCP/UDP)

GSM-X

GSM-X

* When GSM-X is used with GSM-X-ETH

GSM-X

UNIVERSAL COMMUNICATION MODULE

GSM-X is a multi-purpose communication module that offers extensive functionality and support for multiple communication paths. It can easily find numerous applications, some of which can be implemented in parallel.

REPORTING
- SENDING
INFORMATION
TO SECURITY AGENCY
MONITORING
STATIONS

SENDING
NOTIFICATIONS
OF EVENTS
TO SELECTED
PHONE NUMBERS

GSM GATEWAY
AND BACKUP
COMMUNICATION
PATH FOR
TELEPHONE LINE

GSM-X

INTEGRATION WITH
INTEGRA CONTROL
PANELS

INTERACTION WITH
STAM-2 MONITORING
STATION

REMOTE CONTROL
OF DEVICES

Full flexibility

The module is capable of monitoring any alarm or home automation system. It can be successfully used in many existing, as well as newly built systems. When working in conjunction with the alarm control panel, it can receive information about events, thus simulating the monitoring station. When used with simpler models of control panels or when supervising technological lines etc., it will track changes in the status of its inputs. The information received is transmitted by the module to monitoring stations of security agencies and/or to any parties concerned.

Compatibility with INTEGRA and INTEGRA Plus alarm control panels

GSM-X can interact with the INTEGRA and INTEGRA Plus control panels via the RS-232 interface. It can report events from these control panels through all available paths: audio, SMS, Ethernet* and GPRS. For INTEGRA Plus, a function of automatic creation of SMS notifications is also available, the message content being based directly on the event list.

Additionally, **GSM-X** allows remote connection to the **INTEGRA** and **INTEGRA Plus** programs:
- **DLOADX** – which is used for configuration, and
- **GUARDX** – which is used for supervision and administration of alarm systems.

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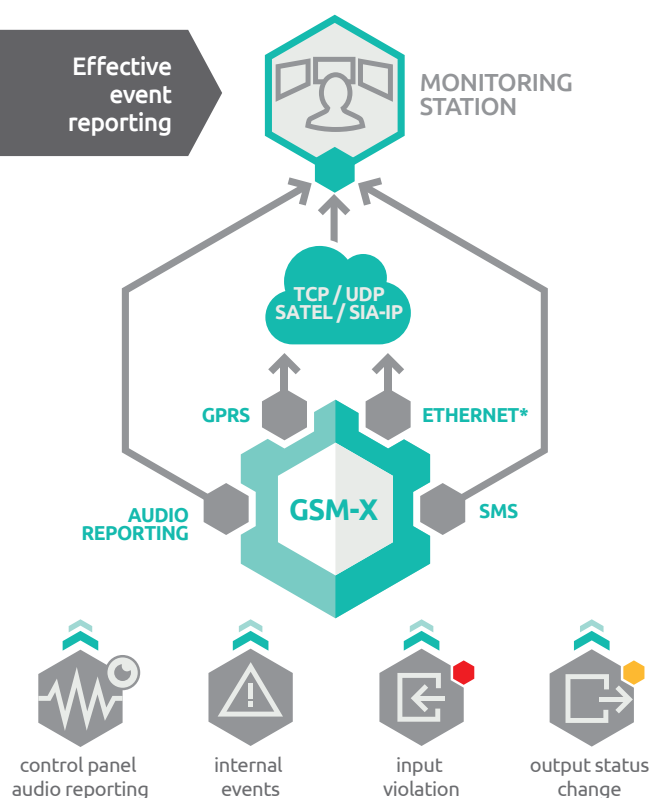* When GSM-X is used with GSM-X-ETH

Communication

The device comes with a GSM telephone. It has two SIM card slots and allows you to use services provided by different operators. If one of the cards causes any communication problems, the module automatically switches to the other card to maintain continuous communication.
A very useful feature is the prepaid SIM card handling functions that allow you to check your account balance and set notifications in case it has dropped below the required minimum.

An undisputable advantage of the device is that it allows simple expansion by adding the **GSM-X-ETH** Ethernet module and thus provides access to another communication channel i.e. **Ethernet network**.

Effective reporting

As regards reporting, information can be effectively transmitted using:

- GPRS – via TCP or UDP protocol
- voice – audio path via GSM (6 transmission formats)
- text – SMS messages
- Ethernet* – via TCP or UDP.

Where events are made available using GPRS technology or via Ethernet*, the module supports two transmission formats:

- SIA-IP (when working with any monitoring station)
- SATEL (when working with SATEL made devices: STAM-2 monitoring station or TCP/IP reporting converter for SMET-256 audio formats).

Effective event reporting

MONITORING STATION

TCP / UDP
SATEL / SIA-IP

GPRS   ETHERNET*

AUDIO REPORTING   **GSM-X**   SMS

control panel audio reporting | internal events | input violation | output status change

Support for several transmission paths in one device guarantees fast and reliable transfer of information. You can use each of independently, defining specific tasks to be carried out.
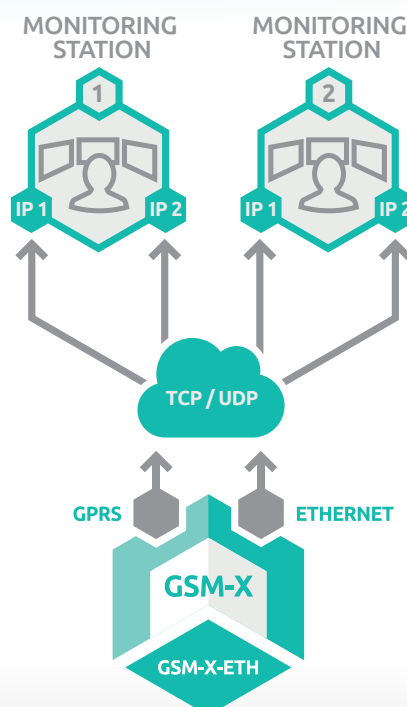
Dual Path Reporting

GSM-X with the GSM-X-ETH module connected makes possible reporting through two independent paths: Ethernet and GPRS (with priority setting option). The device is constantly monitoring the status of connections with the monitoring station and, when necessary, it replaces one channel with the other.

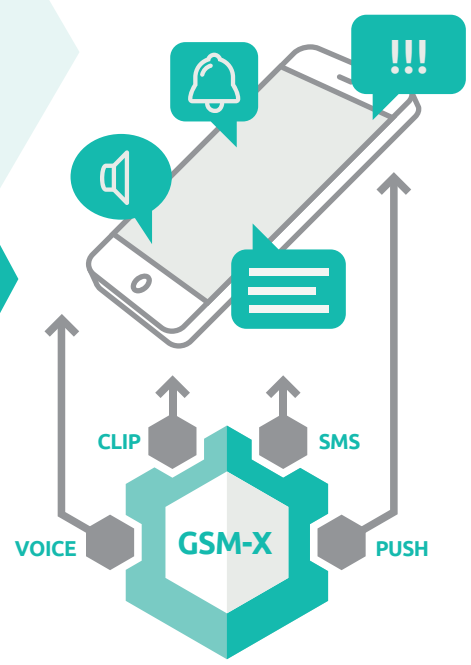The solution used is referred to as Dual Path Reporting. It complies with the most restrictive requirements of EN 50136 for Category DP4, which refers to the operation, reliability and protection of alarm transmission systems and connections between the alarm system and the receiving center. Additionally, GSM-X offers the possibility of reporting to two autonomous monitoring stations, each of which, if necessary, may have two IP addresses.

MONITORING STATION 1 | MONITORING STATION 2

IP 1   IP 2   IP 1   IP 2

TCP / UDP

GPRS   ETHERNET

GSM-X

GSM-X-ETH

Dual Path Reporting implemented via GSM-X + GSM-X-ETH

* When GSM-X is used with GSM-X-ETH

Notification messaging

The GSM-X module sends notifications to up to 8 telephone numbers. This function can be implemented by using:

- voice – via built-in voice notification circuit
- SMS messages
- PUSH notifications
- CLIP service.

The device can send notifications to the recipient through several independent paths. The event alert will be transmitted via all of the preprogrammed channels, therefore the information will reach the recipient even when one of them turns out to be unavailable.

Effective notification

CLIP · SMS · VOICE · GSM-X · PUSH

- control panel audio reporting
- internal events
- input violation
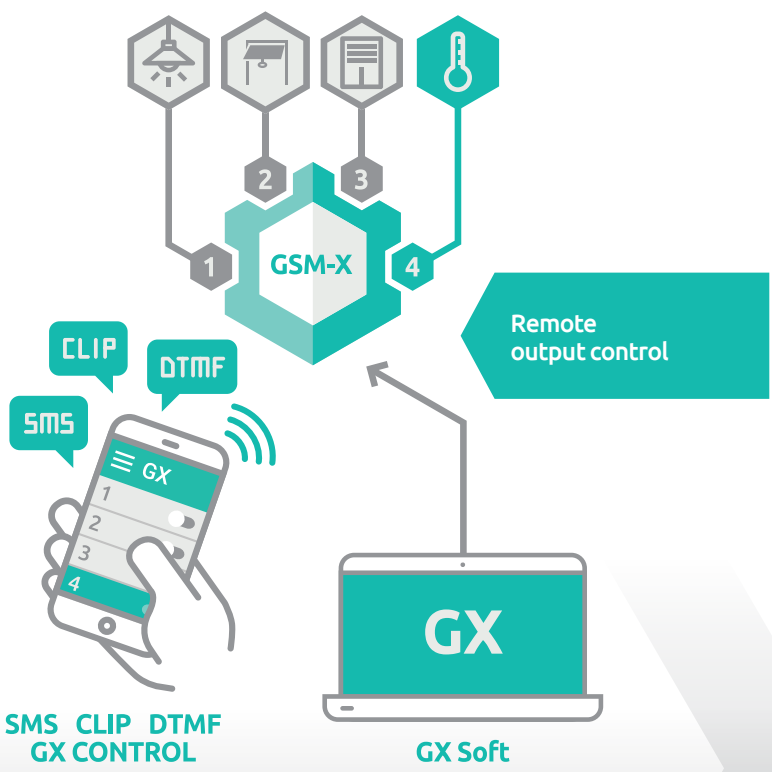- output status change
- PAGER format information

GSM gateway

The module can fully replace the analog line. In that case, it generates voltage states and line status signals (e.g. on-hook/off-hook) typical of the line and, after connection via GSM network is set up, it transmits signals coming from the analog line. When the line is unavailable, it diverts the voice calls to the GSM network. In the case of private branch exchanges (PBX), it functions as an additional external line, which allows you to optimize the cost of calls (from PSTN to GSM). The module can also filter calls, generate a ringing tone and caller ID information.

Remote control

GSM-X has 4 outputs that can be remotely controlled and activated from practically any location in several ways:

- via SMS messages (from 8 numbers)
- by using DTMF signals
- from GX CONTROL mobile application
- from a computer running the GX Soft program
- by using CLIP service (from 64 numbers or with no limitations).

In addition to controlling the alarm system operation, the GSM-X module will perform perfectly well when implementing the automation functions. It can control lighting, gates, wickets, roller shutters or electric valves. It will also turn on heating, air conditioning, smoke extraction, watering and many other systems.

Remote output control

CLIP · DTMF · SMS

GSM-X

GX

SMS CLIP DTMF GX CONTROL

GX Soft

Mobile access

Mobile applications designed for remote operation of various devices are becoming an increasingly popular solution, valued for convenience of use.
GX CONTROL is a program created for the needs of SATEL communication modules and intended for Android and iOS platforms. Its tasks include:

- verification of the status of inputs and outputs (connected devices)
- viewing troubles with the possibility of clearing their memory
- viewing event memory with the possibility of filtering
- remote control of module outputs (devices connected to them).

PUSH messages give the user permanent access to notifications. Importantly, configuration of the application is very simple, and so is connection with the module.

Just send an SMS from the application level to the device and receive the configuration data in response. Another, equally convenient way is to scan the QR code that is generated in the **GX Soft** program.
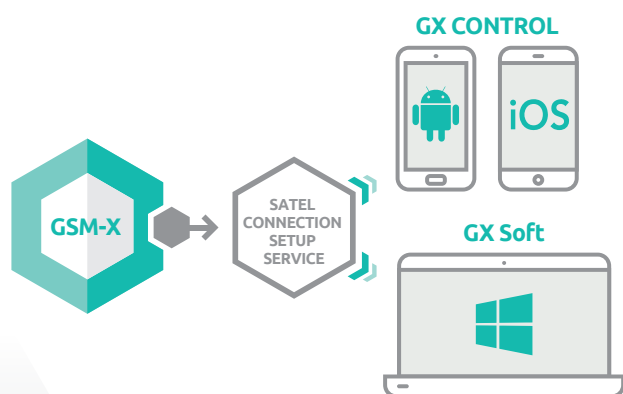
Functional software

GX Soft is a versatile tool provided with a friendly and clear interface, intended for configuration as well as diagnostics of SATEL communication modules. It enables the installer to get access to all functions of the device. Thus, he can program operation of the module to suit it to requirements of the specific system, as well as to expectations of the system users. The module and the program interact locally (via USB) or remotely (via Ethernet* or GPRS).

Easy and secure connection

Connecting the GX CONTROL application and the GX Soft configuration program to the GSM-X module takes just a few moments. The process require neither external IP address nor advanced network configuration. The SATEL connection set-up service allows you to easily enjoy the rich functionality of GX CONTROL and GX Soft. When being sent, the data are encrypted using a sophisticated algorithm to ensure security of the transmission.

GX CONTROL

GX Soft

GSM-X → SATEL CONNECTION SETUP SERVICE

Remote software update

GSM-X is compatible with the UpServ program, which enables the device to be remotely updated. Thus you can quickly and easily add new functionalities from any location and at any moment without having to physically visit the premises where the communication modules are installed.

* When GSM-X is used with GSM-X-ETH

COMMUNICATION MODULE

Notification messaging

- notification sources:
  – audio reporting of alarm control panel
  – PAGER format messages
  – internal events
  – input violation
  – output status change
- notification options:
  – voice
  – SMS
  – PUSH
  – CLIP

Remote control of outputs

- SMS
- CLIP
- DTMF
- GX CONTROL mobile application
- GX Soft configuration program

GX CONTROL mobile application for Android and iOS

- checking input status with bypassing capability
- controlling and checking output status
- viewing troubles with option to clear trouble memory
- viewing event memory with filtering option
- PUSH notifications

GX Soft configuration program

- intuitive interface
- full module configuration
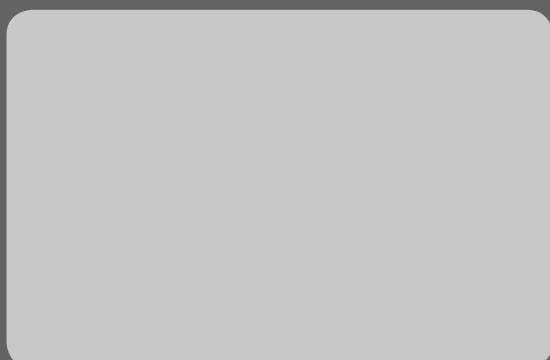- viewing event log
- fault diagnostics

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MORE THAN **25 YEARS OF EXPERIENCE**

Professional protection of each type of premises, as well as people staying therein, through advanced, yet functional and cost-effective solutions – these few words may serve as the shortest description of the mission of SATEL, a manufacturer of security systems with involvement of 100% Polish capital. Due to integrity in business and a special emphasis on high quality and a wide range of products offered, the SATEL brand has been highly appreciated in the industry for over 25 years.

This philosophy of management and hard work of more than 300 SATEL's employees produce tangible results. The wide range of over 400 offered products provides countless opportunities to create security, home automation, fire alarm, access control and monitoring systems, tailored to the individual needs of each user. At the same time, these systems meet all requirements prescribed by Polish and international regulations and industry standards.

Bringing the functionality of devices into line with current requirements and expectations of the market with the use of the latest technologies is one of the main objectives of SATEL. For this reason the design and production departments of the Company are continuously being modernized and expanded. A natural consequence of all actions aimed at the production of top-quality devices was the introduction of the quality management system conforming to ISO 9001:2000 in 2002. Regardless of this certification, SATEL also carries out a full functional test of all products leaving the production line, thus ensuring reliability of the manufactured devices. Focusing on modern design and attaching importance to the highest levels of quality and functionality of its products, SATEL has gained many satisfied customers not only in Poland but also in more than 50 markets worldwide.