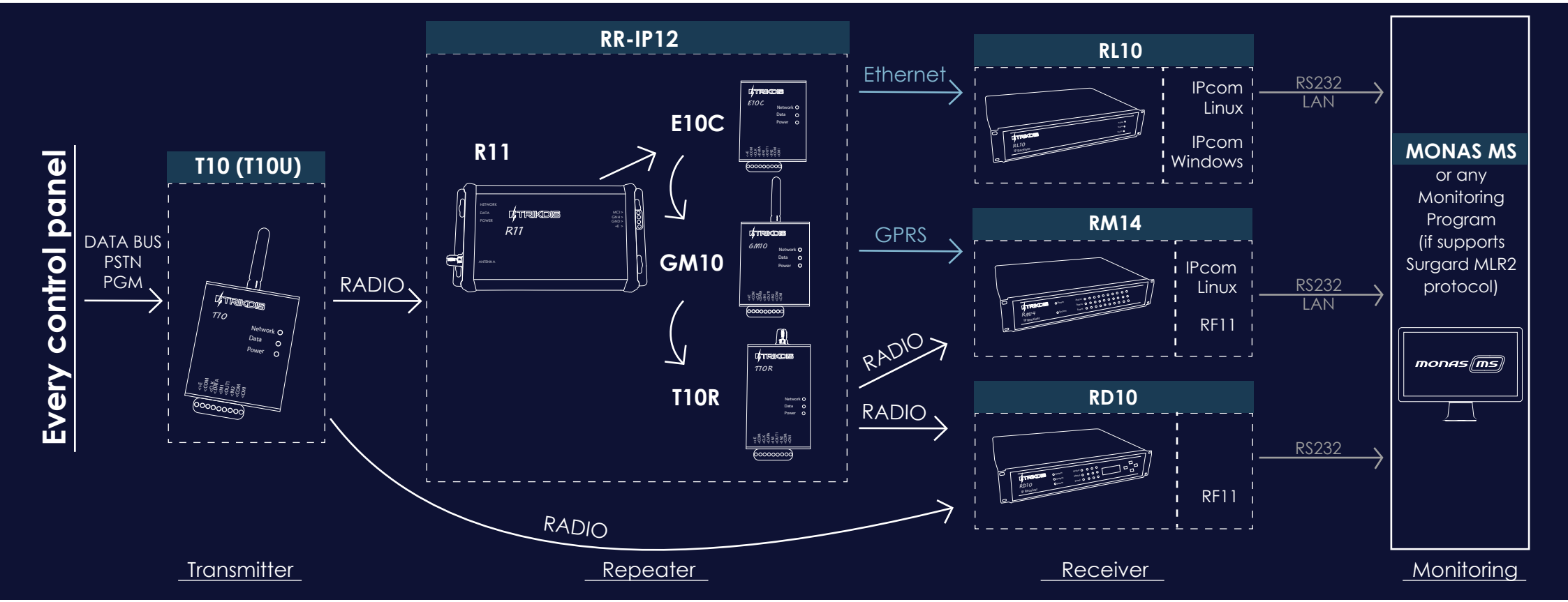
Alarm transmission through Radio and GSM networks

2015

Alarm transmission through Radio network



Communications network can be created in VHF or UHF radio band.

Local network transmitting distance 5-20km. Messages can be transmitted over unlimited distances by using repeaters, which forward messages through Radio, Ethernet or GPRS channels.

Contact ID protocol. Messages are sent in Contact ID protocol, delivering detailed information about events (unique object number, type of the event, event location and etc.)

Simultaneous transmission in parallel frequencies. Messages are transmitted through two parallel frequencies in the same radio band, ensuring the delivery of alarm messages.

Messages are transmitted in only 75-95 ms. Significantly reduced delivery time allows to transmit messages from a higher number of objects through one radio frequency.

Communication control. Transmitters may send periodic "Ping" messages in order to monitor communication between a transmitter and a receiver.

Alarm transmission through Radio network

Radio network system is created to work autonomously within security company's network, therefore ensuring full communication control and increased security. Radio alarm messages are sent via Contact ID protocol. This means that transmitted information is as detailed as using GSM network. Messages are transmitted to ARC directly or via repeaters depending on a distance and an environmental interference between a transmitter and a receiver. Depending on requirements different encoding systems can be used such as RAS-3, RAS-2M, LARS, LARS-1 and Milcol-D.

TRANSMITTERS

Exclusive advantages of using TRIKDIS transmitters:
• Compatible with **Paradox, DSC, Caddx, Pyronix** and other manufacturer control panels, reading messages directly from control panel`s DATA BUS.
• Transmitter's power is variable and can be changed from 1 W to 5 W. It depends on network and/or customer requirements.
• Encoded message format prevents unauthorized persons from intruding into the network.
• Compatible with various radio systems, and can be integrated into existing radio network.
• Constant control of connection with ARC through "Ping" messages.
• Quick and easy configuration via USB.
• Access to transmitter configuration is secured with a 2-level password.
• Transmitter can be factory locked to one security company.

T10 - VHF radio transmitter compatible with Paradox, DSC, Caddx, Pyronix and other manufacturer control panels, reading messages directly from control panel DATA BUS.
T10C - VHF radio transmitter for sending messages from control panel PGM outputs or from various sensors.
T10U - UHF radio transmitter compatible with Paradox, DSC, Caddx, Pyronix and other manufacturer control panels, reading messages directly from control panel DATA BUS.
T10UC - UHF radio transmitter for sending messages from control panel PGM outputs or from various sensors.

REPEATERS

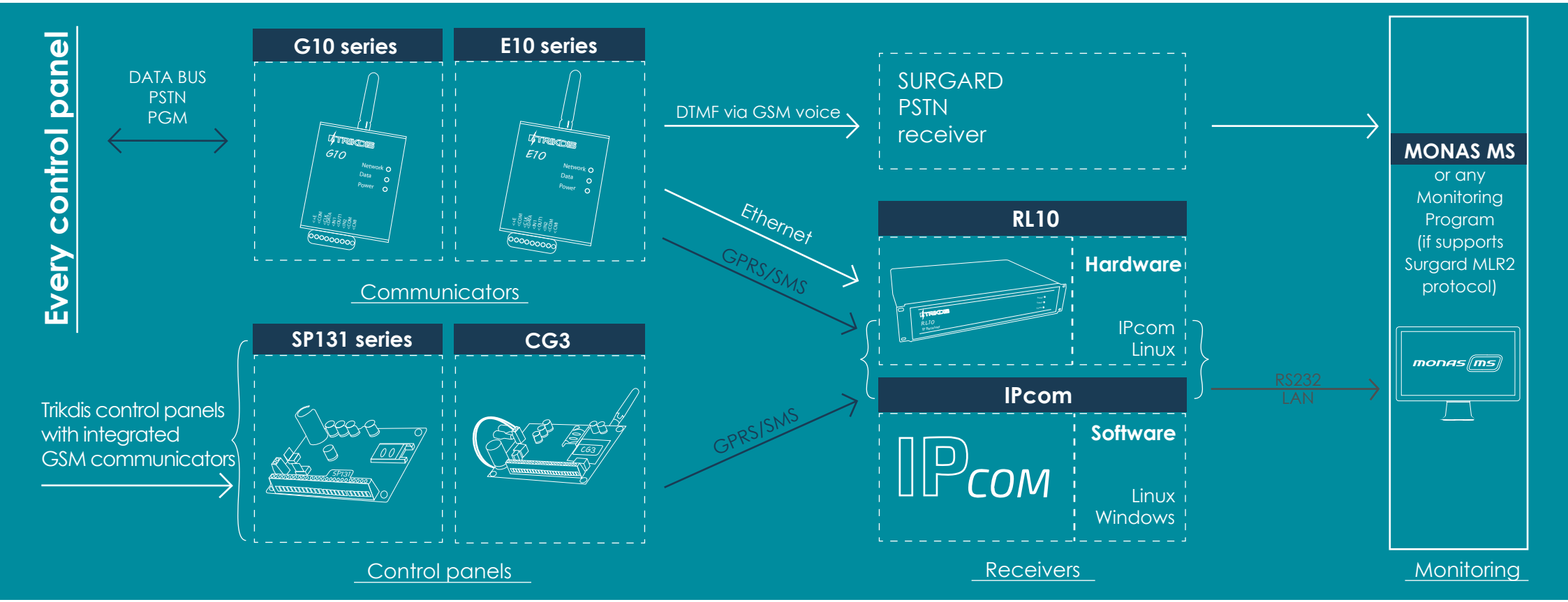
Repeaters are used when physical distance (from site- to ARC) or environmental interference is too high. RR-IP12 is a device designed for repeating messages from radio receivers to a monitoring station via Radio, GPRS and/or Ethernet connections. Due to this functionality customer can create a radio network system that fits his needs most effectively.
RR-IP12 advantages:
• Messages can be received or resend by three different channels - GPRS, Ethernet or Radio network.*
• GPRS, Ethernet or Radio network repeating channels can work independently or as a backup (main channel and 2 backup channels).
* - the use of channels depends on receiver hardware that is installed in ARC.

RECEIVERS

Variety of receivers lets a customer to decide what configuration of a radio network system to use. Advantages of using a Multi-channel receiver:
• Messages can be received or resend by three different channels - GPRS, Ethernet or Radio network.
• SURGARD communication format is used between receiver and monitoring software.
• RS-232 or TCP/IP can be used to transmit data to monitoring software.
• Indication of a receiver module status.
• Automatically performs a constant control of a connection with communicators with individual schedule for each device.

RL10 - Hardware IP receiver which receives messages via IP connection channels, SMS channels and from TRIKDIS IP repeaters.
RM14 - Multi-channel receiver hosting 1-4 receiver modules of customer's choice, allowing to receive alarm messages from any Trikdis equipment and combining all best features of RL10 and RD10 receivers.
RD10 - Multi-channel receiver hosting 1-4 receiver modules of customer's choice, allowing to receive alarm messages via VHF/UHF radio frequency, telephone lines or SMS messages.

Alarm transmission through IP and GSM



Fully compatible. Our G10 and E10 series communicators transfer full alarm information from the majority of security control panels on the market, therefore it is easy to integrate TRIKDIS communicators into an existing security system. Data Bus compatible with: **Paradox, DSC, Pyronix, Caddx, Crow, Texecom**.

Simple installation. Installation is quick and easy using Data Bus, because there is no need to reconfigure the panel or to know the Master password. Device settings can be loaded easily before installation, for many modules at once via USB.

Centralized control and configuration. Our communicators can be mass configured and controlled remotely from a central monitoring station.

Reduced expenses for inventory and its administration. When using TRIKDIS devices, only one IP receiver is required to receive alarm information from security control panels made by various brands, therefore there is no need to change any equipment you already have. This helps to reduce costs and simplify the administration of security company's inventory.

Message transmission trough several communication channels. TRIKDIS communicators can send messages to primary or back-up IP address. If the connection is lost, alarm messages are sent via SMS messages. For additional security, parallel radio or Ethernet transmitters can be connected.

Internationally recognized GSM technology. TRIKDIS equipment is being used by many successful security companies worldwide.

Alarm transmission through IP and GSM

GSM and Ethernet alarm transmission system is created to fulfill security company's needs for communication using public networks. Encrypted internet communications protocols (TCP/IP and UDP) are used to transmit Contact ID messages to ARC. Messages are transmitted to ARC directly without any repeaters and regardless of the distance to the monitored site. As alternative to GSM network Ethernet devices can be used at sites where constant LAN network exists.

COMMUNICATORS

G series
Communicators transmit events via GPRS data channel, SMS text messages or DTMF call. Due to PING technology, which is used to test whether a particular host is reachable, communication problems are diagnosed automatically. Communicators then change communication technologies until message is transmitted, and are able to turn on local alarm.
E series
Already installed Ethernet communication channel at a site is used to ensure its safety. Installation without the need to change pre-existing system equipment allows replacing telephone line with internet connection and transmitting messages up to 10 times faster.

Main advantages of using TRIKDIS communicators:

- Modules transfer all messages in Contact ID codes.
- Messages sent by TCP or UDP protocols are encrypted to ensure maximum safety of transmitted events.
- Constant control of connection with ARC without overloading a system with test messages.
- Port for connecting an additional VHF/UHF, Ethernet or GSM transmitter as additional physical backup device.
- Remote control of output OUT1 status.
- Access to communicator's configuration is secured with a 2-level password.
- Quick and easy configuration via USB.
- Information about events can be sent to users with SMS messages.
- Remote configuration, control and update from ARC.

G10 – GSM communicator compatible with Paradox, DSC, Caddx, Pyronix and other manufacturer control panels, reading messages directly from control panel DATA BUS.
G10C – GSM communicator for sending messages from control panel PGM outputs or from various sensors.
G10T – GSM communicator for use with control panel's PSTN communicator.
G10D – Dual SIM GSM communicator compatible with Paradox, DSC, Caddx, Pyronix and other manufacturer control panels, reading messages directly from control panel DATA BUS.
G09 – GSM communicator used to send security alarm system signals via GPRS from the protected site to the IP receivers operating in SIA standard DC-09 protocol in the ARC.
E10 – Ethernet communicator compatible with Paradox, DSC, Caddx, Pyronix and other manufacturer control panels, reading messages directly from control panel DATA BUS.
E10C – Ethernet communicator for sending messages from control panel PGM outputs or from various sensors.
E10T – Ethernet communicator for use with control panel's PSTN communicator.

GSM SECURITY CONTROL PANELS

TRIKDIS control panels are developed to create combination of classical control panel and GSM communicator. This is a perfect combination of functionality and economies for medium-sized or small objects. Main features and advantages:

- Panels expandable up to 32 zones.
- PGM outputs, controlled with a phone call or with SMS message.
- Port for connecting two-wire fire (smoke) detector.
- AC or DC power supply that makes possible temporary installations at sites without AC power.
- Compatible with TRIKDIS or Paradox keypads.
- Information about events can be sent to users with SMS messages or via GSM call.
- Port for connecting backup device: VHF/UHF, Ethernet or GSM transmitter.
- Port for connecting additional VHF/UHF, Ethernet or GSM transmitter.
- Remote configuration, control and update from ARC.
- Control system with Android app, phone call, SMS or iButton key.

SP131 – 8-32 zone and 4 PGM security control panel with integrated GSM communicator.
SP133 – 8-32 zone and 4 PGM security control panel with integrated GSM communicator, in aluminum casing.
CG3 – 6-32 zone, 8 partition and 6 PGM security control panel with integrated GSM communicator.

RECEIVERS

Variety of receivers allows the customer to decide what configuration IP receiving system to use. Customer can choose either free software version for small companies or professional hardware receiver for large GSM device quantities. Hardware IP receivers are provided with installed IPcom Linux software. Hardware IP receivers have an integrated industrial computer, which guarantees constant and long-term operation of alarm receiving center's IP receiver. Messages are received via IP, SMS or GSM channels.
Advantages of using IP receiver:

- Messages can be received or resend by three different channels - GPRS, Ethernet or GSM network.
- SURGARD communication format is used between receiver and ARC.
- RS-232 or TCP/IP can be used to transmit data to ARC.
- Indication of receiver module status.
- Automatically performs constant control of connection with communicators with individual schedule for each device.
- Remotely change settings for multiple communicators and update their software.
- Receive messages using the serial ports of other receiver devices.
- Multi-level user premises allowing technical personnel to see and analyze received messages or device status.

RL10 - Hardware IP receiver which receives messages via IP connection channels, SMS channels and from TRIKDIS IP repeaters.
RM14 - Multi-channel receiver hosting 1-4 receiver modules of customer's choice, allowing to receive alarm messages from any TRIKDIS equipment and combining all best features of RL10 and RD10 receivers.
IPCOM (Windows OS) - Free to download and easy to install software for Windows OS, which receives messages sent by TRIKDIS devices via GSM and Ethernet connection.