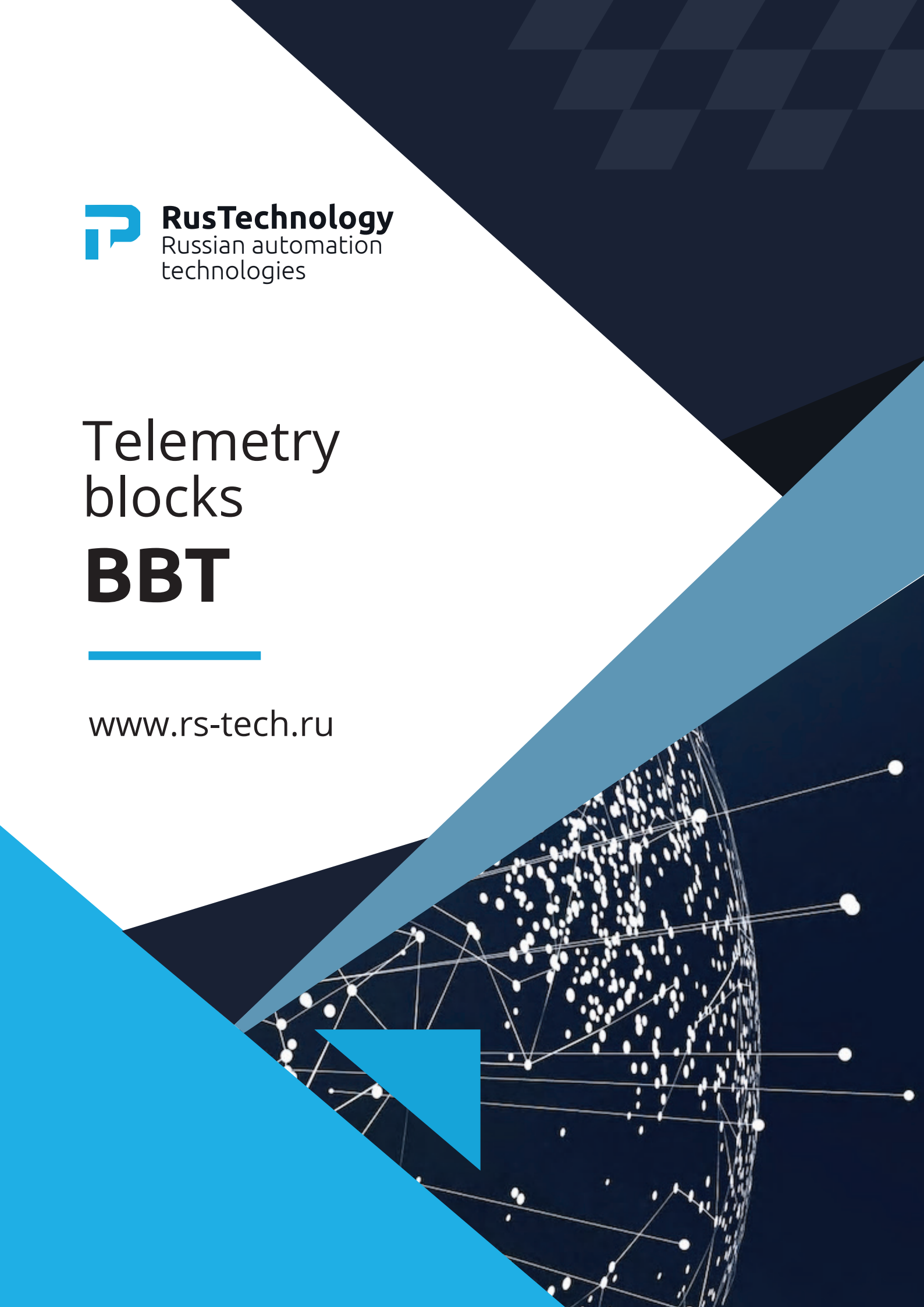
RusTechnology
Russian automation technologies

Telemetry blocks

BBT

www.rs-tech.ru



Autonomous wireless DATA COLLECTION SYSTEM

The automated data collection system (**ADCS**) on gas (water, electricity) consumption from municipal and industrial accounting points based on BBT-x communication modules (telemetry system) is designed to monitor the operating parameters of household gas metering and transmission of received information using **GSM/GPRS** and **NB-IoT** standards on the data collection server, operator AWP's and other telemetry system users.

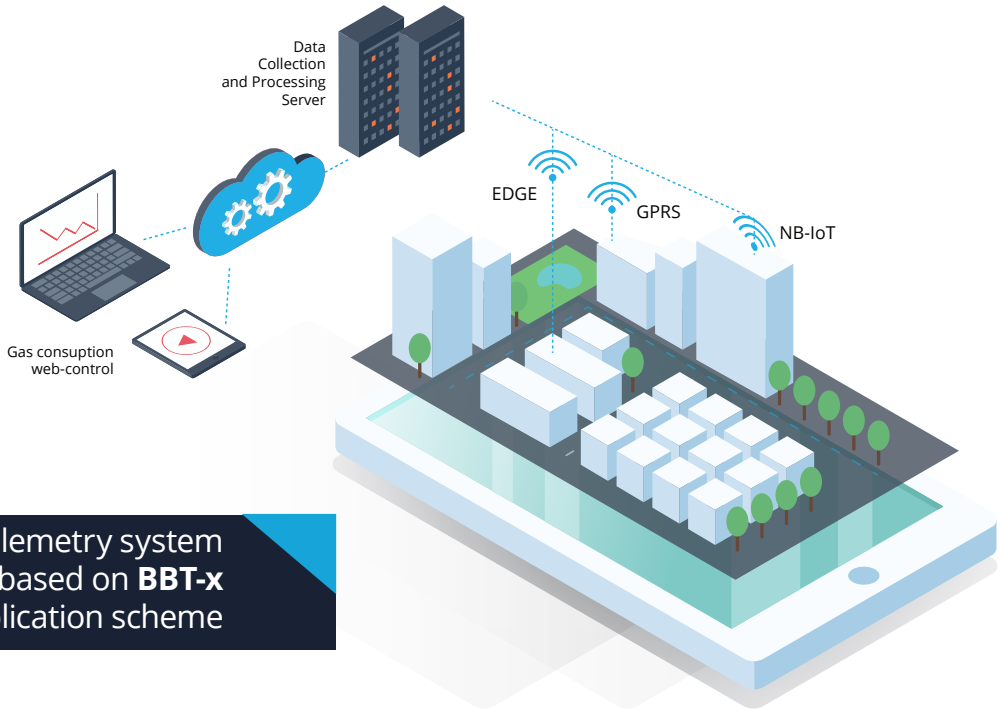
The system includes:

Wireless telemetry blocks (BBT)
for the municipal and industrial sectors

Server for collecting, processing and transmitting information
to the resource provider billing system

SMART-Abonent
software for Windows, Linux, iOS and Android

- More than 10,000 units installed, monthly readings are automatically transferred to the server for collecting and processing information.
- You need no more than 5 minutes of computer work to import data from a billing system.
- The system allows you to monitor gas consumption and generate current payment bills for actually consumed gas based on operational data.



Telemetry system based on **BBT-x** application scheme

Benefits of using the system:

Full automation of gas metering

Absence of unreliable data and additional services in customer halls. Possibility of self-monitoring of gas consumption, viewing flow graphs, notifications.

Universal software solution

Telemetry blocks do not need additional settings and programming, internal software is adapted to work in all regions of Russia and the CIS.

Improved security of gas supply

It is achieved due to prompt and reliable information about gas consumption, self-control by subscribers through the mobile application Smart-Abonent.

Free server software

The use of server software is provided free of charge for the entire period of the devices operation.

10 years of battery life

Telemetry blocks do not require additional power, physical communication lines and wire laying.

No bills for GSM services

Telemetry blocks are equipped with SIM cards with a prepaid data package for 10 years.

Household
TELEMETRY BLOCKS

BBT-4

for meters with pulse output type "dry contact" **GSN-4, GSN-6, SGBET**

BBT-5

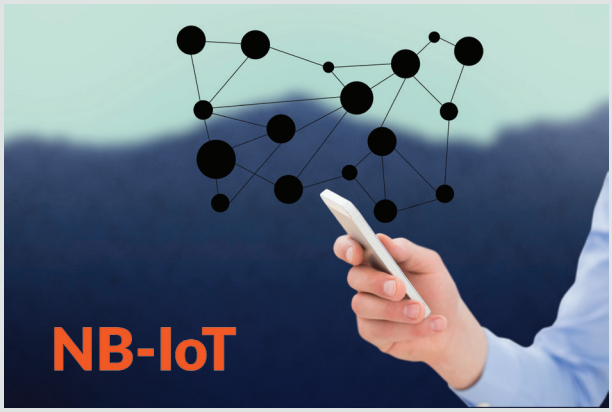
with magnetic sensor for gas meters **Elster, Berestje**

BBT-6

for meters with digital output **GSN, Rubin, RusBelGas**

NB-IoT standard support

Support for the new **NB-IoT data transfer standard** in conjunction with the old EDGE and GPRS allows you to operate the product both on new and old GSM stations of mobile operators.



The use of NB-IoT, a large-scale deployment of which in the territory of the Russian Federation is planned from 2018, will **significantly increase the products service life** by reducing the radiated power in comparison with GPRS.

The economic effect from the implementation of the system:

The norm for apartment gas meters readings verification by supervisors of energy sales companies is at least 100 per day, the number of verification days is up to 15, the remaining 9 days - information spilling into billing system with paper carriers. The percentage of getting into the apartment is not more than 60%. The salary of a supervisor is €440 per month. Annual vacation €440. Average 2-3 weeks of hospital. Taxes: 43% (personal income tax, pension fund, FSS, FFOMS) + 30% admin. costs, transportation is not less than 20 * 0,74 = €14.8 per month.

Total, per month / 900 apartments:
€858
or
€0.95
for one reading

Expenses for taking readings of 1 gas meter for an energy sales company per year:
0.95*12=€11.40.

Total, for 10 years:
€114

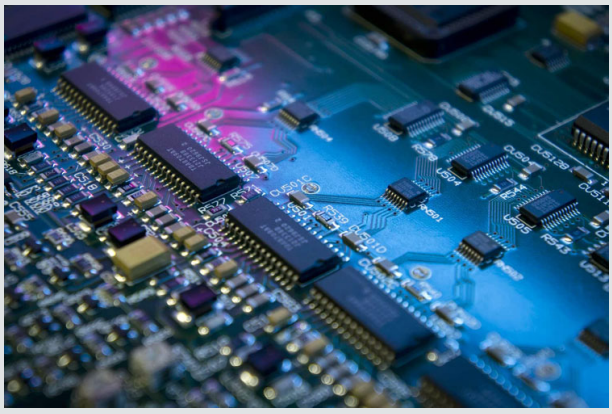
The cost of 1 telemetry block, in the “all-inclusive” version for 10 years: **€51.50**
Total savings on 1 apartment, for 10 years of operation: **€63**
With an average number of gasified apartments and households in the region **250 000 units**

ECONOMIC EFFECT for 10 years of operation = €15 750 000

Extended service life of products

The use of new technologies of lithium-polymer batteries in combination with new micro-consuming integrated microcircuits allowed to **extend the service life of the product up to 10 years.**

All devices undergo pre-sale testing and **do not require a service maintenance** for the entire period of operation life.



Collection and Data Processing **SERVER**

Server software comes with OpenSource code and **can be supported and modified** by the Customer independently.

Open source PostgreSQL

As a database, a free **Postgre SQL** DBMS is used, which allows you to scale up collection servers within a city-region-country and does not require any additional licenses.

Free of charge seminars are regularly held for users of the server software, as well as consultations on the hotline phone.

End users are authorized in the telemetry system via a web-browser and can view monthly archives on the consumption of natural gas from any location with access to the Internet.

Telemetry blocks for **INDUSTRIAL** gas metering units

ББТ-1

Telemetry block with external power supply

ББТ-2

Telemetry block with uninterruptible power supply

ББТ-3

External power supply, optional input (for PPE)

It is possible to connect an autonomous / uninterruptible power supply unit from a **solar battery**.

- Universal devices for several types of gas volume correctors: **Elster EK-270, Elster TC-220, Flowgas, VKG-3T, Irvis, UVP-280B**.
- For gas volume correctors, the unit is used as an **additional power source** to the corrector and RS-485 interface, which allows to save the corrector's battery life as much as possible and to take readings without consuming a battery life.
- The unit polls the corrector according to the established schedule without going into communication with the server and **analyzes the presence of emergency situations**, if they appear in the corrector, immediately communicates with the server and / or sends SMS to the number specified in the settings.
- **1C integration module** and automatic data upload to the gas accounting system.
- **Domestic development** - a priority in tenders for the import substitution program.

About Us

The company "Rustechnology" is a developer and a manufacturer of energy-efficient equipment (intelligent telemetry blocks for residential and industrial gas metering units), as well as design and implement complex monitoring and control systems for gas supply facilities.

Using the developed software of the top level, the company "Rustechnology" integrates the systems into a single remote control and monitoring over the territorially distributed objects of the gas supply network.

All telemetry modules for meters are certified by the Federal Agency for Technical Regulation and Metrology.
Test report No. 3825/15 of 09/06/2016.

8 800 250-88-74
+7 985 310 74 74

115088, Russian Federation, Moscow,
3rd Ugreshsky proezd, 15

www.rs-tech.ru
info@rs-tech.ru