

Products and solutions for strong authentication and electronic signature



About **Aktiv** Company



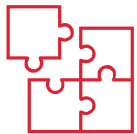
Manufacturer and developer of software and hardware for cryptographic protection of information under the Rutoken and Guardant brands



A visionary company with its own technology ecosystem and extensive partner network worldwide



No. 1 in the strong authentication, e-signature and software protection market in the countries we operate in



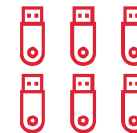
We offer integrated solutions fully competitive in the global market



27 years in industry



500+ active partners



30+ million of Rutoken devices deployed



100+ cybersecurity experts on staff

We offer



Comprehensive turnkey infrastructure solutions for government, corporate and banking sectors



Organizing local production in the region of presence



Consulting and training in cryptography and development of information security hard- and software solutions

Company **faces**



**Konstantin
Chernikov**

Director-General



**Timofey
Matrenitsky**

Head of International
Business Development

«We see significant potential in developing cybersecurity infrastructure in the Middle East, have ready-made solutions and are focused on long-term mutually beneficial cooperation with our partners in the UAE, Turkey and other countries in the region.»

K. Chernikov

**Rutoken is a modern tool of
cryptographic protection of information
used for strong authentication and
electronic signature**



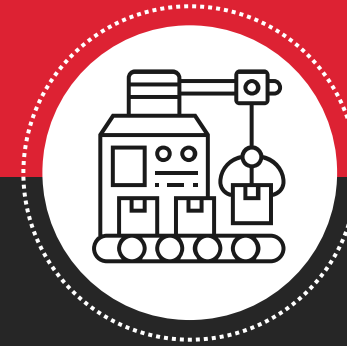
Types of **Rutoken** devices



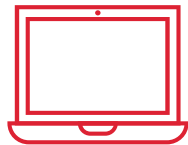
For desktops and
laptops



For mobile gadgets



For industrial and IOT
equipment



For desktops

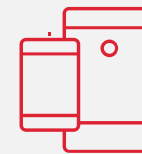
Classic tokens



Authenticators



Flash-memory tokens



For mobile gadgets

Smart card with NFC



Bluetooth-token



USB-token with NFC



Integrating Rutoken with partner systems

Office software and EDI systems

Microsoft Office, SAP, etc.

OS, browsers, e-signature plug-ins and processors

Compatibility with most types of software and hardware

E-signature and encryption software

Electronic signature of documents, encryption of any data (e.g., e-mail)

PKI infrastructure management systems

Integration with various key carrier management systems

Systems to organize and protect remote access VPN and TLS

Building a secure communication channel between the device and the server

Unauthorized access prevention complexes

Protection of equipment and IT-systems from unauthorized access, providing trusted OS boot

Virtualization tools

Access to a virtual desktop

Cryptoproviders

Use of OS encryption features (e.g., Windows); Electronic signatures by local standards

RUTOKEN



Implementation scenarios for all segments

Organizing remote operations protected against unauthorized access



Using Rutoken cryptographic protection tools in comprehensive solutions to organize remote operations will help to protect corporate information resources from unauthorized access, preventing risks of financial and reputation losses. Rutoken provides two-factor user authentication - it is the strongest authentication method using two types of factors: one needs to have a Rutoken device and know its PIN-code. Even having seen the PIN code, an intruder needs to produce a physical device, its theft always quickly detected.

Supporting field teams



Rescuers, environmentalists, geologists, miners and other employees of field teams are forced to act in emergency situations or remote areas. Using Rutoken devices to authenticate users of mobile gadgets frees one of mundane paperwork. By contrast, the user spends minimum effort to fill out necessary forms, tick off task completion, form reports and sign necessary documents in person using one's electronic signature over wireless NFC channel, even lacking access to Internet. One's electronic signature is stored separately from one's mobile gadget outside the document management application.

Fighting Fake News



News authors and news agencies authenticate their own publications with Rutoken tokens. That way, the reader may be assured of looking at an original publication by credible media and not a fake news story.

Remote banking services



The Rutoken product line is widely used in remote banking systems (RBS). Identifying Internet banking users by means of USB-tokens and smart cards enables both to provide the necessary security level and boost the loyalty of bank customers. Main security tasks solved by Rutoken products in RBS systems are: strong client authentication when accessing one's personal account, confirmation of payments and transactions using electronic signature, reliable replacement of one's login and password from one's personal account, protection from remote control (with Touch technology).

Implementation scenarios for state segment

Organizing remote operations of medical workers, police and other services



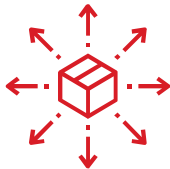
Modern medicine employs multifunctional medical teams to provide on-call medical care. Physicians on such teams get fitted with necessary equipment for on-site diagnostics and mobile devices to consult with colleagues, arrange treatment and hospitalization, and order medications via the Internet. Rutoken devices provide such physicians with secure two-factor authentication to enter their personal accounts, draw up and sign protocols easily while they are on the way to examine patients. Rutoken devices protect access to confidential information, including personal data of patients.

Tax returns collection



Using a Rutoken device, an entrepreneur can sign one's tax statements electronically to forward them to tax authorities. That saves resources needed to process tax reports, thereby accelerating revenue service operations and promoting tax collection at the state level.

Fighting counterfeit



Rutoken devices are used to mark medicines, alcohol, jewelry and any consumer goods to control their scope of production and turnover rate. Such marking makes the market absolutely transparent, commodities becoming traceable at every stage — from production to retail. The ultimate goal is to eradicate counterfeit and «gray» products from the market completely.

Remote electronic voting system



Rutoken devices provide citizens with access to the online voting platform and its features for elections to run successfully at the highest level of security, transparency and verifiability. Remote electronic voting simplifies the voting process greatly during civil election campaigns, shareholder meetings, etc., voters with disabilities and those abroad included.

Implementation scenarios for state segment

Electronic health care system



Rutoken devices have served as the basis to develop and introduce into the city infrastructure the Unified Medical Information and Analytical System. An "electronic registry" is available as part of that system, enabling one to make a remote appointment with a doctor, reschedule an appointment without cancelling it first, find a polyclinic nearest to one's place of residence, and much more. Moreover, a service has been developed to manage patient flows, dispatch electronic prescriptions and run consolidated management accounting; the system runs an integrated outpatient medical record too. In addition, the system contains information on workload of medical institutions, data on demand for physicians and allows one to manage medical registries, solve various medical and organizational tasks specific for different categories of citizens and diseases.

Electronic passport system



The Unified Identification and Authentication System, which is used for authorization purposes in different state information systems, operates on the basis of Rutoken devices. The main functionalities of the system include: user identification and authentication, managing identification data, authorizing officers from various executive authorities, running data on users privileges with respect to information systems.

Safe sale of private property



Rutoken devices enable one to carry out real estate, cars and other private property transactions transferring title to the buyer securely and remotely.

Secure electronic bidding and public procurement

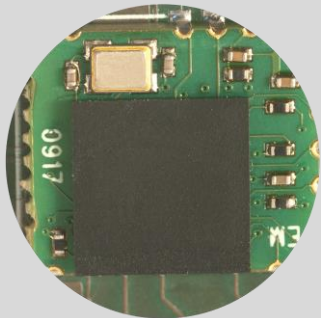


Participation in tenders, auctions, procurements and quotations is impossible without a dedicated tender electronic signature. It is needed to register on electronic trading platforms, submit documents and sign winner's contracts. Generally, trading platforms allow using an enhanced qualified electronic signature only, which can be generated using a Rutoken token. Electronic documents signed with it have the legal force of paper documents, signed and sealed.

Rutoken for industrial and IOT equipment

Integrated industrial modules and cross-platform software components

- Strengthen the target systems' robustness in face of various information, physical, and combined attacks at low cost
- Ready-made modules can be easily integrated into the existing infrastructure

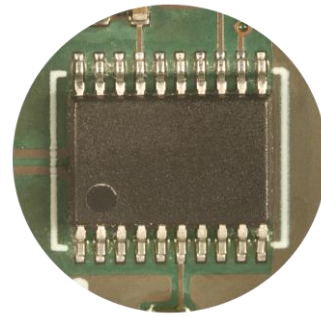


SOM-module

Interfaces: USB, UART, I2C

Multi-interface module

Can be placed on the mounting board and fitted into any free space in device casing

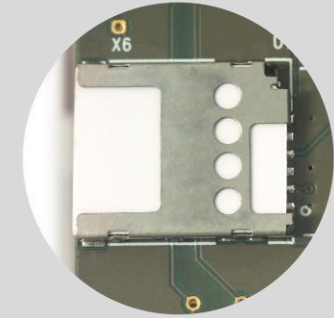


SoC-module

Interfaces: USB

Module in the embedded chip form factor

Can be placed directly on the board of the developed device



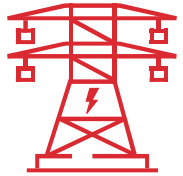
MicroSim-module

Interfaces: ISO-7816

Smart-cards in MicroSim form factor

In case the device supports CCID, this embedding option saves a lot of space

Implementation scenarios



Power industry

Resource management and monitoring the state of equipment



Agriculture

Monitoring and control of climatic conditions in livestock, crop production, control of unmanned agricultural machinery

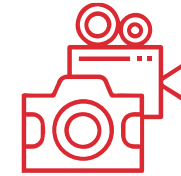


Photo and video with legally relevant content



Production

Control of workshop machine tools, environment at production facilities, safety regulations compliance by employees



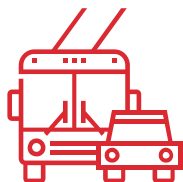
Mining industry

Health and safety control, mine air composition control, control of quarry vehicles



Smart city and housing and public utilities

Traffic lights control, monitoring substance MPCs, smart services in housing complexes



Transport, logistics

Smart unmanned cars, public vehicle route tracking, fuels and lubricants consumption control, vehicle lifecycle control



Medicine, telemedicine

Remote patient monitoring

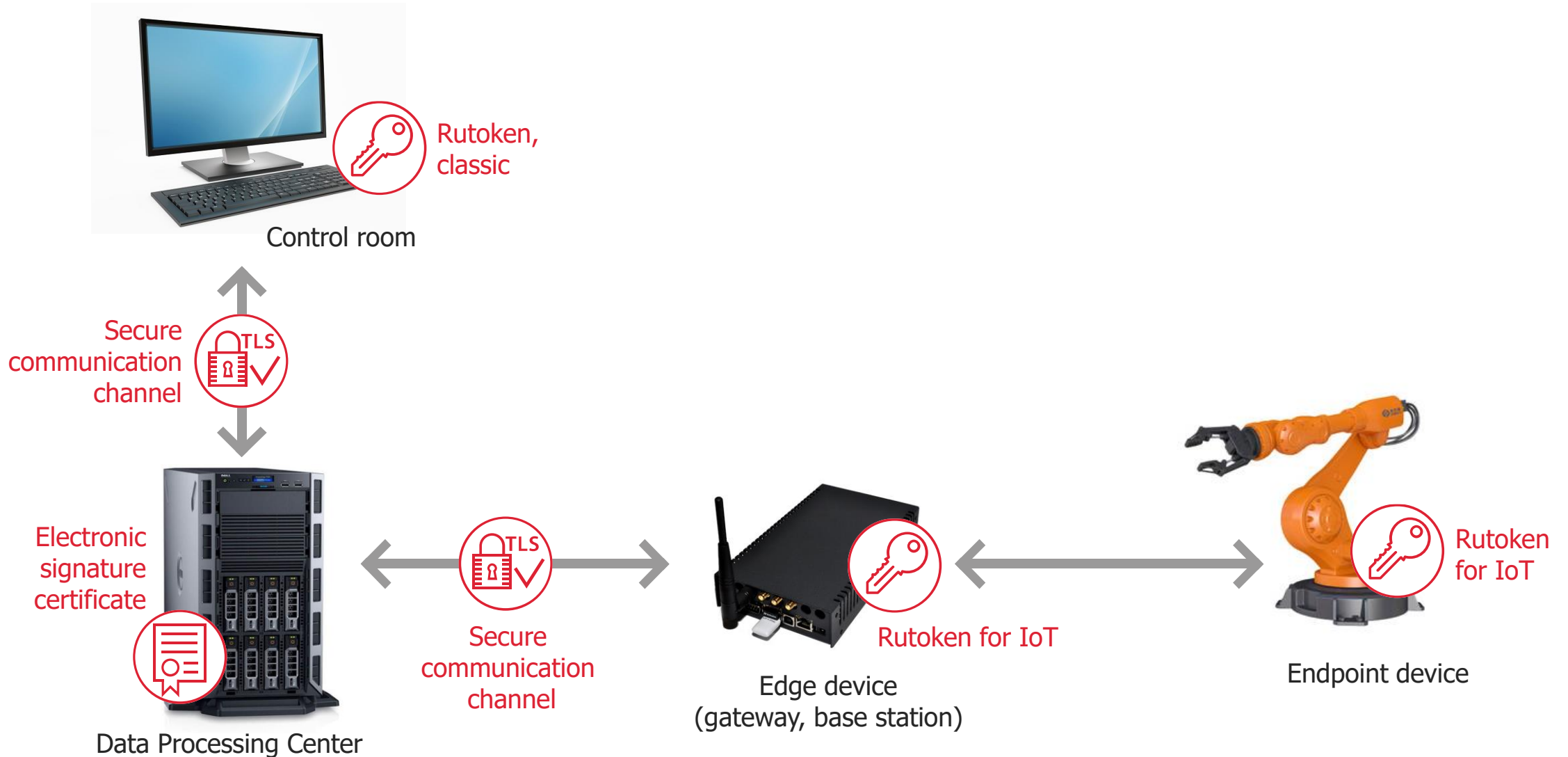


Environmental monitoring and control

Tasks we solve

- 1** Control of identification data of the system main components
- 2** Protecting information exchange against spoofing and duplication attacks (EDS)
- 3** Data authenticity control (EDS)
- 4** Data privacy protection. Encryption
- 5** Trusted operating system boot
- 6** User authentication
- 7** Authenticating processes and sub-processes run on the device
- 8** Trusted updates of software and operating system components
- 9** Device behavior control (analog of biometrics). Comparing behavior of similar devices
- 10** Updating key information and certificates on endpoint and edge devices

Rutoken devices for industrial and IOT equipment

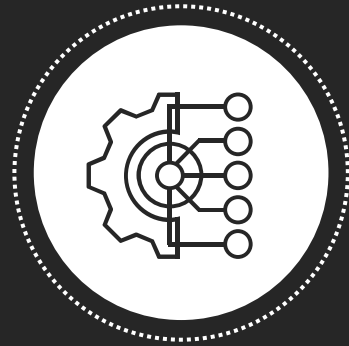


Cooperation options we offer to



System integrators

Expanding the customer service portfolio by delivering highly effective, proven IS solutions and products



IT manufacturers

Localizing production, finalizing products locally produced

Starting joint ventures to produce IS products



State entities

Ready-made infrastructure solutions to build independent state IS infrastructure in consortium with local industries

Training in the field of IS, filling in shortage in competencies



Producers of consumer goods and services

Ready-made solutions in identification, strong authentication and digital signature



Distributors

Delivering batches of endpoint devices for current and future projects

Why us

Rutoken products are market leaders in strong cryptographic authentication and digital signature in the countries of presence

Aktiv Company

- ✓ Starting joint local production facilities and product localization
- ✓ Comprehensive joint turnkey projects in line with customer request
- ✓ High flexibility in adapting products to the needs of large customers and countries - custom modifications ready in a few months
- ✓ Industry-standard middleware and SDKs, support of all global standards, flexible licensing as part of hardware offer
- ✓ Highest quality and 0.01%-0.02% defect rate in products
- ✓ Optimal delivery time from 1 to 4 months
- ✓ Classic product distribution scheme

Competition

- ✗ Distributed production in EU, USA and China encumbered by many limitations
- ✗ One set of products and features for the whole world, custom product modifications almost impossible or taking years and tens of millions of Euros
- ✗ Products "cover" only part of customer needs, but fall short of comprehensive problem solution
- ✗ Expensive licenses for supporting software, complicated and expensive technical support
- ✗ Focusing on scale, not quality - defects up to 2%, similar to microelectronics industry
- ✗ Delivery time 8–14 months, non-fixed and floating

Our customers **and partners**



We stay **in touch**



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