# RUTOKEN

Technologies for the safe future

The Aktiv company is the leading manufacturer and developer of software and hardware for information protection. The company offers products and solutions for strong authentication and digital signature under the Rutoken brand, as well as solutions for software distribution control and reverse engineering protection under the Guardant brand. AKTIV.CONSULTING branch provides consulting services in the field of information security. The Aktiv company was founded in 1994 and has its own production facility.

Rutoken is modern software and hardware tools, complex systems of cryptographic protection of information used for authentication and generation of a digital signature. The use of Rutoken devices in the solutions of Aktiv's partners increases the level of information security of business processes in almost all areas of activity and industries.

# Support for mobile teams

As a rule, the need to search for and fill out paper documents creates a lot of difficulties for specialists' mobile teams (oil workers, miners, power engineers, forwarding drivers) performing work in difficult conditions in remote areas. Use of electronic document management (EDM) on mobile devices greatly simplifies the receipt and confirmation of orders, filling in the necessary forms and reports, execution of many other documents.

» Rutoken certified cryptographic devices in EDM ensures the security and convenience of a mobile digital signature. With a minimum of effort and maintaining the continuous business processes, the user gets the opportunity to personally sign the necessary documents with a digital signature via an NFC wireless channel.

» In this case, the digital signature key is stored separately from untrusted mobile devices and applications for document management.

USB tokens and smart cards Rutoken EDS 3.0 NFC 3100

# Organization of secure remote work

The remote work has become a modern reality for business. Being initially a forced measure, it has become an integral element of the organizational and corporate culture, which required close attention to the security of corporate data and infrastructure. There appeared a risk of financial and reputational losses, and in some cases — the threat of termination of the organization's business processes.

>> Setting up two-factor authentication using Rutoken information protection hardware in integrated solutions for organizing remote work will help prevent the theft of logins and passwords and unauthorized access to the corporate network.

>> Two-Factor Authentication is the most secure authentication method. Two types of factors are used: Possession of physical device — Rutoken token and knowing the PIN. Even having compromised the PIN code, an attacker needs to present a physical device, the theft of which is always detected promptly.

USB tokens Rutoken EDS 3.0 3220

USB tokens and smart cards Rutoken EDS 3.0 NFC 3100

USB tokens Rutoken EDS 2.0 Flash

# Protection of machine-to-machine interaction in IoT

Over the past years, IoT devices have become an absolute reality in business, industry and everyday life. Autonomous sensors, energy consumption meters, smart household appliances, all these devices work without the direct participation of a person, generating and processing data arrays. This data needs to be protected, as the machine-to-machine environment is extremely vulnerable to attacks by intruders. After all, IoT devices are often located in a public space or on the territory of a potential attacker. Such an intrusion can result in confidential data leaks, reputational and material losses, production process shutdowns, and even industrial disasters.

>> Integration of Rutoken Module cryptographic protection tools into IoT devices can provide control over the integrity and ownership of data through a cryptographic digital signature. Thus, the interaction of the user's IoT devices only with legal devices or operators will be conditioned.

>> Reliable storage of cryptographic keys that never leave their carrier will negate the likelihood of disclosure and forgery of important information.

Rutoken Module embedded devices in SOM/SoC formats

Rutoken smart cards in MicroSIM form factor

# Organization of remote work of State emergency services

Ambulance crews, firefighters, environmentalists, law enforcement officers and other services working in the field today are actively using mobile devices for electronic document management. This allows to reduce time and avoid difficulties when processing paper documents, preventing risk of their loss.

>> The use of Rutoken USB tokens and smart cards by members of field teams allows them to participate in electronic document management by signing legally significant documents with a digital signature on a mobile device with one touch.

USB tokens and smart cards Rutoken EDS 3.0 NFC 3100

MEDICAL SYSTEMS

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# Protection of interaction with state information services

Today, many organizations and individuals almost daily use various digital services which provide access to public services. This includes the submission of tax returns and reception of tax statements, registration of goods by manufacturers, participation in electronic tenders, etc.

>> Rutoken USB tokens and smart cards help protect access to personal accounts from intruders using two-factor authentication, and allow to generate a digital signature for signing legally significant documents.

>> Rutoken devices act in this case as a reliable alternative to authentication in governmental information systems using a login-password combination.

USB tokens Rutoken EDS 3.0 3220

USB-tokens Rutoken EDS 2.0 Flash

USB tokens Rutoken Lite

# Access control to premises and information systems

As a rule, organizations today use contactless employee cards exclusively to control access to office and industrial premises (ACS systems). At the same time, access to information systems is carried out using a login-password combination, which leads to vulnerabilities in the security of enterprise data.

» Rutoken smart card combines the functions of a pass and a token for accessing the company's internal information systems and participating in EDM. Access to corporate information systems is achieved through strong two-factor authentication, where the second factor is the possession of a physical device.

» The implementation of cryptographic encryption algorithms is carried out "on board" Rutoken smart cards, without transferring keys to the memory of a computer or smartphone.

Smart card Rutoken EDS 3.0 NFC 3100

Smart card Rutoken EDS 2.0 2100 with RFID tag

Smart card reader SCR 3001

# Protection of internal corporate document flow

The ability to certify and transfer electronic documents within the organization tangibly speeds up business processes and eliminates the need to store significant volumes of paper documents. At the same time, the use of EDM systems implies compliance with certain information protection rules — organization of secure registration and authentication of users, prevention of unauthorized access to documents during their transmission, and guarantee of the legal significance of electronic documents.

>> Rutoken hardware information security tools, USB tokens and Rutoken smart cards , using cryptographic algorithms for data encryption, strong two-factor user authentication and digital signature, including on mobile devices, are capable of effectively solving the tasks set. Storing user keys on the Rutoken identifier allows to ensure their reliable protection.

USB tokens Rutoken EDS 3.0 3220

USB tokens and smart cards Rutoken EDS 3.0 NFC 3100

# Secure remote banking and mobile banking protection

The development of remote banking systems (RBS) has accelerated significantly during the pandemic and remote work, finding new growth points for such systems . At the same time, fraudster attacks on RBS systems have intensified, and through these systems intruder can attack the infrastructure of financial organizations and their clients.

» One of the elements of protection against the actions of cyber fraudsters is the use of multi-factor authentication technologies . Rutoken hardware devices help financial institutions to identify users of the Internet Bank, thereby strengthening both information security and customer loyalty.

» Rutoken USB tokens and smart cards with contact and contactless interfaces for working on mobile devices provide strong two-factor authentication and confirmation of transactions using a digital signature.

USB tokens Rutoken EDS 3.0 3220

USB tokens and smart cards Rutoken EDS 3.0 NFC 3100

# Issuance of digital signature certificates at the CA of the tax service

The work of organizations, entrepreneurs and notaries today cannot be imagined without a so important tool in business processes as a digital signature. The norms of the legislation  prescribe the use of digital signature for reporting, participating in tenders, conducting electronic document management with the State, confirming the purchase and sale of alcoholic products in a Unified Automated State Information System for controll of production and turnover of ethyl alcohol, registering online cash desks and many other applications. Issuance of digital signature certificates is carried out by the certification center of the tax service, trusted certification centers, as well as accredited CAs.

>> Significant proportion digital signature keys and certificates are stored today on secure personal Rutoken key carriers, which allow using built-in cryptographic algorithms to generate a digital signature directly "on board" the device.

>> So Thus, the digital signature keys remain in the memory of the key carrier, which guarantees a high degree of protection of the personal digital signature from the actions of fraudsters.

USB tokens Rutoken EDS 3.0 3220

USB tokens and smart cards Rutoken EDS 3.0 NFC 3100

USB-tokens Rutoken Lite

# Protection of "smart" meters in the housing and communal services system

The use of "smart meters" in the State information system of housing and communal services helps to automate the taking of readings, transmission and accounting of data on consumed resources. However, the fact that metering devices are located outside the perimeter of the information system (in fact, on the territory of a potential intruder) makes them unprotected from various kinds of physical and information influences, casting doubt on the reliability of the data transmitted to the management company.

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>> Rutoken Module devices built into smart meters, through the use of strong cryptographic authentication, guarantee the reliability and integrity of the information transmitted to the management campaign and, as a result, the formation of a correct single payment document.

Embedded devices Rutoken module in SOM/SoC formats

Rutoken smart cards in MicroSIM form factor

# Product catalog Rutoken

## Cryptographic tokens and smart cards

- Storage of digital signature keys
  - Rutoken Lite
- Two-factor authentication and digital signature
  - Rutoken EDS 3.0 3220
- Contactless digital signature for mobile platforms
  - Rutoken EDS 3.0 NFC 3100
  - Smart card Rutoken EDS 3.0 NFC 3100
  - Rutoken EDS 3.0 Bluetooth 8100
- Remote working place employee
  - Rutoken EDS 2.0 Flash
- Account protection
  - Rutoken Fido 2
  - Rutoken OTP

## Smart cards for ACS

- Smart card Rutoken EDS 3.0 NFC 3100
- Smart card Rutoken EDS 2.0 2100 with RFID tag

## Secure smart card readers

- Rutoken SCR 3001
- Rutoken VCR 3001

## Embedded cryptomodules for cyber-physical systems ( IoT, M2M)

- Rutoken Module

## Specialized software

- Email Security and Domain Authentication
  - Rutoken for Windows
- Two-factor authentication for workstations outside the domain
  - Rutoken logon
- Two-factor authentication and digital signature from the browser
  - Rutoken Plugin
- Protecting critical data in device memory
  - Rutoken Disk

## Complex systems

- Lifecycle management of authentication and digital signature tools
  - Rutoken KeyBox
- Single point of access to IT systems to provide two-factor authentication
  - Rutoken MA
- Managing access to privileged accounts
  - Rutoken PAM
- Remote work security
  - Рутокен VPN

# COMPANY AKTIV

Be sure you are protected