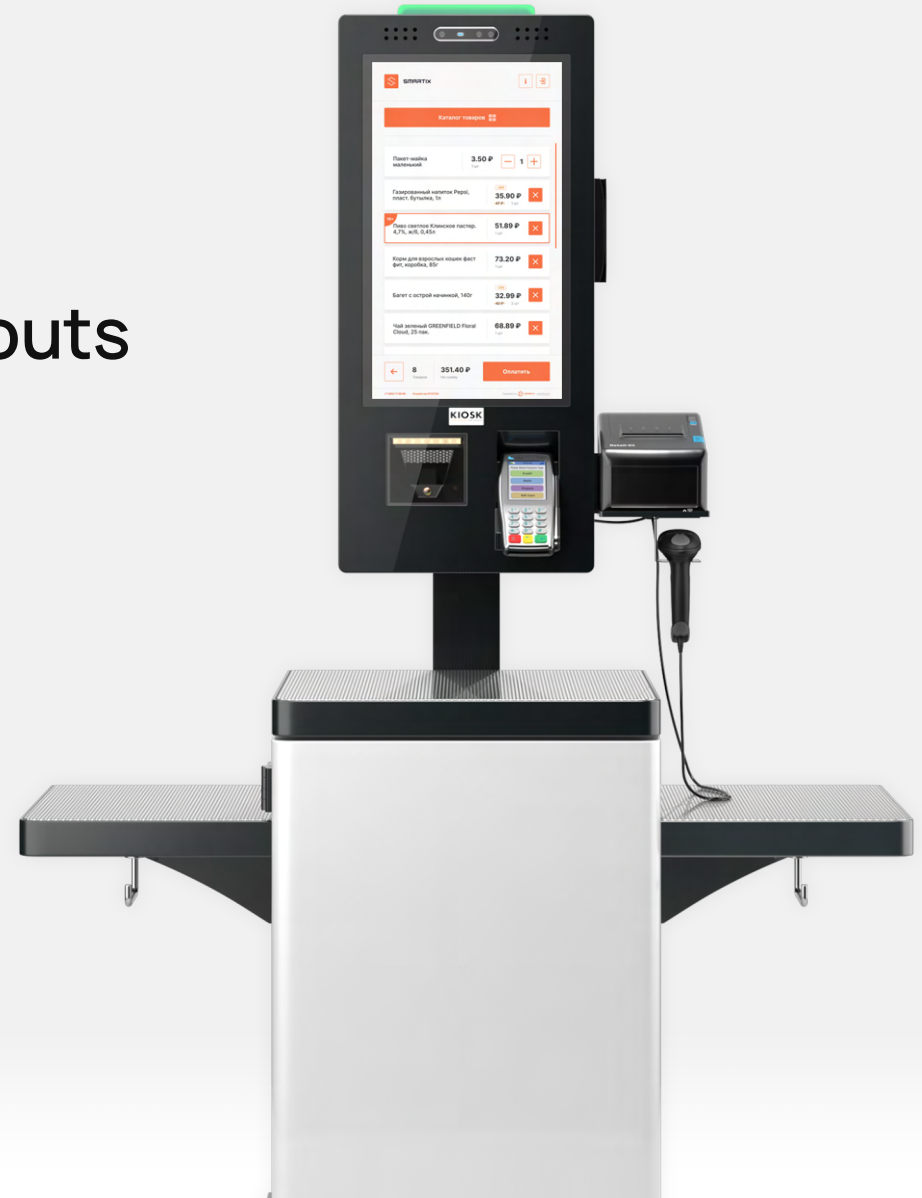SMARTIX

Smartix self-service checkouts

![SMARTIX]

About company

Smartix has been developing self-checkout services since 2008. Our specialists have the widest experience in the creation and operation of large distributed systems.

10 000 +
Self-service devices within one system

1 mln. +
Peak number of transactions per day

About solution

Smartix self-service checkouts solve the whole range of tasks for launching self-checkout systems, allow to automate retail outlet of any format and area. Devices support basic functionality required by the retailer out-of-the-box, they can be adapted to non-standard customer needs.

Functional capability

- Support for scales, scanners, laser printers, signal toppers, integration with retail shop equipment upon request

- Integration with 1C, other accounting systems

- Product labeling support (Chestny ZNAK)

- Support for working with 18+ category goods

- Support for loyalty systems, marketing functionality (bonuses, promotions)

- Advertising management module, videos and banners at interface screens and when idle

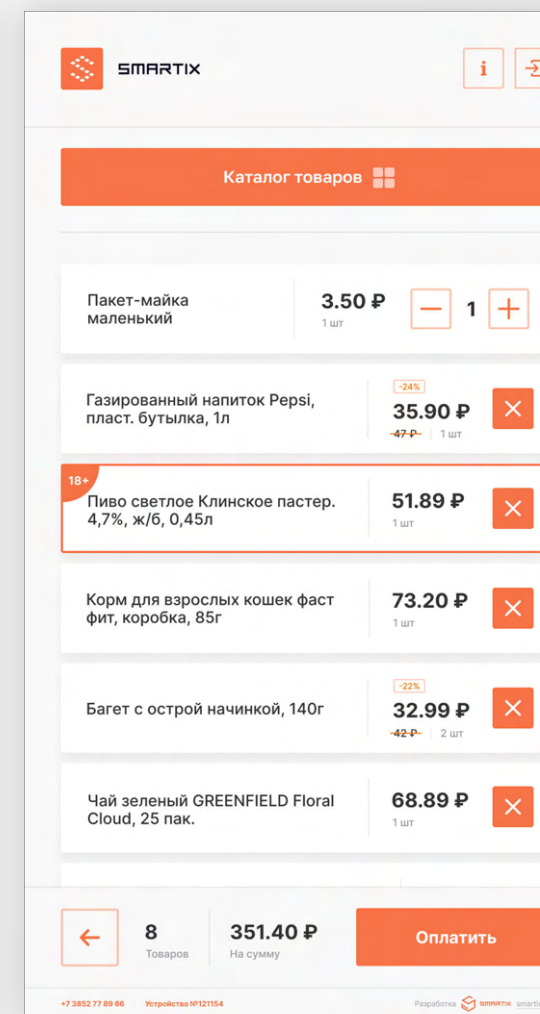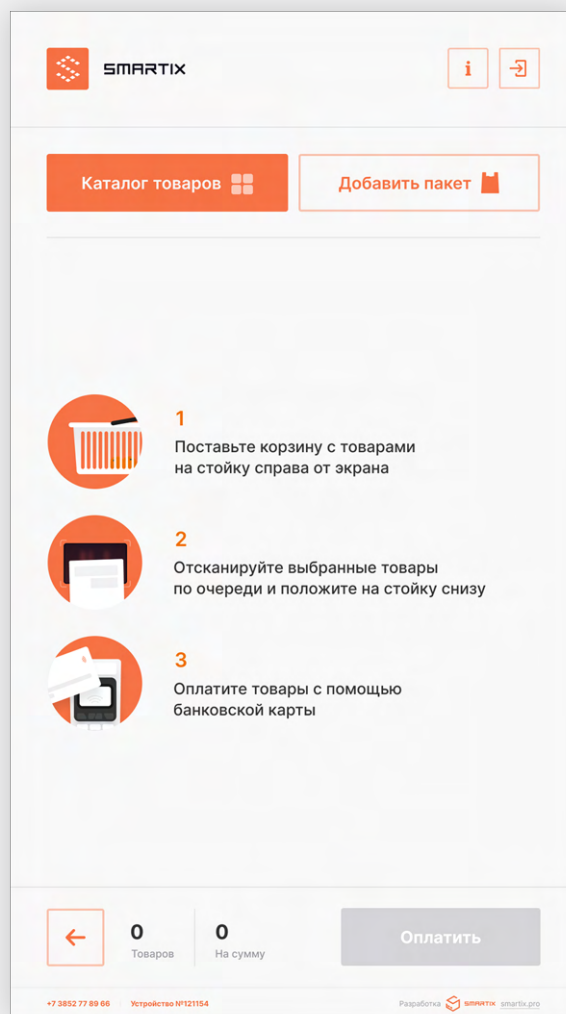- Interface styling and branding, custom development

Self-checkout

Smartix self-service checkouts are used by the customer to bring and scan commodity items one by one with a barcode or QR code. After checking or adjusting the shopping cart customer make payment.

All aspects of operating with cash registers are taken into account

- Two barcode scanners for scanning products through a fixed or remote scanner (including wireless models) - increasing convenience and throughput.

- Payment for goods weighed with trade scales. Added the ability to create company profiles containing scale barcode recognition rules in the back office. Barcode formats include product data, weighted weight in grams, checksums that are recognized at the self-service checkout.

SMARTIX

Каталог товаров   Добавить пакет

1 Поставьте корзину с товарами на стойку справа от экрана

2 Отсканируйте выбранные товары по очереди и положите на стойку снизу

3 Оплатите товары с помощью банковской карты

0 Товаров   0 На сумму   Оплатить

+7 3852 77 89 66   Устройство №121154   Разработка smartix.pro

SMARTIX

Каталог товаров

Пакет-майка маленький	3.50 ₽ 1 шт	— 1 +
Газированный напиток Pepsi, пласт. бутылка, 1л	-24% 35.90 ₽ 47 ₽ 1 шт	✕
18+ Пиво светлое Клинское пастер. 4,7%, ж/б, 0,45л	51.89 ₽ 1 шт	✕
Корм для взрослых кошек фаст фит, коробка, 85г	73.20 ₽ 1 шт	✕
Багет с острой начинкой, 140г	-22% 32.99 ₽ 42 ₽ 2 шт	✕
Чай зеленый GREENFIELD Floral Cloud, 25 пак.	68.89 ₽ 1 шт	✕

8 Товаров   351.40 ₽ На сумму   Оплатить

+7 3852 77 89 66   Устройство №121154   Разработка smartix.pro

SMARTIX

Self-checkout

In the process of scanning product barcode at the Smartix checkout it first checks for the presence of this product in the local directory, if product is not found there is the possibility of online access to an external system.

Various formats of work with the commodity database are supported

Local commodity database at the checkout. There are no calls to the external system and unnecessary load on it, there are no risks of losing connection.

Online access to an external system to obtain data on commodity items. Additional load on the external system, temporary stop of the cash register in case of loss of connection.

Hybrid model in which data on most popular products is downloaded locally as an offline directory, data on the rest of product items are requested online.

Working with shopping cart

If store has non-barcoded goods, Smartix self-checkout support them to be sold through an interactive showcase.

As a result, the complex simultaneously supports self-checkout scanning, as well as the selection and payment of goods without barcode from the catalog in the interface.

Working with labeled goods

The sale of labeled products at Smartix checkouts is carried out within the framework of the Chestny ZNAK national system.

Supports full cycle of sales and tracking operations in accordance with legal requirements.

EGAIS barcode scanning request is also supported.
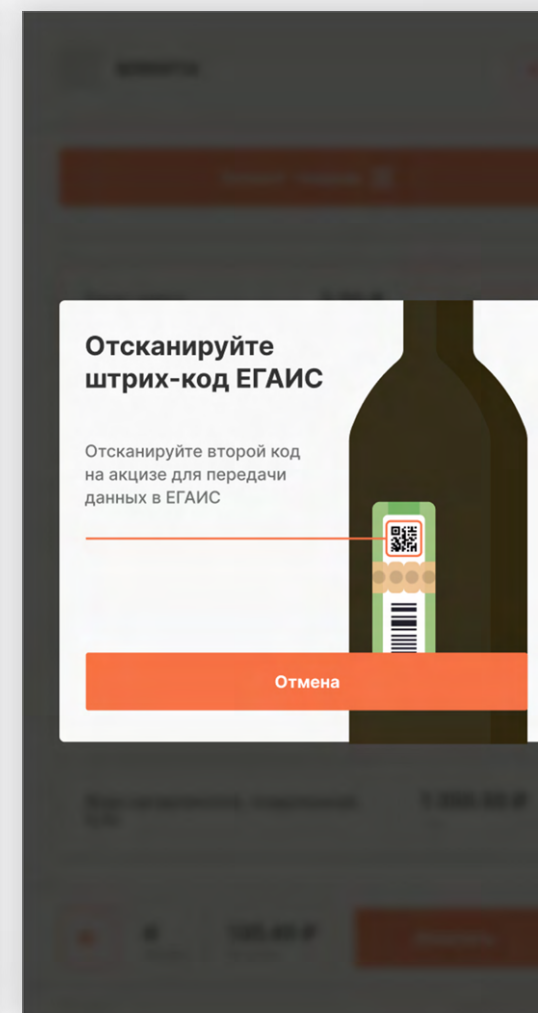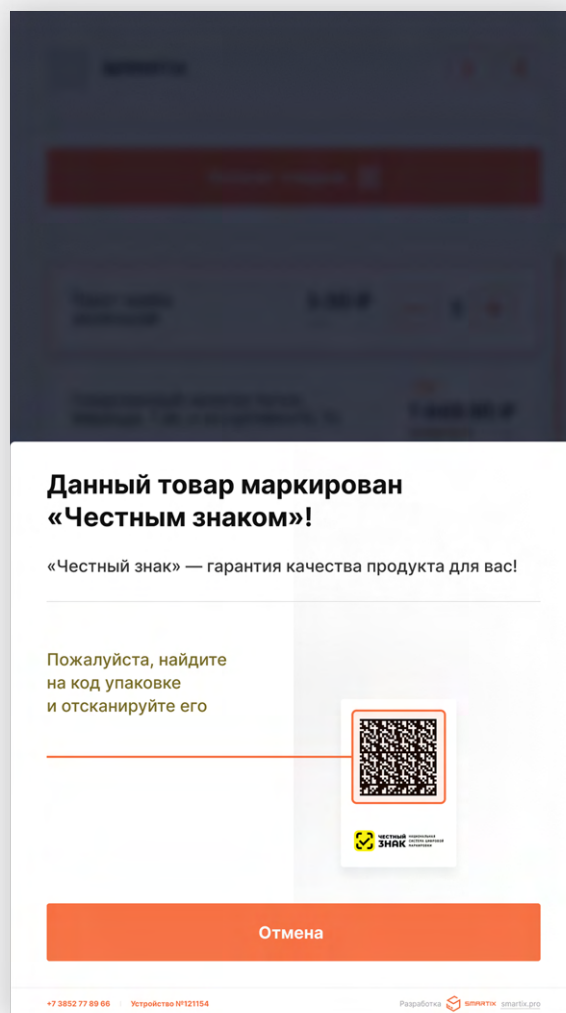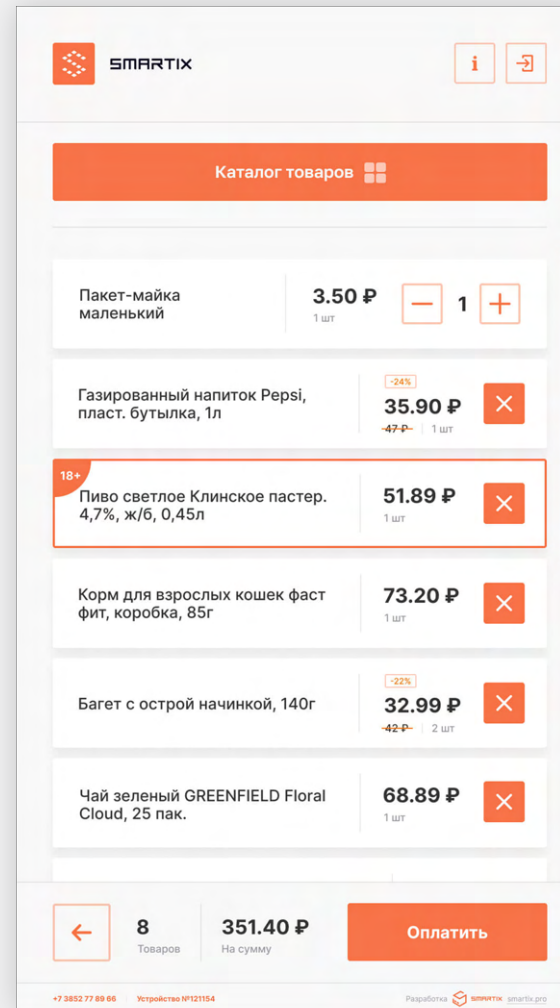
18+ products support

If self-checkout detects 18+ category product, before making payment system asks the consultant (who checked the client visually or using his documents) to confirm the action by scanning the barcode on the badge or RFID card.

As a result, the entire self-service process at the checkouts is preserved without the participation of cashiers and only at the last stage if there are 18+ goods, the simultaneous participation of an employee is required.

Significant staff savings are achieved, while only one consultant responsible for checking 18+ goods can effectively serve customers at dozens of checkouts in large store.

Payment instruments

Smartix self-checkouts software supports various methods of receiving payments:

- Bank card through POS-terminal

- Cash with change, if self-checkout is equipped with bill acceptor and cash dispenser

- Fast payment system

- Payment at glance from Sberbank

- Gift certificates and any external means of payment

Provided support for local fiscal equipment and cloud fiscal services.

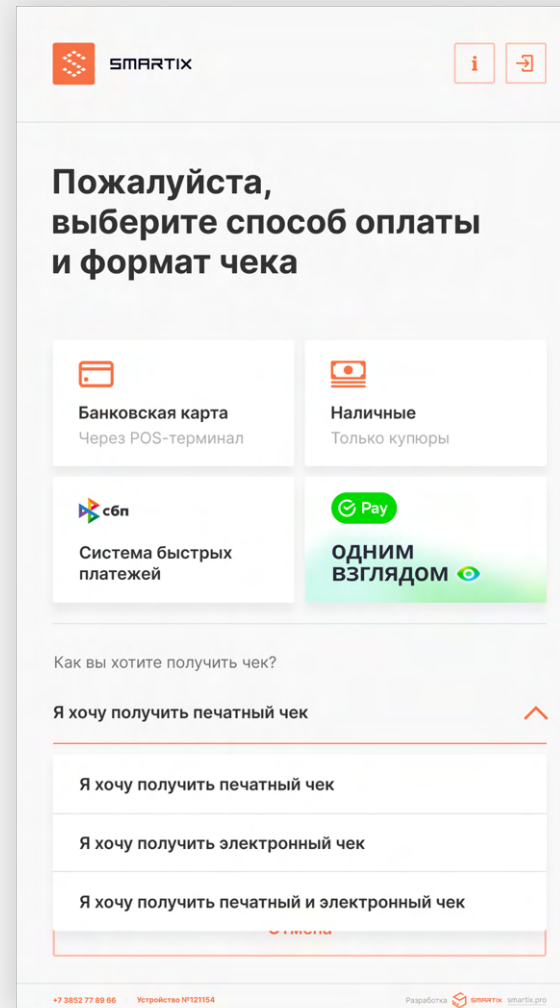Ability to provide the buyer with choice of the receipt type - printed or electronic (SMS, e-mail).
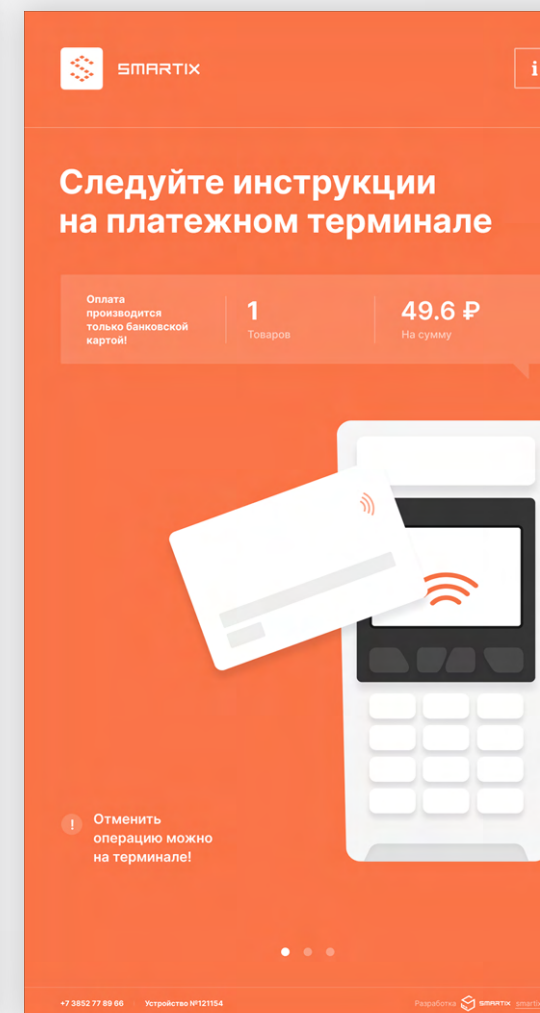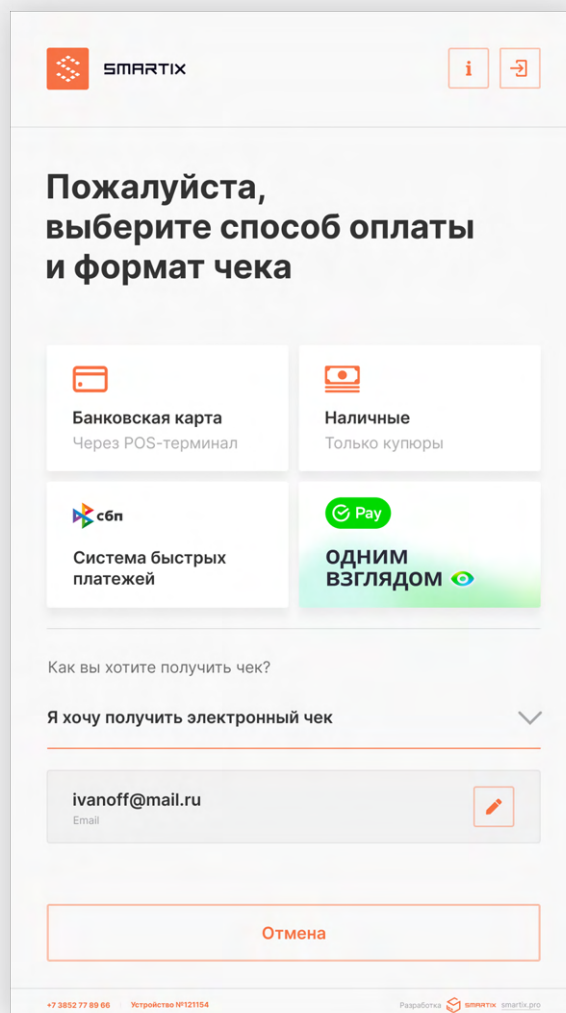
Electronic receipts support

Smartix self-checkouts software supports sending receipts by e-mail or via SMS. The owner of device can offer customers the dispense of paper or electronic receipt to choose from, as well as force sending of receipts only in digital format.

Electronic receipt settings are available in special profiles in the back office and can be individually assigned to each self-checkout. As a result, the required flexibility is achieved - the customer can activate various conditions for dispensing receipts on the required device segments.

For example at one part of the cash registers only paper checks are dispensed, on the other paper and digital receipts without SMS, on the third only digital receipts including SMS receipts.
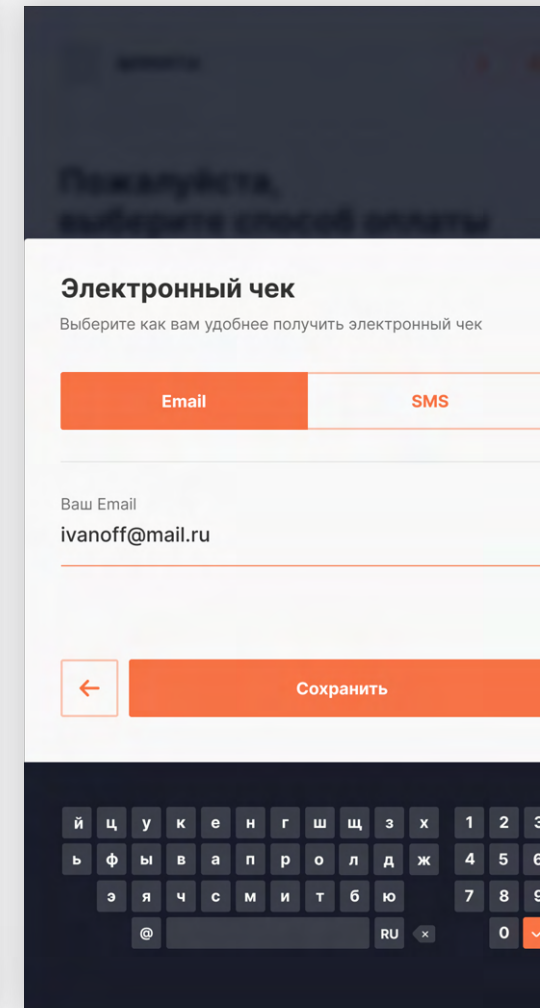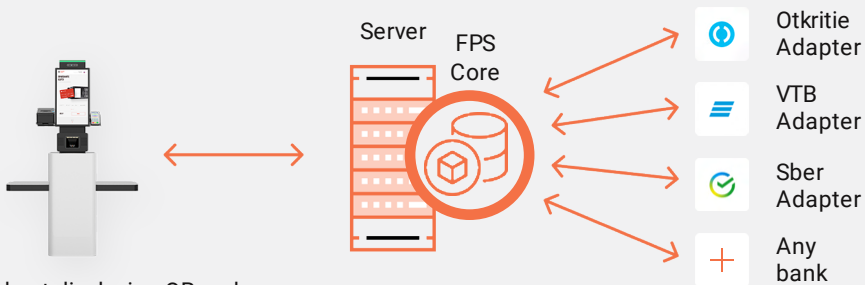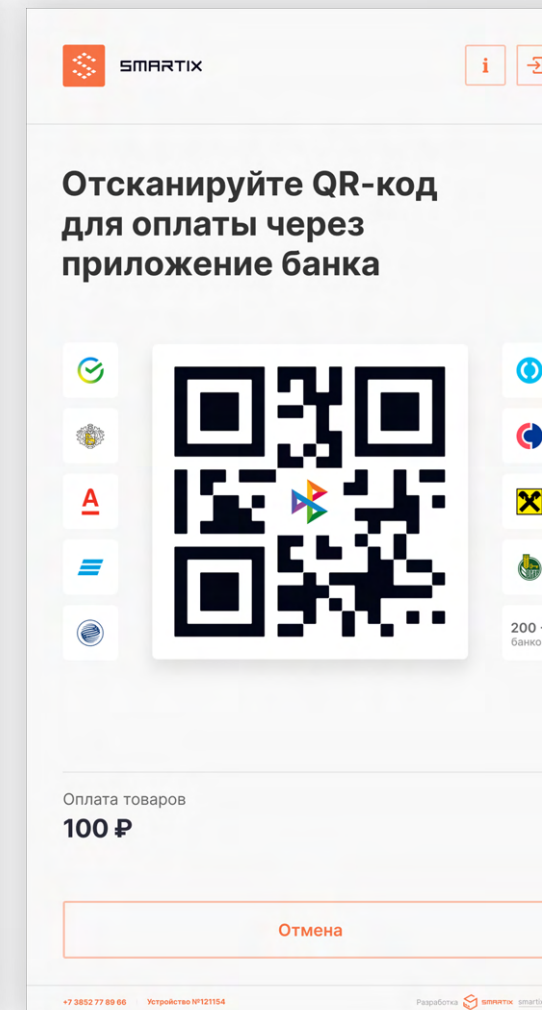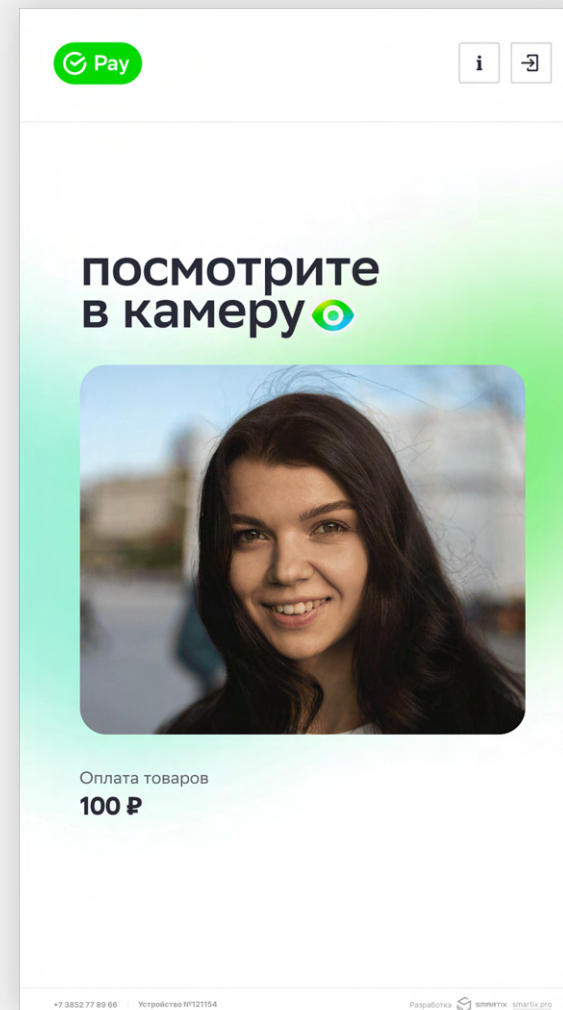
Fast Payment System and pay by glance

Smartix cash register software supports payment using Fast Payment System. The functionality of making payments through VTB Bank and Otkritie Bank has been implemented, system also supports simple connection of any other banks.

Solution also supports payment by glance from Sberbank. There is ability to make purchases without bank card and smartphone - just look at the camera.

Self-checkout displaying QR codes and requesting payment status

Server | FPS Core

Otkritie Adapter
VTB Adapter
Sber Adapter
Any bank

Pay

ПОСМОТРИТЕ В КАМЕРУ

Оплата товаров
100 ₽

SMARTIX

Отсканируйте QR-код для оплаты через приложение банка

Оплата товаров
100 ₽

Отмена

Loyalty systems support

Smartix self-checkout software supports work with loyalty systems. User can accumulate and write off points as part of the total bill for the payment cart. To write off points it may be necessary to authorize the client with SMS confirmation at self-checkout.

System requests sending of SMS, the code is sent and confirmed by the user, payment cart is recalculated in accordance with the applied points and they are written off as payment.

The software supports several types of authorization, including phone number and if the device has a scanner, loyalty cards based on barcodes or QR codes, which can be scanned from mobile application or applied to plastic surface.

If user started paying with points and for some reason decided to abandon the operation, system supports rollback accruals, in which case the points will be returned along with the payment amount.
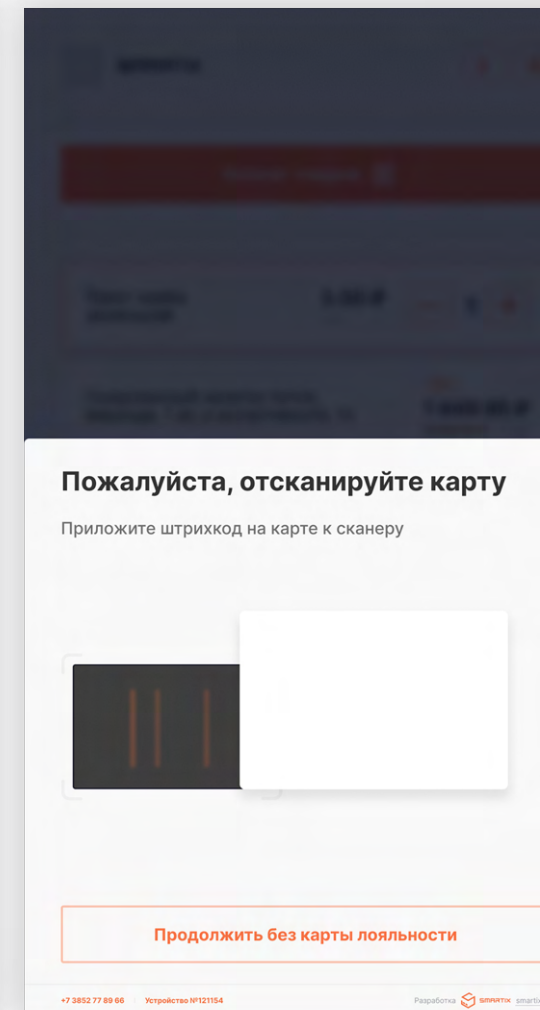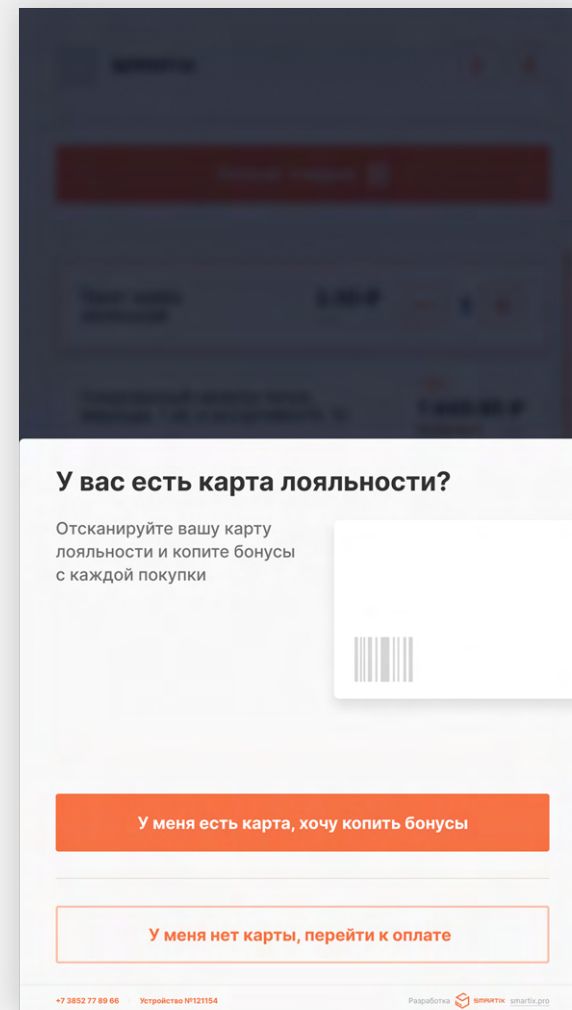
Gift certificates

Smartix cash register software includes subsystem of external payments, which takes into account the fact that payment transaction is carried out at the expense of external funds and allows customers to use these funds as payment.

If there is a gift certificate that was generated in an external accounting system, buyer can enter the data of this certificate at the self-checkout, scan it through a scanner or enter any other ID to which this certificate is linked, for example phone number. Then the purchase can be paid in full or in part, depending on the nominal value of the certificate.

Smartix software takes into account the peculiarities of fiscalization when working with gift certificates. If legally the certificate was purchased from the company that owns self-checkouts, it is an advance certificate. If the certificate was purchased from a third party legal entity, it is counted as an external means of payment and fiscalized accordingly.
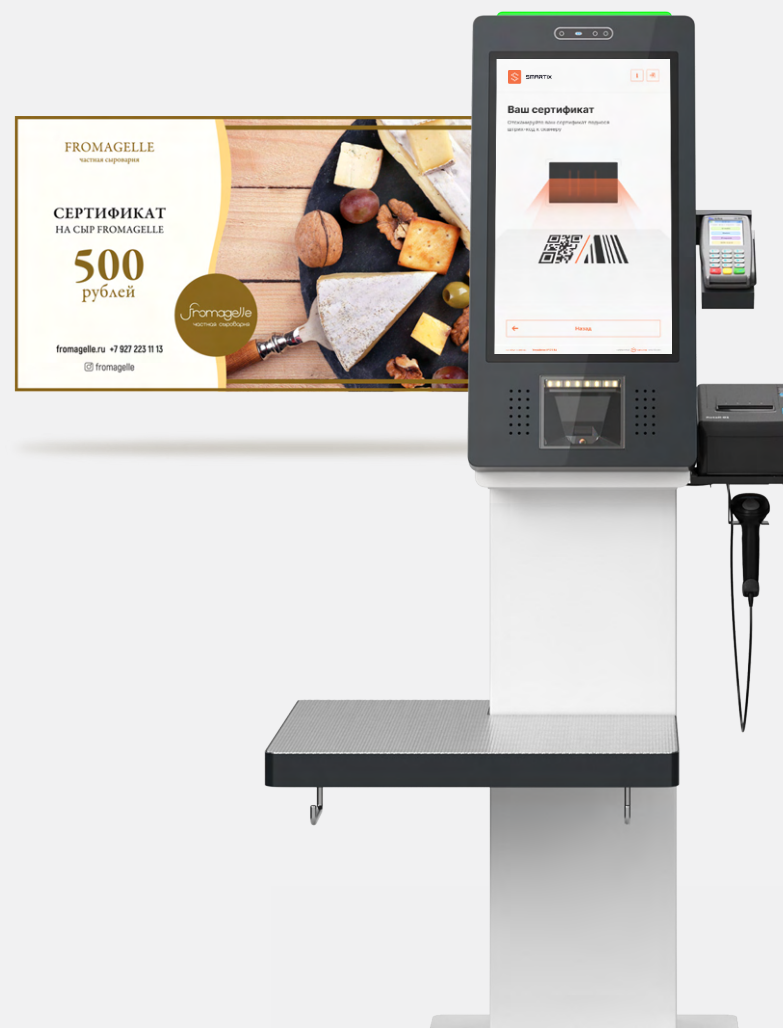
Self-checkout service menu

Additional button in the self-checkout interface opens service menu, which is available to the employee after authorization using barcode or RFID card.
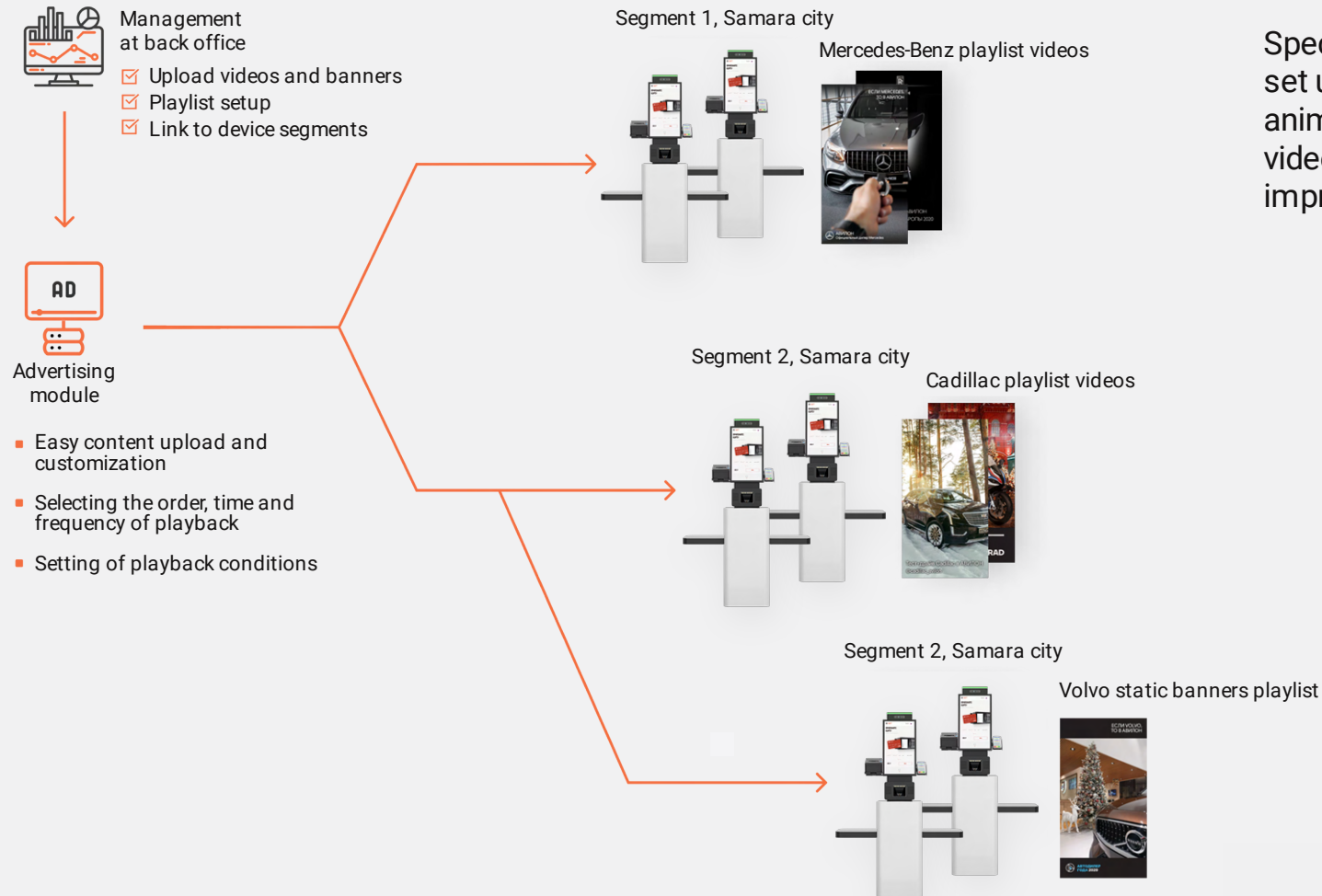
The service menu contains functionality of closing the cash register shift and the banking day for POS-terminal, as well as printing the results at receipt tape.
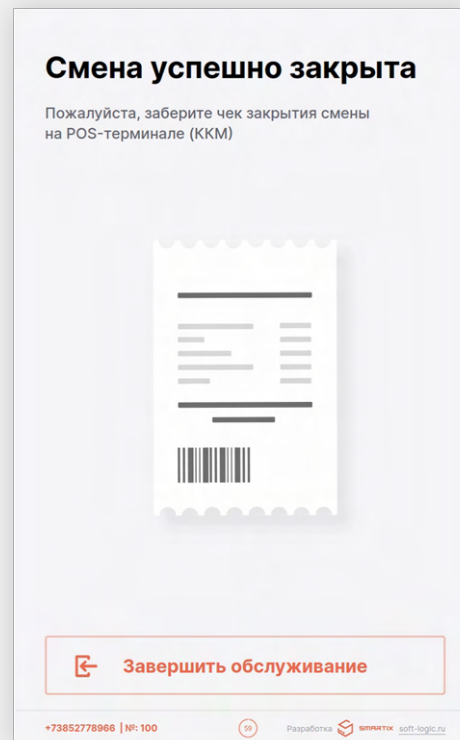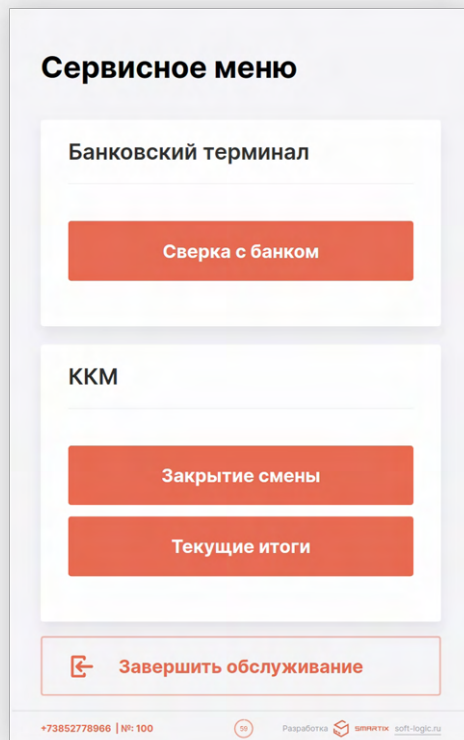
Self-checkout owner can choose different logic for working with cash register shifts:

- Close shifts on schedule

- Close shifts automatically after the end of the day

- Disable all options, in this case the shift will be closed by the employee at the time chosen by him

Сервисное меню

Банковский терминал

Сверка с банком

ККМ

Закрытие смены

Текущие итоги

Завершить обслуживание

+73852778966 | № 100   Разработка SMARTIX soft-logic.ru

Смена успешно закрыта

Пожалуйста, заберите чек закрытия смены на POS-терминале (ККМ)

Завершить обслуживание

+73852778966 | № 100   Разработка SMARTIX soft-logic.ru

Advertising features

SMARTIX

Management at back office
- ☑ Upload videos and banners
- ☑ Playlist setup
- ☑ Link to device segments

AD

Advertising module

- Easy content upload and customization
- Selecting the order, time and frequency of playback
- Setting of playback conditions

Segment 1, Samara city

Mercedes-Benz playlist videos

Segment 2, Samara city

Cadillac playlist videos

Segment 2, Samara city

Volvo static banners playlist

Specialized advertising module allows to set up advertising campaigns using animated and static banners, web-based videos with flexible parameters and impressions.

Interface branding

Smartix software is an opportunity to offer users one of the highest quality interfaces on the self-checkouts software market.

Styling, branding, development of any screens at request is supported.

Solution includes an intuitive interface and well-developed logic of interaction between the customer and self-checkout with increased attention to UX/UI to create a better shopping experience.

SMARTIX
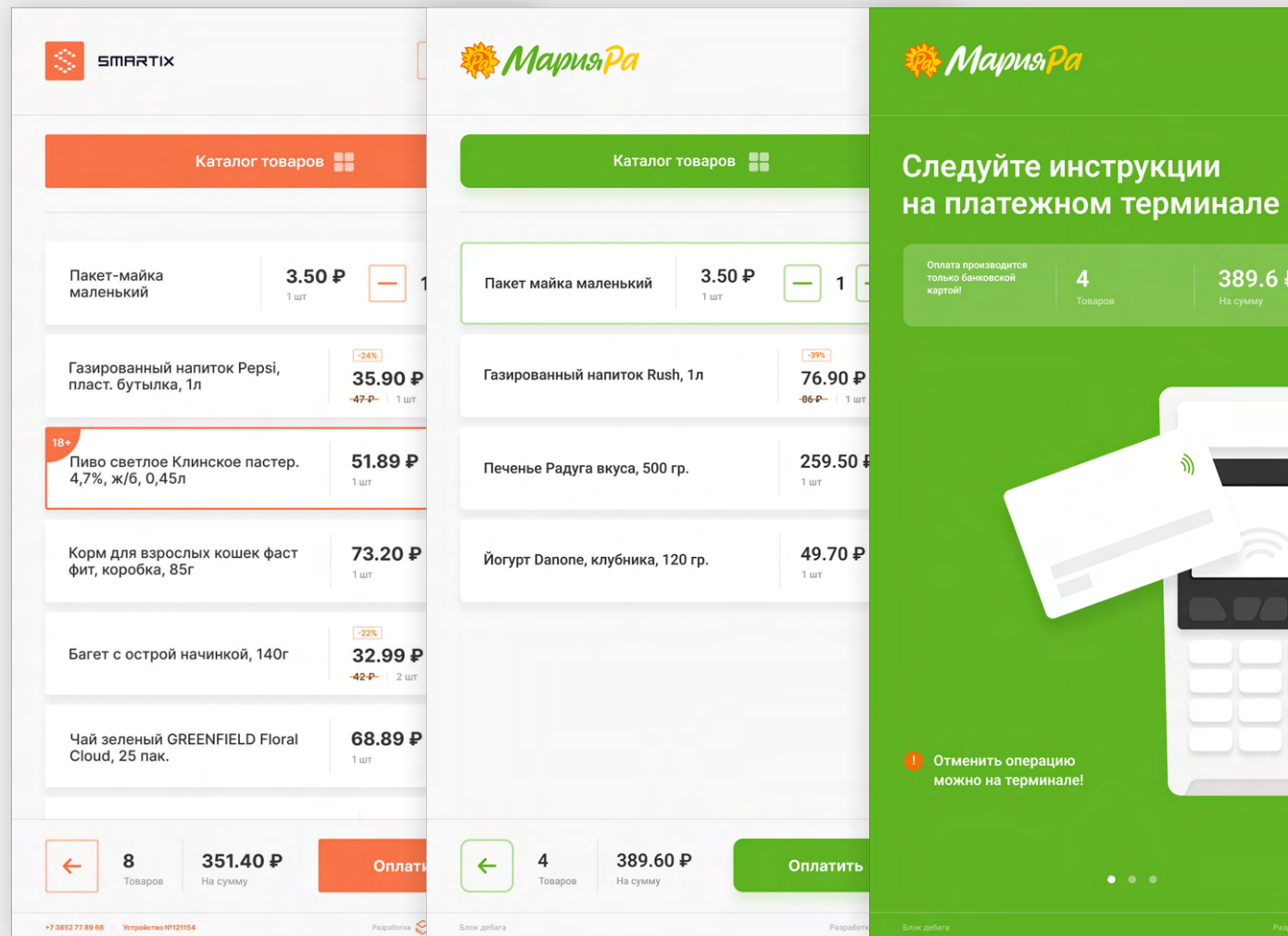
Additional software functionality

Self-checkout software is not limited by self-checkout features. At the request of the customer any buttons with any functionality can be added to the main screen of the device. As a result, self-checkout can solve many additional tasks within retail outlet.

For example to perform the functionality of price checker, infomation panel or allow visitors to order and pay for dishes from fast food restaurant on the territory of retailer or coffee from a coffee point. In the process of making purchases client receives notification about the readiness of the order and picks it up at the establishment.

Improvements can be made to allow remote control of the coffee machine. Smartix specialists already have this experience due to the implementation of the project for 700+ NTS Pay coffee machines in Romania.
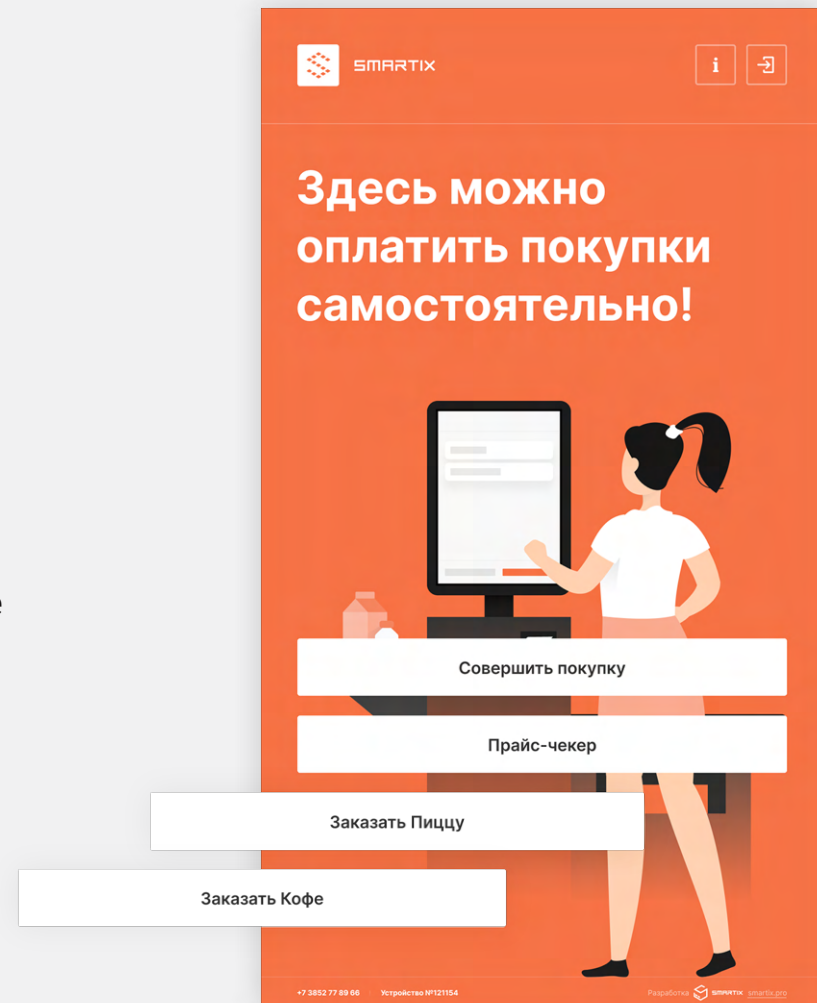
External integrations possibilities

Smartix self-checkout software supports built-in mechanisms for data exchange with external systems:

Built-in product database synchronization mechanism

Built-in product purchase synchronization mechanism
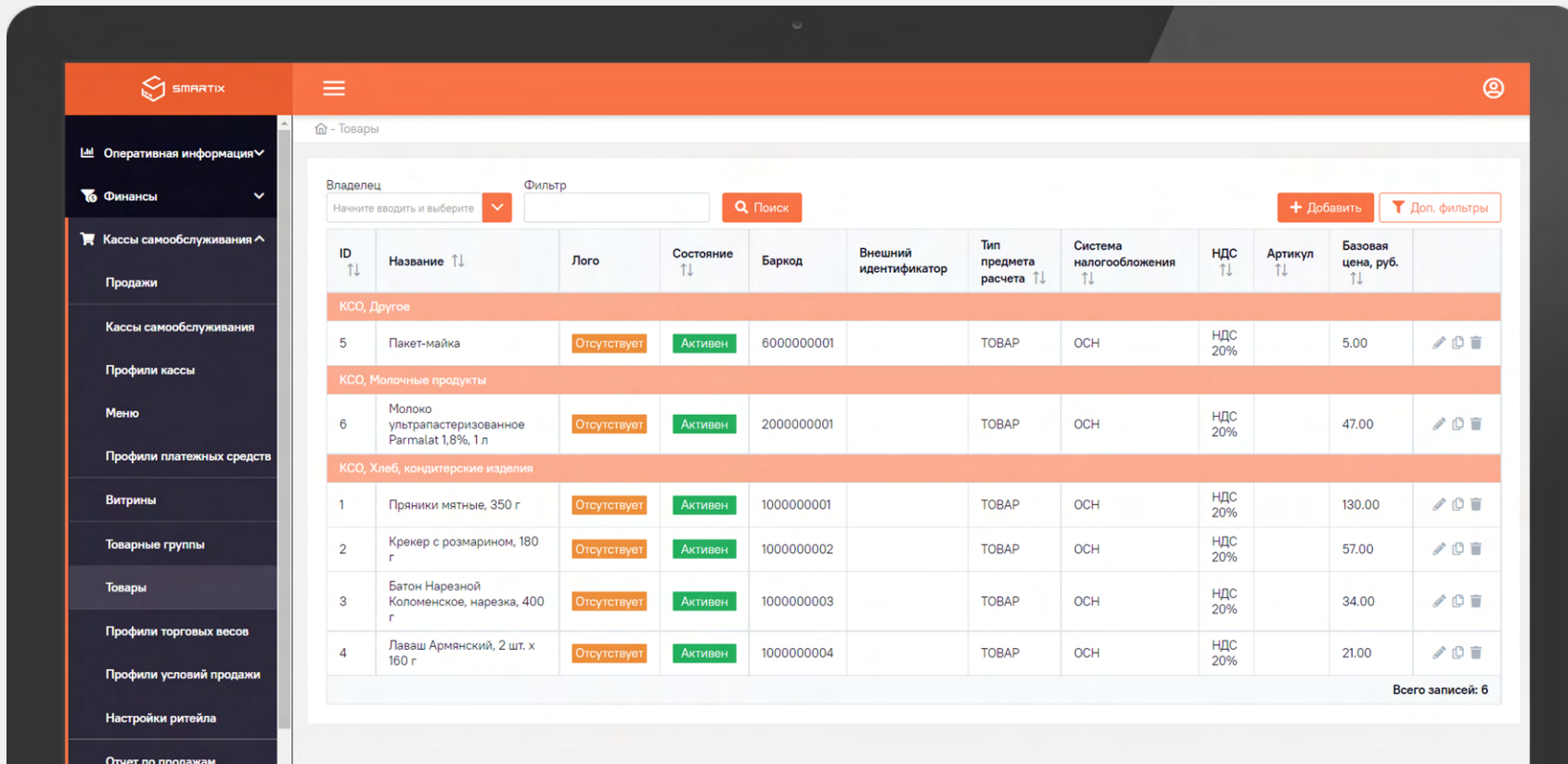
Any integration at the customer request. For example, transferring technical monitoring events to an external system

SMARTIX

Back office

The solution includes full-featured back office that provides online statistics, financial monitoring and viewing events in a network of devices.

System provide creation and management of entities: stores, self-checkouts, goods, employees responsible for the system and devices.

SMARTIX

Back office

All aspects of setting up and managing self-checkouts, linking to locations, self-checkouts profiles, editing the interface, blocking unauthorized access to cash register software and much more have been taking into account.

Основное   Дополнительные настройки   Настройки   VPN   Изображения   Команды

ID
1

Код
self1

Владелец *
КСО

Локация *
Локация 3

Название для бэкофиса *
КСО с весами

Название для клиентов

Состояние
Активен

API-ключ *
***

Языковой профиль *
ru

Приложение
Полноэкранный плеер #2

Внешний вид интерфейса
Smartix

Как получить доступ к точке

Веб-сайт с описанием устройства

Требуется использование динамического кода

Дата создания
24.10.22 22:48

Дата обновления
24.10.22 22:48

Касса самообслуживания

Витрина *
Базовая витрина

Профиль кассы *
Профиль КСО с весами

Меню *
Базовое

Регистратор

Меню регистратора
Нет данных...

Отмена   Сохранить

Основное   Дополнительные настройки   Настройки   VPN   Изображения   Ком

IP-адрес демона *
127.0.0.1

Положение левого верхнего угла по оси X *
1

Положение левого верхнего угла по оси Y *
1

Ширина окна, px
1920

Высота окна, px
1080

Скрывать курсор на интерфейсе

Всегда отображать поверх всех экранов

Возможно изменение размеров окна

Отображение окна с рамками и панелью

Удалить   Сохранить

Back office

System supports synchronization mechanisms for the commodity database (names, barcodes, prices, etc.). Also allows to additionally create commodity items manually. A flexible establishment and setting of goods is provided, various parameters of the sale are specified.

Back office

Monitoring system allows to monitor the performance of the system online and ensures high-quality operation of hardware part of the solution.

The back office administrator receives real-time notifications about occurring events.

Built-in software diagnostic

Smartix cash register software supports built-in diagnostics of peripheral equipment. Online monitoring of peripheral devices is performed:

POS terminal

Online cash register (availability of paper, connection with OFD)

Barcode scanner

Connection status

Hardware (OS version, model of processor, motherboard, disk space, RAM, etc.)

System also supports sending notifications to responsible personnel about the current state of the equipment and malfunctions (SMS, e-mail, Telegram bot).

Timely sending of technical notifications allows to quickly respond to unstable equipment and minimizes serious failures of the entire network.

The downtime of the customer's self-service system is reduced, level of availability and quality of services is increased.

Centralized update system

SMARTIX

Management at back office
- ☑ Segment 1
- ☑ Segment 2
- ☐ Segment 3

File storage

Download of only changed files

http/https

- New file versions
- New versions of libraries
- Resource files

Resuming download files when connection is broken

Segment 1 Main

Segment 2 Experimental

Segment 3 Main
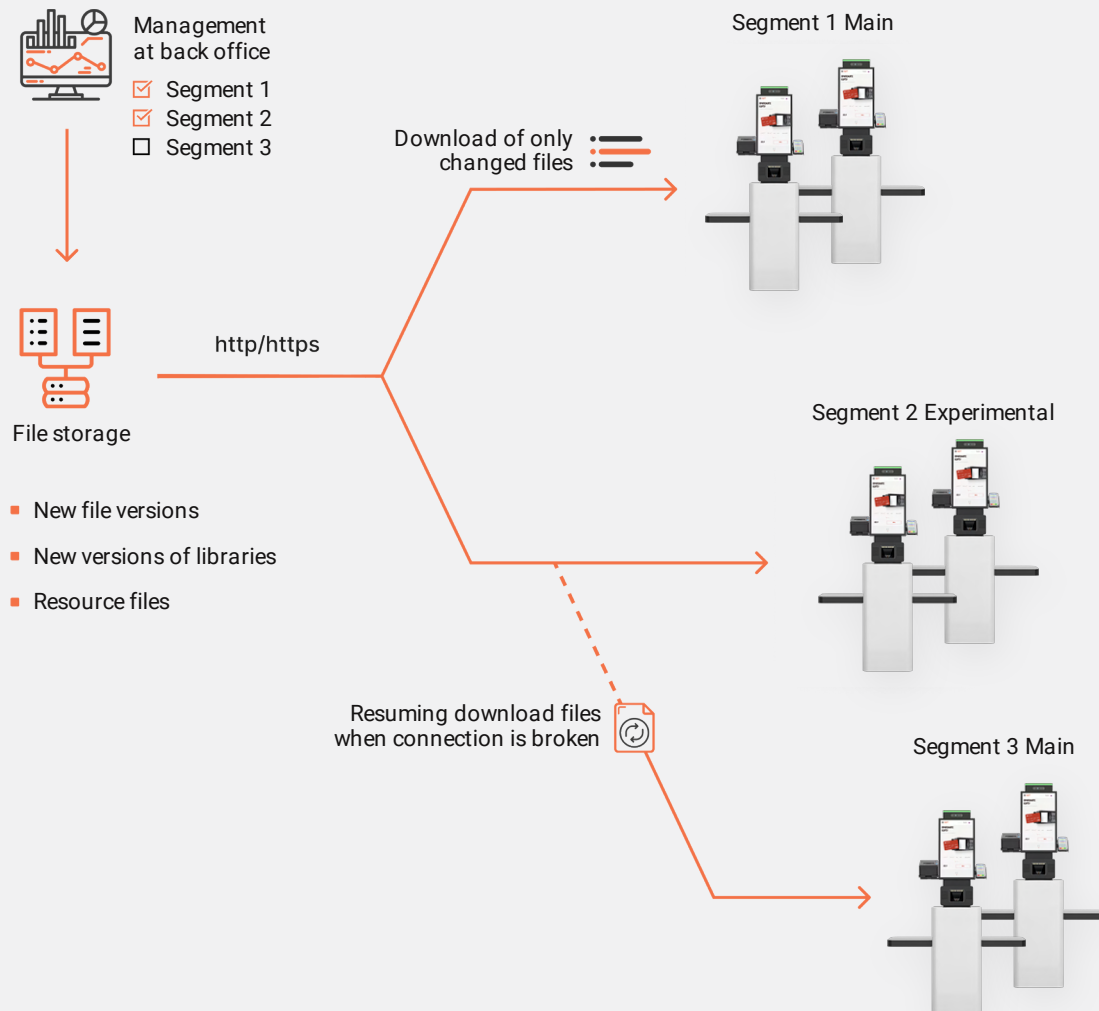
Thanks to the built-in remote update system based on a single centralized repository, new software versions are promptly delivered to self-checkouts according to the conditions specified in the system's back office.

It is possible to run different versions on selected device segments and test experimental functionality before deploying it to all network segments.

Supported hardware

Online cash registers

- Shtrih-M
- Paykiosk
- Terminal-FA
- UMKA

POS terminals

- UPOS (Сбер)
- ARCUS 2
- INPAS DC
- UCS

Barcode scanners

Toppers

Trading scales

Bill acceptors, coin acceptors, thermal printers

Support for other online cash registers and POS terminals can be provided at request.

Supported OS

Smartix self-checkout software works both under Windows OS and Linux OS. Linux OS is completely free and does not require purchase of antivirus or firewall, which is extremely promising for large networks.

Linux distributions are Fedora and Ubuntu.

Ubuntu is a priority if it is necessary to use software included in the Unified Register of Russian Computer Programs and Databases.
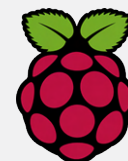
Smartix software supports Raspberry Pi and Orange Pi microcomputers.

Significantly reduces the final cost of self-service devices, while retaining all the functionality.

Deployment scheme

SMARTIX

Closed network/VPN

Office periphery

Shop 1	Shop 2	Management
Self-checkouts	Self-checkouts	System management · Administrators

1. https://backoffice.company.com/
2. https://api.company.com/

③ ② ①

Point of entry https :443

NGINX

upstream 2   upstream 1

REST service for kiosks http :8001

Back office http :8000

System process

PostgreSQL 13x pg :5432

Data replication

PostgreSQL 13x

Server periphery

Scheme symbol

Duplicate services allowed	Data replication	http :8080 Listening port	Ability of entire system to work inside closed VPN

Kiosk software architecture

SMARTIX

Web application framework

Multimedia
Webcam | Microphone | Speakers

Business applications
Self-checkout module | Price-checker module | External sites module | Coffee machine control module

Smartix Kiosk API

Web application core

System API
Payment API
Advertising API
System console API

Getting data

Directories

SmartixD background process

Asynchronous loading and directories update

Smartix Updater

Smartix Server API

Implementation of work logic

Operability monitoring

Kiosk hardware
Devices for payment by banking cards | Fiscalization services | Devices for work with cash | Devices for automated entering details | Printing devices | RFID readers

Smartix update server

Smartix server

Remote control

SmartixD background process is an application written in Java and running JRE 11 and above.

Smartix payment kiosk interface is a web application running inside the Electron framework version 14 and higher

SMARTIX

Technologies

The solution was developed using only free technologies, which means that it does not require the purchase of third-party licenses, Linux OS can be used as a basis.

Launch of Smartix self-checkout software does not involve any additional payments, except for purchasing a license for network of devices and paying for commissioning.

- DBMS - PostgreSQL version 14 and higher
- Message broker - ActiveMQ
- Back office - Spring/SpringBoot
- Rest-service for work of self-checkouts - Spring/SpringBoot
- Background system process (Daemon) - Java
- Front-end server - Nginx
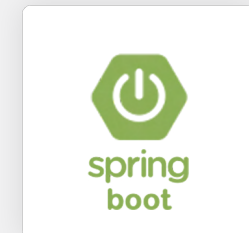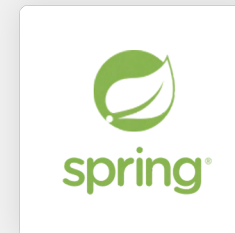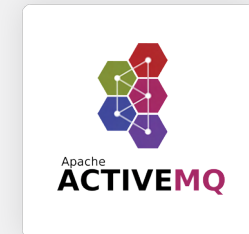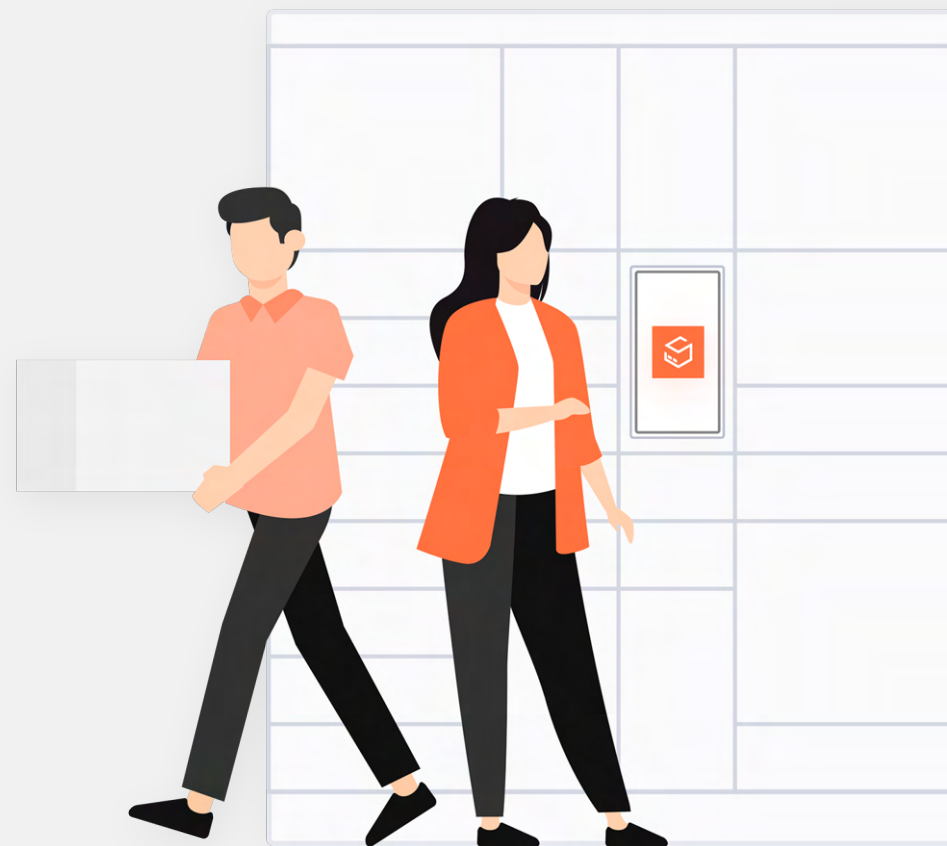
Smartix parcel lockers

One of our comprehensive solutions is Smartix parcel lockers system, which includes specialized software and various locker models.

We are ready to offer retailer the launch of a click&collect system, implementation of services for collecting online orders by employees and dispensing them to customers through parcel lockers.
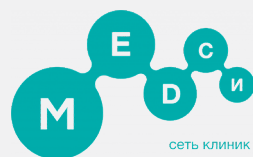
Smartix parcel lockers software is one of the most functional on the market. The solution is chosen by leading e-commerce participants in various product areas, which confirms the quality of software and the availability of relevant competencies among our specialists.

Яндекс 🌀 Маркет

The largest project using Smartix parcel lockers software is case of implementing 3500+ lockers for Yandex.Market with a daily audience of 4 million users.

Our clients

SMARTIX

SMARTIX

656006, Barnaul,
Malakhova st. 146V, 2nd floor

https://smart-retail.app/

+7 (3852) 72-27-27

hello@smartix.pro

We are ready
for implementation of
projects of any complexity!