



## SELECTED PROJECTS

AUTOMATIC FARE COLLECTION, LOCAL PAYMENT AND ACCESS CONTROL SYSTEMS



#### **About Company**

LOT Group of Companies is a well-established Eastern-European engineering and software development vendor, delivering Automatic Fare Collection (AFC) and access control systems and products to customers in a score of countries across the globe. The company has in possession its own powerful manufacturing and software development facilities to design, develop and implement even the most technologically challenging systems and projects.

LOT Group's uniquely favorable location in the Ukrainian city of Kharkov, one of Europe's premier software outsourcing hubs and a major industrial center, helps us stay competitive, both technologically and economically, at all times. Whenever required, we can source and employ eminently qualified human resources, including seasoned engineers, designers, software development engineers and other professionals.

Since Kharkov also boasts a top-notch metro system, that has been in operation since August, 1975, and has since been continually expanded, we have ample access to a wealth of invaluable industry expertise and experience, while also having the benefit of being able to employ some of the Metro Rail industry's veteran professionals.

LOT Group's proprietary AFC systems are installed in the metros of Kharkov (Ukraine), Baku (Azerbaijan) and the capital of another country, as well as part of the Urban Electric Train system in the Ukrainian capital of Kiev.

The number of the company's access control hardware installations and other projects implementation exceeds 1000. Our most popular access control hardware models are certified in accordance with the European directives, while our production cycle on the whole is certified to the highest international standard (ISO 9001:2008).

#### **Distribution Partners**





# Implementation of Automatic Access Control and Payment Systems at Suburban Train Stations of Odessa, Lviv and Sevastopol (Ukraine)

During 2002-2004, LOT Group of Companies implemented a number of projects associated with the development and installation of automated control and payment systems at suburban trains' stations in the major Ukrainian cities of Sevastopol, Odessa and Lviv.

Prior to the projects' implementation, the platforms could be accessed freely, and the fare was collected on the trains by a control service team. The above system was highly inefficient, as it did not prevent usage of counterfeit tickets. Keeping clear records of the passenger flow and welfare beneficiaries was also impossible. That is why Ukraine's Railroad Administration made a decision to implement an automatic access and payment control system.

LOT Group of Companies developed and implemented Malva software system that control access to the platforms, and collect payment for accessing them. In addition, the company installed all the required access control equipment of LOT Group's own production.

A passenger can pass through a turnstile to reach the platform using a bar-coded ticket. The vending of tickets is handled by the Malva software. In addition to controlling the passenger flow, the system's access control equipment also collects detailed statistics that are then retrieved and made available for viewing by the Malva system.





## **Sevastopol Project**

LOT Group of Companies equipped two entry points and installed the following equipment:

- The operator's room at the platform 1
- Tripod turnstiles 6
- Gates for passengers with disabilities 2
- Data collection and control units for turnstiles 8
- Station servers 1
- Data networks 1
- Central servers 1
- The administrator's workstations 1
- Workstations for working with financial statements 1

The payment media used are the MIFARE® card, and a bar-coded ticket.



- Industrial Pcs in thermally stabilized containers are used as a control module.
- The platforms are located just 70 meters away from the Black Sea shore.
- The hardware is applicable outdoor. The ambient temperatures range is from -35° C in the winter, to +65° C in the summer.

#### Project Budget: EUR 126 000

Despite the trying weather conditions, maritime climate and heavy passenger flow, LOT Group's equipment has once again proved its fine quality, robustness and reliability. The access control and payment collection system installed by the company in Sevastopol has been successfully operating for over a decade now.





## **Odessa Project**

LOT Group of Companies installed equipment of its own manufacture at three suburban trains' stations, including the following:

- The operator's room at the platform 3
- Tripod turnstiles 15
- Gates for passengers with disabilities 3
- Operated gates for the admission of local transport 3
- Data collection and control units for turnstiles 18
- Station servers 3
- The operator's workstation at the platform 3
- Data networks 1
- Central servers 1
- The Administrator's workstations 1
- The workstations for working with financial statements 1



The payment media used by the system include the MIFARE® card and bar-coded tickets.

## The Project's Features:

- Installation of LOT Group's industrial controllers as a control module.
- The hardware is applicable outdoor. The ambient temperatures range is from -35° C in the winter, to +65° C in the summer.
- Dynamic management of the passenger flow's direction.

## Project budget: EUR 640 000

Further to improving the stations' operational management significantly, implementation of the system improved its economic performance by eliminating unauthorized travel.





## **Lvov Project**

LOT Group of Companies installed equipment of its own manufacture at three suburban trains' platforms, including:

- The operator's room at the platform 3
- Tripod turnstiles 12
- Gates for passengers with disabilities 3
- Data collection and control units for turnstiles 15
- Station servers 3
- The operator's workstation at the platform 3
- Data networks 1
- Central servers 1
- The Administrator's workstations 1
- The workstations for working with financial statements 1



The system had proven its highly efficiency already within several months after launch. As well as providing a clear view of the passenger flow, it improved the client's economic performance and the level of customer care.

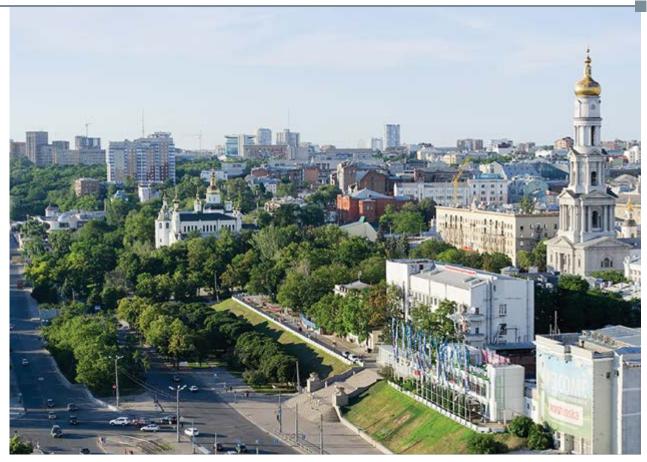
## The Project's Features:

- The hardware is applicable outdoor. The ambient temperatures range is from -40° C in the winter, to +40° C in the summer.
- The system was upgraded in 2012, its electronic components were replaced with more efficient ones.

## Project Budget: EUR 423 000

The series of projects for suburban trains' stations, implemented by LOT Group in 2002-2012, has proven that the company's access control hardware is the great choice not only for public transport facilities with intensive passenger flows, but also for outdoor installations in greatly varying and rugged climatic conditions.





## Installation of Tripod Turnstiles with a Voice Prompt Function at Botanical Garden and 23d of August Stations of the Kharkov metro

To continue LOT Group's fruitful cooperation with the Kharkov Underground, in 2005 the company was contracted to install access control hardware at two more stations of the Kharkov metro. As a result, 47 unique tripod turnstiles with a voice prompt function were installed by the company at the newly inaugurated stations Botanical Garden and 23d of August.

The turnstiles were seamlessly integrated into the existing fare collection system. They were equipped with readers for smart cards and optical coded tokens. in addition, all turnstiles were fitted out with a voice guide unit.



- A brushless drive gear.
- A capability to block the tripod in any position.

## Project Budget: EUR 270 000

The installed equipment has been successfully operating since its launch in 2005. Over this time, the turnstiles have proven their excellent quality and robustness, and have won the customer's praise. All hardware implemented at new stations of Kharkov Underground was integrated with existing automatic fare collection system.







## Implementing an Automatic Fare Collection System in the Metro of Baku, Azerbaijan

The Azerbaijani capital of Baku is a vibrant and rapidly growing megalopolis. Stretching along the Caspian coastline for more than 20 kilometers, the city occupies a territory of 150 square kilometers, and has a population of more than 2.1 million (2012). The first part of the city's metro system was inaugurated in the fall of 1967, and has since grown to include 23 stations with a total of 39 entrance halls. The overall length of the Baku metro's tunnels is 91 km. One more line of the Baku metro is expected to be put in operation in 2015.

The Baku metro conveys some 182 million passengers per year (2011).

Initially, LOT Group implemented its AFC system at 23 stations of the Baku metro in 2005-2007. the implementation effort included development of the system software, manufacture of the required hardware and system integration.

MIFARE® contactless card is used as the system's main payment medium. The system supports reloading of those bank cards that can be used to pay the fare. A special software module is implemented to link VISA credit cards to the Metro's cards to enable non-cash payment of the fare. It is also possible to pay the fare using a mobile phone or SMS.



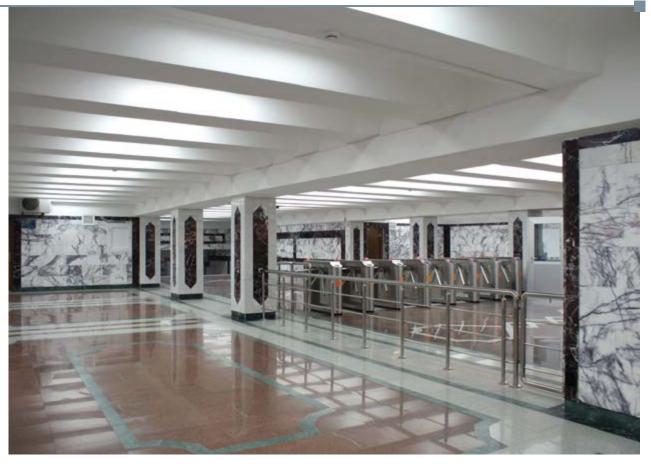
The system's current configuration comprises the following:

- 296 tripod turnstiles at the entrances to the stations' platforms.
- 9 specialized turnstiles at the exits.
- 52 POS-terminals at the box offices.
- 23 station servers.
- A central server node.
- 154 card-vending machines.
- An optical communication network.

The number of MIFARE® cards currently in circulation is around 3.2 million, the overall amount of investment in those exceeding EUR 3 million.

The current passenger flow through the system constitutes 800 000 -1 000 000 passengers a day. The system is capable of processing up to 1 500 000 transactions per day.





- The system allows controlling passengers' exit from the stations. This enables implementing a progressive distance-based fare payment model.
- From the outset, the LOT-delivered AFC solution was designed as a highly customizable, multi-module system that allowed its extension with other types of public transport, such as bus lines, streetcars, trolleybuses, funiculars and suburban electric trains. This became a reality in 2011, and now the system's payment card can be used for fare collection in several other types of Baku's public transport, integrated with the system.

#### Project Budget: EUR 10 286 000

LOT Group's AFC system has been successfully operating in the Baku metro since 2007, and has since been extended to include five more newly opened stations.

In accordance with the Azerbaijani Government's 20-year Metro Rail Development Program, by 2030, the number of the Baku metro's station should reach 76.



LOT Group and the Baku metro are committed to continue their fruitful cooperation, and LOT Group's AFC system will be extended to include the stations that will be put in operation in the future. As the next step, new-generation Cayman turnstiles have been supplied to the Baku metro's two new stations.

Aside from its AFC system, LOT Group of Companies has also implemented in the Baku metro two more proprietary systems: a unified precision timing (UPT) system, and powerful, centralized train dispatch and control system. In 2013, LOT Group of Companies equipped the Baku metro's Central Dispatch Office.

Implementing LOT Group's powerful and sophisticated systems has significantly improved the customer's economic performance, rendering their metro system much more profitable. Unauthorized access to the stations of the Baku metro has been almost completely eliminated. The Metro's traffic flow has been greatly optimized, and the quality of the customer service has been significantly improved.





## Implementing an Automatic Fare Collection System in the Metro of a Nation's Capital

The metro system of the 1.1 million-strong capital of the country, where the customer is based, comprises 10 stations, while the overall length of its lines constitutes 11.2 km. The metro system conveys some 21 million passengers per year. It is the city's main type of the public transport.

Before 2008, the metro's fare collection system was based on antiquated flap gates and metal tokens. The system was highly unreliable because of the simplicity of its security elements. The city's Administration decided to implement a modern and efficient system to rule out unauthorized travel.

The comprehensive AFC system implemented by LOT Group in 2008 is capable of processing up to 100 000 transactions per day. The system's implementation included manufacturing and installing custom-designed tripod turnstiles.

MIFARE® contactless cards and optical coded tokens are used as the system's payment media. The system is currently installed at 10 stations, serving 80 000-120 000 passengers per day.



- Building the whole of the required data network.
- Specialized swing gates are installed for passengers with disabilities.

## Project Budget: EUR 1 270 000

Implementing the project helps the customer to achieve the following results:

- Near-total elimination of unauthorized passage.
- Improved safety at the stations.
- Efficient control over the traffic flow.
- An optimized train schedule.
- A significant increase in the Metro's revenue and profitability.

The implemented system supports generating a variety of reports, thus facilitating greatly traffic management, diagnostics and control.





## Pilot Automatic Fare Collection Project for the Ground Transport of Tashkent, Uzbekistan

The high levels of fare evasion in Tashkent's public transport caused Uzbekistan's Ministry of Transport to consider creating a completely closed payment system based on contactless payment media.

LOT Group was approached to develop a pilot project for the AFC system to be delivered. The system is supposed to enable control over payment of the fare and access to the vehicle, while also being able to generate reports on the passenger flow.

LOT Group developed the software for the system, and custom-designed and manufactured the required access control hardware (tripod turnstiles) and validation equipment. A single processing center was created to aggregate and process all incoming operational data, including the data related to cards' purchase and reloading of card accounts, purchase of single-trip payment media, made transactions, state of the system's hardware and so on.

Paper tickets with unique details printed on them can be used for fare payment control on board a vehicle. The payment details printed on the ticket include the time and place that the payment transaction was made.



- Robust vandal-proof equipment, made of 2.5 mm stainless steel.
- The turnstiles are installed at all doors of a vehicle. A vehicle can be entered through the front door only, and exit is available through any other door.

## Project Budget: EUR 260 000

The project, implemented pilot LOT Group, has amply shown that the amount of fare collected by the customer can be increased dramatically. Currently, the parties negotiate on the implementation of a full-blown AFC solution for Tashkent's public transport system.







## **Automatic Fare Collection and Passenger Record-Keeping** System at the Kiev Funicular, Ukraine

In 2011, LOT Group was engaged in the replacement of an outdated fare collection system at the upper and lower stations of the Kiev Funicular.

The project's main objective was to automate the Funicular's financial record-keeping and control, as well as to improve its economic performance.

LOT Group developed and implemented an AFC system in accordance with the customer's requirements. Smart tokens were selected as a payment means for a single trip, while MIFARE® contactless electronic card was chosen as a payment medium for multiple trips.

The delivered solution provided the software and hardware complex required to enable the system's efficient operation, including:

- Automatic checkpoints (three turnstiles at the upper station and three more turnstiles at the lower one).
- Central server software.
- Automatic token calculation and reactivation machines.
- The Administrator's workstation with the required software installed on it.



The system's daily passenger flow is currently around 6000 visitors per day.

The Kiev Funicular is one of the city's well-known attractions. Due to this, one of the customer's major project requirements was delivering stylishly designed access control equipment.

To better fill the customer's needs, LOT Group designed and manufactured a custom turnstile model specifically for this project.

#### Project Budget: EUR 86 000

LOT Group's Automatic Fare Collection system has been in operation for several years now. The system has proven to be highly efficient and robust. Within the first two months of the system's operation, the Funicular's revenue collection had almost doubled. Such result was achieved due to the application of a flexible tariff management system and multiple ticket types, elimination of unauthorized passage and usage of forged documents for privileged passengers and reduction of the maintenance costs.

Implementing the system has allowed the customer to automate the customer's financial and statistical record-keeping data collection, including welfare recipients' statistics. The overall quality of the passenger service has also been significantly improved.





## **Automatic Fare Collection and Passenger Record-Keeping** System for the Urban Electric Train of Kiev, Ukraine

In 2011, LOT Group was engaged in development and implementation of Automatic Fare Collection, passenger record-keeping and access control system at several stations of Kiev's Urban Electric Train. In accordance with the customer's requirements, LOT Group developed an automatic system that was seamlessly integrated into the city's existing fare collection system. This allowed using the system's electronic tickets and cards for some of the other types of Kiev's public transport, for example, the Kiev Light Rail.

The system allows using a range of payment media, including:

- Bar-coded paper tickets.
- MIFARE® contactless electronic cards.
- Smart tokens (with the printing of a receipt).
- Pre-printed thermal paper tickets with the recognition system.

It was the customer's strict requirement that the system should be developed and implemented within a timeframe of 2.5 months, which made the project unique. Owing to our developers and engineers' broad expertise and experience, as well as to LOT Group's own production facilities, the project team was able to perform a range of system implementation tasks much faster than usual. As a result, the system was implemented within the shortest possible time at 11 stations.

The implementation effort included the following:

Software development in accordance with the customer's requirements.



- Supply and installation of 28 cashier workstations, as well as several more workstations for the platform officer, administrator and for financial reporting, etc.
- Installation of data network that comprised 14 stations servers and a central server. Equipping the platform officer's room.
- Manufacture and installation of 86 custom-designed turnstiles, 24 gates for disabled passengers, and 6 token reactivation machines.

- Minimum possible time-to-market: from 20.08.2011 till 30.10.2011.
- Two types of turnstiles: tripods and gates for disabled passengers.
- Temperature range from -40° C to +60° C.
- The system operated smoothly during two abnormally severe winters (2011 and 2012), when the temperature in Kiev went down to -36° C.

## Project budget: EUR 2 770 000

The system installed at 11 stations of the Kiev Urban Electric Train has been in operation since October, 2011. The system's robustness and efficiency have been tested by both the severe weather conditions and an impressive number of passengers. It has provided a convenient way of paying the fare, and the ability to control the payment process. In addition, unauthorized passage and usage of forged travel documents have been completely eliminated. The system provides functionality for keeping records on welfare recipients, preferential tariffs' management, and generation of financial, statistical, and analytical reports.





# Implementing an Automatic Fare Collection System for the Ground Public Transport of Kiev, Ukraine

In 2011, LOT Group was approached to implement an AFC system for the bus lines of Kiev's municipal transport operator Kievpastrans. The project was planned as the first stage of the city's public transport's transition to a centralized fare payment system that would use a single means of payment.

Currently, there are more than 200 buses operated by Kievpasstrans and equipped with electronic ticket validators.

The delivered AFC system was designed to automate the control and record-keeping of regular passengers and welfare recipients in Kiev's public transport. It was allowed automating and expanding the customer's existing capabilities for the monitoring, recording and analysis of payment data.

A passenger pays the fare after boarding a vehicle. As payment media, MIFARE® contactless electronic cards and pre-printed thermal paper tickets are used. The buses are fitted out with LOT Group's equipment set that consists of three electronic validators, and an on-board computer, connected to the central database. A payment is confirmed by a transaction that is stored on the card, or by the validator-printed mark on thermal ticket. The mark contains information on the route, number, and date and time that the payment was made.



- A recognition mechanism to verify whether the ticket is valid.
- Protection against re-validation.
- Pre-printed thermal tickets.
- effectively The system operates at extremely low temperatures. In particular, in the winter of 2012, the temperature in Kiev reached -28° C.

## Project Budget: EUR 460 000

LOT Group's AFC system was designed to, and has succeeded in achieving the following results:

- 15% increase of the customer's fare collection.
- Prevention of unauthorized passage.

- Compensation for the conveyance of welfare recipients in strict accordance with their actual number.
- A reduction in the budget subsidies for the public transport's maintenance.
- Optimization of the public transport's schedules, in accordance with the actual passenger flows.
- A decrease in the load on the public transit system due to the optimized use of the available vehicles.

LOT Group's AFC system has been successfully operating ever since its installation.

Implementing the system has eliminated unauthorized passage, and allowed the customer to control and regulate their traffic flows while also optimizing their bus schedules. Importantly, the system's implementation has also made possible Kiev public transport's transition to a unified fare collection system.





## Implementing an Automatic Fare Collection System in the Metro of Kharkov, Ukraine

Ukraine's erstwhile capital and second largest city of Kharkov is a bustling 1.5 millionstrong megapolis that boasts a first-grade metro system. The system's three lines have a total of 29 stations. Within 24 hours, the Kharkov Metro conveys some 653 000 passengers, its annual passenger load exceeding 239.2 million people (2012).

LOT Group was approached by the City Administration of Kharkov to replace the Kharkov metro's highly inefficient legacy AFC system that was based on contactless cards and optical tokens. With a view to cutting down on the high expenses associated with the production and processing of optical tokens, it was planned to switch to the much more cost-effective bar-coded tickets. Another reason for the replacement of the Metro's legacy fare collection system was the necessity to introduce a single means of payment for all the modes of Kharkov's public transport, as according to the Ukrainian Law it must be possible to pay for transportation services without having to pay the cost of the payment media.

LOT Group delivered the system to the Kharkov metropoliten in 2012. The system is now installed at its 29 stations with a passenger flow of 700 000 -800 000 passengers per day.



The AFC system implemented by LOT Group in the Kharkov metro is capable of processing up to 400 000 transactions per day. The implementation effort included the following:

- Major modernization of 432 turnstiles.
- Manufacture and installation of 117 automatic ticket-vending machines.
- Manufacture and installation of 30 automatic card-vending machines.
- Installation of 29 station servers.

#### Project Budget: EUR 2 081 000

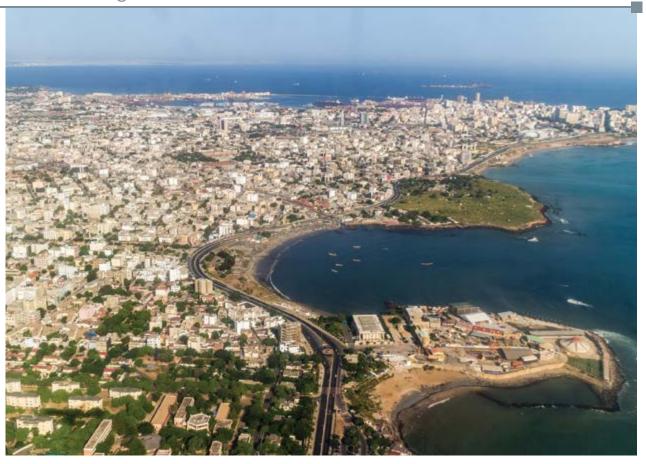
Implementing the system has allowed the customer to dramatically reduce their expenses, and resulted in a significant increase in the number of passengers who use contactless cards (from 23 to 75%). This has facilitated greatly the implementation of a unified fare collection system for the whole of Kharkov's public transit system.

It is planned that the system will be further expanded to encompass the 11 new stations of The Kharkov metro that are to be built in the city by 2031.

In addition to its AFC system, LOT Group has also delivered to the Kharkov metropoliten a proprietary time synchronization system (CET), and a range of proprietary automatic speed control devices.

Currently, we are equipping the customer's rolling stock with a voice information and reporting system, and a door-opening alarm system.





## Implementing a Pilot Automatic Fare Collection Project for the Ground Public Transport of Dakar, Senegal

Senegal's capital Dakar has a population of more than 4 million inhabitants. Buses are the city's only type of public transport. In early 2013, a State-owned Dakar-based company and one of the country's main transport operators, approached LOT Group to implement a pilot Automatic Fare Collection project. The project was aimed to test the system in Senegal's harsh climatic conditions (high temperatures, dust, high vibration, caused by the poor quality of the roads and high humidity).

To implement the project, LOT Group installed system equipment of its own production on several of the customer's buses. Each bus was equipped with the set of two validators and an on-board computer, connected to the central database.

In addition, we also supplied several card-vending and token-reactivation machines and a POS-terminal.

Fare control is performed by a controller using a portable terminal. MIFARE® contactless cards and MIFARE® smart tokens are used as the payment media.



- Validators are equipped with a touchscreen TFT display that allows selecting a travel area.
- The equipment is used in extremely harsh climatic conditions (+50°C, high humidity, dust and high vibration).

## Project Budget: EUR 32 000

The project has enabled the potential customer to gauge the effectiveness of an AFC system's possible implementation in Senegal. Currently, the implementation of a fullscaled AFC project is under discussion.





## Implementing an Automatic Fare Collection System for Streetcar Lines of Dnepropetrovsk, Ukraine

In 2013, LOT Group was engaged to install an AFC system on 36 street cars in Dnepropetrovsk, one of Ukraine's industrial giants with a population of more than 1 million. The project has been regarded as the initial stage of the city's ground transport's transition to a centralized public payment system that will use a single means of payment.

The implemented system has allowed expanding the customer's existing payment data monitoring, recording and analysis capabilities. A passenger pays the fare after boarding a vehicle. As the payment media, MIFARE® contactless electronic cards and pre-printed thermal paper tickets are used.



The streetcars are fitted out with LOT Group's equipment set that consists of three validators, and an on-board computer, connected to the central database. A payment is confirmed by a transaction that is stored on the passenger's card, or by a validatorprinted mark on thermal ticket. The mark contains information on the route, number, and date and time that the payment was made mark on thermal ticket.

## Project Budget: EUR 120 000

LOT Group's AFC system was put into operation in November, 2013, and has already been able to prove its efficiency: non-payment has been eradicated almost entirely. As a result, LOT Group has recently been contracted to extend the installed system to the other modes of Dnepropetrovsk's ground transport.







## The Pilot Project of Access Control System in the Buses of Tabriz, Iran

Tabriz is a big city with a population of 1.4 million people, the administrative center of the Iranian province of East Azerbaijan. This city is also the second most important manufacturing and industrial center of Iran. In Tabriz is located a bus-making factory -Akia, a leading manufacturer of buses in Iran. Currently, a non-cash fare collection system is actively developing in transport of Iran, so all Akia buses are designed to meet these requirements, all vehicles are equipped with contactless MIFARE® card validators. However, the operation of the system revealed high percentage of unpaid transport fare for there is no effective control of fare payment. LOT Group suggested a solution of this problem to Akia's management: to install transport turnstiles at the bus entrances.

As the resolution, a pilot project was launched to study the efficiency of controlled access to the bus. In addition, the project was intended to confirm smooth operation in harsh conditions of Iran: high temperatures, high level of dust and high dense of passenger flow.

As pilot project implementation, three LOT Group's TurnPort turnstiles were installed in Akia bus. Turnstiles are connected directly to the validators and authorize a passage into the passenger compartment only after the confirmation of travel fare payment.



## **Project features:**

- Turnstiles are open for free exit through both doors of the bus.
- The project takes into account Muslim country demands and there are different entrances provided for men and women separately.
- Turnstiles were connected and integrated with a third-party validators.

## Project budget: 7 000 Euro

The installed equipment has been proven its operation on one of the most difficult Tabriz routes and showed excellent results. Customer's management was fully satisfied with the tests results and with significant increase of revenue in particular, by eliminating ticketless travel. Currently, the negotiations are held on the installation of LOT Group's turnstiles in every Tabriz bus, and in the long term it is planned to equip all Akia buses with our hardware.

## **Automated Access Control Systems**



Access control system (ACS) projects delivered by LOT Group proved their faultless operation and work successfully at a variety of facilities and sites: plants and factories, manufacturing enterprises and office premises, state institutions, banks and so forth. Moreover, our products have been installed in a variety of recreation centres intended for leisure purposes and hosting different cultural and sports events.

#### Plants, Factories, Office Premises, Amusement and Sports Facilities

- Ukrainian-Canadian JE Donbass-Liberty, Khartsyzsk, Donetsk region
- CJSC Perevalskyi Meat Packers, Perevalsk, Lugansk region
- SE Adkom-Ukraine, Kharkiv
- Aquaisol plant, Podvorky, Kharkiv region
- SE Ivchenko-Progress, Zaporizhzhya
- Avdeevskyi Coke Plant, Avdeevka, Donetsk region
- Specialized Research and Manufacturing Association Impulse, Severodonetsk, Lugansk region
- PO Vatek, Kiev
- OJSC Balakleya Cement Factory, Balakleya, Kharkiv region
- Dnipropetrovsk
  Railway Switch Plant,
  Dniepropetrovsk
- Poltava Turbomechanical Plant, Poltava
- LLC Pharmaceutical Plant Zdorovye, Kharkiv
- OJSC Yenakievskyi Metallurgical Plant, lenakievo, Donetsk region
- CJSC Geya, Kharkiv
- SE Donetsk Region Water Canal, Donetsk
- LLC Vorskla, Poltava
- SE Ukrspetsvagon, Panyutino, Kharkiv region
- OJSC Shlifverst, Lubny, Poltava region
- Pervomaisk Garment Factory, Pervomajsk,

- Nikolaev region
- OJSC Kharkiv Institute Energoproject, Kharkiv
- Poltava Gas Discharge Lamp Plant, Kharkiv
- Corporation Electroyuzhmontazh, Kharkiv
- Kharkiv Ball-bearing Plant, Kharkiv
- OJSC Mirgorod Mineral Waters Plant, Mirgorod
- Southern mining and Concentration Complex, Krivoj rog
- CorporationElectroyuzhmontazh
- OJSC Donbassebergo, Slaviansk Thermal Electric Power Station, Nikolaievka
- LLC Energoprom, Dnipropetrovsk
- PPF Concern Niko, Dnipropetrovsk
- LLC Speckran, Kharkiv
- OJSC Chuguev
  Fuel Equipment
  Plant, Chuguev
- OJSC Ternopol Radio Plant Orion, Ternopol
- OJSC Galakton, Kiev
- OJSC Turboatom, Kharkiv
- OJSC Akhtyrka-Neftegaz, Akhtyrka
- PE Aquamarin, Kharkiv
- CJSC Dneproshina, Dniepropetrovsk
- Khakriv Machine Building Plant Miner's light, Kharkiv
- Perechinskiy Wood Chemical Integrated Plant, Perechin
- OJSC Taifun-2000, Kharkiv
- CJSC Generator, Kiev
- OJSC Ekta-Prom, Zhitomyr
- OJSC Tandemplus, Kharkiv
- OJSC Chernomorskyy Shipyard

- OJSC Kargill
- OJSC Zolochev Food Concentrate Plant
- LLC Ukrainian Beer Company
- OJSC Khladoprom
- OJSC Karavanskyy Distilling Plant
- LLC Interglast
- OJSC Ajs-Zaporizhzhya
- OJSC Dnieprodzerdzhinskyy Auto Plant
- LLC Aquamarin (supermarkets Yusi)
- LLC Guard-Complex
- LLC Alicon-Market
- LLC Krok
- OJSC Volochyskyy Machine Building Plant
- OJSC Biol
- LLC Delicious
- LLC Vion
- OJSC Dneprokran
- OJSC Ukrenergochermet
- OJSC Dnieprometiz
- LLC Technoart
- LLC Tandem Plus
- LLC Zeves
- LLC Yaval-Ukraine
- LLC Agro-Trade
- OJSC ATE 2227
- OJSC Borshivskyy Distilling Plant
- LLC Folio plus
- LLC Vik-Tan
- OJSC Starobeshevskaya Thermal Electric Power Station
- OJSC Kiev Sanitary Ware Items
- OJSC Poltava Plant Electromotor
- Research and Production Complex Galichina
- OJSC Volchanskyy Oil Extraction Plant
- LLC Santa Ukraine
- LLC Skif
- LLC Monolit

- OJSC Radiorele
- LLC Artmotor
- LLC Khorol ceramics
- LLC Steelconstruction
- CJSC Income
- LLC Divx
- LLC

Teploelectroprojectsoyuz

- OJSC Ukrkhimtransammiak
- OJSC Zhytomir-polisaks
- OJSC

Pavlogradkhimmash

- LLC Stankingrom
- OJSC Automatgormash named after Antipenko
- LLC MKS Kharkiv
- LLC Transinvestservice
- LLC Agro-Darina
- LLC Vizard
- OJSC Energomash
- OJSC Kharkiv Alcoholic **Beverages Plant**
- OJSC Poltava Silica Glass Plant
- Perechenskyi LKhK, Perechni
- TAS Seguridad, Kindergarten, Guatemala
- TAS Seguridad, Bus Station, Guatemala
- TAS Seguridad, Jaguar Energy, Guatemala

- Green Center, Building sites, Czech Republic
- Aqua park Dream Town, Kiev, Ukraine

#### **Educational and Scientific Establishments**

- State Scientific Institute of Single Crystals, Kharkiv
- Kharkiv National Academy of Municipal Economy
- LLC Electrodynamics Institute
- Kharkiv University of Civil Defense
- SE Construction Bureau named after lychenko
- Yaroslav Mudryi National Law University, Kharkiv, Ukraine
- Poltava National Technical Yuri Kondratyuk University, Poltava, Ukraine
- Kharkiv National Medical University, Kharkiv, Ukraine

#### **Banks**

- CJSC Megabank, Kharkiv
- JS Bank Megabank

- JS Bank Faktorial
- OJSC Zemelnyi Bank

#### State Establishments

- Lugansk Oblast Procurator's Office
- Kharkiv Oblast Procurator's Office
- Poltava Oblast Procurator's Office
- MC Kharkiv Metro, Directorate

#### **Automated Parking Systems**

- Southern Railway Station, Kharkiv
- Macrocap Development Ukraine
- LLC Kharopttorg
- Kharkiv Central **Bus Station**
- OJSC Kharkiv Tractor Plant, Kharkiv
- CJSC Business Centre Leader-Class, Kharkiv
- LLC Yaval-System, Kharkiv
- LLC Variant
- OJSC Comfort, Kharkiv
- PG Target, Kharkiv

## **Local Payment Systems**

- Skiing resort Dragobrat, Yasenya village, Ivano-Frankovsk region, Ukraine
- Skiing resort Zveniv, Oryavchik village, Lviv region, Ukraine
- Skiing resort Magura, Pylypets village, Zakarpattia region, Ukraine
- Skiing resort Gimba, Pylypets village, Zakarpattia region, Ukraine
- Skiing resort Krasiya, Vyshka village, Zakarpattia region, Ukraine
- Skiing resort Yablonitsa, Yablunitsa village, Ivano-Frankivsk region, Ukraine
- Skiing resort Anger, Vysokyi town, Kharkiv region, Ukraine
- Skiing resort Satori, Migovo village, Chernivtsy region, Ukraine
- Skiing resort Extreme-Style, Kharkiv, Ukraine

- Skiing resort Kharkiv Switzerland, Kharkiv, Ukraine
- Skiing resort Karpaty, Slavske, Lviv region, Ukraine
- Skiing resort Varshava, Slavske, Lviv region, Ukraine
- Skiing resort Oktant, Volosyanka village, Lviv region, Ukraine
- Skiing resort Ibis, Pylypets village, Zakarpattia region, Ukraine
- Skiing resort Vyshgora, Vyshgorod town, Kiev region, Ukraine
- Skiing resort Oryavchik, Oryavchik village, Lviv region, Ukraine
- Kharkiv Central Park, Kharkiv, Ukraine
- Fitness centers network SportLife, several cities, Ukraine
- Dynamo Stadium named after Valeriy Lobanovskyi, Kiev, Ukraine



17, Blagoeva Lane, Kharkov, 61017, Ukraine tel.: +38 057 714 22 88 fax.: +38 057 714 22 99 e-mail: info@lotgate.com

www.lotgroup.eu