

## “ITProject” – RFID System Software Integrator and Provider

Tel.: +7 (495) 228-04-80 (multi-line)

Website: [www.itproject.ru](http://www.itproject.ru)

E-mail: [order@itproject.ru](mailto:order@itproject.ru)

## Vehicle Access Control and Traffic Monitoring RFID System

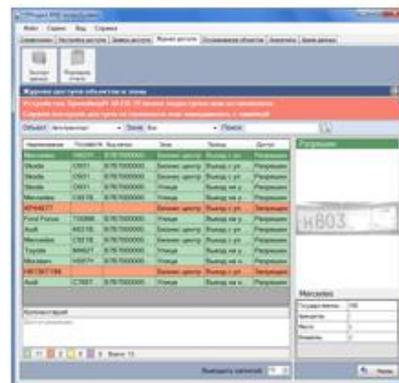
«ITProject RFID Server» Platform-Based  
+ Server and Client Modules

### ITProject RFID Server

Платформа для построения любых RFID-систем, управления и сбора данных со стационарных и мобильных RFID считывателей.

[www.rfidserver.com](http://www.rfidserver.com)

© АйТиПроект, 2014. Все права защищены.



- **EPC Global support;**
- **Simple control and automatic connection of RFID readers manufacturer by various companies;**
- **Integration with versatile accounting systems – 1C, SAP, Microsoft Navision and others.**
- **Supporting different databases – MS SQL, ORACLE.**

2015

## The best RFID-solution for transport tracking as to the version of «ID EXPERT» portal in 2015.

### Vehicle Access Control and Traffic Monitoring RFID-System

#### How to automate the vehicle movements, excluding the human factor?

In all places where there is a need to track the movements of motor vehicles, to monitor their access to a facility, or to estimate efficiency of the motor vehicle use, the issue of the *human factor* is pressing. It becomes one of the major problems in the course of automation, as it results in errors, delays and breakdowns, which mean losses.

The problem is urgent for *many enterprises, warehouses, cargo handling terminals, government bodies, transport companies and even for toll motorways* (as the effective motor vehicles control and cargo traffic management is the prime objective for them).

The problem can be dealt with by giving instructions to the staff, optimizing the traffic across the area by means of keeping sophisticated records... But all this does not resolve the problem, but only slightly reduces it. Moreover, what has to be done if there is a need to control the time of vehicles arrival, or, for example, instantly change the vehicle's access to a particular area? And how to provide for the uninterrupted entry and exit of the vehicles to/from a facility, at the same time minimizing the duration of stay at an entry check point? What should be done if the vehicle movement must be automatically registered at different points enroute?

«ITProject» invites you to use the RFID-system for vehicles access control and traffic monitoring - system based on the [«ITProject RFID Server»](#) platform.



The RFID (radio frequency identification) enables using radio waves for automatic identification of transport objects. For this purpose, special programmable tags are fixed on the objects (in our case — motor vehicles), which are identified by RFID-readers at a distance of 5–8 meters.

### What are the Benefits of an RFID System Use?

- 1** **Automatic tracking of transport movement.** System could not be cheated: it recognizes the label, even if the car is in 5-8 meters from the reader. So by looking into the database, you will immediately see all information about the car movement.
- 2** **There is no need to keep complicated paper records** to register the movements of motor vehicles: all the data are automatically stored in the database, and, using the special SW, the performance can be analyzed in an easy and informative manner.

3

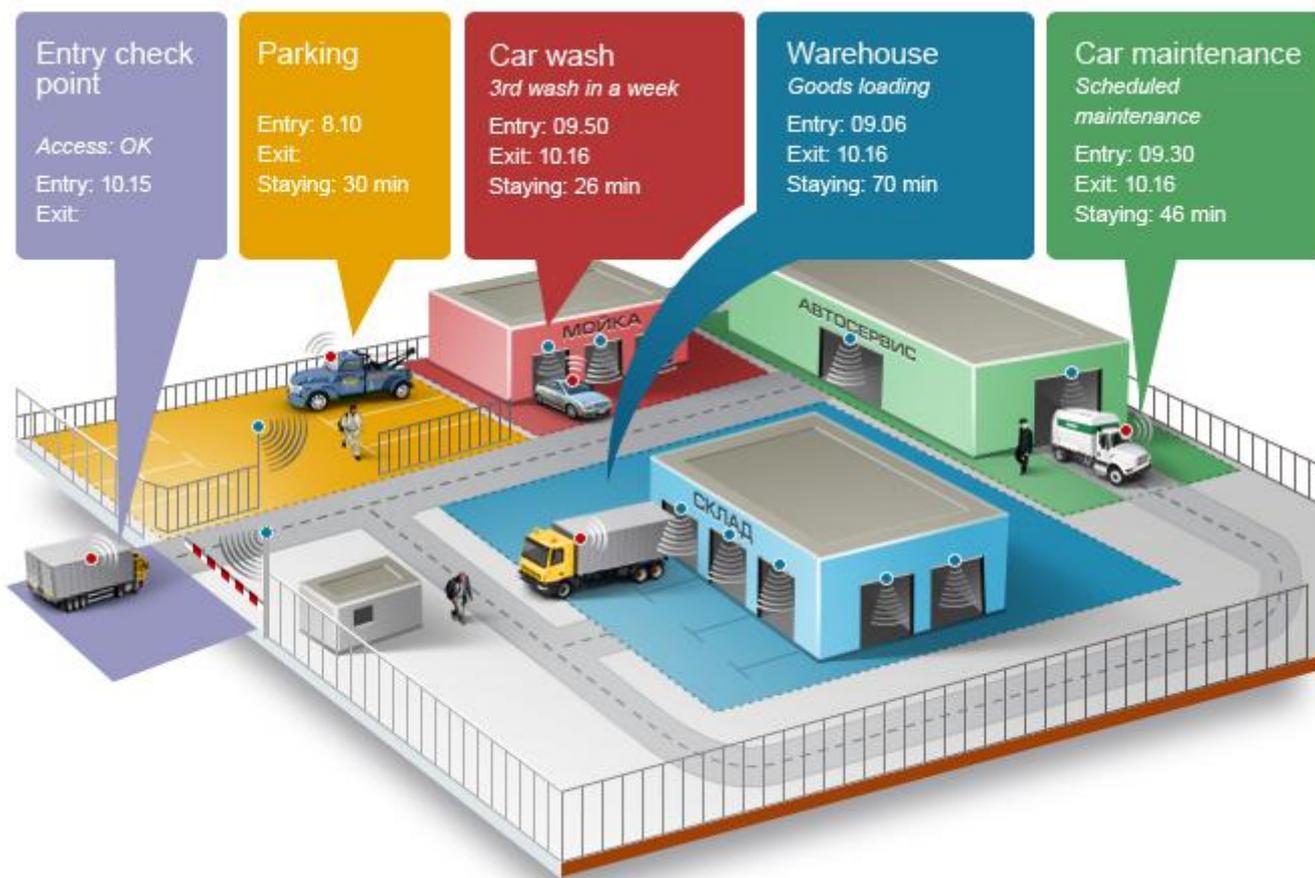
The role of the human factor and the errors related to it is diminished, the overall labor costs are reduced, as well as the staff number, required for the system servicing.

4

As a consequence of the system implementation, the risks, associated with unauthorized entry of motor vehicles to a facility, traffic blocks, disruptions of the motor traffic schedule etc. are reduced.

## The System Capabilities

The figure shows one of the ways to implement RFID systems to monitor the transport movement in the territory.



## The system enables:



logging events, such as the time of a motor vehicle entry, exit, stay in an area, for example, during cargo-handling operations at a warehouse.

- ✓ *controlling motor vehicle access to the territory*, or a specified area (e.g., for VIP cars only, for special motor vehicles).
- ✓ *to control the external devices* like barriers, automatic gates, traffic lights, electronic scoreboards, sensors, etc.
- ✓ *to track the transport movement* at the site, multilevel parking lot or at specified points on the route. At any given time, you'll know exactly where and what cars are on your site.
- ✓ *to form online-application*: on entry/leaving of guest transport on the territory of the enterprise or parking in the business centre.
- ✓ *to recognize the license plates of cars* at the entry/leaving on the territory of the enterprise or parking to ensure the extra control.
- ✓ *to control the traffic route* on the territory of the enterprise or when transport moving between the branches. The system captures every car movement, time spent in a particular point in the route, the time spent moving between checkpoints, the correctness of the movements of the car between the route points. In the case of any deviations from the route, the system alerts the operator.
- ✓ *to carry out the automatic weighing of the transport* for example, before loading and after loading, in case of discrepancies from the specified values to alert the operator of the system.
- ✓ *collecting useful statistical data* o about a motor vehicle performance within a specified time interval (average downtime during repair, parking time, number of loads/unloads per day\month\year, vehicle wash frequency etc.) for business process optimization.
- ✓ *responding to specified events in the system*, e.g., sending notification in case of non-conformance with the preset conditions, or starting video surveillance.
- ✓ *searching for a vehicle* within the territory of a facility or on a specified route.

## Where and how can the system be applied?

- ✓ *in enterprises* (to control entry \ leaving transport or time spent in different areas in the territory, to collect useful statistics for business processes optimization)
- ✓ *in parking, autoparks* (to control entry \ leaving transport, increase throughput by reducing car downtime associated with human factor)
- ✓ *in warehouses/logistics centres* (to control entry, time of stay, departure of vehicles from working loading zones)
- ✓ *in dealerships* (to control downtime for repair, time spent in the parking lot, frequency of car washing,

etc.)

- ✓ **on toll roads** (to speed up the transport accounting, which uses the road)
- ✓ **in transport companies** (transport registration on all points of the route will provide the receipt of the prompt information on the movement of loads)

## Completed RFID projects:



SP **BUSINESS CAR** owns the Russia's largest network of official dealerships in selling and providing maintenance of Toyota brand vehicles, selling of spare parts, accessories and paint materials. The company has more than 19 years of experience on the automotive repair and service market and is a leader in its field.



Office complex "**Balchug Plaza**"



General Directorate of the **Central Bank** of the Krasnodar Territory.

[Check out the other completed projects for the implementation of the RFID-system on enterprises ...](#)

## Economic Impact of RFID-System Implementation

- 1** Collection of useful statistical data will make it possible **to optimize business processes** and use motor vehicles in a more efficient manner.
- 2** Automation of the process leads to a **reduction in the number of** attendants. When implementing the project on the basis of standard business processes, reduction percentage may reach up to 30%
- 3** Monitoring a motor vehicle movements solves the problem of unauthorized access to areas.
- 4** **The capacity is increased** due to a motor vehicle downtime reduction.

## RFID-System Features



### Use of Ultra-High Frequency (UHF)

Within the range of 860–960 MHz enables identifying an object at a distance of about 7 meters. It is sufficient for remote reading of tags from the vehicles, and, at the same time, insufficient to read tags of other vehicles. *It is important for controlling a vehicle's access to a facility, as it eliminates the risk of unauthorized access* (if a vehicle approaching a facility has no access to it, and the one following it has such access, the larger coverage distance of the RFID-reader will make the gate open).



### Use of ITProject RFID Server Platform + server and client modules

ITProject's convenient box solution allows using any readers and antennas (even manufactured by different companies), and complete automation of the vehicles traffic control processes.

## Simple Integration with Different Accounting Systems

Integration with different customer's accounting systems (at the DB level or using the API library): 1C, SAP, Microsoft Navision etc.

## How to start?

Our phone number: **(495) 228-04-80**

If you believe that the use of this system based on RFID technology is suitable for the automation of individual processes of your company it will be better for you to discuss specific details with our experts.

We will consult, explain all the subtleties and nuances of the system implementation.

## P.S.

If you are concerned that the RFID-system implementation will require special training of the staff or that the system maintenance is complicated — you need not worry! We provide assistance to our clients in all complex issues of the system operation, including the staff training at the stage of introduction, and provide warranty servicing.

## P.P.S.

Would you like to get an extra year of the system warranty servicing? When talking to our managers, do not forget to mention that you learnt about the RFID-system from our website.