



## Microsoft solutions and technologies Customer Solution Case Study

### SMS4Parking solution created by PSC, based on Microsoft technology, has solved the problem of parking in Subotica and introduced municipal order

#### Overview

##### Country and Region

Subotica, Serbia

##### Industry

Municipal services

##### Customer Profile

PU "Parking" is in charge of regulating parking in Subotica. One of their assignments is to efficiently organize parking of about 35,000 registered vehicles in the central municipal area.

##### Business Situation

Unregulated parking places, as well as a large number of long-lasting parking complicated the parking problem in the central zone of Subotica.

##### Solution

The SMS4Parking solution created by PSC is designed for control and charging of parking, by regular and means of mobile communication services and SMS text messages.

"With the SMS4Parking System, Subotica today has municipal order. We have managed to practically redesign the city's outlook, and at least in terms of parking Subotica today is a truly European city."

Atila Kikić, General Manager, PU "Parking" Subotica

Public Utility company "Parking" from Subotica is in charge of organizing, charging and control of parking services in this town. In order to adequately solve the problem of crowded vehicles in the central city zone, as well as increase its profit, this company selected the PSC solution called SMS4Parking, which by using modern technologies such as mobile communications services and Microsoft.NET platform, solves the problem of charging and control of parking in an efficient and comfortable way. Users are offered maximum comfort, by paying for parking services via SMS text messages, and the city administration has solved an important municipal problem and improved the quality of life in Subotica.

##### Benefits

- Reduced time of waiting for an available parking place in the central city zone
- Municipal order improved; number of parking violations reduced
- Significantly increased income from parking charges (by 60%), which made ground for investments and further development of this municipal subsystem
- Improved citizens' satisfaction and comfort of living in the central city area, as finding an available parking space became a reality, not a nightmare
- The solution was implemented in record time, with minimal investment, and very quickly returned the invested resources
- The system can easily be expanded and adjusted according to users' needs.



“The company management and city authorities have recognized the previous system for parking control and charging as obsolete, and turned towards finding and introducing a more modern and efficient system.”

Atila Kikić, General Manager, PU "Parking"  
Subotica

## Company Overview

PU "Parking" is a public utility company dealing with the organization, charging and control of parking services in the city of Subotica. It was established in 1998 by the Subotica City Administration, with an idea to systematically solve the problem of parking in the central city area, and by organization of parking services and parking spaces help with introducing municipal order in this town. In the Subotica municipality there are about 35,000 registered vehicles, most of which are using the central city zone, with a tendency of long-lasting use of parking spaces.

A more significant company development has begun in 2001, after local municipalities were given back the authority to independently form prices of municipal services, parking services included. Owing to increased revenues, the company renewed its machinery and arranged about 400 parking spaces from own resources, which still wasn't enough to solve the parking problem in Subotica.

## Situation

The increase in the number of vehicles, the small number of arranged parking spaces, lots of indiscipline of the drivers (due to inadequate penal policy), as well as overcrowding of vehicles in the central city zone, have all led to municipal chaos in Subotica. "The company management and city authorities have recognized the previous system of control and charging as obsolete, and turned towards finding and introducing a more modern and efficient system," says Atila Kikić, General Manager of PU "Parking" Subotica. Numerous municipal problems and pressure from the citizens speeded up the process, so in the beginning of 2005 a contract was signed with PU "Parking servis" Belgrade, on creating a system of control and charging parking services, which was the first step toward finding a solution for this problem. In June 2005, when PU "Parking"

management started looking for a system of controlling and charging parking services, there was only one solution available in Serbia, based on technologies that would soon be surpassed by new ideas and solutions. The first calculations, in line with the initial design project, estimated very high costs of creating and implementing the solution, as well as a long period of time before the system would finally pay off, so a decision was made to wait for new possible solutions in Subotica.

Two new solutions appeared in the meantime. One, based on Microsoft technologies, created by Pakom Solution Centre (PSC) from Belgrade, and the other one, based on Open Source technologies, created for the needs of the city of Novi Sad. "Once we had the option of more than one solution, in the beginning of 2006 we announced a public tender, which was won by PSC, being the best of the bidders. They offered a completely finite solution, including both hardware and software, as well as expert consulting services, design studies, project management and other services necessary for implementation of this kind of a project," says Mr. Kikić.

## Solution

The system called SMS4Parking is a complete solution based on information technology for charging and control of parking services, created around an m-commerce segment based on the use of SMS text messages as payment tool. "The system is based on Microsoft .NET technology and the concept of services – all that a user needs is permanent Internet connection and a server that ensures additional security of functionality of the entire system," explains Jovan Popović, Sales Manager at PSC. "Savings are made due to the fact that the user purchases just the service, while the central, rather complicated and expensive infrastructure is based in our central office," says Popović. Connection with mobile

“As even before the system was actually put the work, citizens came to our offices on their own wanting to pay for the services used, I knew we had a winning combination. With the SMS4Parking system Subotica today has municipal organization and order, so now there isn't a single street in the central city area in which you cannot find an empty parking space.”

Atila Kikić, General Manager, PU "Parking" Subotica

communication providers is handled by the PSC Premium Center, which receives, processes and transmits information on payments made via SMS text messages, and which is in constant communication with the server handled by the user. The control is handled by portable GPRS terminals with Windows Mobile operative system, used by control officers for real-time checking of the status of any parked vehicle.

“The PU “Parking” server has a Microsoft Small Business Server 2003 with an Active Directory subsystem for 10 clients. The entire company is licensed over the OVS system for volume licensing of software, and the invested resources have been returned after five months of using the system. Another advantage of the system is that it is constantly online, and reports can be reviewed at any time and location. It can show all data relevant to proper management of the company,” explains Popović.

It took just two months from the moment of signing the contract to the moment of starting up the system. As service fees had not been changed for quite some time, and business expenses increased substantially, system implementation could not be further delayed, says Mr. Kikić and adds that “PSC has taken all preliminary actions, made a time plan, and monitored the entire implementation process from the beginning to the end. At that particular moment we did not have a single employee in charge of the IT, so they also helped us with the purchase of necessary computer equipment.” The installed server comes from Fujitsu Siemens Computers, as well as the 8 installed workstations and two notebooks.

### Benefits

The system was started up on June 1, 2006, after about one month of intensive work on the implementation and testing of the solution, and as proof of success of a public campaign that was run during the introduction of this solution Mr. Kikić

emphasizes the following: “As even before the system was actually put the work, citizens came to our offices on their own wanting to pay for the services used, I knew we had a winning combination. With the SMS4Parking system Subotica today has municipal organization and order, so now there isn't a single street in the central city area in which you cannot find an empty parking space. We managed to practically redesign the city's outlook, and at least in terms of parking Subotica today is a truly European city.”

“The SMS4Parking system is sufficiently flexible to recognize all specific characteristics of small towns. At making the initial project we tried to consider all possible specificities, and that is what brings an extra quality to this system, both in terms of technology and functionality. It is the very way of functioning of this system, via SMS text messages, that brings additional quality, and also makes space for possible future improvements, perhaps charging by the exact time of use, instead of by the hour,” emphasizes Dragan Jakšić, Manager of the PSC's Parking Solution Center. To confirm this fact, Mr. Kikić provides the statistics showing that about 3000 SMS text messages are sent via SMS4Parking in Subotica per day, while in e.g. a near-by town of Szeged, Hungary only 500 are sent. Over 60% of parking service payments are made via SMS text messages, even though the use of tickets purchased at newspaper stands or ATMs is cheaper.

Furthermore, together with SMS4Parking PSC offers Microsoft Dynamics NAV (former Microsoft Business Solution Navision), completing the package for Finance Management. PU “Parking” Subotica plans to introduce Dynamics NAV, in a form that would cover the entire business activity of the company, and not just control and charging of parking services. This requires additional resources, but for now there is an excellent basis in the form of SMS4Parking system, which brings stable income to this company.

## For More Information

For more information about Microsoft products and services, please call 0700 300 300 or go to:

[www.microsoft.com/scg](http://www.microsoft.com/scg)

For more information about Pakom Solution Centre (PSC), please call 011/2030 143 or visit the Web site at:

[www.psc.co.yu](http://www.psc.co.yu)

For more information on PU "Parking" Subotica, please call 024/694 200 or visit the Web site at:

[www.suparking.co.yu](http://www.suparking.co.yu)

"In the first month of system use, our revenues reached 1.6 million dinars (cca. 20,000 EUR), while now we have stable monthly income of about 4.5 million dinars. This enables us to think about further improvements, among which is Microsoft Dynamics NAV," says Mr. Kikić.



### Software and Services

- Products
  - Microsoft Visual Studio .NET 2003
  - Microsoft Small Business Server 2003
  - Microsoft SQL Server 2000
  - Windows XP Professional
- Technologies
  - Microsoft .NET Framework 2.0
  - Microsoft Internet Explorer 6.0
  - Microsoft Internet Information Server
  - Microsoft Windows Mobile

### Partners

- PSC
- Fujitsu Siemens Computers

© 2006 Microsoft Corporation. All rights reserved. This case study is for informational purposes only. MICROSOFT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY. Microsoft, Windows, Windows logo, Windows Server, Windows Server System are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks are property of their respective owners.

Document published December 2006

**Microsoft®**