Success Story

# A clean thing


## Berlin's city cleaning service and their DAKS

Everyone knows that garbage collectors empty trash cans regularly. But the tasks performed by Berlin's municipal cleaning service go far beyond that. It's hard to imagine what kind of organization is behind it all and what kind of work goes on behind the scenes, and it usually goes largely unnoticed.

DAKS®
... because it's about responsibility!

## What does BSR do?

If you take a look behind the scenes, you will immediately see that Berliner Stadtreinigung (BSR) is a modern service provider. Owned by the state of Berlin, BSR now has the workforce, expertise, and entrepreneurial flexibility needed to reliably and sustainably meet the waste management goals and cleaning requirements of the German capital.

Its conversion into a public-law institution in 1994 paved the way for a reorientation of the company that meets social and environmental requirements as well as the economic demands of the market.

In this context, the group work practiced throughout Berlin since 1999 has proven to be an extremely efficient solution. This form of work organization makes it possible to keep an eye on critical points at all times and to respond very flexibly to specific cleaning needs.

However, this involves a great deal of coordination, as the task forces have to be constantly reorganized due to vacations, illness, staff arrivals or departures – and, of course, depending on local weather conditions.

## The Challenge

### The situation until 2009

When the weather conditions required it, employees were put on standby by telephone and were called in individually as needed. This meant that the operations managers at the respective locations regularly had to call 150 to 300 employees one after the other and continuously update the task forces manually if individual persons could not be reached.

Implementing individual deployment planning manually often required up to 8 hours of phone calls for each of the 16 shift supervisors, and if, for example, winter weather arrived earlier than predicted, it sometimes meant constant phone calls throughout the night and into the early hours of the morning. For the entire team, this amounted to up to 130 hours of phone calls per deployment.

### One system for all

In mid-2008, it was decided to support the coordination process, which had previously been carried out manually, with a server that had to meet complex requirements. In addition, although the server was to operate from a central location, it was to be supplied with local data in a decentralized manner so that the system would not become too "anonymous."

There were also other considerations, such as compliance with labor law provisions, future integration with an SAP system, simple and intuitive management of the work groups, and fast and secure operation of the communication system; after all, around 200 employees working in shifts need to be able to use the system.

Mr. Hampel, head of the telecommunications organization and with BSR for over 26 years, had long been aware that, with ever-increasing demands, manual planning would

### COORDINATION ACROSS ALL OF BERLIN

A department head naturally knows the employees, who often live in his district, best and can therefore "round up" his "troops" much faster than a central office, where over 2,000 people are managed anonymously.

And finally, the travel time required to get to the office also plays an important role in a city the size of Berlin. Since operations often have to be planned and carried out at short notice, too long a journey for employees could lead to delays, which could quickly cause traffic chaos in the event of a sudden onset of winter, for example.

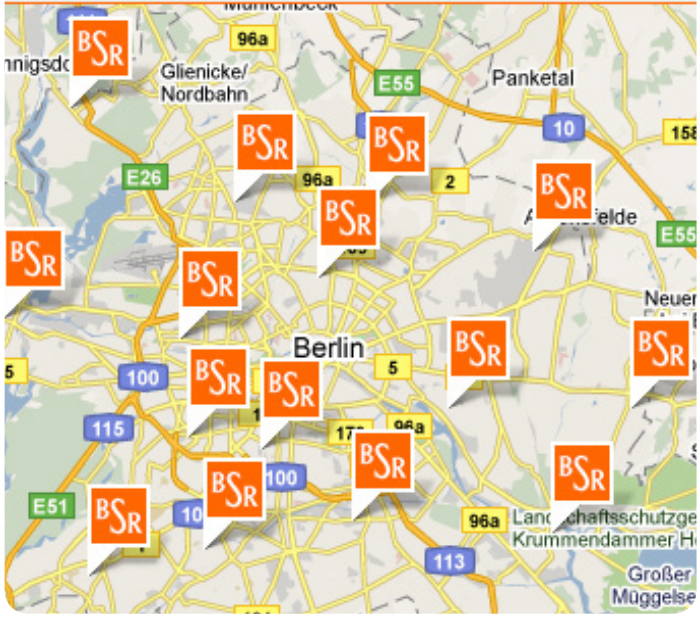
These and other considerations were ultimately decisive in the decision against centralization and thus in favor of continuing decentralized mission coordination "from the depots."

### DIFFERENTIATED WINTER SERVICE

Since 2003, Berlin's street cleaning law has stipulated what is known as "differentiated winter service." This is intended to enable an appropriate response to local conditions in Berlin's sprawling urban area, where weather conditions often vary greatly, and to adapt gritting activities to the specific road conditions on site, for example.

Decentralized coordination has proven to be very useful in the past.

Given the size of Berlin, each location is a city in its own right, with different conditions in terms of traffic, weather, and infrastructure.




Map view of Berlin with its BSR locations

eventually reach its limits and become uneconomical. After all, one department head spent an entire working day just calling through the list of his team members.

## The Solution

### The impulse

Always interested in constructive solutions, Mr. Hampel and members of his team considered how a new system would ideally need to work in order to meet these challenges in the long term. The decisive impulse ultimately came from one of his employees: „If we had a system that worked in reverse to an answering machine, it would be a great help to us. A computer would have to notify all employees who were previously on duty and who were not available to answer the phone that they had received a call. The decisive impetus finally came from one of his employees: "If we had a system that worked in reverse like an answering machine, that would be a great help. A computer would have to call all employees who had been assigned to a job by the department head and registered for it until they were actually reached, and then leave a message for each of them."

This was as simple as it was logical. Mr. Hampel searched for a long time for a suitable solution for this task: "We were aware from the outset that our requirements from the BSR department were very high. After all, we also have a very high obligation to ensure that traffic and cleaning, and thus the entire infrastructure, function smoothly."

### More than just telephony

In order to better compare the performance of solutions from different providers, their systems were tested directly in-house. Most of them were rejected, for example, because of the high costs of acquisition and operation, overly complicated operation, or excessive integration costs for integration into the existing telecommunications environment.

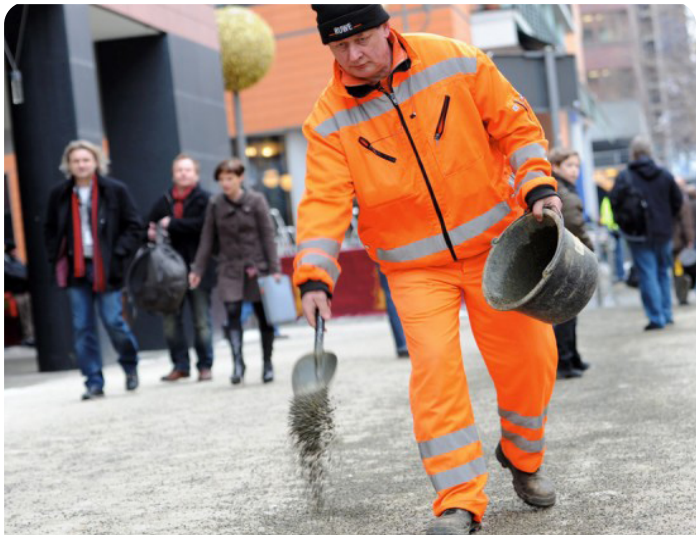
The Berlin-based company DOST Telecom, a specialist in communications technology and a long-standing partner of BSR, was consulted. In a joint decision, the tried-and-tested DAKS alarm server was ultimately chosen, as it can be easily integrated into the existing telecommunications infrastructure and meets all requirements.

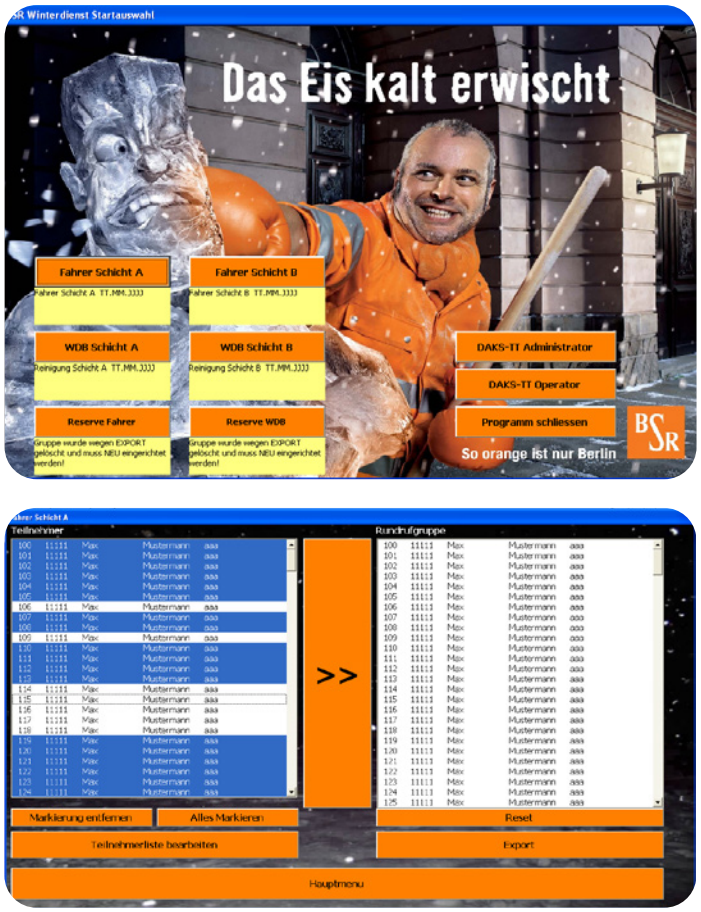
„Logging was also very important to us. It was at the top of our list of requirements. Why or for what purpose the shift was requested, and who was reached for it and when. We submit a detailed report to the works council. We are obliged to do so, and we take this very seriously. Most systems have a logging function that records which number was dialed, but without further details, such as feedback on whether the phone number was incorrect, no PIN was entered, or whether the subscriber did not answer after a certain number of attempts," says Hampel.

Since 2009, employee coordination has been carried out with the support of DAKS from tetronik. This has not only significantly improved the rapid availability of the individual working groups, but has also achieved an enormous increase in efficiency, which has dramatically reduced the response time in the event of a sudden change in weather conditions.

"With DAKS, we were able to perfectly map our requirements for a communications server," explains Mr. Hampel. "The protected employee data is provided via a secure connection in DAKS, so that any changes to the phone number are automatically updated."

BSR employee performing winter road maintenance






Screenshots of the BSR user interface

To implement the task, DOST relied on the powerful 60-channel DAKS. Mr. Gehrt from DOST Telecom comments: "After all, in extreme cases, 2,000 participants have to be called, and in as short a time as possible." He continues: "To simplify the administration of the groups even further, we have expanded DAKS with a specially developed user interface. This allows the working groups to be created and individually maintained from any BSR location and then transferred in bulk to the central DAKS. This saves a lot of time and enables a smooth handover during shift changes."

## The benefit

200 fleet managers coordinate 2,000 employees in shift changes with a single phone call.

Mr. Hampel: "The 200 workstations are fully network-compatible, so that the person on duty can coordinate and carry out their work schedule from any BSR location."

"The system is excellently integrated into the telecommunications infrastructure," says Mr. Gehrt from DOST Telecom, "everything works together harmoniously. In theory, you could also administer it from home via a VPN tunnel, and even when on the road, a shift supervisor can now mobilize his entire team with a single call to DAKS before he even arrives at the office!"

And Mr. Hampel adds with a smile: "The person on duty now has much more time for their actual work. Emergencies are almost becoming routine. We can now reach all 2,000 of our street cleaning employees in less than 10 minutes. When we compare this to the time it took us before, the system has practically paid for itself after its first use."

### EDITOR'S NOTE: MAY 6, 2010 | BERLIN

After the record-breaking winter in spring 2010, Berliner Stadtreinigung (BSR) swept 63,000 tons of dirt from the streets – as much as in the whole of 2009.



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