Clean thing

Berliner Stadtreinigung and its DAKS

Everyone knows that a waste collection service regularly empties the garbage cans. But the tasks of Berlin's city cleaning service go far beyond that. The organization behind it and the work that goes on in the background can hardly be guessed at and is usually hardly noticed...

tetronics

Coordination throughout Berlin

*tetronik in conversation
with Mr. Hampel,
Head of the TK
organization*

Differentiated winter service

Since 2003, the Berlin Road Cleaning Act has stipulated a so-called "Differentiated winter service". This is intended to make it possible to react appropriately to the respective local conditions in Berlin's extensive urban area with its often very different weather conditions and, for example, to adapt gritting activities to the specific road conditions on site.

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

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

If you look behind the scenes, you will see that Berliner Stadtreinigung (BSR) is currently a modern service provider. Owned by the state of Berlin, BSR today has the manpower, the know-how and the necessary entrepreneurial flexibility to reliably and sustainably guarantee the waste management goals and cleaning requirements of the German capital. The transformation into a public-law institution in 1994 paved the way for a reorientation of the company to meet social and environmental requirements as well as the economic demands of the market.

In this context, group work, which has been 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 new issues at all times and to react 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 additions or departures - and, of course, depending on local weather conditions.

The situation until 2009

When the weather was suitable, the employees were put on standby by telephone and manually requested individually if necessary. This meant that the operations managers at each location regularly had to call 150 to 300 employees one after the other and constantly update the task forces manually if individual people could not be reached.

Manually implementing individual deployment planning often required up to 8 hours of phone calls for each of the 16 service managers and, if, for example, the onset of winter came earlier than predicted, sometimes constant phone calls throughout the night and into the morning hours. Calculated for the entire team, this sometimes meant up to 130 hours of telephone calls per deployment.

One system for all

In mid-2008, the decision was made to support the coordination, which had previously been carried out manually, with a server that had to meet the complex requirements. In addition, although the server was to operate from a central location, it was to be supplied

There were also other points, such as compliance with labor law regulations, the future link to an SAP system, the simplest possible, intuitive administration of the work groups and fast and secure operation of the communication system; after all, around 200 employees must be able to operate the system during shift changes.

Mr Hampel, head of the TC organization and a BSR employee for over 26 years, had long been aware that the ever-increasing demands would eventually push manual planning to its limits and make it uneconomical. After all, one service technician spent a full working day just checking the list of his task force.

Coordination throughout Berlin

A head of department naturally knows the employees, who are often also based in his or her district, best and therefore has his or her "squad" much more quickly "drummed up" than a central office where over 2,000 people are managed anonymously.

Finally, given the size of a city like Berlin, the time required to get to the office also plays an important role. As assignments often have to be planned and carried out at short notice, if employees had to travel too far, this could lead to delays that could quickly cause traffic chaos in the event of a sudden onset of winter, for example.

It was these and other considerations that ultimately tipped the scales in favour of the decision against centralization and thus in favour of continuing the decentralized coordination of operations "from the farms".

The impulse

Always interested in constructive solutions, Mr. Hampel therefore considered together with members of his team how a new system would ideally have to work in order to meet this need.
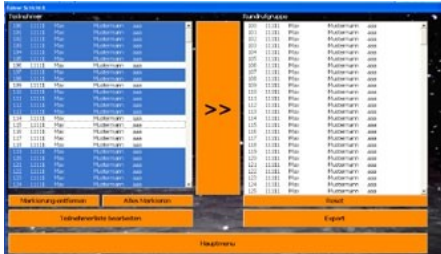
Scrennshot BSR user interface

challenges in the long term. The decisive impulse finally came from one of his employees: "If we had a system that worked the other way round like an answering machine, it would help us a lot. A computer would have to call all employees who had previously been assigned to an assignment by the head of department and registered until they were actually reached and then leave a message for each of them."

Digital support for growing tasks

In mid-2008, the decision was made to support the coordination, which had previously been carried out manually, with a server that had to meet the complex requirements. The question also arose as to whether coordination should be managed from a central location or whether it should be left to the individual departments.

This was as simple as it was logical. Mr. Hampel spent a long time looking 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 therefore the entire infrastructure, runs smoothly."

More than just telephony

In order to be able to better compare the performance of solutions from different providers, their systems were tested directly in-house. Most of them were rejected, for example, due to the high costs of purchase and operation, a too complicated

operation or too much integration effort for integration into the existing telecommunications world.

The solution

The company DOST Telecom from Berlin, a specialist in communications technology and long-standing partner of BSR (responsible for the maintenance and support of the company's own HiPath 3000 and 4000 telecommunications systems), was consulted.

A joint decision was ultimately made in favor of the digital alarm and communication server (DAKS for short), as it can be easily integrated into the existing telecommunications infrastructure and meets all requirements.

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

Since 2009, employees have been coordinated with the support of the DAKS from tetronik. This has not only significantly improved the quick accessibility of the individual working groups, but has also led to an enormous increase in efficiency, which has significantly reduced the response time in the event of a sudden change in the weather.

"With DAKS, we were able to perfectly map our requirements for a communication server," explains Mr. Hampel. "The protected employee data is made available in DAKS via a secure connection so that an update is carried out automatically when the phone number changes."

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

Screenshot of BSR user interface

Conclusion:

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

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

"The system is excellently integrated into the telecommunications infrastructure," says Mr. Gehrt from DOST Telecom, "everything harmonizes with each other. Theoretically, you could also administer from home via a VPN tunnel, and even when on the road, a department manager can now mobilize his entire team with just a single call to DAKS, even before he has arrived at the department himself!"

And Mr. Hampel adds with a smile: "The person on duty now has much more time for his actual work. Emergencies are almost a routine matter. We can now reach all 2,000 of our street cleaning staff in under 10 minutes. If we compare this with the time we needed before, the system has practically paid for itself from the very first call."

From the editorial team:

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After the record winter in spring 2010, the Berlin city cleaning service (BSR) has 63,000 tons of dirt swept from the streets - as much as in the whole of 2009.

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