

Case study

Schmalkalden
Stadtreinigung GmbH



Recording driver data on the go

Vodafone IoT lets
Schmalkalden Stadtreinigung
GmbH monitor drivers' activity
and rest periods

The future is exciting.

Ready?



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business

Schmalkalden Stadtreinigung is equipped to be at the forefront of innovative ‘smart waste management’, powered by Vodafone IoT

Schmalkalden Stadtreinigung GmbH (SSR) provides waste management for the German district of Schmalkalden-Meiningen. The company has been keeping the district clean since May 1990. With a workforce of around 110 staff, it provides a broad and diverse range of services.

The Challenge

A networked solution

Schmalkalden Stadtreinigung's principal responsibilities consist of disposing of domestic and bulky waste and scrap in the entire Schmalkalden-Meiningen district, as well as collecting commercial recyclable waste, street cleaning and providing winter road services. In addition, the company provides household and commercial hazardous waste disposal, container services, and transport services for hazardous waste and private haulage. Furthermore, Schmalkalden Stadtreinigung took on the collection of recyclable packaging and glass within the dual recycling system in 1992.

To carry out its work, the specialist waste management company operates an extensive fleet of around 65 collection vehicles, road sweepers, suction and flushing vehicles and other specialised technology. Schmalkalden Stadtreinigung has its own workshop facilities for servicing and repairing the fleet and its specialised technology.

Drivers account for around 80 of the 110 staff who work for the specialist firm. Accurate evidence and reliable documentation and archiving of drivers' driving and rest periods must be provided by law. For several years, Schmalkalden Stadtreinigung has been using a digital tachograph solution to provide this information.

The Solution

Making logistics data available

Schmalkalden Stadtreinigung's service provider DAKO GmbH, based in Jena, was the company's initial point of contact for this process. DAKO specialises in logistics and telematics applications and has had a close working relationship with Vodafone for many years as a technology partner, supplying networked logistics solutions.

DAKO designed a customised solution concept for Schmalkalden Stadtreinigung. The concept is based on a telematics device with GPS tracking and integrated Vodafone IoT SIMs installed in the vehicles. The device is not much larger than a standard smartphone, yet the commercial vehicle's databus gives it access to a variety of parameters, such as diesel level, mileage and service interval, as well as vehicle location and speed. The driver signs into the system using a chip card at the start of the journey and signs out again at the end of the journey. The data is immediately available to the DAKO-operated logistics platform via Vodafone's mobile network. This, in turn, is connected to the Vodafone Managed IoT Connectivity Platform, making it easy to assign SIMs and telematics devices to individual vehicles, for example.

For their part, Schmalkalden Stadtreinigung's employees can access the platform without the need for any sort of administrative burden. The driving times and additional logistics data required can be retrieved, displayed, analysed and archived with a few clicks of a mouse.

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Stephan Horten
IoT Principal Partner Manager
Vodafone

The solution was based on driver cards and a memory system in the vehicles. However, the system proved to be time-consuming. Uploading the mass data every three months took up to half an hour per vehicle and worst-case scenario, could even take up to an hour.

For this reason, the company was looking for a more modern and efficient way to comply with these requirements. As Schmalkalden Stadtreinigung is always working to optimise its services and implement forward-thinking innovations within its processes, it was soon obvious to management that a networked solution would offer a range of additional benefits.



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Torsten Jahns, Managing Director, Schmalkalden Stadtreinigung GmbH

The first stage of the project saw the 62 collection vehicles in regular use being fitted with the solution. The remaining fleet vehicles are special-purpose vehicles, which are used less frequently.

The Benefit

Immediate data transfer

The previously time-consuming uploading processes are now consigned to history, thanks to real-time data transfer through the Vodafone network. However, the system designed by DAKO and Vodafone also offers many additional benefits. The drivers are now very impressed with the solution, despite some initial reservations because of the route documentation being GPS-based. However, it soon became clear that this could be used to counter unwarranted complaints about collections that had allegedly been missed. It was also possible to disprove an unfounded charge of hit-and-run using the logged information. The driver could prove that he was not even at the location in question at the time of the alleged incident.

However, it is the significant future potential of connectivity that Torsten Jahns, Managing Director of Schmalkalden Stadtreinigung, is particularly excited about: “We are working to optimise our vehicle rounds based on the data.” His medium-term objective is ‘smart waste’.

In this concept, networked collection containers fitted with sensors would inform the company when they needed to be emptied. This would allow journeys to be optimised in such a way as to avoid unnecessary trips to half-empty containers and collection points. While this is still some way off, it offers a promising opportunity to improve efficiency and reduce costs.

“In DAKO and Vodafone, we have found specialist partners with a solution that makes Schmalkalden Stadtreinigung fit for the future. We work together on a level playing field and are very happy with the collaborative solution that has been implemented,” concludes Torsten Jahns.

Stephan Horten, IoT Principal Partner Manager at Vodafone, adds: “In conjunction with our technology partner DAKO, we are delighted to have acquired Schmalkalden Stadtreinigung as a customer. It is particularly enjoyable to be able to help such an innovative company digitise its processes and business models.”

The next stage will see the launch of pilot projects in an attempt to move towards smart waste, with more intensive networking of selected glass and clothing containers. The partners involved are already strongly committed to collaborating in the further development of their innovative solution.

The bottom line

- High-performing, flexible IoT platform
- International availability provided by global IoT SIMs
- The Vodafone IoT platform allows straightforward administration
- Integration of the Vodafone IoT platform into the telematics platform operated by DAKO
- Very good network coverage
- Comprehensive service and support

About Schmalkalden Stadtreinigung

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- Keeping the district clean since May 1990
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- ssr-gmbh.de

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