CASE STUDY

Reliable Connectivity for Waste Container Management

Background

Smart waste container management powered by IoT relies on wireless connectivity to help waste management companies craft data-driven, eco-friendly waste collection services. In countries across Europe, connected containers are the only means of waste disposal, so any malfunction can lead to rubbish pileups, which creates havoc for waste management companies and the cities that employ them.

By tracking the frequency and volume of waste disposal, container management IoT makes it easier for residents to dispose of their rubbish by enabling them to wirelessly monitor personal waste disposal and avoid paying costly overages. It also allows cities to wirelessly track their waste management fleet, monitor container volume, and generate detailed management reports.

Waste container management is crucial for budding smart cities seeking to digitize and streamline vital services like waste management. Residents use swipe cards to gain entry to waste containers, which only open if their billing is current. Sensors then track how many bags are disposed of at a given time, wherein residents are automatically charged if they go over their allotted amount. This also prevents businesses

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from abusing resident bins. Sensors send alerts when bins reach capacity, helping officials track their waste management fleet during collection and transport, effectively preventing spillover and ensuring service is never disrupted.

Challenge

There are two key challenges in orchestrating a waste container monitoring solution for civilian use cases that centers on reliable connectivity. Firstly, swipe cards are chip-enabled, which communicate with the waste management billing and usage systems. Secondly, the billing and usage systems are also dependent on those swipe cards, as they track how often citizens access waste containers. The whole system hinges on always-on connectivity in order to function.

To make their solutions viable for users, waste container management companies had to make the technology, specifically connectivity, deliver a stable connection, so the various parts of the system are able to communicate with one another effectively.

Solution

KORE supports the waste container management with a global, flexible, and "future-proofed" IoT connectivity solution that goes beyond traditional eSIM offerings to deliver network access worldwide without carrier and technology lock-in, with support for value-added services and comprehensive eSIM magic.

Managed via ConnectivityPro™, the KORE Connectivity Management Platform (CMP), the company can provision SIM cards for connectivity, usage and reporting from a single platform. Also, managing and monitoring their IoT network connectivity quickly and easily for advanced visibility and control to better support data-driven waste management operations.

The Result

Supporting container management IoT makes waste management services more efficient, environmentally friendly and cost effective for both residents and city officials alike. By providing real-time data collection, monitoring, and analysis of waste-related processes - IoT for waste management not only enhances efficiency and cost-effectiveness but also contributes significantly to a sustainable and eco-friendly approach to waste handling.

About KORE

KORE is a pioneer, leader, and trusted advisor delivering mission critical IoT solutions and services. We empower organizations of all sizes to improve operational and business results by simplifying the complexity of IoT. Our deep IoT knowledge and experience, global reach, purpose-built solutions, and deployment agility accelerate and materially impact our customers' business outcomes.

For more information, visit www.korewireless.com

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