Controlling urban pests

NextM2M powers pest control, as Arctic Systems goes global with smart rat traps

As the human population of cities grows, so too does the rat population. Ratmo is a modern pest control solution, enabling authorities to monitor rat traps remotely and plot their effectiveness against a range of ambient data. But for Ratmo to be effective it needs to know exactly when the trap has sprung.

THE CHALLENGE
Arming the modern Pied Piper

More of us are living in cities. We're living closer together, and we're creating more waste. Inevitably, it's not only the human population that is growing: as cities grow, so too is the rat population. And where there are rats, there is disease.

Artic Systems, a Danish start-up specialising in pest control, wants to apply smart city thinking to solve the world's rat problem. In effect, its Ratmo product is a 'smart rat trap'. Like a traditional rat trap, the device uses bait to tempt in the rat, but it also logs a host of other ambient data, including time, location, and temperature.

For the device to work it needs reliable connectivity. And for Arctic Systems to make a commercial success of Ratmo it needs a global solution, with consistent pricing and the ability to scale. It also needs the means to manage a huge deployment of traps. A local authority may have up to 300 traps set in one square kilometre of city space.

THE SOLUTION
Creating a complete picture of pest control

NextM2M have provided a solution which enables Arctic Systems to manage every device from a single console. Devices can be activated or deactivated as required; Ratmo customers can access the portal to view near real-time data on each device.

The solution provides global scale, and assurance on pricing, says Arctic Systems co-founder, Rune Barslund: "As a start-up, it's important we work with the best partners. With NextM2M as a partner and Vodafone's service we have a connectivity platform that works today, and a technology roadmap that will benefit us in the future. We've already tested the solution in Europe, Africa and the U.S." NextM2M provided not just the technical fulfilment, but also supported the strategic rollout. "We looked for an international partner. It was clear NextM2M was our best option. They're based on the partnership with Vodafone who is the biggest mobile player, they have a focus on smart city solutions, and their understanding of the possibilities of IoT are really great," says Barslund.

NextM2M lent its support and specialist knowledge throughout the testing and development of the solution.

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Rune Barslund
Founder, Arctic Systems

Barslund says the Ratmo device has been through 11 iterations before launch; NextM2M helped solve a tricky problem involving the device power source.

"Rats are smart," says Barslund. "They were spooked by the power unit and avoided the trap."

The simplicity of the NextM2M solution allows Ratmo to be in place and operational within minutes. The trap is set and a unique QR scanned. The device can then be monitored via the Smart City App. Service teams can access the data immediately; the platform can easily be set to create offline weekly or monthly reports.

"Not only does this information alert authorities when the trap has gone off," says Barslund, "the data informs a smarter pest control strategy. They can plan when and where to set traps, and what bait to use. Local authorities don't want to rely on private companies for this type of information, they want ownership of their city's data."

The solution can also integrate with other smart city applications. For instance, authorities may want to map rat traps against refuse collection schedules, litter hotspots or environmental inspections. They can then plan more effectively for future events.

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Why NextM2M?

- Ensures the means to scale globally, with transparent pricing and granular device management of a single platform

- Enables authorities to view a range of data points, helping inform future strategy

- Simplifies integration with other smart city applications, allowing authorities to build a comprehensive picture of pest control factors

About Arctic Systems

Arctic Systems is a pest control specialist, founded in Denmark in 2016. It has created a poison-free rodent control system, Ratmo, which utilises IoT connectivity to deliver a smart approach to pest control.

- arctic-systems.com

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