# Smartmation Creates Smart Lighting Control Solution on AWS to Drive Efficiency, Cut Costs, and Reduce Citizen Complaints by 40%

**aws**

## Executive Summary

Smartmation, an AWS Partner, created a remote lighting control solution on AWS that helps cities drive efficiency by optimizing lighting, reduce complaints by 40 percent, and lower power consumption costs by around 15 percent. Its smart streetlight solution runs on Amazon EC2 and Amazon S3 and uses IoT data from lighting sensors to give cities real-time data on the status of their lighting fixtures.

## Using Lighting Management to Increase Efficiency and Safety

Smartmation has provided public, remotely managed lighting control systems to countries across South America since 2017. An Amazon Web Services (AWS) Partner, the company offers solutions that control more than 100,000 streetlights in Argentina, Bolivia, Colombia, Ecuador, Peru, and Uruguay.
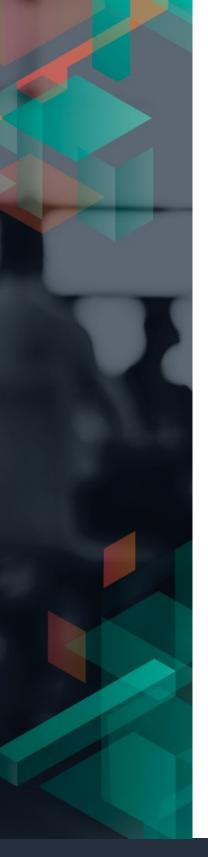
The company was formed to help cities use smart technology based on the Internet of Things (IoT) to improve their public lighting systems. "Many cities are seeking more efficiency from their lighting solutions, and they also want to reduce the costs of electricity and maintenance," says Pablo Servent, chief executive officer at Smartmation. Servent notes that cities also want to use data from lighting systems to be more proactive and improve the quality of service. "City operations teams don't want to spend time and money looking for lights that aren't working," he says. "They want a system that reports failures in real time." In addition, Smartmation sought to help cities better manage their lighting infrastructure to increase citizen safety and decrease citizen complaints about broken lights. "People feel more comfortable being out at night in reliably well-lit areas," says Servent.

## Creating a Smart Lighting Solution on AWS

To address cities' needs for efficiency, cost savings, and safety, Smartmation created a smart streetlight control solution that gathers IoT data from lighting sensors and actuators. The solution takes advantage of AWS technologies, running on Amazon Elastic Compute Cloud (Amazon EC2), storing IoT data in Amazon Simple Storage Service (Amazon S3), and relying on Amazon DynamoDB to manage database servers. "Using AWS, we have peace of mind knowing our compute and storage requirements are met," Servent says. "AWS also helps us avoid costly investments in hardware and software because we only pay for what we use."

Smartmation's remotely managed control devices are connected to individual lights or power cabinets. The devices continuously measure operational parameters of lighting devices or circuits, monitoring ambient light and power consumption, and then transmitting the data in real time to AWS-based software and dashboards used by operators in monitoring centers. Operators use the data to optimize maintenance and operation of a city's public lighting infrastructure. Smartmation controllers can also provide customized dimming calendars, giving cities the ability to automate the scheduling of light dimming to save electricity and money during off-peak hours.

Recently, to drive business growth, Smartmation participated in the AWS Partner Smart Cities pilot program, which helps AWS Smart Cities partners enhance their solutions by receiving strategic and technical support from AWS. "AWS has helped us organize webinars with our customers and provided us with funding and coordination of additional marketing activities," says Servent. "This helps us communicate with other AWS partners and drive more business."

### Driving Efficiency by Optimizing Lighting

Using Smartmation's cloud-based software, cities can easily manage their public lighting systems remotely and access real-time IoT data to drive efficiency. "For many cities, it's challenging to manage thousands of lights without a smart system in place," says Servent. "Our remote streetlight solution on AWS gives city operators the data they need to better understand the challenges on their streets so they can optimize their infrastructure."

### Reducing Complaints by 40% by Being Proactive

Cities that have implemented Smartmation for remote lighting management can anticipate lighting problems and forestall citizen complaints. "Our solution gives managers actionable data on the status of their lighting systems, which helps them be more proactive," Servent says. "Because of remote management on AWS and early alerts and notifications, we have seen cities reduce their maintenance complaints by 40 percent because they no longer have to wait for citizens to report broken lights. Cities can rely on our solution to report failures in real time."

### Cutting Power Consumption Costs by Around 15%

Smartmation also helps cities reduce costs because they can be more proactive and adjust brightness automatically at specific times. "With remote management capabilities in Smartmation, cities can dim their lighting at certain times, and they can reduce their associated power consumption costs by around 15 percent," says Servent. "This solution also helps enable sustainability because cities are emitting less carbon monoxide by taking advantage of smart lighting."

In addition, better quality of service in public lighting means improvement in safety for citizens by ensuring all areas are well-lit during evening hours. "People can feel more comfortable about their safety when they're out at night," says Servent.

Smartmation is currently expanding its remote management solution to new cities throughout South America, with help from the AWS Partner Smart Cities pilot program. Servent concludes, "The AWS Smart Cities program provided best practices that helped us improve our business processes and overall security, and it will continue helping us grow our business."

## About Smartmation

Smartmation, based in Buenos Aires, Argentina, offers public lighting control systems as a modern, smart alternative to traditional lighting infrastructure. An AWS Partner, Smartmation solutions control more than 100,000 streetlights in cities across South America.