SweetSense Uses IoT to Improve Access to Safe Water in Developing Countries

WEETSense Inc.

"The Aeris IoT Services platform enabled us to save days of headache with each deployment— we now are able to offer our clients a sensor that works out-of-the-box."

Dexter Gauntlett,
Business Development
Director, SweetSense, Inc.

Building on the success of Gates Foundation funded projects, companies are ramping up water activities in East Africa in order to develop a sensor-enabled water service, as well as operations and management systems, for county governments and local water service providers.

Case in Point: SweetSense, Inc.

In 2015, social enterprise startup SweetSense, Inc., joined an innovative $35 million USAID public-private partnership led by Millennium Water Alliance (consisting of some of the largest international non-government organizations [NGOs] and government offices) to increase the average water coverage rate of five northern counties in Kenya from 37% to 50%, reaching a million people.

SweetSense sensors were deployed on hand pumps, electric pumps, and a variety of other water, energy, and infrastructure assets to measure rates of utilization and functionality. Over the next five years, SweetSense will use its cellular-based, remote monitoring sensor IoT platform to notify project partners when a water point fails so it can be repaired immediately — instead of weeks or months later.

End users include local technicians, NGO program managers, county government workers, and local entrepreneurs who review easy-to-understand sensor data from an online dashboard. Sensors are used not only to alert project partners of water-point uptime and performance, but also to provide critical market research data that can underpin local business models enabled by the sensors and improve water availability.

Numerous challenges arose regarding the local SIM card procurement process. SweetSense had deployed 1,000 sensor units across a variety of remote applications in more than 10 countries to study the effects of development interventions. Prior to switching to the Aeris IoT Services platform, the company would spend, on average, 2-3 days in-country dealing with local SIM card dealers to procure data-only service plans — which often were set up incorrectly or delayed. Additionally, SweetSense clients would occasionally forget to pay their monthly network bills, resulting in cellular service being shut off.

Aeris IoT Solution: From Connectivity to Clean Water

As part of its social initiative, Aeris provided global SIMs to SweetSense for its project in rural Kenya, Rwanda, and other developing countries.

Robust cellular connectivity with real-time device management, combined with superior customer support from the Aeris team, helped alleviate potential problems with complicated deployments.

Not only does Aeris' carrier-agnostic network cover more than 190 countries, but SweetSense uses the Aeris platform for real-time visibility into its devices. The Aeris platform allows SweetSense to analyze device performance and receive custom reports on traffic handled by each device.

Aeris' global SIMs can be pre-installed to SweetSense's sensors, so that the product is ready to go upon arrival. Additionally, SweetSense now can manage the fleet of SIM cards from one location — significantly cutting down on local deployment problems.

With SweetSense's systems installed and running on the Aeris network, water pumps across water-insecure communities can be monitored on a daily basis. These pumps are installed in schools, churches, markets, community centers, and other high impact areas. Looking to the future, SweetSense is working with local partners to develop sustainable and cost-effective operations and maintenance service models.

SweetSense water pumping solution.

Customer Benefits

RELIABLE GLOBAL CONNECTIVITY, WHICH RESOLVED KEY SET-UP PROCESSES ISSUES

EASILY DEPLOYED GLOBAL SOLUTION WITH REAL-TIME DATA ACCESS AND MONITORING

END-TO-END DEVICE MANAGEMENT WITH IN-DEPTH ALERTING AND REPORTING CAPABILITIES

MORE PEOPLE IN RURAL AFRICA HAVE MORE CONSISTENT ACCESS TO SAFE WATER

CARRIER AGNOSTIC

ABOUT SweetSense:

SweetSense, Inc., is a social enterprise applying remote-monitoring solutions to improve performance of remote water, energy, and infrastructure projects in developing countries. With more than 1,000 sensors in 12 countries, SweetSense is leading the shift to a more data-driven, accountable, and transparent global development sector. The company's sensors are installed on water pumps, water filters, cook stoves, latrines, and many other custom applications to improve system performance and uptime. The sensors use cellular network connectivity to relay information to clients' online dashboards, enabling simplified and more accurate monitoring and evaluation, alerts, and decision-making support.

Visit **www.sweetsensors.com** or follow them on Twitter **@SweetSensors** to see their progress and get in touch with them.

Contact them at **info@sweetsensors.com** or **+1.303 550 4671.**

ABOUT AERIS:

Aeris is a technology partner with a proven history of helping companies unlock value through IoT. For more than a decade, we've powered critical projects for some of the most demanding customers of IoT services today. We strive to fundamentally improve their businesses by dramatically reducing costs, accelerating time-to-market, and enabling new revenue streams. Built from the ground up for IoT and road tested at scale, Aeris IoT Services are based on the broadest technology stack in the industry, spanning connectivity up to vertical solutions. As veterans of the industry, we know that implementing an IoT solution can be complex, and we pride ourselves on making it simpler.

Visit **www.aeris.com** or follow us on Twitter **@AerisM2M** to learn how we can inspire you to create new business models and to participate in the revolution of the Internet of Things.

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