SWARM

CASE STUDY | SWEETSENSE

Remotely connecting groundwater management tools to reduce the impact of droughts

5x

cost savings

6

sites deployed

10x

potential market growth

OVERVIEW

SweetSense develops IoT sensors that are used to improve the efficiency, accountability, and cost-effectiveness of water infrastructure projects. Since their IoT devices are typically deployed in remote areas, SweetSense needed a reliable yet affordable connectivity solution to keep their sensors online, even outside of cell service.

SweetSense chose Swarm Technologies to provide global coverage and affordable connectivity for their water monitoring devices. With Swarm, SweetSense has been able to save 5x versus what they were previously paying for a legacy satellite solution, while still being able to deploy their devices in areas without cell coverage.

"Thanks to Swarm, we'll be able to provide verified access to water to 10x the amount of people, livestock, and croplands through our monitoring systems."

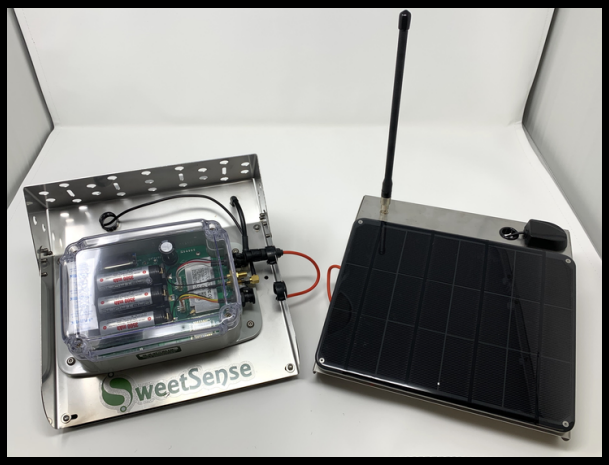
Evan Thomas, SweetSense CEO and co-founder

SWARM

CASE STUDY | SWEETSENSE

USING IOT SENSORS TO MEASURE GROUNDWATER

In California, where much of the $50 billion agriculture industry relies on limited supplies of groundwater, SweetSense uses its IoT sensors to address chronic water shortages. Their groundwater pump monitoring devices measure, analyze, and forecast data about the current and future availability of water in a given location. This data helps farmers and water managers understand how much water is available so they don't run out, spend money on unnecessary pumping, or risk violating sustainability requirements.



A SweetSense device with embedded Swarm satellite modem.

OVERPAYING FOR LEGACY SATELLITE

SweetSense initially used legacy satellite provider Iridium to transmit their data out of remote farm fields. The high cost of Iridium's hardware and data service, however, was a pain point from day one. "The costs are, and have always been, a significant factor for us, especially for IoT applications where only small packets of data are transmitted over the network," says Evan Thomas, co-founder and CEO of SweetSense.

They began to look for an alternative solution that cut costs while maintaining the global coverage they needed.

SWARM

CASE STUDY | SWEETSENSE

AFFORDABLE GLOBAL COVERAGE WITH SWARM

SweetSense decided to switch to Swarm because its network of satellites provided the coverage that SweetSense needed, while significantly cutting their connectivity costs. With Swarm, SweetSense is now paying 5x less for satellite data than what they were paying for Iridium. Swarm's small, low-power and easy-to-integrate hardware was a good match for SweetSense's products because it allowed them to deploy their IoT devices in the field without worrying about frequent maintenance or battery changes.

A Swarm-enabled SweetSense device monitors water levels in Tulare County, CA.

"The cost savings of Swarm allow us to unlock potential user applications that were impossible with other networks.We're now able to offer some of our agricultural and global development customers benefits that others can't."

Evan Thomas, SweetSense CEO and co-founder

EXPANDING OPERATIONS

In partnership with organizations like The Freshwater Trust and WexusTech, SweetSense has deployed Swarm-enabled water sensors across six sites in California. Swarm's low cost will permit SweetSense to expand its operations at a scale that was previously unaffordable for them. SweetSense plans to deploy Swarm-enabled sensors across an additional 50 locations over the coming months, as well as use Swarm to connect their existing well water sensors in Somalia, Nigeria, and Mozambique (pending regulatory approvals) next year.