

EYES IN THE CONTAINER

With the u-blox SARA-R404M LTE Cat M1 module, San Francisco-based waste-tech company Compology improved its wireless container sensors for smart waste management, cutting production costs, increasing battery life, and expanding cellular reception in hard-to-reach locations.

Traditionally, waste haulers working on tight margins have been less likely to adopt new technology unless it is both highly reliable and positively impacts their bottom line. However, Compology's product is a unique and effective application of the Industrial Internet of Things (IIoT) meant to save haulers money. With accurate, up-to-date data on their fleet of containers, waste haulers are able to turn containers faster and eliminate unnecessary pick-ups. By more efficiently utilizing trucks and containers, haulers can increase profits through reduced fuel usage, less truck wear and tear, and increased turns, all while improving environmental-friendliness through reduced traffic and fewer greenhouse gas emissions.

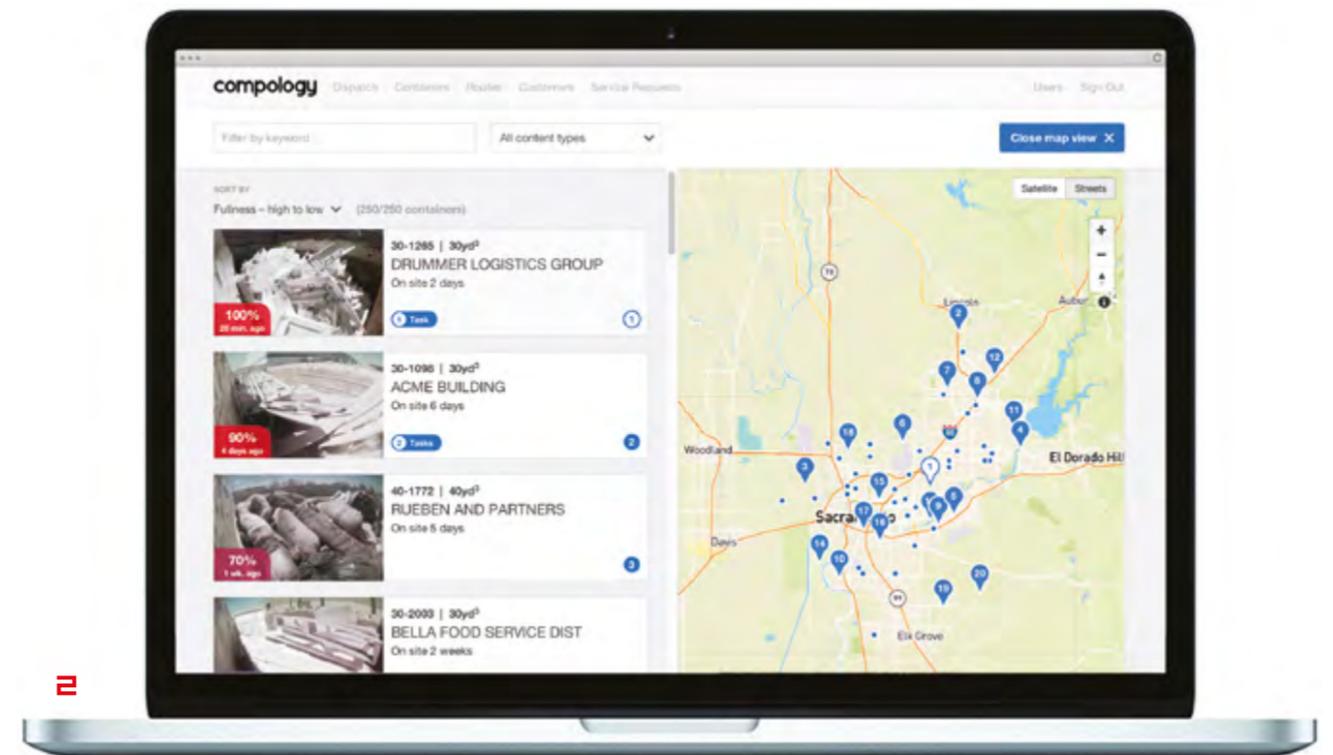
So how did Compology strike the right balance of creating an affordable, low maintenance sensor, while also providing a high-quality product waste haulers would benefit from? In part, through implementing u-blox's SARA-R404M LTE Cat M1 module for cellular communications.

In April 2017, Verizon introduced its LTE Cat M1 network across the USA, a low-power wide-area (LPWA) cellular technology using LTE low speed, paving the way for countless IIoT applications. As one of Verizon's Cat M1 partners, u-blox was ready, early on, to give its customers access to

the network with its SARA-R404M LTE Cat M1 module. Designed for low-power consumption, the module's long battery life effectively minimizes maintenance operations. Extended range in buildings and basements further ensures that data can be transferred from almost anywhere. With its competitive price, the module offered Compology the low-cost, high performance solution necessary to meet their wireless communication needs.

For their latest sensor, the R12, Compology traded in the high speed LTE Cat 4 cellular module they had been using to transfer data for the newer LTE Cat M1 technology. This, says Ben Chehebar, Co-Founder and Chief Product Officer at Compology, brought significant improvements to the services they were able to provide to their customers, while also reducing Compology's costs:

"Our goal is to consistently improve the performance and reliability of our sensor, while also reducing our overall hardware costs. The move to the SARA-R404M LTE Cat M1 module made sense for us as it allowed us to save 50% on the cost of the module and drop a D-cell from our previous battery pack – thanks to the 40% reduction in power usage from the module – without losing performance. And, we now have improved reception in hard-to-reach locations." ●



1 Compology's container sensors send data on the fullness of waste containers to the cloud.

2 Using Compology's smart waste management platform, waste haulers can eliminate unnecessary pick-ups.

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