Sensoneo Is the First Commercial Narrowband IoT Deployment in the United States, Powered by Twilio and T-Mobile

Smart Waste Management company leverages Twilio Narrowband (NB-IoT) connectivity to optimize waste collection, demonstrating the future of smart cities

SAN FRANCISCO, June 24, 2019 — <u>Twilio</u> (NYSE: TWLO), the leading cloud communications platform, today announced it is powering the first commercial Narrowband IoT deployment in the United States by--Sensoneo, a smart waste management solution provider. Leveraging ultrasonic, smart waste monitoring sensors, Sensoneo enables cities and businesses to make data-driven decisions and optimize waste collection. Sensoneo's solution in the United States is enabled by Twilio's Narrowband IoT SIMs and the first generally available developer platform for NB-IoT in North America. The combination of T-Mobile's Narrowband Network with Twilio's service management platform and APIs provides developers a fast, efficient and scalable way to connect a fleet of IoT devices. To learn more, visit https://www.twilio.com/wireless.

"Twilio is focused on enabling developers to imagine, build, deploy and manage the world's largest fleets of cellular IoT devices," said Evan Cummack, head of Twilio's IoT business unit. "Our Narrowband partnership with T-Mobile gives developers the quickest and most scalable way to deploy a fleet of inexpensive, low-power devices with exceptional nationwide coverage. Sensoneo is a great example of the unique opportunity that Narrowband innovators have to disrupt established industries as the smart city vision comes to life."

Sensoneo Smart Waste Management for Smart Cities

According to the World Bank, the human population creates more than 2 billion tons of municipal solid waste every year. Despite this scale, the process of managing this waste is antiquated, involving overflowing trash bins and dump trucks emitting CO2 as they wait in traffic. Sensoneo's Smart Waste Management solution includes smart ultrasonic sensors embedded with Twilio NB-IoT SIMs that monitor waste levels, pick up status and real-time temperature of bins. Powered by Twilio's NB-IoT SIMs, GPS location and BLE technology, this real-time data is instantly sent to Sensoneo software to optimize collection routes, pick up frequencies and vehicle loads.

In North America, Sensoneo uses <u>Twilio's Narrowband IoT solution</u> that combines SIMs, an API platform, software development kits, and a management console to connect and manage its smart sensor technology. Sensoneo's solution is deployed across 35 countries and has reduced waste collection costs by 30% and lowered carbon emissions in active cities by up to 60%.

"Twilio was a clear choice for us," said Martin Basila, founder and CEO of Sensoneo. "T-Mobile provides us a high-performance network complemented by Twilio's superior platform and flexible console with very useful features such as the ability to manage SIMs and check sensor behavior. Twilio is an ideal IoT provider for IoT solutions looking for reliable connectivity and quick scaling."

"With 1.9 billion connections projected by 2025, licensed cellular LPWA (NB-IoT/LTE-M) is set to become the predominant cellular connectivity solution," said Sylwia Kechiche, principal analyst – IoT, GSMA Intelligence. "Smart city deployments are on the rise and multiple access technologies like Sensoneo will account for almost 1 billion IoT connections by 2025."

Twilio Narrowband IoT in Partnership with T-Mobile

T-Mobile was the first carrier to deploy NB-IoT in the U.S., which launched nationwide in July 2018. At SIGNAL 2018, Twilio and T-Mobile <u>announced</u> that Twilio had launched the first developer platform for NB-IoT in the US.

The lower throughput and low power NB-IoT cellular network is ideal for massive IoT devices like Sensoneo's sensors that only need to transmit small packets of data and need to conserve battery power for years. The network's simplified radio protocol reduces the cost of modem hardware and lowers ongoing connectivity costs. With the power and cost efficiencies generated by NB-IoT, the market is ripe for new categories of lower cost, battery efficient internet-connected devices that don't currently exist.

"Sensoneo is a perfect example of the promise of NB-IoT. It's not just a network story, it's a problemsolving story. Waste management is a global issue that requires bold, innovative ideas and approaches," said Balaji Sridharan, VP, T-Mobile IoT. "That our NB-IoT network, in partnership with Twilio, is an integral part of bringing a new, fresh approach to tackling such a large problem gives me and the whole T-Mobile IoT team a real jolt of energy."

About Twilio

Millions of developers around the world have used Twilio to unlock the magic of communications to improve any human experience. Twilio has democratized communications channels like voice, text, chat, video and email by virtualizing the world's communications infrastructure through APIs that are simple enough for any developer to use, yet robust enough to power the world's most demanding applications. By making communications a part of every software developer's toolkit, Twilio is enabling innovators across every industry — from emerging leaders to the world's largest organizations — to reinvent how companies engage with their customers.

Source: Twilio Inc.

Sensoneo is a global enterprise-grade smart waste management solution provider that enables cities and businesses to manage their waste efficiently, be more environmentally responsible and improve the well-being of people.

Through its unique smart waste management technology, Sensoneo is redefining the way waste is managed. The solution combines unique ultrasonic Smart Sensors that monitor waste in real-time with sophisticated software providing cities and businesses with digital transformation, data-driven decision making, and optimization of waste collection routes, frequencies and vehicle loads.

Sensoneo's smart waste management has attracted cities and business around the world, and the solution has been installed in more than 40 countries on 5 continents. For more information about how Sensoneo can help you manage your waste smarter, please visit www.sensoneo.com.

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