

Remote healthcare as easy as 1-2-3 with IoT

- **Business needs**

Secure way to transmit patient data to healthcare providers

- **Networking solution**

AT&T IoT connectivity delivers patient vital signs to their physicians and other medical professionals

- **Business value**

Better patient outcomes

- **Industry focus**

Medical technology

- **Size**

1 million data points managed monthly

About Smart Meter, LLC

Smart Meter, LLC is the leader in cellular-enabled remote patient monitoring (RPM) data and devices. The company facilitates better patient outcomes through solutions enabling reimbursable RPM for chronic conditions.

The situation

Persistent conditions like heart disease, hypertension, and diabetes are the leading cause of death in the U.S. What's more, they're on the rise!¹ Smart Meter set out to create remote monitoring solutions to help patients better manage these conditions. The company needed dependable connectivity that would automatically send patient data to its cloud, where physicians and other healthcare providers could securely access it.

Solution

Smart Meter chose AT&T Business to deliver improved health outcomes for patients with chronic conditions.

¹ https://www.cdc.gov/pcd/issues/2020/20_0130.htm

The company's remote patient monitoring devices like iGlucose®, iBloodPressure 2.0™, iScale™ and iPulseOx™ use the highly reliable nationwide AT&T IoT network to convey patient data to Smart Meter's SmartRPM cloud. Healthcare providers can easily access the data there via secure log-in.

Innovative and reliable patient monitoring

Six in 10 Americans live with at least one chronic disease. Four in 10 have two or more. Heart disease and stroke, cancer, and diabetes are among the nation's leading causes of death and disability. These conditions cause \$3.8 trillion in annual healthcare costs.²

Smart Meter founder Ben Atkin is a serial entrepreneur who happens to have a deep understanding of chronic illness. "I am a patient with several chronic conditions," he said. One diagnosis 15 years ago inspired him to create a solution that would help patients, their families, and healthcare providers and payers manage chronic conditions with remote patient monitoring technology.

"Back then I was given a glucose meter and shown how to test my glucose by lancing my finger, and that was it," Atkin said. "It was apparent to me right off the bat that there's very little value in measuring your glucose on a daily basis if the glucose numbers don't get out of the device and go somewhere."

Help for patients with other chronic ailments

After researching available solutions and finding none that worked, Atkin built and programmed a device that could read glucose monitors and send the results to healthcare

providers. "It took about a year to come up with something that worked," he said.

Atkin's first iGlucose® meter was the size of a tool kit, with a cellular battery and an antenna. Over the years, he improved the design until he was able to shrink all the technology to fit into a glucose meter. "Now we had one handheld device that really made sense, and we've been refining it ever since," he said.

As Atkin's company grew, he tapped Silicon Valley healthcare executive Casey Pittock to be CEO. "It's the smartest decision we ever made," Atkin says. While the company initially was called iGlucose, it became Smart Meter after it introduced devices to measure health indicators for other chronic conditions.

New ways to care for patients

Despite the clear value for patients, however, some healthcare providers were slow to adopt remote patient monitoring. "It really didn't happen because the doctors had no financial reason to participate," Pittock said.

Smart Meter got a boost when COVID-19 made it impossible for many patients to get care in person. Providers needed a way to monitor their patients remotely. "The pandemic really pushed our company forward," Atkin said.

"We wanted to go with the most secure data tunnel possible and AT&T Business provided that."

Ben Atkin
Founder, Smart Meter, LLC

²<https://www.cdc.gov/chronicdisease/resources/infographic/chronic-diseases.htm>

Remote monitoring devices from Smart Meter enabled physicians to care for their patients without seeing them in person. This also raised the awareness of reimbursement codes for remote patient monitoring that were first introduced in 2019. Smart Meter's cellular RPM devices gave providers ready access to patient data and the ability to quickly act on it. Smart Meter's devices have automatic record keeping, which meets reimbursement requirements.

The effectiveness of Smart Meter's devices and physicians' ability to bill for monitoring their patients remotely incentivized providers to recommend these technologies and data services to their patients.



Secure connectivity is vital

In addition to the challenges of getting medical professionals to use remote monitoring devices, Smart Meter had another looming challenge. They had to persuade patients to use their devices.

According to Atkin, studies have shown that recording patient health data and finding trends is essential in improving patients' health. But that only works if patients consistently use the RPM devices. Smart Meter created devices that are easy to use. That makes it more likely that patients will consistently use them.

³<https://www.pewresearch.org/internet/2017/05/17/tech-adoption-climbs-among-older-adults/>

“AT&T Business is the clear leader in healthcare connectivity. That’s attractive to any organization serious about helping improve people’s health.”

Casey Pittock
CEO, Smart Meter, LLC

The final piece of the puzzle was connectivity. Smart Meter needed a way to securely deliver patient health data to a secure location from which their healthcare providers could easily access it.

A simple way to improve patient health

Research shows that a record number of seniors are using electronic devices and seem to be comfortable doing so.³ Yet some senior patients are reluctant to adopt new technology. Their hesitation is magnified when devices are Bluetooth-enabled and they have to pair them with a smartphone or tablet, upload their data, and then forward it to physicians.

Pittock said the process can intimidate and frustrate users. Some patients even called on their doctors to help them set up their devices. According to Pittock, “One physician told me, ‘I didn’t go to medical school to teach patients how to pair their devices.’” Many patients abandon their monitoring programs.

Atkin agreed that pairing devices would be a stumbling block for many. “I consider myself to be an intelligent person, and I can’t pair anything with anything,” he said. “How is my 82-year-old father-in-law, who is diabetic and

hypertensive, going to pair something? We needed to give patients devices that make things really easy.” Smart Meter engineers were looking for a simpler way to help patients improve their health.

A secure, reliable IoT network

AT&T Business equipped Smart Meter devices with AT&T IoT SIM cards. This enabled automatic delivery of patient data over the AT&T IoT network to the SmartRPM cloud. The solution eliminates the need to pair devices with a cellphone or tablet. Patients simply load the included batteries into their monitoring devices and press the start button.

“The steps that AT&T Business has taken to ensure that the data is secure end-to-end are absolutely spot-on with what we need to truly be the foundational provider of remote patient monitoring in the industry.”

Casey Pittock
CEO, Smart Meter, LLC

“AT&T Business reached out to show us available technology and resources that could boost us into a whole new stratosphere,” Atkin said. “They have technology and capability that would be difficult for a small company like us to reach.”

Pittock said Smart Meter’s focus on quality made AT&T Business an easy choice. “All our devices are registered with the FDA and the data has to flow securely. AT&T Cybersecurity presented a demonstration that was absolutely amazing,” he said.

As a Silicon Valley resident, Pittock has seen many technology innovations. “But the steps that AT&T Business has taken to ensure that the data is secure end-to-end are absolutely spot-on with what we need to truly be the foundational provider of remote patient monitoring in the industry,” Pittock said. “And AT&T Business makes that happen.”

The most secure data tunnel

Atkin concurs that the data security AT&T Business provides was a deciding factor for Smart Meter. Healthcare organizations have to ensure compliance with stringent HIPAA regulations, including the security and privacy of patient data.

“If I were doing a marketing campaign, my key line would be, ‘Would you trust your healthcare data to just anybody?’” Atkin said. “The answer to that is simple. I don’t trust my data—or anyone who uses our technology—to just anybody. We wanted to go with the most secure data tunnel possible and AT&T Business provided that.”

Smart Meter also appreciates the credibility of AT&T backing their products and services. “AT&T Business can open doors for us that would take us months or years to open,” Pittock said. “With AT&T in our corner, we are having more conversations with customers who can absolutely benefit from our solutions. And that’s another key differentiator.”

Clear value for the healthcare community

Smart Meter today counts on AT&T Business to connect its comprehensive suite of quality, FDA-approved devices. These include iGlucose®, iBloodPressure 2.0™, iScale™, and iPulseOx™. Each device can deliver reliable readings,

better data, and enhanced care—all while defending the privacy of patient data.

The company has documented improved outcomes in diabetes, hypertension, and weight management. Its newest product, iPulseOx, has been extremely beneficial in helping patients and their medical teams manage COVID. “iPulseOx actually transmits the oxygen saturation and heart rate right to the doctor, who can act on it and manage the condition,” Atkin noted.

Patients no longer have to see a doctor in person as often, yet doctors can still be properly reimbursed for their time. “Remote patient monitoring allows doctors to connect with their patients in a new way and creates a new revenue stream for them,” Pittcock said. “They can see more patients and view the trends of patients’ clinical readings over time instead of single snapshots once or twice a year when they go to the doctor’s office. The value proposition has become very clear to the healthcare community.”

Easy access to improved healthcare

Smart Meter’s cellular RPM devices give patients easy access to improved healthcare with the peace of mind that comes from frequent assurances and support. And healthcare providers have ready access to more complete patient data and the ability to act on it in real time, according to Pittcock. Plus, automatic record keeping makes it easier for providers to be reimbursed.

Smart Meter now operates in every state, managing approximately 1 million data points per month through its

platform and the AT&T network. That figure increases by about 10% per month. “We were serving approximately 80,000 patients per day at the end of 2021,” Pittcock said. “By the end of this year, we’ll be serving over 200,000.”

In addition, the company now has more than 300 distribution partners, including chronic care management platform companies and remote patient monitoring logistics companies.

Atkin and Pittcock both credit AT&T Business with helping to facilitate Smart Meter’s growth. “AT&T Business is the clear leader in healthcare connectivity,” Pittcock said. “That’s attractive to any organization serious about helping improve people’s health.”



“AT&T Business reached out to show us available technology and resources that could boost us into a whole new stratosphere.”

Ben Atkin
Founder, Smart Meter, LLC