

Vodafone IoT connects patients worldwide to secure medication monitoring

Specialty pharmaceuticals are vital to patients with rare diseases, including immune-deficiency disorders and cancers. As the largest distributor of specialty pharmaceutical products in the U.S., ASD Healthcare developed an innovative solution for the healthcare supply chain. Cubixx® Solutions, which include refrigerated units that read RFID product tags, allow hospitals and pharmacies to monitor storage and usage of valuable, life-saving medicines. ASD Healthcare is working with Vodafone IoT to bring this same level of reliable connectivity to patients at home, worldwide.

The challenge

Connected healthcare

ASD Healthcare is a critical player in the U.S. healthcare system. As the largest distributor of oncology and supportive care drugs to health systems and specialty pharmacies in the U.S., and the largest distributor of blood derivatives, nephrology products and other critical specialty pharmaceutical products in the U.S., ASD Healthcare serves 95 percent of the country's hospitals.

When and wherever possible, ASD Healthcare has worked to improve transparency, security and efficiency for specialty pharmaceuticals used throughout the healthcare system.

In 2006, ASD Healthcare launched Cubixx. Cubixx Solutions are based on a pharmacy-grade refrigerator, which allows professionals access to vital medications as and when they are required, with facilities charged for the medication only when they remove and use them. Cubixx also remotely tracks stock levels and expiry dates of medication to ensure that medication never spoils or runs out.

The first models were aimed at larger hospitals and pharmacies, with connectivity coming from Wifi or a local area network (LAN). Phase two would see Cubixx rolled out to smaller practices and patients' homes, where connectivity could not be relied upon.

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Chris Flori Vice President Business Innovation ASD Healthcare

"We couldn't be constrained by the patient not having reliable connectivity," says Chris Flori, Vice President, Business Innovation, ASD Healthcare. "Mobile connectivity was the natural solution."

The issue for ASD Healthcare was finding a single provider to cover the entire U.S., and facilitate international expansion. "Our ambitions are global, and any time you get into multiple suppliers you're looking at multiple contracts, multiple rates," explains Flori. "A single, global partner is much simpler."

The solution

A single view of a global network

The Vodafone Managed IoT Connectivity Platform provides both the platform and the connectivity to accommodate ASD Healthcare's global ambitions. It means Flori has a single contract to manage with a global supplier, with reliable connectivity worldwide. All SIMs can be activated and monitored from one platform.

"Clearly, global connectivity was important," says Flori, "and there are few companies that can match Vodafone. However, given Vodafone's expansive reach, we wondered if the customer service standards would fall short?

"It's been quite the opposite. Vodafone have been great to work with, period. We're certainly not one of Vodafone's largest customers, but the service and engagement we've seen has been first-class. They're highly customer-focused. It makes it a lot easier to bounce ideas around when you have an engaged partner."

The Vodafone managed connectivity was first tested on 100 Cubixx devices in the U.S., Brazil and Canada, with the intention to roll-out and replace 1,000 incumbent SIMs.

"The trials never stopped," says Flori. "They're all still going. It turns out, once a patient has a Cubixx device in their house, and is actively engaged, they don't want to stop there. We've continually added to the features and functionality; we're deploying three to five new devices a week."





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The future

Delivering healthcare in the home

Smaller, home-based connected healthcare is increasingly significant, says Flori: "Cubixx is already 9:1 in favour of smaller devices versus large-scale units, and there are two factors driving the market."

The first, he explains, is the industry acceptance that homecare is a good thing. It can be more cost-effective to deliver and less disruptive for the patient. A second advantage comes from advances in clinical trials: with Cubixx, pharmaceutical companies can reach a wider audience if they include patients at home.

"For this to work you need to be able monitor when the drug is being administered, how it is being stored, and if anything has occurred to corrupt the quality of the treatment. And you need to be able to do this at scale, from a single platform," he says. "Whether it is a physician or a pharmaceutical trials team, you want a single view of as many devices as possible. The ability to manage exceptions — where a daily dose of medicine has been missed, for instance, is hugely important. Working with Vodafone IoT, Cubixx solves these issues."

Take-up from patients, he says, will not be the issue. "Data privacy is important, but we have the same data security protocols as a hospital or a bank. Most patients are hugely accepting.

They're very interested in being part of a better healthcare outcome, to make their lives better."

The bottom line

- Ensures a single platform and management to simplify a global roll-out
- Reliable connectivity with consistent pricing
- Secures a relationship with global IoT leader, improving long-term planning

About ASD Healthcare

- Largest distributor of oncology and supportive care products to healthcare facilities and specialty pharmacies in the U.S.
- 33,000 active accounts
- Founded in 1993
- www.asdhealthcare.com



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