



With Aeris, BBOXX Provides Clean Energy Solutions to Off-Grid Communities



CASE STUDY

“By working with Aeris, we can ensure that our solutions have optimum reliability and our customers can be sure their devices possess a reliable connection, at all times, no matter the location. Aeris’ high-quality service and IoT expertise ensure that we can offer the best clean energy solutions to off-grid communities worldwide.”

Christopher Baker-Brian,
Co-Founder and Chief
Technology Officer, BBOXX

Companies operating in the most remote locations, with products purpose-built for off-grid, rural, and often hostile environments, require a reliable global mobile network that provides consistent connectivity worldwide to enable effortless remote monitoring of energy systems. To overcome these many life-critical, energy-delivery issues, there is significant need for reliable GSM and CDMA connectivity to deliver functional, energy saving solutions.

The World Energy Outlook estimated that 1.2 billion people, equivalent to 16% of the global population, did not have access to electricity in 2016, with many more people living with an electricity supply described as poor quality or unreliable. More than 95% of those living without electricity are in sub-Saharan Africa and developing Asia, 80% of which live in rural areas. The United Nations Foundation has stated that “energy powers the world’s economic engine,” adding that, “from the perspective of jobs, security, climate change, food production, or increasing

incomes, access to sustainable energy for all is essential for strengthening economies, protecting ecosystems, and achieving equity.”

Case in Point: BBOXX—Energizing the World

BBOXX designs, manufactures, distributes, and finances innovative plug-and-play solar powered systems to improve access to energy across Africa and the developing world. The company recognizes the importance of sustainable energy and, as such, aims to provide 20 million people with electricity by 2020.

Through a vast network of shops and outlets, BBOXX focuses on giving people, many in off-grid communities, access to electricity, while offering superior customer service. Its core products are a range of solar powered battery boxes that sit in a home and allow users to power small appliances, such as lights, mobile phones, refrigerators, or computers.

BBOXX needed to use real-time data to identify device issues early — with proactive alerts sent to customer service agents to ensure that system problems could be fixed before they evolved. Because of this, the company required a reliable cellular network that enabled effortless remote monitoring and access to real-time data, as well as the ability to configure and adapt each system so as to maximize battery life and provide cost-effective solutions for both itself and its customers.

Additionally, BBOXX products are manufactured without a known destination and, as such, with certain mobile network providers, a local SIM card would have to be inserted into the device following sale and then would require local configuration. This process required additional time, cost more, and hindered operational effectiveness. Therefore, mass global deployment of solutions only was possible by working with a reliable cellular network partner that provided end-to-end monitoring, no matter where

in the world systems are deployed. And a partner that could connect to multiple carriers, regardless of location.

Aeris IoT Solution: Reliable Network Connectivity Enables Global Deployment

Aeris offers multiple, non-steered network connectivity in East and Central Africa, the principle areas where BBOXX deploys, thereby enabling real-time gathering of actionable data. Aeris' global support of major cellular technology standards, such as GSM, CDMA, and LTE, also ensured that BBOXX could deploy its devices in any location during global expansion.

With the Aeris IoT Services platform, BBOXX can install the Aeris global subscriber identity module (SIM) at the point of manufacture, reducing both supply chain costs and deployment time. Also, by utilizing Aeris' single global access point name (APN), the solar-powered BBOXX system could

be deployed on a simple plug-and-play basis, without the need to reconfigure to local network settings.

By utilizing the Aeris connectivity management platform, AerPort, for IoT devices, BBOXX was able to have real-time access to data usage, alert management, and device connectivity management over the SIM life cycle.

An Easily Deployed and Remotely Monitored Global Clean Energy Solution

Aeris IoT Services' network connectivity enables BBOXX to remotely monitor its devices. Configuration and deployment times have been reduced significantly. Predictive and proactive maintenance help lower ownership and maintenance costs. And, these plug-and-play devices can be switched off from a central location if troubleshooting issues arise or if payments are not met. All this adds up to the lowest possible TCO for an IoT solution.

Customer Benefits



ANALYZE AND MONITOR SYSTEMS TO EXTEND BATTERY LIFE



REAL-TIME ACCESS TO DATA USAGE, ALERT MANAGEMENT, AND DEVICE CONNECTIVITY MANAGEMENT OVER THE SIM LIFE CYCLE



SIMPLE PLUG-AND-PLAY, WITHOUT THE NEED TO CONFIGURE LOCAL NETWORK SETTINGS



REAL-TIME DATA PROVIDE INSIGHTS



INSIGHTS TO TROUBLESHOOT ISSUES



SINGLE GLOBAL ACCESS POINT



PREDICTIVE AND PROACTIVE MAINTENANCE

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ABOUT BBOXX:

BBOXX is a venture backed company developing solutions to provide affordable, clean energy to off-grid communities in the developing world. We are fully vertically integrated, controlling every part of our customer experience. Our market leading products and appliances, coupled with our SMART Solar platform, bring machine-learning and customer experience optimisation to rural Africa. Our ground-breaking financing structure has brought off-grid solar into the world's financial markets. With more than 80,000 systems deployed so far, 300 staff across five offices in China, U.K., and East Africa are waking up every morning to work with BBOXX to electrify 20M people by 2020.

Visit www.bboxx.co.uk or follow them on Twitter [@BBOXX_HQ](https://twitter.com/BBOXX_HQ) to see their progress and get in touch with them.

Contact them at www.bboxx.co.uk/contact or +44 (0)20 8987 3195.



ABOUT AERIS:

Aeris is a technology partner with a proven history of helping companies unlock value through IoT. For more than a decade, we've powered critical projects for some of the most demanding customers of IoT services today. We strive to fundamentally improve their businesses by dramatically reducing costs, accelerating time-to-market, and enabling new revenue streams. Built from the ground up for IoT and road tested at scale, Aeris IoT Services are based on the broadest technology stack in the industry, spanning connectivity up to vertical solutions. As veterans of the industry, we know that implementing an IoT solution can be complex, and we pride ourselves on making it simpler.

Visit www.aeris.com or follow us on Twitter [@AerisM2M](https://twitter.com/AerisM2M) to learn how we can inspire you to create new business models and to participate in the revolution of the Internet of Things.

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