



Aeris IoT Services Helps Hello Tractor Plow African Fields



CASE STUDY

“Aeris was able to meet our connectivity and data demands at a far lower price than other solution providers. But it was their attention to detail and the support that made the choice an easy one. With this new solution, everybody in the food production chain, from tractor owners, to farmers, to consumers of goods, comes out ahead.”

Jehiel Oliver, CEO,
Hello Tractor

Over much of the African continent, low-income farmers dominate food production. In Nigeria alone, which has one of the largest inventories of uncultivated farmland on the planet, where the average farm size is just over one hectare (about 2.5 acres), there are 52 million smallholder farmers who grow 90% of the food. These small, fragmented plots make farm mechanization a challenge.

Additionally, as rapid urbanization and aging populations continue to deplete the farm labor workforce, Nigerian farmland remains uncultivated because local farmers lack the resources to work it, leaving the country food insecure and many families trapped in a cycle of poverty.

Tractor usage in Nigeria is ranked at 132 out of 154 countries surveyed, causing below global average food production per acre. This, in turn, exacerbates in-country food security issues. So, new business models, as well as best practices, are needed to ensure agricultural investments benefit

low-income farmers who cannot afford to purchase heavy farm machinery, but are able and willing to rent them on an as-needed basis.

On-Going Challenges

Tractor owners, however, want assurances that their leased equipment is used properly. They need to know if the machine is working, en route, or just endlessly idling. The owners want a system that can clarify if and when payments are made. To that end, a mobile payment system, with SMS functionality, is required. Owners need the ability to track, enable, or disable the tractor in regards to lease payments. They need financial partners (banks, insurers) that can assist in this effort. Insurance firms need insight into high levels of data that define all tractor actions, at all times. To that end, tractor owners need the ability to track and monitor their machinery across wide regions, requiring a low-cost cellular connectivity solution with extensive roaming capabilities.

The World's First Digital Tractor Platform

Working closely with its partners, Hello Tractor created an entire ecosystem, with a sharing platform, for income-generating products and affordable service offerings. This enabled more farmers to receive the services or equipment they needed to succeed. Another crucial step to Hello Tractor's success was developing a pay-as-you-go plan that farmers could afford and one that the banks and insurers could accept.

With several hundred tractors in operation, Hello Tractor sought a technology partner who had access to multiple carriers, had knowledge and access to low-cost devices and sensors, one who could deliver credible, reliable connectivity at a workable price, and one who could produce insights to tractor movements and management. And finally, the company needed a partner that could help interpret the newly available volumes of vehicle telematics.

Tracking Tractors

Working with the Aeris IoT Data Management platform, Hello Tractor now is able to deploy pre-certified

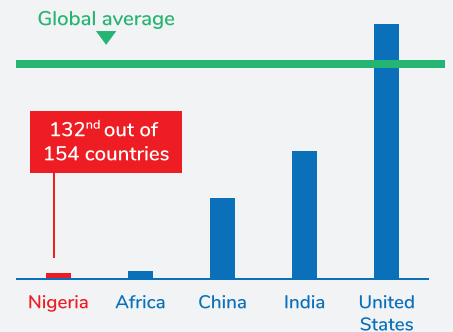
subscriber identity modules (SIMs) on tractors, thereby simplifying the entire implementation process and saving significant time and money on deployment, tracking, and monitoring capabilities. The Aeris solution provided extensive roaming capabilities, always finding the strongest signal and eliminating the problem of unreliable connections and missed data.

With this new information, machinery owners will be able to tell where and when a tractor was in operation, as opposed to traveling to a new site.

Win / Win: Benefits of an Aeris Solution

If results are a measure of success, then the Hello Tractor / Aeris alliance provides a process that can be replicated. Today, Nigerian smallholder farmers who could not afford the entire price of a tractor can short-term lease the equipment as needed, resulting in greater crop yields. Heavy machinery fleet managers have greater insights to the usage and health of their tractors, resulting in better maintenance, the need for fewer spare parts, and the ability to re-coup tractor costs faster. Bankers gain access to tractor loan management and analytic tools.

AVERAGE TRACTORS PER 100KM2 OF ARABLE LAND



Source: Nigerian Federal Ministry of Agriculture and Rural Development, WB

And OEMs sell more units. Also, with the Aeris solution, billing is simplified, based on time in the field and area covered.

This entire process deployed by Hello Tractor produces greater efficiencies, higher crop yields, and a proven business model that can be implemented around the globe. Armed with this greater access to business-critical data, Hello Tractor now has plans to expand projects into Kenya, South Africa, and other Sub-Saharan countries.

Customer Benefits



MORE DEPENDABLE
CONNECTIVITY



ENHANCED TRACTOR
MANAGEMENT



GREATER
EFFICIENCIES,
GREATER CROP YIELDS



GRANULAR DATA
ANALYTICS

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ABOUT HELLO TRACTOR:

Hello Tractor is focused on moving smallholder farm families out of poverty by increasing their access to timely tractor services (and eventually other farm inputs). Hello Tractor's technology makes it easy and profitable for tractor owners to (1) monetize tractors as business assets and (2) connect with customers in need of tractor services. To boost the supply of tractors in the market, we support banks with dashboards that provide tractor financing and dealers/technicians with data to help guide their spare-part supply chain management and maintenance delivery.

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

Contact them at info@hellotractor.com



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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