

# LANTRONIX®

## INDUSTRY:

# Industrial

## Lantronix FOX3 Gateway Drives LACOS Farm Equipment Telemetry



### Success Highlights

- Deliver world-class connectivity performance
- Provide high security in a compact wireless device
- Accelerated timeline to deliver a prototype
- Reduce total cost of development
- Faster production and time-to-market

### Case Study Overview

Using the Lantronix FOX3-3G-BLE (#F35HGZFS) telematics gateway, Germany-based LACOS designed an intelligent farming solution that remotely captures vehicle movement, location, driver status and other vehicle-related data and makes it available on a secure cloud-based management platform. Securely capturing this data gives users control and traceability of tractors, vehicles and other critical farm equipment, greatly improving the efficiency and precision of field cultivation.

### CHALLENGE: Remotely Control and Track Farm Equipment

With the mission of improving innovation, sustainability, customer satisfaction and employee safety, LACOS had the goal of reinventing how farm equipment is remotely controlled and tracked and how information on daily operations is securely gathered and shared. Its goal was to eliminate paper logbooks by taking management and data sharing online through a secure Web portal. LACOS's clients are farm equipment manufacturers seeking ways to improve operational efficiency for farmers.

### SOLUTION: Lantronix FOX3 Series

To remotely capture and securely share information about farm equipment operations, LACOS chose Lantronix FOX3 series telematics gateways. The gateways are installed in tractors, vehicles and other farm equipment, and Bluetooth® LE tags are attached to the equipment implements, such as ploughs, spreaders, harvesting and chaff cutting tools. The solution enables the tracking of vehicle movement, location, driver status, gasoline usage and more.

“The Lantronix Fox3 telematics gateway provides the secure multi-protocol connectivity solution we need for our LACOS telemetry solution for farm machinery.”

– Stephan Hubrich  
Managing Director, Marketing  
LACOS



### Product:

## Lantronix FOX3 Series Telematics Gateways

FOX3 Series telematics gateways are compact, all-in-one cellular devices that enable smart tracking and reliable data logging for virtually any type of vehicle or equipment. In addition, the FOX3 telematic gateways facilitate management in enabling geo-fencing, alerts, power management and more.

### Features include:

- Robust, integrated wireless connectivity
- Built-in security, including secure boot
- Cloud-based centralized device management
- Alerts, status reports and history modes
- Internal and external antennas
- Compact, easy-to-install form factor

For more information, visit <https://www.lantronix.com/products/fox3-series/>

Management and data sharing is accomplished via the client's choice of a secure Web portal, which includes the LACOS portal, the client's private portals or agricultural portals, such as 365farmnet.



## RESULTS: A Market-Ready Prototype and Speed to Market

Utilizing the Lantronix FOX3 series telematic gateways gave LACOS a cost-effective solution to help develop its online equipment management and tracking solution.

Benefits included:

- Intelligence at the edge with the ability to define logic in the telemetry gateways, which enables faster decisions, eliminates the need to define logic in post-processing and reduces the amount of stored data.
- BLE tags, which, when attached to the implements, provide the ability to document the key machine (e.g., tractor) and implement without having to install a telemetry unit on every agriculture device, delivering a significant cost reduction.
- The BLE module, which utilizes the BLE tags and provides customer usage data, such as location and time frame used, that enables LACOS to create new applications, including agricultural rental equipment management and inventory improvements.
- Management and data sharing, which is accomplished via the client's choice of a secure Web portal and includes the LACOS portal, the client's private portal(s) or agricultural portals, such as 365farmnet.
- For the farmer, LACOS's solution helps facilitate more precise farming and increased field cultivation through the use of Web ports that simplify logistics, tracking and data logging while eliminating the need for paper logbooks.

“Lantronix's Fox3 series telematics gateway delivers a clear competitive advantage over other products on the market.”

– Stephan Hubrich, Managing Director, Marketing, LACOS

## About LACOS

With more than 30 years of intensive experience in the field of software-supported machine control and information processing, LACOS is a global provider of precision farming solutions, including telemetry for farm equipment designed to increase field cultivation efficiency. Driven by innovation, creativity and customer needs, LACOS is devoted to bringing new agricultural technologies to market. For more information, please visit <https://www.lacos.de/>.



## Lantronix FOX3 Series

Fox3 Series Competitive Advantages:

- Device configuration programming options
- Ability to define logic in the telematic gateways
- User-defined logic using LUA script
- BLE module for customized applications
- Compatibility with a variety of Web portals
- Robust technology that reduces development costs

## About Lantronix

Lantronix Inc. is a global provider of secure turnkey solutions for the Internet of Things (IoT) and Remote Environment Management (REM), offering Software as a Service (SaaS), connectivity services, engineering services and intelligent hardware. Lantronix enables its customers to provide reliable and secure solutions while accelerating their time to market. Lantronix's products and services dramatically simplify operations through the creation, development, deployment and management of customer projects at scale while providing quality, reliability and security.

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