

# CIO APPLICATIONS

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## Company:

RF Controls

## Key Person:

Tom Ellinwood,  
President & CEO  
Graham Bloy,  
Co-Founder,  
Director of  
Engineering & CTO

## Description:

RF Controls provides powerful intelligent tracking and control system for manufacturing, logistics, and the retail industry

## Website:

[rf-controls.com](http://rf-controls.com)

## Top 10 Digital Manufacturing Solution Providers - 2019

**T**he manufacturing industry has been constantly pushing its technological envelope since the first industrial revolution. Today, it is in the midst of another paradigm shift, as a new generation of sophisticated technologies is transforming manufacturing into a highly connected, intelligent, and, ultimately, more productive realm. The manual processes-driven shop floor of the past is being replaced by smart manufacturing facilities where tech-savvy workers, aided by intelligent robots, are creating the products of the future.

For the modern manufacturer, data is no longer just the purview of IT; from supply chain management to the operations floor, data is now omnipresent across the organization. As data gets further unified across a firm, data-driven manufacturers will start converging the realms of IT and OT.

That said, intelligent manufacturing is not just about data; it is about using data to make automated decisions, predictions, and real-time optimizations across the end-to-end value chain. Thus, with the help of AI-based advanced analytics, modern manufacturers are now bringing down labor costs, reducing product defects, shortening unplanned downtime, improving transition times, and increasing production speed—all while making manufacturing more flexible.

To help CIOs find the right digital manufacturing solution provider for their business, our distinguished selection panel has evaluated hundreds of leading-edge companies that showcase unique methodologies, techniques, and technologies to serve their customers better. In our selection, we looked at the vendor's capability to fulfill the burning need for cost-effective and flexible manufacturing solutions.

We present to you CIO Applications "Top 10 Digital Manufacturing Solution Providers - 2019."

# RF Controls

## Architecting a Future-Proof Tracking System

**R**F Controls acs the digital arena with a best-of-breed intelligent tracking and control system that is capable of delivering the most precise 3D tag location information available on the market for logistics, manufacturing, and the retail landscape. What makes the company second to none is its proven ability to identify, locate, and track passive RAIN RFID tags from great distances with high speed and location accuracy.

RF Controls' real-time location system (RTLS) can effectively read all the tagged objects and deliver accurate information irrespective of the environment and the state. It can be a wide open warehouse, dock area, heavy duty manufacturing comprising stationary, fast or slow moving objects.

In this interview, Tom Ellinwood, President & CEO of RF Controls, along with Graham Bloy, Co-Founder, Director of Engineering & CTO share some key insights about the organization's RFID solutions, their unique value proposition and roadmap for the future.

### **Could you talk about the vision that has spurred the formation of RF Controls?**

The story of our company traces back to the days when Wal-Mart and the Department of Defense mandated suppliers to use RFID tags on all their products. Equipped with portable RFID tags and real-time product information, the RFID systems had just begun to gain momentum, and companies despite knowing the benefits of the technology were hesitant to adopt it. Reason: lack of standard RFID solutions. Most of the existing RFID solutions' read and accuracy rates were often not up to the mark; as a result, it proved to be a prohibitive barrier for manufacturers and logistics providers.

Understanding the fact that at the end of the day all that organizations need is a robust RFID system that can deliver real-time and accurate data, we put our heads together to lay the cornerstone of RF Controls.

The prodigious knowledge that Bloy has in developing sophisticated military tracking systems was combined with Ellinwood's profound experience in consumer packaged goods and manufacturing to develop a better, standard based RFID solution.

### **Please mention some of the technological intricacies in the RFID arena while elaborating more about RF Controls' role in addressing those challenges?**

Typically, most of the legacy RFID-based systems often tend to fail while scanning numerous tags simultaneously from long

distances and with pinpoint accuracy. Apart from lack of visibility into assets, the current market also has an absence of indoor actionable Passive RTLS wall to wall location data from RAIN RFID tags (Passive RTLS tags = Battery-Free) to understand where assets are and how to find and manage them. As a result, the power of RFID technology to deliver transformational business benefits is yet to be fully realized.

### **Could you shed some light on the capabilities of RF Controls' RTLS system and its unique approach?**

The real need of the hour is to know where each and every object is at all times. At RF Controls, as a first step, the proficient team analyzes the customers' business environment, identifies the requirements, and provides the ability to tag the assets. Each RFID tag in the RFID system has a unique ID, which records the on-demand



**TOM ELLINWOOD,**  
PRESIDENT & CEO

information. The information recorded in the tag is then transmitted to overhead-mounted antennas and translated into computational data. Our smart antennas read hundreds and thousands of ultra-high frequency passive RFID tags across a large area such as a distribution center, manufacturing plant, or a large retail floor. Subsequently, the customers get the granular and accurate real-time information of the objects in any state and location. To provide true visibility, our smart antenna constantly locates and seamlessly counts all the tagged UHF Passive (RAIN RFID) items.

Apart from RTLS, we have also developed an open-source interface platform that enables our partners to integrate into large enterprise solutions and offer flexible go-to-market strategies. Leveraging this scalable business model, we train our distributors and value-added resellers on how to import/export data, tap into business opportunities and perform surveys, run installation and integration services.

Our RTLS system incorporates a business rules engine for complex event notifications that can easily be integrated with enterprise applications and the internet of things platforms. On the hardware side, RF Controls sells a suite of small and large CS Smart Antennas (A-302, CS-445) that are installed overhead and controlled through an operating system, which connects via a series of APIs into third-party enterprise software.

### **Could you please discuss a case scenario where RF Controls' RFID solutions helped a company in addressing their challenges?**

A client testimonial sums up our prowess in offering best-in-class RTLS system. One of our clients, a leading global company on a mission-critical project was looking for an RFID solution to gain real-time information about their assets. Their in-depth search for an RFID solution came to an end with RF Controls. At RF Controls, along with our integrator partners, we developed a scalable solution to track tools and components on their manufacturing floor. This helped the customer to reap accurate

inventory data, improve the speed of pick and order verification, track tools, equipment, and pallets while improving the process, flow, space utilization and reducing service interruptions and service time.

### **Can you share some insights on RF Control's Channel Partner Program and the firm's plans for the future?**

Our company has a partner program that involves innovative channel partners who are dedicated to extending item-level visibility for manufacturers, logistics providers, and retailers. We provide the hardware and software tools coupled with 24/7 support to deliver compelling RAIN RFID solutions that are integrated, tested and optimized for their customers. These key channel partners have the ability to integrate our smart antenna and APIs into a complete solution. As a part of the partner program, we provide value-added resellers with valuable data and business event notifications, opening market opportunities and increasing revenue while addressing customer issues. The program also includes sales and technical training/certification as well as marketing and expert resources for all RFC products and services, allowing partners to accelerate adoption in the growing RAIN RFID marketplace.

Behind the success of our RTLS system is a diligent team that is dedicated to building a product which is singular in the market today. Backed by a strong product along with an innovative team and inspiring leadership, RF Controls is planning to continue to go deeper and wider within the manufacturing and logistics arena.

We believe that when a company can truly see its assets, it can manage them smartly and more efficiently. RF Controls is well-positioned to bring the promises and possibilities of the internet of things to life by transforming the physical world into real-time data visibility using global standards and cost-effective RFID tag technology. **CA**



**GRAHAM BLOY,  
CO-FOUNDER, DIRECTOR OF  
ENGINEERING & CTO**

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