

Managing Equipment, Inventory, & Regulatory Compliance with Descartes RFID Technology



Delta Airlines, one of the world's leading airlines, explains how Descartes RFID technology is helping the air carrier manage equipment and inventory as well as keep pace with compliance requirements. Ken Lorow, Manager, TechOps Technology & Innovations, Engineering from Delta Airlines, dives deep into how the technology has helped the air carrier remain nimble.

“It’s the shared knowledge that we have amongst our teams that works so well for us. In the future, there’s so many opportunities ahead of us, whether it’s engine shop tracking, component shop tracking, engine stand tracking, or BLE—it’s exciting for us for future use cases. I’m excited about where Descartes takes us in the future for BLE and RFID.”

Ken Lorow

Manager, TechOps Technology & Innovations,
Engineering, Delta Airlines

Company Profile

Delta Airlines

Descartes Solutions

Descartes Internet of Things™

About the Client

Headquartered in Atlanta, Delta operates significant hubs and key markets in Amsterdam, Atlanta, Bogota, Boston, Detroit, Lima, London-Heathrow, Los Angeles, Mexico City, Minneapolis-St. Paul, New York-JFK and LaGuardia, Paris-Charles de Gaulle, Salt Lake City, Santiago (Chile), Sao Paulo, Seattle, Seoul-Incheon and Tokyo. As the leading global airline, Delta's mission to connect the world creates opportunities, fosters understanding and expands horizons by connecting people and communities to each other and to their own potential. Learn more at www.delta.com

Quick Overview**Challenge**

Keeping track of materials, maintaining inventory levels, and maintaining compliance

Solution

Descartes Internet of Things™

Results

- Improved Efficiency
- Enhanced Inventory Management
- Increased Compliance
- Enhanced Automation

Delta's journey began with tracking airplane wheels to help them reorder enabling rapid re-stocking, "In 2013, we began a process of tagging our aircraft wheels. If anybody's ever heard of 'Snowmageddon' in Atlanta, that was the day that it shut down Atlanta. There was no sunshine, [we were] freezing tagging wheels, and we turned around and realized we were locked in and snowed in, and that began the journey."

"On the logistics side of the house, that was kind of self-serving, but a very easy [usecase] to track parts. [The solution] ties into the tool system knowing where the parts are, such as the circuit breaker collars. If you lose one, you're able to use RFID to locate it. And so that's lockout tag out. Kanban are expendable material, and it matters when we have a big \$200,000 computer and you need to know where it is. That's great, but a 50-cent washer could also cause an aircraft to be delayed. Every part is critical to the operation of an airplane. If you don't have that 50-cent washer, that matters also, and that could cause a shut down or cause a delay."

"Also, for Kanban, there's a bin flag that allows you to flip a flag that says I need to order these parts. In the past, you'd have to go around, write them on a piece of paper, say I'm out of this, and then go order it. This was upgraded to barcode scans, but if there wasn't a human to do these barcode scans, then you could be without parts for a long time. Now, with RFID, you can walk in a room, and in 30-seconds to 2-minutes, depending on the size of that area, [the technology] automatically orders the parts, gets those parts back into the pipeline, and gets them on-site a lot faster."

"We also have composite material that is regulated where compliance matters. When you talk about emergency equipment, it's not about just knowing that you have a life vest, it's about knowing that you have a life vest that's compliant, that it's within regulations, and within the expiration date. For oxygen generators, in the time of an emergency when you are at an elevation where you need an oxygen mask, when that oxygen mask deploys, you want to know that the oxygen generator is going to create oxygen. There's an expiration date on these oxygen generators, so compliance and safety will be the theme that continues to happen and why we do things that we do with RFID."

"We work together as a partnership, and we have a very good community in the RFID space around the Descartes product. It's the shared knowledge that we have amongst our teams that works so well for us. In the future, there's so many opportunities ahead of us, whether it's engine shop tracking, component shop tracking, engine stand tracking, or BLE— it's exciting for us for future use cases. I'm excited about where Descartes takes us in the future for BLE and RFID. Down the path, this opens up more and more opportunities for Delta Airlines. There are a lot of creative minds that work at Delta Airlines that can think of how Descartes can help, and how Delta can partner with Descartes going forward."

Results:



Improved Efficiency

Workers can scan RFID tags quickly to drive up overall operational efficiency



Increased Compliance

Delta ensured that critical equipment meets compliance, safety, and industry requirements



Enhanced Inventory Management

With RFID tags able to trigger alerts regarding low inventory, parts can be replaced more rapidly



Enhanced Automation

Processes are automated using RFID tags which means less labor and increased accuracy