

# RFID in Healthcare Supply Chain

## DePuy Synthes (formerly DePuy Orthopaedics) Accelerates Express Care Supply Chain with RFID

Thousands of surgeons worldwide rely upon DePuy every day. DePuy Synthes (formerly DePuy Orthopaedics), a Johnson & Johnson company, is an innovation leader in orthopaedic care, with a focused commitment to help surgeons achieve excellence in surgical practice. DePuy designs, manufactures and distributes orthopaedic devices and supplies including hip, knee, extremity, trauma, orthobiologics, and operating room products.

*"55% of orders that get shipped out every day were called in by surgeons that same day - so we are in a very reactive mode."  
Dave Johnson, Director Distribution & Logistics, DePuy Orthopaedics*

### Automating Tracking Kits for Returns and Replenishment

Every day, close to 1,000 kits are sent on consignment to DePuy sales agents and hospitals as critical operating room supplies. Operational efficiency and labor productivity improvement were the goals of introducing RFID technology into its Express Care kit processing operation in Memphis, Tennessee. Upon return, the kits are received, scanned, weighed, replenished and re-stocked, in order to be re-used in new order fulfillment cycles. There are approximately 2,500 kits in stock and each kit contains from five to over one hundred products. Prior to the introduction of RFID, each kit and part was tagged with a bar-code.



### Results

Since introducing RFID, DePuy has reduced its kit processing time from 10-30 minutes down to under one minute per kit. The RFID solution is yielding 99.99% read accuracy, enabling a rapid transition from previously bar-coded products to RFID tagged items. DePuy estimates the RFID solution will result in a less than 12-month return on investment. Automated Billing and shipping capabilities reduces the cash cycle and eliminates disputes with end users.

### Improving Productivity and enabling Same Day Processing

Quality and productivity challenges in DePuy's operations include incorrect or missing parts in kits, and extensive manual labor as bar-coded kits have to be manually opened, inspected and hand-scanned. Each kit required between 10-30 minutes to check in. Only 30% of orders could be picked out of existing stock. DePuy was looking for a solution, which would drive increased inventory turns and reduce labor dedicated to kit check-in. RFID was the natural choice, but with titanium and cobalt chrome implants stacked in random orientation inside its returned kits, DePuy was concerned whether RFID would work reliably.

The Leader in Remote Asset Tracking

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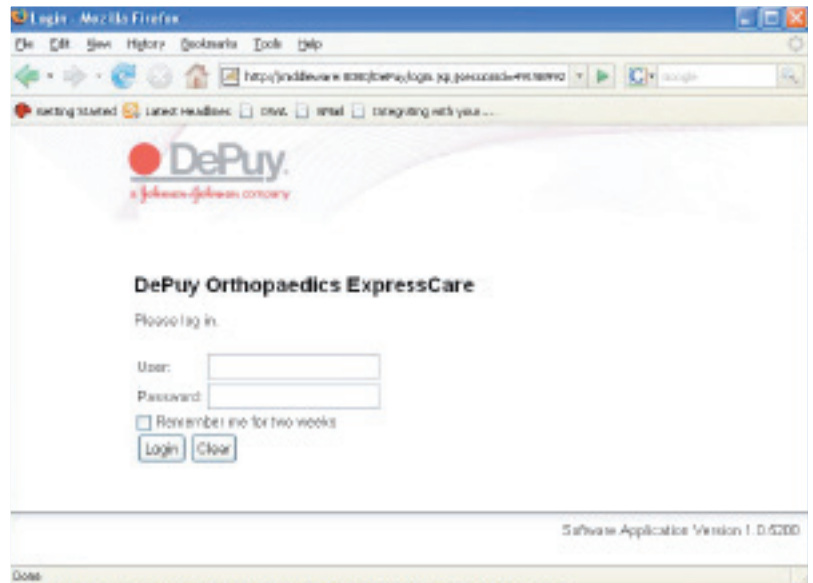
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## Partner Selection: Putting Trust in Expertise

DePuy selected Quake Global because of Quake's deep expertise in RFID technology and innovative solutions development. The solution combined international ISO standard hardware with custom configured software for DePuy's specific work flow. The long-term support, monitoring and system management were all enabled using Quake's patented EasyMonitor™ product.

## Solution Components

DePuy utilizes a fully automated RFID solution from Quake Global. Components include Quake's EasyTunnel™ RFID read stations, EasyMonitor™ for ongoing RFID reader monitoring and management, and a custom software application and training. Features include 24x7 automated monitoring through EasyMonitor™, which provides remote diagnostics, RF field optimization, anomaly detection and eliminates the need to have highly-skilled RFID experts on site.



*"The Quake Global team was great to work with, they designed a solution that fit our business process, and really understand the physics of RFID."*

*Dave Johnson, Director Distribution & Logistics,  
DePuy Orthopaedics*

## About Quake Global

Quake Global is the leader in the physics of RFID infrastructure for solution design, deployment services and automation. RFID is a big part of what we do. Global corporations on five continents leverage Quake Global's expert engineers and patented RFID deployment automation tools to achieve accuracy, speed and visibility for their RFID deployments. In addition to consulting services, Quake Global is also the publisher of the RFID Benchmark Series™, the industry's first and most referenced head to head performance analysis of RFID equipment. Quake's RFID solutions have been successfully used at dozens of companies across more than 500 projects worldwide to ensure accurate and scalable RFID implementations.

To learn more about how to successfully deploy RFID and support it in a high availability environment, contact Contact Quake Global today.

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