Taking readings, checking parts in and out, inspections and many other mundane tasks take a lot of time. Let RFID do that work so people don't have to.

RFID and mNOW!

Radio Frequency Identification (RFID) is a technology that has been around for about 20 years. The most widely known application of RFID is probably the device in cars (transponders) that automatically pays for tolls as you drive through a toll plaza. You don't have to stop if you have established an account with the tolling authority and have a transponder in your car. This saves you a great deal of time over the course of a year. And we all know that time is money. Blue Dot solutions has taken that concept into the industrial arena, and the cost-saving results can be both immediate and quite large. We talked with Gary Blohm, VP of Business Development & Marketing at Blue Dot, to learn a little more about how industrial facilities can take advantage of this time-saving technology...

With a small footprint, RFID tags can be placed easily on a wide variety of assets (above). Using a handheld active RFID reader (left), data can be automatically acquired from the asset by simply getting within 200 feet of the asset.

Let's start with a brief explanation of what RFID is and how it works.

RFID is an electronic tagging technology that allows an object, place, or person to be automatically identified at a distance without a direct line-of-sight, using an electromagnetic challenge/response exchange. An RFID system is composed of readers and tags. Readers generate signals that are dual purpose: they provide power for a tag, and they create an interrogation signal. A tag captures the energy it receives from a reader to supply its own power and then executes commands sent by the reader. The simplest command results in the tag sending back a signal containing a unique digital ID that can be looked up in a database available to the reader to determine its identity, perhaps expressed as a name, manufacturer, inventory item, preventive maintenance reading, number, or cost.

What were the first uses for RFID and when did they occur?

The first patent to be associated with the acronym RFID was granted in 1983. That said, the first "real world" deployments using RFID technology started gaining momentum in the early to mid 1990's. Initial deployments and applications ranged from transport or toll systems (electronic pay while you drive), inventory systems, to long range access control for vehicles, to fundamental product tracking. Most recently, RFID has begun to gain major media attention within the technology community with the mandate from Wal-Mart and the United States Department of Defense requiring that their vendors place RFID tags on all shipments to improve supply chain management business practices. Today, as RFID technology matures and becomes more widely adopted, maintenance organizations within asset intensive industries are exploring ways to incorporate RFID into their daily maintenance business process.

How can mNOW! help maintenance in a manufacturing or industrial environment?

RFID can help maintenance by automating manual processes associated with time-intensive equipment meter readings and related required metrics, inventory check in/out, inspections and audits, and general location tracking. Inherent capabilities of RFID enable far greater efficiencies than traditional barcode technologies and paper based processes.

What types of industries or facilities is mNOW! most suited for?

Our mNOW! product is very versatile in terms of applications. The industries that immediately come to mind are: Manufacturing, Utilities, Facilities & Maintenance, Transportation, Pulp & Paper, Automotive, Oil & Gas.

What are the 3 biggest benefits to implementing the mNOW! system in a maintenance environment?

Well, that's tough because there are a myriad of benefits, but the top three would include:

1) Increased utilization and reduced downtime for key assets that need to be operating 24/7.
2) Eliminate manual data capture of Preventive Maintenance data to increase maintenance workforce productivity and reduce operational cost.
3) Extend the life of key assets by being informed when routine maintenance task need to be scheduled and completed.

Are there any drawbacks or weaknesses in an RFID setup to think about?

In many RFID implementations, the cost of infrastructure can be very high. However, the mNOW! RFID for Preventative Maintenance requires minimal hardware investment, making the overall cost of the system affordable and straightforward to implement. The initial planning and setup of an RFID system is the most critical component. Considerations often overlooked include RFID tag placement, RFID tag installation and approach, and initial tag data association. Blue Dot's RFID experience will avoid costly mistakes in these areas through proper project planning and experienced consulting.

What is time frame for a return on the investment in an mNOW! system?

mNOW! RFID for Preventive Maintenance brings extremely quick return on investment to organizations requiring extensive preventative maintenance. Other Active RFID solutions on the market cost thousands per dollars per equipment/unit. mNOW! RFID for Preventive Maintenance is in the low hundreds; a result of combining state of the art RFID technology, a cost effective mobile framework, and streamlined approach to implementation. Return on investment is recouped within 6 months. After that it's all gravy.

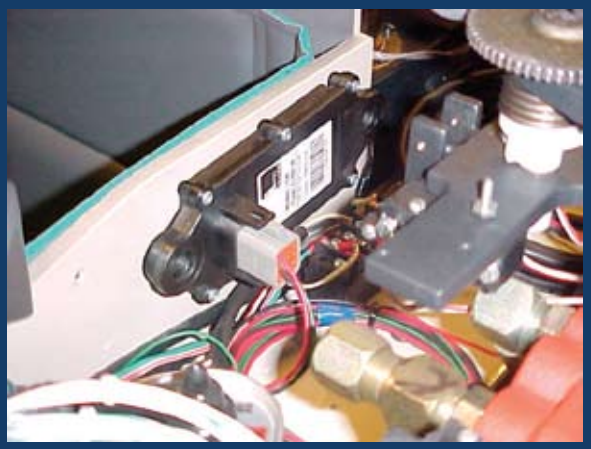
Give us a success story or two from the implementation of mNOW!

Premier Manufacturing Support Services, Inc. currently provides services to over 150 vehicle assembly and supplier plants worldwide, and their customers include most of the largest automotive manufacturers in the United States, Brazil, Canada, China, Czech Republic, England, Germany, Mexico, Netherlands, Poland, Spain, Sweden, and Thailand.

Premier will contract with Blue Dot to design and implement their mNOW! RFID for Preventive Maintenance mobile business application and solution. The fundamental RFID project goal is to greatly improve operational performance, thereby improving the utilization of assets such as fork lift operations, while decreasing cost across the enterprise. Premier will first deploy the solution to its El Paso facility, with a rollout plan to follow for all Premier supported plants worldwide. Premier Manufacturing currently provides support services to over 250 plants and 4000 fork trucks.

Blue Dot will also provide all the other "key" components of the mobile RFID solution, including mobile ruggedized devices, RFID tags and readers, application software, integration, implementation services, and solution support.

Currently a manual intensive process for Premier, the new mNOW! RFID for Preventive Maintenance solution will improve the efficiencies of initial data capture, eliminate data entry, and remove errors associated with handwritten processes.



Installation of an RFID tag

The primary function of Premier's mNOW! RFID for Preventive Maintenance solution will automate the data collection of fork lift truck engine hour readings. An Active RFID engine hour tag, wired directly to the fork truck engine, will be read from a mobile ruggedized device using Blue Dot's mNOW! Mobile Framework as the application software. The device will electronically capture the Active RFID tag ID and associate this information appropriately with a Premier Asset ID, engine hour reading, date/time, and user login information. The engine hours reading data, once collected, will be stored locally on the ruggedized mobile device and synchronized through Blue Dot's mNOW! Middleware to Premier's maintenance (EAM) system, Datastream 7i. The integration will leverage Web Services, consistent with the Service Oriented Architecture (SOA) strategy of both Datastream and Blue Dot's mNOW! Mobile Framework.

How can interested people get more information about mNOW! and Blue Dot?

To learn more about Blue Dot, their mNOW! RFID for Preventive Maintenance solutions, or their mNOW! Mobile Framework please visit www.bluedotsolutions.com, email to sales@bluedotsolutions.com, or 1.866.303.8324.