Communicating With Sam

RFID – Is the Time Right?

Sam Johnston

Question:

With the recent announcements from major retailers regarding suppliers being RFID (Radio Frequency Identification) compliant in the very near future, our sales and logistics executives have been very focused on the issue. The majority of our sales revenue is achieved through major retailers that will demand compliance, so avoiding the technology is not an option. However, we were quite relieved when the implementation window was moved from 2006 to 2008. Due to the extension, we have been wrestling with whether we should start adopting this technology now, or wait until we must be compliant. What are the compelling reasons to begin implementing RFID technology while there are still standards being reviewed in the industry?

Answer:

Radio Frequency Identification (RFID) is a technology that intrigues and scares CEOs, often at the same time. Your question is not uncommon when it comes to technologies that are being forced upon us by some higher force, like a customer demand, as opposed to our own business needs. First, let's ease some of the stress that the CEOs are facing. Meeting customer demands of shipping RFID compliant products does not necessarily mean that you need to implement RFID. Simply affixing RFID tags to your products will meet this challenge, albeit not at a minor cost depending on the value of the goods attached to the somewhat expensive tag. So while this looks like a decision solely being driven by the customer, it really is an opportunity to assess your business to determine if the technology is the right fit and can be leveraged internally.

When it comes to committing to new technology, many companies are reluctant to take the plunge and wait to see how others succeed or fail. That may be wise for some however the first thing you have to realize about RFID is that this technology is not new. In fact, it's been in use as far back as the Second World War when allied aircraft carried transponders that identified them as friend, instead of foe, via radar interrogations. The most common places you can find this technology today are highway toll systems like the 407 ETR or at the gas pump with Esso's Speedpass.

In a similar manner, RFID today uses radio waves to identify objects in business through the use of transponders, or tags as they are better known. The tags contain a microchip and an antenna. The tag then transmits the information to a reader (a portable or fixed device), which in turn coverts the radio waves into data. This data can then be sent to your application via a LAN or WLAN connection. Tags can contain a great deal of data that can be accessed quickly.

Companies that have been benefiting from this technology for many years now are today piloting contemporary RFID products to execute key applications in the supply chain. These industry leaders are looking to enhance the production, inventory taking and security of their goods. You can begin leveraging this technology today and expect a return on investment (ROI) within a short period of time, but only if you truly understand your business processes and the bottlenecks that can be reduced or eliminated. RFID tags or Electronic Product Code (EPC) - the term used to identify the tags that have imprinted data stored on them - is not unlike the launch of Universal Product Code (UPC) was for barcode data collection thirty years ago. The fact that corporations face the same challenges they did years ago when barcodes became pervasive is the same reason to implement RFID today. Companies continue to want real-time tracking of assets and finished goods, availability, product quality and safety. RFID allows them to enhance and speed up the delivery of this information.

RFID industry standards are still being weighed and homogenized by EPC Global. EPC Global is a non-profit organization currently made up of 60 to 70 vendors entrusted by the technology industry to establish global standards regarding EPC & RFID, and although there are still some standards to be refined, industry leaders are not playing the waiting game. EPC Global has instituted Gen2 tag technology standards (second generation), which will ensure scalability for corporations wishing to take advantage of RFID benefits today. For these companies, a short and long-term roadmap can be drawn detailing the logistics and feasibility of such an undertaking. The Gen2 tags have an open standard, cross-vendor compatibility, high reliability, better security encryption and frequency hopping, which will minimize interference and improve the read rate of data. The goal of EPC Global is to improve the standards and technology so that companies are able to use RFID beyond track and trace.

Many questions need to be asked as well when you consider RFID.

- What are the challenges to people, assets and the processes themselves?
- Who will manage the application?
- How do you eliminate wasteful practices within the process flow?
- What software is required and how does it ensure the data is routed to the correct app?
- What are your "need to have" compared to you "nice to have" elements?
- What part of the data extrapolated will be most useful to your company?
- How do you make the most of incorporating this technology with other network components to make your current infrastructure more effective?
- What modifications to the network are required if any?

The key to a successful deployment of RFID includes taking the following steps:

- Establish you areas of improvement within your processes
- Review your process goals with a reputable vendor
- Choose area and process to apply RFID and review its steps to accommodate your pilot project goals
- Make sure the infrastructure can support the large volume of data that can be gathered using RFID – make network adjustment to accommodate the bandwidth
- Determine what will be the necessary hardware and software components
- Ascertain short and long term goals to monitor the projects success

Your choice of vendor is essential to a successful deployment. Typically to deploy EPC tag technology you will need someone to be able to customize the software code to your specifications as well be able to integrate and support the new system. Focus on getting an experienced integrator recommended by RFID hardware manufacturers who have a channel program like Intermec and Texas Instruments. This way you will be assured that all aspects from implementation to the components themselves, will be delivered and executed in a timely manner. As for cost for tags, there are about a dozen or so other makers of tags who are helping to bring the cost of tags down through Gen2 silicon tag development.

Now that Gen2 standards are upon us, the industry has a foundation upon which to begin rolling out their RFID applications that improves the efficiency, productivity and security of the supply chain.

Many changes are expected in this year alone, however, they fall in the category of 'new and improved" rather than revolutionary so you can take solace in knowing that the RFID capabilities that we have today will remain very similar in look and feel in the years ahead, with only enhancements. Look for RFID components that include the Gen2 interoperability. It's best to plan now so that you are ready when the market becomes flooded with the use of RFID and you are not left behind. You have to embrace new technologies and especially those who can help grow your business. When barcode technology was first deployed many years ago, corporations garnered great rewards for having implemented early. The same rule applies to RFID. It will in turn enhance the way of doing business, however,

with faster and more detailed access to information. RFID in itself does not provide the answers to your business challenges and like other technologies before it serves only as a tool. Visionary companies will look to use this tool to help improve access to the data from their enterprise that makes them more effective in the marketplace.

The compelling reasons to begin working on an RFID solution today is that the technology and its benefits are available now. EPC Global and its highly visible member-corporations pioneered the active use of this technology and for the most part RFID standards are in place and generally commercially available. RFID has now matured enough that it can be used to optimize the effectiveness of your supply chain applications through cost reductions in material handling, while improving the accuracy and responsiveness of the information.

While the impetus may be a customer demand, the real opportunity is to make your own business needs the agent of change in order to gain competitive advantage. While waiting on RFID may delay the investment decision, and reduce the uneasy feeling that is associated with being an early adopter, it may also shift the outcome from unique proposition to simply a cost of doing business. TUG

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Sing i5/iSeries Choir Sing!

(And if you can't sing at least download and distribute.)

By Dan Duffy

For years we i5 / iSeries people (also known as "The Chosen Ones" or "The Choir") have been complaining that IBM has been holding the greatest computing platform in the world (our beloved i5 / iSeries) hostage within a Stealth Marketing Plan.

Guess what? The Stealth Marketing Plan has been broken! IBM has actually produced four, count 'em **four** commercials that humourously highlight the messages that we've been trying to get out for years namely that the i5 and iSeries are:

1. Simple to use
2. Don't require a large staff
3. Do under one roof what it would take many servers to execute on any other platform.
4. Are ideal for workload consolidation
5. Have a very low cost of ownership

So? So let's tell some people. More importantly let's tell some people who don't know anything about the i5/iSeries, especially the ones who think Intel is the cure all for every IT problem. You can download the commercials from www.tug.ca Send at least one of them (the "People" one is my favourite) to at least 10 "non-believers" that you know. If everyone on the TUG mailing list does this approximately 50,000 people will get the i5/iSeries message and have a laugh at the same time. That has to be good for us and for them. TUG

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eServer i5 Family

The IBM eServer i5 is the premier business server for clients who value integration, simplified use and support for the widest choice of business applications available on a single server. It is designed to integrate the latest operating systems and technologies, tested to work together, while simultaneously masking complexity.