



Guest Column - Sink or Swim

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According to almost every tech pundit, RFID has the potential to bring the "big picture" into corporate decision-making. Data gathered can allow executives to exploit disparate information streams covering key business functions - including store sales, product orders, distribution-centre inventories and supplier shipments. RFID data may end product counterfeiting and improve response times to product recalls. There is already a proliferation in the data companies collect, and they desperately want to mine that information to improve marketing, sales, support, operations and product development. But there's a technology barrier.

The existing patchwork of older, general-purpose architectures simply wasn't designed to handle terabytes of constantly growing and changing data or the complex types of analysis business users now already need to perform. Add to this the gargantuan volume of data that RFID has the potential to generate, and the need to address the issue of data management sooner rather than later becomes obvious. The success of companies will strongly rely on how quickly and easily they can harness these massive amounts of data to make intelligent business decisions.

The biggest names in global retailing - Carrefour, Gillette, Home Depot, Marks & Spencer, Metro AG, Procter & Gamble, Tesco and Wal-Mart - are all backing the push for RFID adoption. But there's a problem to this theory that the pundits don't address: RFID creates huge volumes of difficult-to-manage data. One recent estimate predicts that once RFID systems reach the product level, they'll generate 10 to 100 times the data of conventional barcode data, turning RFID into something of a Frankenstein monster. Even if you scale this number way back to account for the fact that current RFID data is only available at the pallet and case level, it's still a huge increase in the daily volume of data. Consider the effect of generating an extra terabyte of data each day on the corporate IT system.

While most organizations are still in the early phase of RFID, i.e. making sure the tags and readers work in the DC, the right time to think of what they'll do with mountains of data once the system has been fully implemented is now. In recent months, RFID realists have made a lot of noise about the limits of this "bandwagon technology." They point

out, for example, that massive hardware costs will thwart the practical deployment of RFID systems, not to mention the numerous worries about privacy and security.

But there's an even bigger issue that trumps these concerns: RFID's propensity to grind data warehouse operations to a halt. Because corporations are already sinking under the weight of their own data, they are likely unprepared to handle the added burden of massive amounts of RFID information. To put it another way, all of the glorious promises of RFID will be rendered impotent when they enter the real-world environment of the data center.

So what's the solution? The answer lies in implementing a data management system that can analyze huge amounts of information quickly, instead of allowing it to overwhelm data infrastructures. Companies like Debenhams, The Carphone Warehouse, Orange UK, and the Canadian drug-store giant Shoppers Drug Mart have begun to leverage data warehouse systems that offer real-time data analysis.

A technology receiving much attention in recent months is the data warehouse appliance that architecturally combines database, storage and server in a single piece of hardware. They are being used to gain real-time insights into data and fundamentally change the way that organizations make decisions and drive their business processes. This means a dramatic increase in productivity across the organization. Time isn't spent running queries and maintaining the database; it's spent leveraging business intelligence to make smarter business decisions, ask better questions and, ultimately, make more money.

The market is starting to see a paradigm shift away from traditional data warehousing systems, as organizations seek to cut query times down from literally days to minutes. Some appliances can deliver significantly increased performance for large, complex and constantly evolving BI efforts at half the cost of existing, general-purpose enterprise data warehouse systems. So, you can imagine the positive impact an appliance could have across an organization drowning in RFID data.

These appliances are plug and play solutions that work hand in hand with BI applications and data tools. This is a crucial consideration in the modern, global market where rapid return on business investment determines whether a company will sink or swim.