

Radio Frequency Identification (RFID): A New Paradigm for Information Management

by Stephen Gallagher
Accenture

"It is a very sad thing that nowadays there is so little useless information." Satirist Oscar Wilde's observation in the 1900s has a new resonance today.

Besieged by the wizardry of the electronic age, garnering structured and unstructured data and morphing it into useful information is one of the greater challenges faced by organizations. Accenture believes effective information management can significantly enhance business performance, but while companies might be ready, are they fulfilling the maxim by being willing and able?

As the terminology used to refer to data has evolved—from megabytes to terabytes to petabytes—so has the world seen an unprecedented progression in the storage of information. Estimates show that the United States alone produces about 40 percent of the world's new stored information, and this is growing at 30 percent a year.¹ With the high impact of eventual errors, changing customer demands and legislative exigencies, companies are re-evaluating their information management capabilities. The technology exists today to take control and to increase the scope of information through maturing technologies such as radio frequency identification (RFID).

Originally employed to make supply chains more efficient, RFID has been applied in diverse ways: Shuffle Master, a gaming supply company headquartered in Las Vegas, Nevada, recently purchased two RFID-related patents as a means to monitor and record all gaming chip transactions in its casinos.² But, like barcodes before it, RFID has been relatively slow to proliferate across industries. Despite being a breakthrough in engineering faster, more detailed information, it almost seems as if companies have broadly avoided embracing RFID practices.

Or as CIO Insight puts it: "You have a technology that's on the road to greatness, but is still at least a couple of exits away."³ Perhaps RFID is seen as opening Pandora's box—with companies viewing implementation from an "information overload" perspective; if you cannot deal with the data you have now, what hope is there for managing more?

While the United States clearly leads Europe, the focus for data exchange RFID pilots remains firmly on hardware and middleware activities. Used operationally, particularly in the retail industry such as Marks and Spencer tagging men's suits, the physical tags from RFID indisputably offer enormous potential.⁴ But RFID needs solid referential data to enable automatic read/write capabilities and optimize processes. Accenture believes companies should embrace the potential for the plethora of information created by RFID and find a means to channel and analyze the resulting data. Trend analysis is a natural result, as are realtime data analytics that offer benefits for areas such as fraud analysis. But to convert excessive information to accessible information, a business intelligence methodology and comprehensive data warehousing capability are essential.

Masterminding Business Intelligence

According to a recent Forester study, almost half—46 percent—of end-user companies that are addressing RFID specifically said they have put money aside for analytics and business intelligence, but have not yet spent it.⁵ Accenture believes it is vital for companies to integrate vast volumes of data with an independent, end-to-end solution, with warehousing data being just the beginning. True rewards lie in turning that data into information that will create business value. Accenture is undertaking groundbreaking work today with several major retailers using a methodology and framework that pulls RFID data into a centralized warehouse, bringing economic benefits through areas such as:

- Improved execution and understanding of inventory in supply chain management practices.
- Store labor and stocking efficiencies.
- Customer insight, merchandising and promotion.

Since the early 1990s, Accenture has helped hundreds of clients transform the way they use information to drive their businesses to higher levels of performance. Accenture believes information management is best applied as a holistic approach that combines business intelligence (including data warehousing), portals and content management as well as data architecture. In 2005, we formalized our commitment to this area by launching Accenture Information Management Services.

Granularity with Attitude

At the annual conference of the Council of Supply Chain Management Professionals in October 2005, Louis Sirico, an RFID consultant, predicted that by the end of 2006, retailers in the United States and Europe would push 40,000 suppliers worldwide into tagging their shipments. In our own study of the electronics industry, Accenture has determined

that electronics manufacturers, distributors and retailers could generate \$4 billion a year in net value from full-scale adoption of RFID.⁶

RFID delivers a granularity that needs to be effectively managed—from a quality as well as a quantity perspective. By creating a strategy and vision that applies a combination of data warehousing and business intelligence, companies can better measure and optimize data to create a valuable asset that impacts the bottom line.

Making an investment in data warehousing is more than just data housekeeping. By partnering RFID with good data warehouse capabilities, companies are better able to serve their customers and generate opportunities to drive high performance in their business. Indeed, for many companies yet to fully exploit the RFID opportunity, it can be said, to misappropriate a Browning quotation: "The best is yet to be."⁷ It's a proposition too good to be missed.

-
1. Berkeley University, <http://www.sims.berkeley.edu/research/projects/how-much-info-2003/execsum.htm>.
 2. *Gambling Magazine*, <http://www.gamblingmagazine.com/managearticle.asp?C=290&A=13186>.
 3. "RFID Still Not Getting the Job Done", *CIO Insight*, <http://www.cioinsight.com/article2/0,1540,1778822,00.asp>.
 4. RFID Journal, <http://www.rfidjournal.com/article/articleprint/1412/-1/1/>.
 5. Keith Gile, *CIO Insight*, <http://www.cioinsight.com/article2/0,1540,1779389,00.asp>.
 6. Bill Mongelluzzo, *Journal of Commerce*, "RFID's big bang," November 7, 2005.
 7. Robert Browning(1812–1889), "Rabbi ben Ezra."

About the Author

Stephen Gallagher is the senior director, business intelligence, EMEA, based in Accenture's London, office. He has spent the last 20 years as both a management consultant—specializing in corporate business intelligence strategy, ROI cases and governance on business intelligence implementations—and as a technical consultant, specializing in data migration, front-end reporting and data mining.