



- By Paul Cataldo, Checkpoint Systems

Several years ago I bought a 28-ft. boat and had it outfitted with the latest electronic gear: a GPS chart plotter, radar and a VHS radio. Within a few weeks, I sailed to Martha's Vineyard, ordinarily an easy journey about 25 miles away. About eight miles into the trip, I ran into a storm; I decided it was too dangerous to turn around, so I continued on. But as I drew near the island, my boat was completely enveloped in fog. Because the electronic equipment was new to me, and I didn't know how to use it properly, I had to wait until I could follow a properly equipped commercial ship safely into harbor.

Now think back more than 100 years, when mariners had none of this technology. They navigated primarily by compass, sextant, leadlines and the position of the sun and stars. When caught in a storm or the fog, they had no visibility or idea of where they were. Many ships and lives were lost simply because they operated with imprecise tools.

Today, retailers are facing an analogous challenge – a very rough economy and lack of visibility into their business operations. Consider some of the following challenges they face in this down economy:

- Shrink, currently hovering around 1.36 percent globally, is expected to increase during these weak economic times.
- An MIT study demonstrated that small increases in shrink can produce large increases in out-stock rates. For example, if shrink increase from one percent to one and half percent, out of stocks increase from 21 percent to 28 percent.
- According to a recent AMR study, almost 70 percent of shoppers surveyed said they would shop for out of stock items at a competitor's store or website.
- Finally, another MIT study demonstrated that unaccounted for shrink (which is a larger amount than known shrink) can produce losses up to 30 times greater than the direct loss of the stolen item itself. This is because unaccounted for shrink introduces inaccuracy into the retailer's perpetual inventory. So while inventory systems may show an item in stock -- it really isn't. During this time the retailer is suffering a much more costly secondary loss of missed sales opportunities because merchandise isn't on the shelf.

Fortunately, retailers have instruments at their disposal that can help them navigate precisely to survive and even thrive during this current economic storm. Over the past five years there has been a confluence of developments in retail technology. These innovations have introduced a shift from error prone, manual systems to "digital retailing." Digital retailing enables retailers to manage their business much more precisely and proactively to achieve operational excellence. Consider the following innovations:

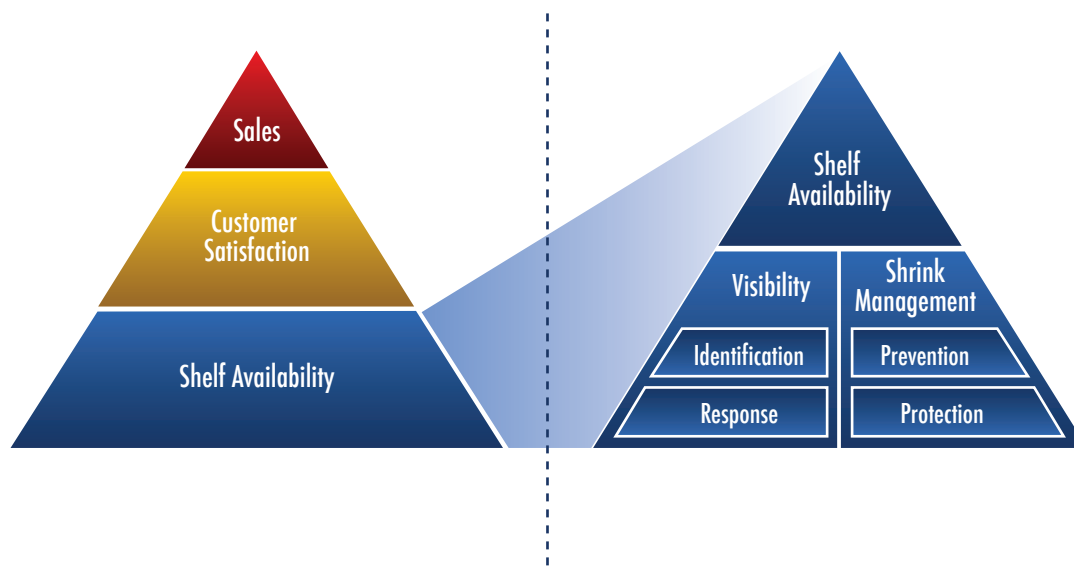
- Radio Frequency Identification (RFID) is arguably one of the most promising but least understood technology developments that retailers could use to gain unprecedented visibility throughout their entire supply chains and on their sales floors. Read rates are now approaching 100%, costs of readers and tags have fallen dramatically and software solutions are readily available to put this technology to work.
- Electronic Article Surveillance (EAS) has become more reliable and effective and is now available in a variety of form factors to meet the most discriminating merchandising and loss prevention requirements. Tags and readers combining EAS and RFID make it easier than ever for retailers seeking a migration path to RFID.
- Video surveillance has migrated from analog to digital supported by the emergence of IP cameras. Video is now a data stream that can be analyzed like any other business data to isolate theft events, spot traffic flows

and even provide conversion rates.

- Advances in labeling technology enable retailers to collaborate with their far-flung suppliers around the globe to get the right labels and tags to the right place at the right time.
- New advancements have been made in developing solutions to secure high-value assets such as electronics or designer handbags, while still enabling retailers to merchandise them openly to encourage purchases.
- Data analysis software make it possible for retailers to easily discover transaction anomalies to detect fraud, sweet-hearting and to manage cases and incidents more effectively.

All of these technologies are available today and can help retailers navigate and thrive in this tough economy. They form the basis for this shift to digital retailing.

A retailer's primary mission is to generate sales by satisfying their customers' needs. One of the key ways to do this is by having the right merchandise on the shelf, or good **shelf availability**. Shelf availability is driven by **visibility** and controlling shrink or **shrink management**. Visibility is supported by identification technologies such as RFID, combined with the ability to respond nimbly. Similarly, shrink management is supported by technologies that prevent (deter) theft and protect merchandise such as EAS.



Digital retailing, supported by the above technologies, enables retailers to gain unprecedented visibility and control shrink more effectively. In a sense, it arms the retailer with “business radar” to answer some of the critical questions in retailing:

- **Am I in-stock?**
- **How can I better protect high-theft merchandise?**
- **How can I prevent internal theft and fraud?**

Am I in-stock?

During these economic times, it is going to be increasingly difficult to attract and retain customers. Thus, it is more important than ever to have the right merchandise at the right place and at the right time to avoid

missing any sales opportunities. In other words, retailers must be ready to sell when their customers are ready to buy.

New advancements in labeling and RFID technologies answer the question “Am I in-stock?” very effectively. RFID tags, labels and software enable retailers to obtain visibility starting at the source throughout their supply chains and into the store with pinpoint accuracy.

Recent developments in RFID software can not only detect low stock conditions but integrate with the retailer’s ERP systems to automatically issue replenishment orders. Using this technology, retailers can avoid “silent” out-of-stocks and the high cost of missing sales opportunities and losing customers to the competition.

How can I protect my high theft merchandise?

Every retailer has merchandise which is highly desirable, high value and more vulnerable to theft than other assets. Whether a retailer carries small electronics such as digital cameras or expensive designer jeans, advanced solutions can prevent theft and protect merchandise more effectively than ever before. New video surveillance and EAS solutions can arm the retailer with potent weapons to secure merchandise, gain visibility and deter theft. Advanced high theft solutions such as spider wraps with integrated alarms can protect a variety of merchandise with a great deal of flexibility. These powerful high theft solutions are equipped with advanced alarm technologies to prevent tampering and theft. The beauty of these solutions is that they protect high value merchandise while enabling the retailer to display merchandise openly, encouraging browsing and purchasing.

How can I prevent internal theft and fraud?

One of the major sources of shrink is internal (employee) theft and fraud. New data analysis software solutions integrated with EAS and internal systems can help the retailer spot suspicious events and take proactive action before losses mount. For example, data analysis software may reveal that more EAS tags have been deactivated than the sales data would support. A loss prevention professional could then use the CCTV system to investigate and find that a dishonest employee has been sweet-hearting merchandise – deactivating EAS tags without ringing up the merchandise for friends.

The key takeaway from all this is that technology developments enable the retailer to be proactive, rather than reactive. These technologies eliminate much of the noise with the retailer’s environment to improve shelf availability, ultimately achieving the goal of satisfying customers while increasing revenues and margins.

Today, I’m a licensed Coast Guard captain, and I can safely navigate through extremely poor weather conditions leveraging the latest marine technologies. If more retailers took advantage of the recent confluence of technology developments enabling digital retailing, they’d gain better visibility into their retail operations and could successfully navigate this stormy retail economy. The tools are out there – now retailers just need to use them.

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