



A Loss Prevention Primer For IT Professionals

The increased need to combine insights from loss prevention systems with retail back-office applications means IT executives need to know as much as possible about shrink management.

Every day, the worlds of Information Technology and Loss Prevention (LP) are intersecting in dramatic and unanticipated ways in the retail industry. For IT professionals, it's made life more challenging and demanding by introducing new technologies, new data sets, new standards—even entirely new vocabularies and “cultural” issues to contend with.

For decades, IT and LP systems acted more or less on separate paths, with different applications and goals. IT folks handled systems issues related to transaction reporting, merchandise management and store functions such as human resources, while the LP team was tasked with the straightforward yet essential role of preventing merchandise from walking out of the store.

But things are changing—fast. The implications for IT professionals are huge, because it means rethinking everything from infrastructure and architecture to applications and standards. No longer

are IT departments and LP professionals traveling different paths in retail stores: IT and LP now have to be on the same track in order to help retailers achieve their critical goals: Increase sales, reduce costs and improve the customer experience.

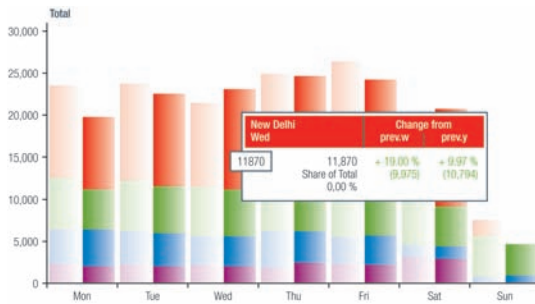
What's changed in the LP world that's affecting how IT people do their jobs? Plenty. But one thing that has not changed is that merchandise





loss—shrink, as it’s known in retail—is on the rise due to new and more sophisticated threat sources. According to the 2007 Global Retail Theft Barometer, annual global losses from shrink now exceed a staggering \$98 billion. Obviously, reducing shrink is a major imperative for retailers of every size and format, and that has sparked a rise in activity in LP systems for both internal and external theft sources.

But to get the most out of LP systems, stores are looking to do more than just catch shoplifters or spot dishonest employees. Increasingly they’re looking deeper into all forms of data—transactions, store traffic, product arrivals and shipments—up and down their global supply chains, not just what’s happening in the store itself. Doing so means ty-



ing into stores’ accounting, marketing, HR and inventory management systems to unearth and analyze data that will reduce shrink that robs stores of profits and spikes prices for consumers.

With increasing frequency, IT professionals are finding out—sometimes under difficult circumstances—about why and how LP and IT systems are coming together:

- **Although many LP systems still** operate over a dedicated in-store network to access databases inside the store, in the headquarters office and at other venues over the Internet, those LP systems more and more often will share the same backbone network used for core IT applications.

- **Organized retail theft (ORT)**—the fastest-growing segment of global shrink—is taking place both inside

and outside the store, often including store employees or third-party shipping companies stealing products that arrive at the receiving dock. ORT impacts critical IT applications such as inventory management, supply chain and even open- and closed-loop RFID.

- **Employee theft is an important source** of merchandise shrink, and that means that LP professionals will need to work with their HR counterparts to do background checks, evaluate access rights and determine appropriate actions after an employee is suspected of theft.

- **Identity management also is a critical** requirement for LP systems, to ensure that employees who have recently left the company don’t retain access keys, store handheld computers or password-enabled access to company databases. Today’s identity management systems need to include LP managers in the loop when employees leave the company, so LP managers can ensure that those employees don’t pose a theft threat.

The bottom line: IT professionals and LP professionals are working closer than ever—and thus, so must their systems.

If you’ve been working in an IT department of a major retailer, then you’ve obviously heard of technologies such as Electronic Article Surveillance (EAS), the heart of retail anti-theft systems. EAS systems combine merchandise tags, deactivation systems at the point of sale terminal, and detection antennas at store exits. If a tagged item leaves the store without being deactivated, it sets off a loud alarm when it passes through the antennas. More and more store merchandise is being tagged and put on the shelves for consumers to browse, including smaller, high-theft items such as drugs, fragrances, CDs/DVDs and jewelry, thanks to anti-theft packaging known as Keepers™, Spider Wraps, bottle security and other formats. Companies such as Alpha (recently acquired by LP systems market leader Checkpoint Systems) have developed a wide array of anti-theft packaging that



both allows open merchandising (customers can effectively handle products during the purchase evaluation process) and secures those products against theft.

Some exciting new technical advances have emerged from companies like Checkpoint. The company's new Evolve line of LP systems offer "dual-mode" protection, combining traditional EAS technology with RFID technology not only to improve overall system utility and reliability, but to offer a clear migration path for retailers looking to eventually make RFID a big part of their store operations.

What's also new is the need to combine information gathered by LP systems with traditional IT systems into the store's data warehouse for business intelligence and advanced analytics. This is creating both challenges and opportunities for IT professionals, since it's the IT organization that usually develops, manages and mines those databases

for information that helps the store to accomplish its business goals, including reducing theft.

Those challenges include integrating different data formats from different applications into a single, common data set, and knowing how to report that data in real time to key decision-makers. Additionally, since LP systems and IT systems increasingly share the same network infrastructure, IT managers must understand the impact on network management, bandwidth utilization and information security. Finally, there are issues that might be hard to envision until they actually occur, such as identity management as a critical requirement for good loss prevention practices.

But there's little question that the upside of integrating LP and IT systems can far outstrip any challenges. One of the most tangible benefits in tying the two systems into a single, cohesive store architecture is business intelligence, where information captured and

Giving Definition to Loss Prevention

For many IT executives, dealing with loss prevention systems means learning a new language—often complete with new acronyms.

Deactivation: Disabling the tracking functionality on a product's tag after it has been purchased and before it leaves the store. Tags that are not deactivated at the point of sale are supposed to set off a loud alarm when the item passes through the loss prevention antennas' detection field.

Electronic Article Surveillance (EAS): Technology that prevents merchandise loss (both deliberate theft and unintended loss) through the use of Radio Frequency tags that are deactivated at the time of purchase and checkout.

Facilities Management: Unlike in the IT world, where facilities management usually means the oversight of an organization's IT resources such as data centers and networks, retail facilities management covers all activities pertaining to a store's infrastructure such as physical security, access control, stock rooms, loading docks, etc.

Organized Retail Theft (ORT): The fastest-growing

segment of merchandise shrink; ORT is conducted both overtly through so-called "smash-and-grab" tactics, subterfuge (hiding merchandise in packaging that defeats EAS detection), or infiltration (using store employees to steal items).

Shrink: Any unexpected reduction of merchandise stock, either by intentional theft, employee error or inadvertent loss.

Shrink Management Solutions (SMS): Systems that use technology not only to detect individual merchandise, but to tie loss-prevention systems to back-office functions in retail stores such as accounting, merchandising and customer management.

Source Tagging: The application of EAS security tags at the "source" (manufacturer or supplier), instead of at the retail location.



stored in a data warehouse can be mined for trends such as how to correlate new-product introductions and manufacturer promotions with theft incidence.

IT and LP systems also form strong links when it comes to store employees. For instance, if LP managers have historical data indicating the time of day or days of the week when theft is more likely to occur, business rules can be established that remind the store managers to add security personnel or tune the LP systems to a unique frequency for better detection of thefts in progress. Then, store management can be notified and work schedules can be adjusted to prevent excessive overtime charges for hourly employees. Finally, the imminent introduction of potentially high-theft new merchandise into a store can trigger advance alerts to security personnel, or the need to schedule training programs for store employees on how to spot potential new theft techniques.

One of the most important recent developments bringing together the IT and LP worlds was the creation of the Law Enforcement Retail Partnership Network (LERPnet), a secure national database for reporting retail theft and other incidents. Retailers contribute data to the database in the form of incident reports, which can be analyzed for trends and shared with retail partners in the network to be on the lookout to prevent similar incidents at their stores. IT managers can receive alerts from LERPnet, then download those alerts to LP managers and in-store personnel, including sending pictures of potential thieves to store personnel to view on their store-issued Blackberrys or other handheld computers.

A few other things for IT professionals to keep in mind:

- **One of the core requirements** for in-store security is video surveillance, typically through closed-circuit TV (CCTV). Video can be both a powerful deterrent and an effective means to prosecute theft, but supporting video puts pressure on the IT infrastructure, particularly network bandwidth, data storage and servers. If vid-

eo surveillance is part of your store's anti-theft defense shield, make sure you evaluate your IT infrastructure to ensure it has suitable bandwidth and storage.

- **IT standards are increasingly** being designed into today's LP systems. Bluetooth, WiFi, TCP/IP and industry-leading security protocols are integral parts of LP systems offered by Checkpoint Systems and other suppliers. This certainly helps in the integration process, as well as making it easier for IT to support architectures using common standards.

- **In addition to learning** about new technologies, be prepared to learn a new language—the language of loss prevention. Even common words like “security” can mean different things to LP managers (physical security, such as theft and unauthorized physical access) than they do to IT professionals (cyberthreats).

- **The professional profile of LP managers** is going through an important evolution—not unlike what happened with Chief Information Officers in the past decade. LP managers used to come almost exclusively from law-enforcement or military backgrounds, and sought to establish visible deterrents to potential thieves. More and more often, however, LP managers are technologically-savvy individuals with business backgrounds, intent on identifying potential threats before they happen.

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