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01

The stakes of the next-generation retail

Leading retailers all around the world are transforming their brick-and-mortar businesses by investing in store automation and the Pricer architecture.

Which store infrastructure technologies are to be adopted to gain a competitive edge now and in the future?

Price and promotion automation; employee-enabling tools that support Click & Collect in-store order preparation; merchandising implementation and compliance; in-store marketing and customer-enabling tools such as store guidance; coupon pushing & shelf-edge connectivity – all are at the forefront of retailer's challenges in the ongoing technology redefinition of the store.

Which store infrastructures can span all these operational functions and solutions plus deliver the most **reliable and robust services** – all while demanding the least from infrastructure time management?

Which touchpoint technologies will keep up with the growing need for speed and reactivity in the brickand-mortar world as well as coexist and interconnect with past and future wireless platforms?

These are the pivotal questions

In a retail environment where e-commerce is now growing globally at close to 20% every year and online stores can sell practically anything, provide sameday delivery and almost always offer the lowest prices around, where do stores fit in?

WHAT KEY PLATFORMS ARE HELPING TRANSITION BRICK & MORTAR ?



OUR CONVICTION:

We firmly believe that brick & mortar stores need to improve their operational performance and quickly gain relevancy in this competitive landscape. They must be able to quickly adopt new ideas that they can rapidly interconnect, reliably integrate, measure and build upon. They have to adopt the right in-store platforms that have a more integrated and broader view of in-store functions.

In today's digital age, the art of speed and experimentation are the keys to instore investments.

Electronic shelf-edge systems, new realities

A lot more than the underlying ESL (Electronic Shelf Labels) systems have changed

The world around them is in flux and there are new interconnectivity options in product-specific shelf-edge devices. Smartphones, Wi-Fi LAN and BLE offer interconnectivity advances that can be integrated with fast and reliable shelf-edge technology for innovative opportunities that enable critical in-store solutions and offer genuine advantages. And that is Pricer's mission.

ESLs become the "clone" of the product at the shelf. Whether or not the product is on the shelf, ESLs are always there to directly interact with employees and shoppers. They are a virtual version of the product, its location and a gateway to the digital world.





AN INFRASTRUCTURE WHOSE TIME HAS COME

- O Customers and employees are accurately directed to the product because it is in stock!
- O ESLs flash when approached because they know someone is searching for it!
- O ESLs flash when customers ask for their promotions to be signaled while shopping!
- O Customers can geolocate a product and find the fastest route!
- O Customers can use their smartphone to interact with the shelf-edge device and get additional product information!

These breakthrough enabling technologies are creating a disruption for future decisions on in-store infrastructure technology. Not all ESL companies will survive.

RIGHT NOW, ESL SYSTEMS MUST BE

- O Able to acknowledge back reliably at any transmission volume without affecting battery life, so retailers not only know their prices match, but also that the label is actually on the shelf in the right place and is working properly.
- Fast and able to speed up in the future as omni-channel retailing takes hold. As always with these technologies, speed will be the biggest hurdle in the future.
- Undisruptive and undisrupted by other ISM radio frequencies. It must exist in perfect harmony with the increased use of 2.4 frequencies for other critical in-store applications.
- Highly reactive with very low latency. Latency longer than 5 seconds makes it unable to support new applications such as pick-to-light, merchandising compliance and task-to-light. ESLs have to immediately react, flash, change display and respond – all on demand.

- Equipped with flash indicators that can be seen from more than 30 feet (10 meters) away.
- O NFC-enabled and more. It must let retailers bypass costly infrastructure and just allow customers to access Web pages on demand right at the shelf-edge.
- Interconnectable with new communication devices for geolocation such as BLE and do things such as monitor, turn on/off and update firmware.
- Indoor geolocation to know the location of a product or person in a place or space.

PRICER IS LEADING AND WILL LEAD THESE CHANGES WITH THE MOST SCALABLE, FASTEST AND MOST RELIABLE IN-STORE SHELF-EDGE COMMUNICATION PLATFORM IN THE WORLD.

- O Support segment and graphic display technologies. Segment displays are a cost effective solution and can be an investment inroad or provide an in-store display mix to improve ROI. Many chains choose segment or graphic displays based on their country market needs.
- Mono-frequency so retailers always know where the platform is in their diversemix of infrastructure components.
- Cloud enabled as solutions now require constant access from both stores and shoppers, but also integration with cloud based solutions of other parties. This is only possible by a system with a cloud component.
- Smartphone enabled for ease of use, investment cost and integration in other applications.

O Combined to a scalable server as there should be no practical limits on number of labels, updates, simultaneous users, stores, SKUs, displays or interactivity with other systems.

All major technology providers have worked hard to improve their solutions, but the monumental requirements coming to the fore are going to change the landscape forever.

Pricer's platform

The Pricer platform is the most innovative and reliable platform on the market. It is fast, scalable, flexible, robust and intuitive plus it is designed to fit the needs of every store.

The platform is a combined hardware-software system built with components such as infrared wireless communication, ultra-low power displays, merchandising supports and tools, and server infrastructure (cloud, distributed or in-store). The Pricer platform is open to third-party technologies and enables interconnection with any store software or system. It offers the flexibility you need to anticipate and overcome any retail challenge in the 21st century.



THE INTELLIGENCE IS IN THE PLATFORM

The Pricer platform is unique because it offers features that meet the challenges facing brick-and-mortar stores now and in the future:

- O Scalability
- O Advanced high speed Infrared, diffused wireless communication [SPREAD RED]
- O Industry-leading speed: up to 90,000 full-page updates per hour
- O Industry-leading reactivity
- Two-way communication protocol for local and centralized system and product level monitoring

- O Segment and graphic ESLs in one communication solution
- Industry-leading security: noise immunity and disturbance
- Industry-leading ultra-low battery consumption: flexible investment and environmental awareness
- O Robust SW design for grocery retail
- Interconnectability:integrate, monitor and control other communication and indoor location systems
- O Redundancy, system and coverage



UNIQUE INFRARED COMMUNICATION PROTOCOL MAKES IT THE MOST EFFICIENT SOLUTION ON THE MARKET Operating outside of the ISM frequencies employed by many critical in-store solutions (Wi-Fi, ZigBee for LAN, surveillance, EAS, RFID), infrared technology delivers enough speed for ultra-low battery consumption, very high reactivity and no interference now or in the future with the ISM wireless solutions filling stores.

For twenty years, Pricer has been using an integrated approach to design solutions around this protocol for some of the world's leading retailers to help streamline infrastructure management. The system is reduced to the smallest footprint with no management costs or complexity. We achieved this by developing a system that combines fully-automated monitoring, remote troubleshooting and fixes.

THE GREENEST SOLUTION

Pricer has the lowest battery requirements per ESL device than any other solution in the world. This will be even more crucial as the digital shelf becomes ubiquitous.

02 Pricer solutions: A broader approach to retail

Solutions are stacked on this single platform that adhere to the five major tenets of retail:

- PRICE: guarantee price integrity to optimize sales and margins.
- PERFORM: make operations more efficient and compliant; speed, agility, excellence, etc.
- O **PROMOTE**: tailor and enhance promotions both digitally and physically at the shelf.
- PERSONALIZE: manage one-to-one relationships with your customers and improve their shopping experience.
- O **PREDICT**: continuous improvement of all the solutions above with data-supported analysis. Use Big Data to know your customers and your store's performance.



« Pricer helps retailers take the right path to performance by providing the industry's leading esl platform. This forward-compatible digital retail infrastructure is now enabling the in-store digital transformation, from price management and operational optimization to personalization and predictive tools. »

S PRICE AUTOMATION IS CENTRAL TO STORE AUTOMATION

The PRICE solution lets retailers run dynamic pricing to:

- Fully automate one of the most challenging in-store functions retailers now face: the weekly price change.
- O Handle the growing need for price flexibility and accuracy at the shelf edge.
- O Respond immediately to encroaching competition.
- O Gain a competitive advantage in specific markets.
- O Centralize the price function.
- O Maximize margins with instant price reactivity.
- O Gain customer trust.
- O Modernize stores and enhance a digital image.

FROM PRICE TO PROMOTION

Effective PROMOTION solutions are vital for retailers so they can give the right economic signals to their customers at the right time:

- O Large color displays to highlight special promotions and publicize changing prices for groups of price-sensitive products such as milk and dairy products.
- O Multi-format color graphic displays to enhance products and promotions.
- O Automated promotions mean retailers can rely more on ad campaign results to measure and develop better programs.
- O Increased customer loyalty by customizing and personalizing offers based on customer profiles and habits (ESLs on targeted one-to-one promotional items flash to alert customers).
- O Improved effectiveness of shelf-talkers in the store (merchandising guidance process: ESLs flash on items that need special tasks so employees know, for instance, when and where to place or remove a shelf-talker, etc.).



Retailers know they have to use automated back-office technologies and move staff to customer-facing operations. At the same time, challenges are mounting in areas like out-of-stock, freshness, planogram and merchandising compliance.

Making things easier:

- O Retailers can now rely on new technologies to significantly improve store productivity by simplifying processes and ensuring end-to-end traceability and effective resource management.
- O The integration of digital shelf-edge technology into a complete in-store infrastructure is enabling the very tools retailers are adopting. Pricer has developed software and hardware solutions to enable these core requirements.

Some of these challenges:

- O Planogram compliance: retailers know that planogram conformity only lasts about a day after data capture. Pricer ESLs acknowledge their position in the store and can be pinged any time to check planogram conformity.
- O Using the store for Click & Collect: Click & Collect is a featured application that optimizes the online customer order collection process in stores by using geolocation and visually indicating the items to pick.



CLICK AND COLLECT

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The associate downloads an online customer order to a PDA or smartphone as a list of goods. The electronic shelf label (ESL) system has confirmed that the products are available.

The associate is directed to the first and closest item to pick. The optimal route (for picking, merchandising, shelf check) is indicated on the digital map.

As the associate approaches, the item's ESL starts to flash (distance can be configured). Once the product is picked, the associate checks the item off the list and the ESL stops flashing. The flash is activated and deactivated by the Pricer platform. The associate is then guided to the next closest product on the list and the same process continues until the whole order is fulfilled and ready for shopper collection.



DOWNLOAD CUSTOMER'S ONLINE ORDER



DIGITAL MAP WITH OPTIMAL ROUTE TO PICK PRODUCTS FLASH ACTIVATION OF ESL









Enhancing shopper experience:

Digital technology has changed the retail world and its value chain. Retailers need to create experiences and services that engage their customers. It is now about loyalty, innovation, experiences and services.

Customers are quickly becoming accustomed to engaging with retailers through a variety of in-store touchpoints. The digital shelf-edge interaction is essentially no different than clicking on the Web. Pricer's combined hardware-software solutions enable customer interaction at all store touchpoints: store entrance, aisles and shelves. This gives retailers the means to experiment and manage solutions today.

- O Optimize the customer shopping route and provide guidance through the store.
- O Save time searching for products with a tool that directs them to specific items.
- O Provide more information about products (allergens, ingredients, online prices) at the shelf with NFC-enabled ESLs (customers access videos, online information, product sheets by tapping ESLs with smartphones).



FROM PRICE TO PREDICTION

In an omni-channel environment, retailers have to gather and monitor information about store performance and customer behavior:

Retailers need to be able to collect, analyze and compare store characteristics and forecast them over variable periods of time: sales, inventory, demographics, promotions, stock levels, last order dates, shipment quantities, etc.

But accurate data can be a challenge. Pricer is automation-driven, so you get real-time data on every function, from system use to customer touchpoints.

- O Adjust pricing strategies based on customer behavior.
- O Evaluate store planogram efficiency through heat map flows (most frequented areas of the store, areas where shoppers stay the longest, etc.).
- O Shopper profiles (length of store visits, use of smartphone apps, type of products purchased).

FUTURE PROOF IR TECHNOLOGY

Pricer is the only company that can deliver end-to-end solutions forin-store shelfedge connectivity requirements through unequalled performance and future-proof IR technology.

With the continued advances in wireless technologies and their exponential growth, Pricer and its leading tier one clients believe that IR as a solution must be an integral part of retail store infrastructure. « Going forward, retailers who understand that speed, scalability and interconnectability are the real measurable indicators for any new technology will have staked their competitive edge on performance and customer experience. »

03

Pricer: the global leader in Shelf-Edge digital solutions, enhancing store performance and shopping experience

The increasingly feature-rich Pricer platform is crossing over to solve key store transformation challenges such as customer and employee guidance, task-to-light and order preparation.

Pricer solutions are built to give retailers dynamic pricing capability, customized real-time promotions and efficient store processes and systems. The increasingly feature-rich Pricer platform is crossing over to solve key store transformation challenges such as customer and employee guidance, task-to-light and order preparation. It is also evolving to support shelfedge customer personalization, data capture and interpretation.

Constant innovation has made Pricer the only future-ready partner for retailers today. Its open architecture

allows for integration with best-ofbreed products making it scalable, flexible and designed to meet any retailer's needs. Pricer works with all the world's top retailers, small and large alike: grocers, DIY, electronics, specialty stores. Every one of them is working towards the same goal to satisfy people who interact with their brand. Today, over 110 million ESLs are installed worldwide providing accurate and reliable dynamic pricing. Pricer was founded in 1991 in Sweden. The company's class B shares are quoted on the NASDAQ OMX Stockholm Small Cap list.



FOOD RETAIL





DO IT YOURSELF

ELECTRONICS

MEDIA - SATURN









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