

# PRICER

BRINGING TRUST TO RETAIL



Shelf-Edge  
Digital  
Solutions

**P 24:** A BREAKTHROUGH IN OMNI-CHANNEL RETAIL:  
AUTOMATED PRODUCT POSITIONING

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2017



2016



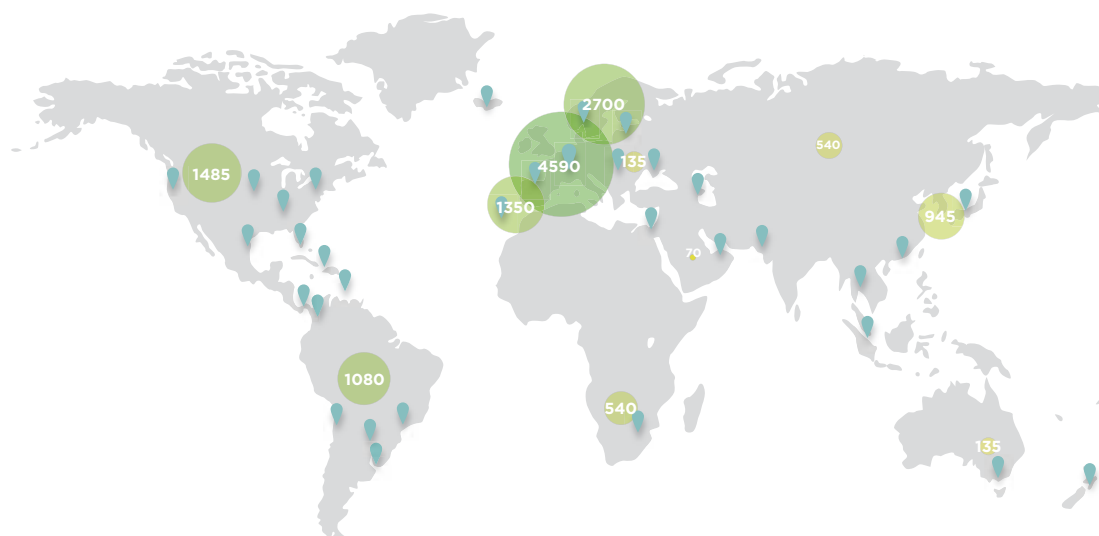
2015



2015



2014



## THE WORLDWIDE LEADER IN DIGITAL SHELF-EDGE SOLUTIONS

From its inception in Sweden in 1991, Pricer has been recognized by international Tier 1 Retail as providing the most advanced, scalable wireless Electronic Shelf Labelling (ESL) system in the market place. The superior performance of infrared (IR) delivers the speed and radio immunity that are at the core of the Shelf-Edge Digital solutions.

From this speed and reactivity, comes the unique evolution to automated real-time product positioning, the most important breakthrough in ESL since e-paper. And by combining this with in-store navigation and another Pricer unique feature, the SmartFLASH, Pricer is capable of delivering the only comprehensive platform to address true store digitization.

With this revolution, Pricer helps retailers take the right path to performance by providing the industry's leading ESL platform with the lowest TCO. This forward-compatible digital infrastructure is now enabling in-store digital transformation, from price management and operational optimization to personalization and predictive tools.

# Pricer Brings Trust To Retail

*Pricer brings trust for retailer customers, trust in accurate pricing, in promotion, in product availability, in product information, in product location... trust in omni-chanel retailing.*

**PRICE**

To optimize pricing and guarantee price integrity:  
*high speed, bidirectional, graphic and segment*

**PERFORM**

To make operations more efficient and compliant:  
*scalable, inventory data, pick-to-light, geolocation*

**PROMOTE**

To help customers find promotions, to incentivize the right actions, at the right time, at the decision point:  
*SmartFLASH, Geofencing, Geoguidance, Geolocation*

**PERSONALIZE**

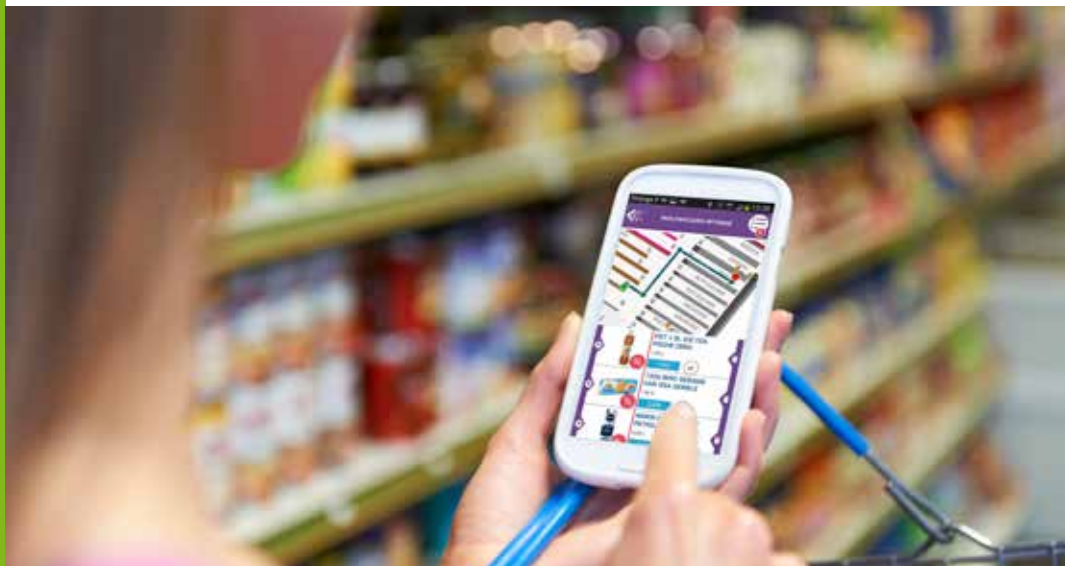
To enable and empower the shopping experience where customers can connect and engage:  
*Near Field Communication (NFC), guidance*

**PREDICT**

To track and analyze responses and activity to know customer wants and measure store performance:  
*location & behavior tracking, employee monitoring*

# Pricer Communication Platform

*The most scalable, the fastest, the most future-proof and reliable shelf-edge communication platform in the world*

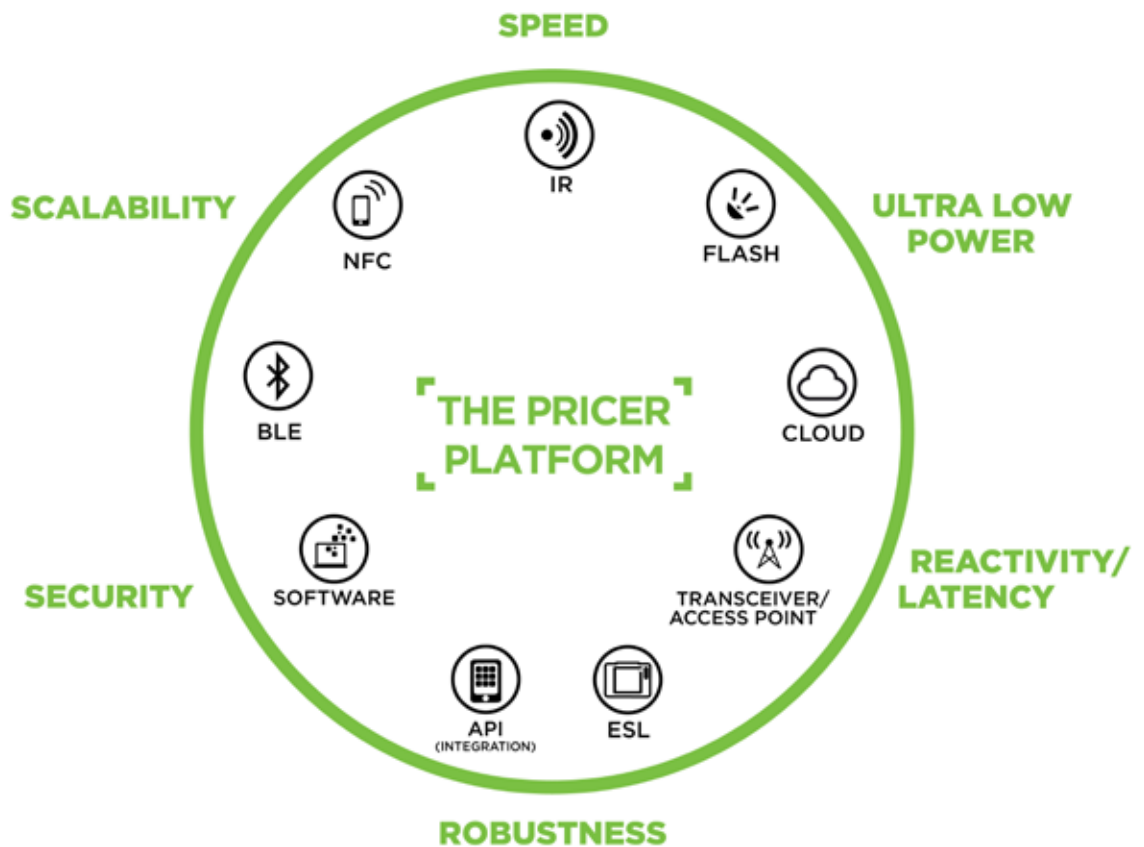


Operating outside of the ISM frequencies employed by many critical in-store solutions (Wi-Fi, ZigBee for LAN, surveillance, EAS, RFID) Pricer is redefining what's possible for retailers.

With the continued advances in wireless technologies and their exponential growth, Pricer and its leading tier one clients believe that IR as a solution is an essential and integral part of retail store infrastructure. Pricer is the only company that can deliver end-to-end solutions for today and tomorrow's in-store shelf-edge connectivity requirements.

## THE INTELLIGENCE IS IN THE PLATFORM

The platform is a complete hardware-software system combining IR wireless communication and ESL geoposition, in-store navigation, 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.

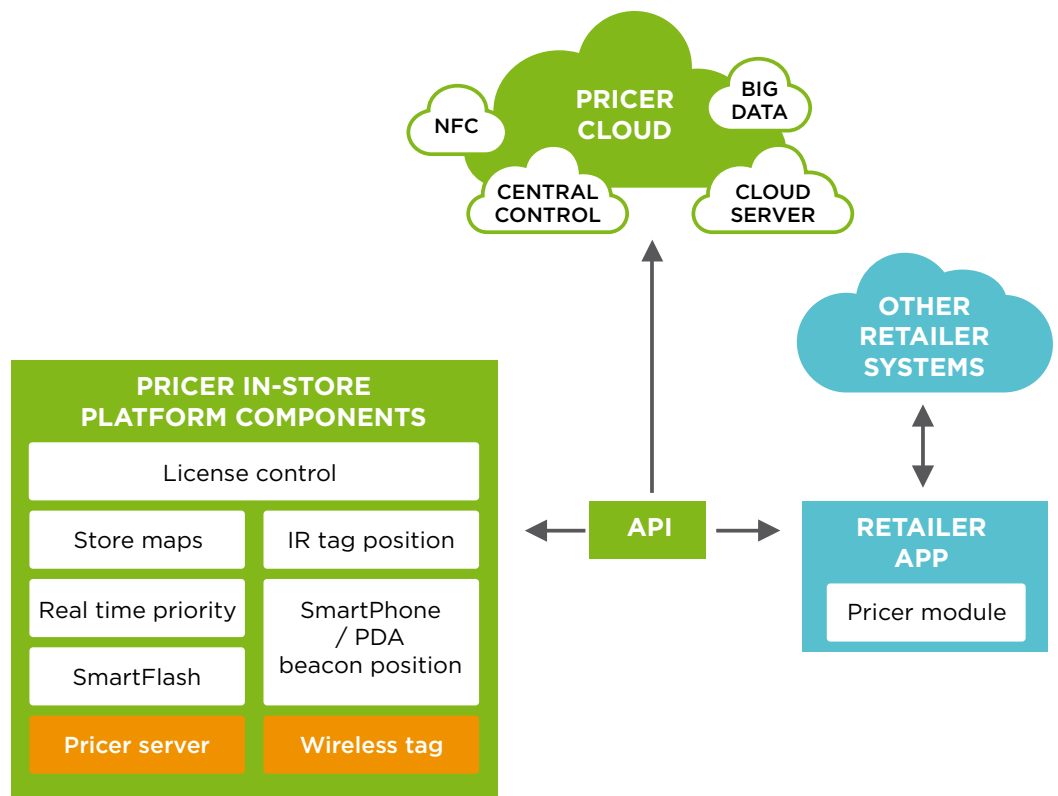


## SOFTWARE ARCHITECTURE

Pricer architecture is a modern, 100% web-based software platform supporting some of the world's largest retail organizations in their digital shelf-edge evolution. It was designed from its inception as a multi-user enterprise solution.

Modern and robust, it is built to scale the high communication and data traffic requirements as well as deliver the flexibility of the bespoke platform interconnectivity. The architecture is modular at its core and provides the framework on which to integrate or build applications and extensions.

Pricer has built its reputation with tier ones based on key characteristics such as investment control, central monitoring and scalability. However, the benefits today go far beyond and address the experimentation requirements of retailers: modular components (store mapping, ESL and customer positioning, ESL light indicator) and extensive integration capacity (API, SDK, widget).



## HARDWARE ARCHITECTURE

### Fast IR communication

Pricer wireless communication is based on diffuse IR light (880 nm wave length). The protocol is proprietary to fit the unique requirements and is highly optimized for the task. The carrier frequency and the noise filtering have been carefully selected and matured over the past 24 years to deliver unequalled speed and reliability. The communication does not disturb nor is it disturbed by any active (e.g. radio, lighting...) or inert (e.g. shelving, posters...) equipment. Pricer complies with all relevant worldwide regulations.

### Product Indoor Geolocation (ESL)

ESLs have become the digital representation of the product at the shelf-edge and therefore a powerful tool in today's compliance and planogram challenges. The IR signal strength of a Pricer label is used to calculate, at any given moment, its position in the store. A typical Pricer label response signal is seen by multiple transceivers reading different signal strengths depending on the distance from the label.

### Person Indoor Positioning and Guidance (smartphone)

Customer or associate positioning has become an integral part of the Pricer solution. By measuring the low energy signals (BLE) combined with smartphone sensors and digital store maps, Pricer can provide real time location updates. Beacons (BLE) are supported and powered by the infrastructure giving the retailer the ability to configure and monitor location services and applications.



Product Indoor Geolocation



Person Indoor Positioning and Guidance

# Price Automation Solution

## *Pricer ESLs : Quality and Reliability*

This solution is central to shelf-edge automation and addresses one of the most time consuming, inefficient tasks in competitive retail. Price Automation brings competitive advantage, drives margins and pushes out costs while building customer trust.

Pricer ESLs are today flash ready, a uniqueness where Pricer is again setting a new industry standard, just as Pricer has always done, from battery longevity to speed and readability.

The PRICE solution enables retailers to execute their pricing strategy:

- Fully automate one of the most challenging in-store functions
- Centralize the core pricing function
- Meet today's complex omni-channel requirements
- Maximize margins with immediate price reactivity
- Execute dynamic pricing
- Build customer trust
- Modernize stores and enhance image



## SMARTTAG LABELS



SMARTTAG - SEGMENT



SMARTTAG HD - GRAPHIC



SMARTTAG HD 110



SMARTTAG HD 150



SMARTTAG HD 200



SMARTPOSTER

### SmartTAG - Segment labels

- Industrial LCD displays - 184 segments
- Flashing red segment
- 90 000 full memory updates per hour
- Up to 10 years battery life - easy cassette change out
- Flash ready and NFC
- Specific layouts according to country requirements
- Three sizes: small, medium, large
- Dedicated freezer label
- 32 additional pages for merchandising and inventory information

### SmartTAG HD - Graphic labels

- Fully graphic, E-ink displays - paper like
- 20 000 full memory updates per hour
- Up to 7 years battery life - easy battery change out
- Flash ready and NFC
- Black & White, Red color available - Yellow color soon
- Four sizes: small, medium, large, tall
- Dedicated patented freezer label
- Multiple pages for merchandising and inventory information

### SmartTAG HD 110 - Large graphic label

- Fully graphic, E-ink displays - paper like
- Up to 7 years battery life - easy cassette change out
- Flash ready and NFC
- Black & White, Red color available - Yellow color soon
- Multiple pages for merchandising and inventory information
- Large display, perfect for fruit & veg and electronics

### SmartTAG HD 150 - The compromise between Large and extra large ESL

- Fully graphic, E-ink displays - paper like
- Up to 7 years battery life - easy cassette change out
- Flash ready and NFC
- Black & White, Red color available - Yellow color soon
- Multiple pages for merchandising and inventory information
- Largest display, perfect for fruit & veg, electronics and premium products

### SmartTAG HD 200 - Extra-large graphic label

- Fully graphic, E-ink displays - paper like
- Up to 7 years battery life - easy cassette change out
- Flash ready and NFC
- Black & White, Red color available - Yellow color soon
- Multiple pages for merchandising and inventory information
- Largest display, perfect for fruit & veg, electronics and premium products

### SmartPOSTER

- Pricer player plugs directly into any display (TV)
- Technically the largest ESL in the store
- Create digital signage with price integrity
- Perfect solution to display promotions, fruit & veg, delicatessen, fish or dairy products, etc.

## PRICER SMARTTAG KEY FEATURES

### SHELF-EDGE INTERACTION

#### SmartFLASH

All Pricer Tags possess a built-in wireless low power flash capacity. SmartFLASH is a retail shelf-edge innovation breakthrough, enabling radically new in-store solutions such as promo-flash and task-to-light. By exploiting the highly optimized optics, the flash viewing angle approximates 180 degrees giving clear visibility up and down the aisle. Green has been selected because of the retina sensitivity which is highest for this specific wavelength as well as its positive customer message. The unique component, the optics, the wavelength and Pricer's ultra-low power label architecture brings complete solutions to shelf-edge automation, in effect, solving the last mile of retail: product identification in real time.



#### Segment or Graphic

Whether they are segment or graphic, Pricer R&D has conceived labels with the clearest readability of the market (electronic labels with low readability is a drawback for shoppers). By being the first to install stores with graphic labels using E-ink technology because of its incredible paper-like readability, Pricer has set today's standard for graphic displays.

#### Near Field Communication (NFC)

All Pricer SmartTAG ranges offer the option of integrating an NFC chip inside the ESL. The chip has been integrated following specific recommendations in order to be able to scan it easily by placing a smartphone on the ESL. Our NFC labels have been recognized by an independent lab as having the easiest tag connectivity capabilities in the market. Our unique NFC architecture allows immediate web redirection using the basic Android reader.

- New and unique flash capability
- Real time flash responsiveness
- Ultra low power design
- Enhanced promos
- Fast and accurate product search
- Task-to-light, alerts, Click & Collect

smarttag

## SYSTEM REALIABILITY

### Real bidirectional communication

Each time the Pricer tags receive data updates or are queried, a response is sent back providing a real time dashboard view of the system and the tags. This functionality is mandatory for thorough central monitoring and local control of store operations, for guaranteed price integrity and label stock accurate management and re-stocking, all guaranteeing the industry's best TCO.

### Longest battery life

The SmartTAG labels communicate with the server by infrared which has the lowest power requirements on the market. This is critical to ensuring complete flexibility for future replacement and system evolution. Segment tags have a life span of up to 10 years and graphic tags, up to 7 years, in a grocery environment. All SmartTAG's lifetime can be extended by way of battery cassettes which are easily replaced in 3 seconds (again, an industry exception).

## IN-STORE ENVIRONMENT

### SmartTAG universal design

SmartTAGs S, M, L, segment and graphic, have the same housing and back design in order to be mounted in the same rails and ensure mixing of display types on any particular shelf according to retailer needs.

### Unique merchandising accessories

Pricer tags' unique design enables the integration and locking of shelf-talkers SmartCLIP directly into the ESL, providing a universal support and merchandising system.



smart<sup>clip</sup>

# Pricer Advanced Solutions

*Pricer is the global leader in providing in-store shelf-edge digital solutions that enhance both store performance and the 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. It is also evolving to support shelf-edge customer personalization, data capture and interpretation.

Pricer has developed new advanced software offers delivering powerful customizable solutions to innovative retailers as well as base software offers for retailers willing to test future ready off-the-shelf tools.

## PRICER BASE SOFTWARE

- **SmartFLASH activation:** the system is programmed so that ESLs flash to alert customers of promotions and/or to inform employees of negative stock (before store opens).
- **NFC activation:** a specific setting that allows retailers to create marketing campaigns or NFC scanning applications (e.g. self-scanning) using NFC integrated ESLs and shopper Android smartphones.
- **Indoor Positioning and Guidance activation:** the system is configured to position shoppers via their smartphone and to guide them in the shop according to products categories.



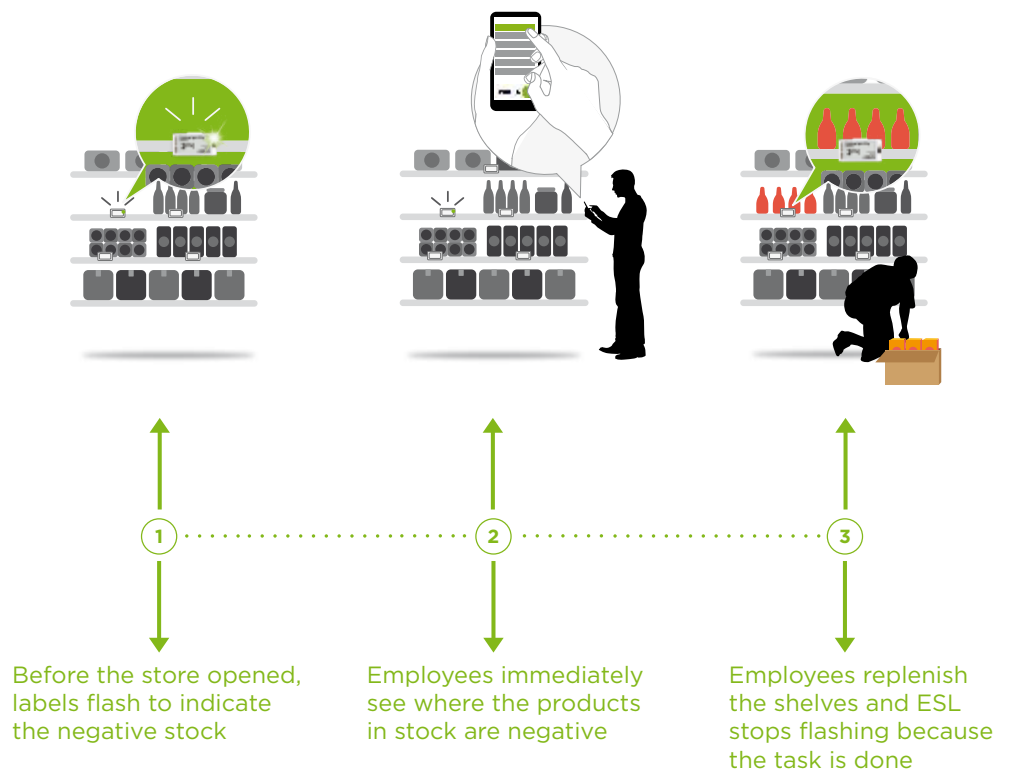


## FLASH ALERT

It is critical for the success of stores to constantly work towards improving their productivity by increasing the efficiency of employees as well as sales on the shop floor.

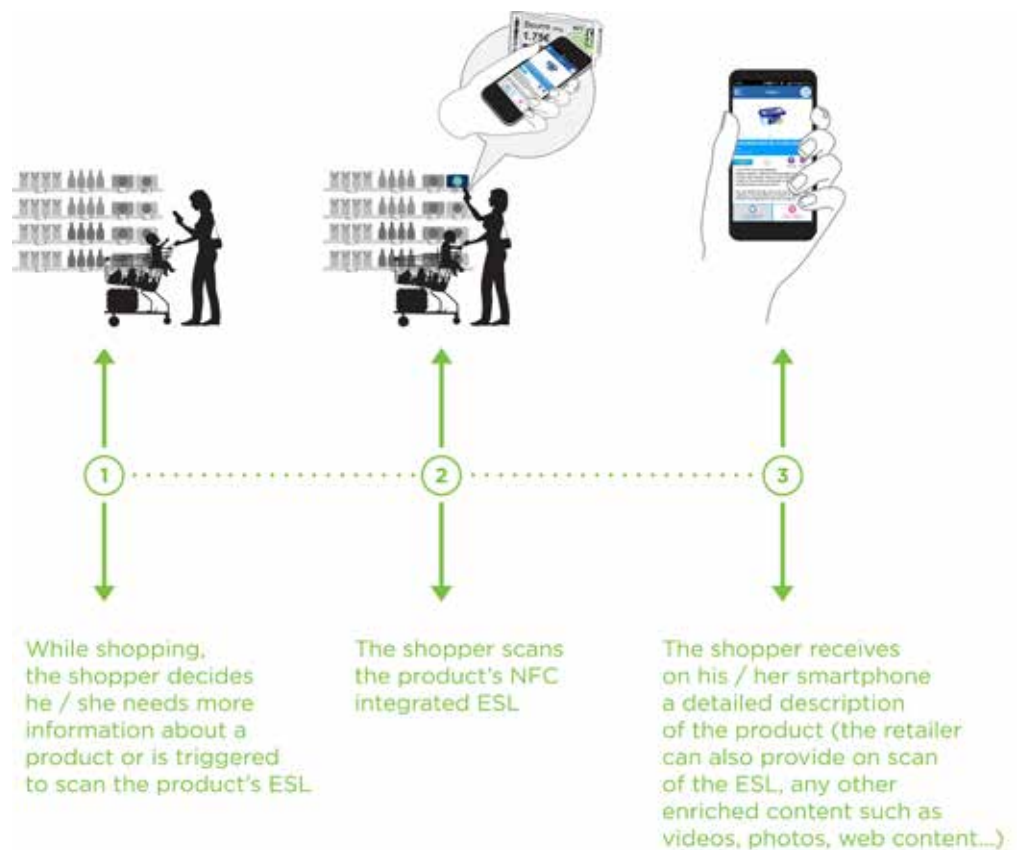
Flash Alert is a solution that provides store owners with a web based tool, 'Flash Scheduler' with which they can control the flash of the ESLs: when, for how long, at what frequency and more importantly which trigger? With the Flash Scheduler, labels could flash outside of store opening hours to indicate to associates which products have a negative stock.

The Flash Alert solution enhances the shopper experience: the retailer can choose to make ESLs flash for products that are on promotion in order for shoppers to immediately find them.



## SHELF INTERACTIVITY (NFC)

With NFC integrated into SmartTAG labels, retailers have the option of providing an enriched experience for their shoppers. When tapping their smartphone to NFC integrated labels, shoppers receive content such as marketing campaigns, videos, product specs or are linked to the retailer's online shop application or directly to a web page on their smartphone. NFC also offers the possibility of replacing any barcode scanning tool such as self-scanning.



## GEOFENCING

With Geofencing a retailer is able to divide a store into virtual areas to create events when customers move from area to area. The retailer determines the number and the exact shape of the areas directly on a Pricer configurable digital map tool. Ideally, while shoppers use indoor positioning (see shopper guidance solution), the Geofencing solution compares the shopper's position with the virtual areas. The shoppers can be informed of which area they have entered and the retailer can push a promotion or a welcome message to the shoppers according to which area they are in.



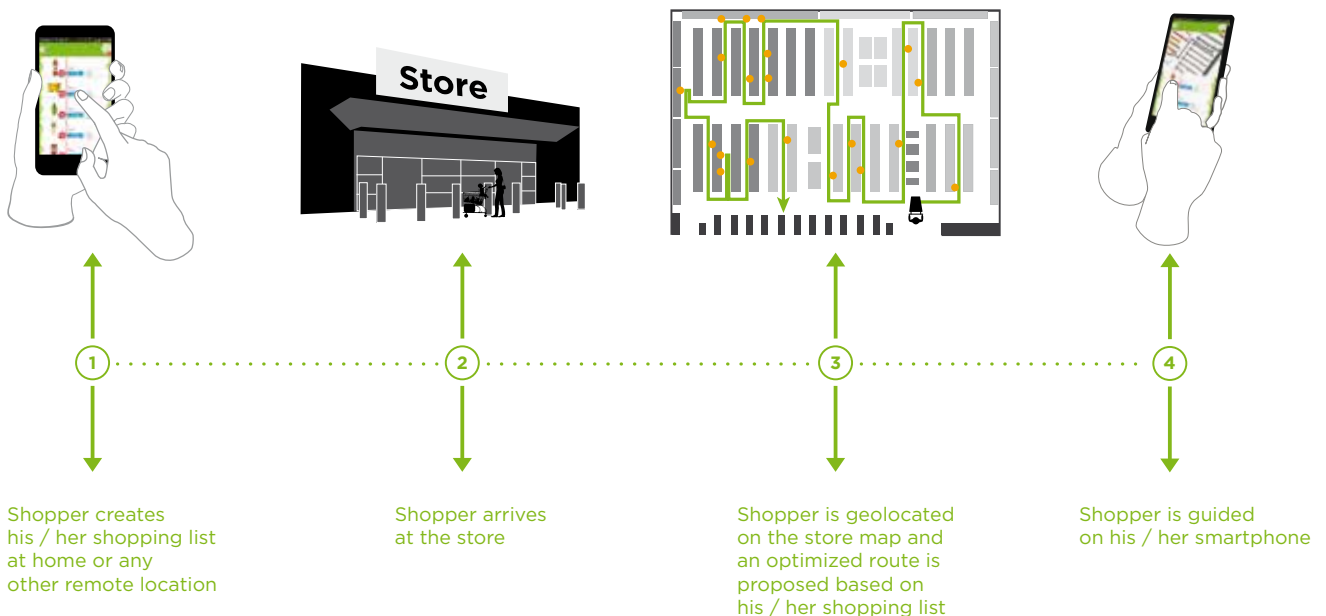


## SHOPPER GUIDANCE

Shopper Guidance is a solution in the Pricer Platform for which the shopper is the intended user. Shopper guidance provides store managers and retail chains the opportunity to deliver store visit optimization functionalities such as visit planning and real time guidance for the optimal route.

Article master data in the Pricer Platform is published in the Cloud and made available. This allows the shoppers to search for articles from a remote location and create shopping lists to plan their visit upfront. As the list is being filled the Shopper Solution uses the ESLs' position to plan the optimal route through the store, passing by all articles.

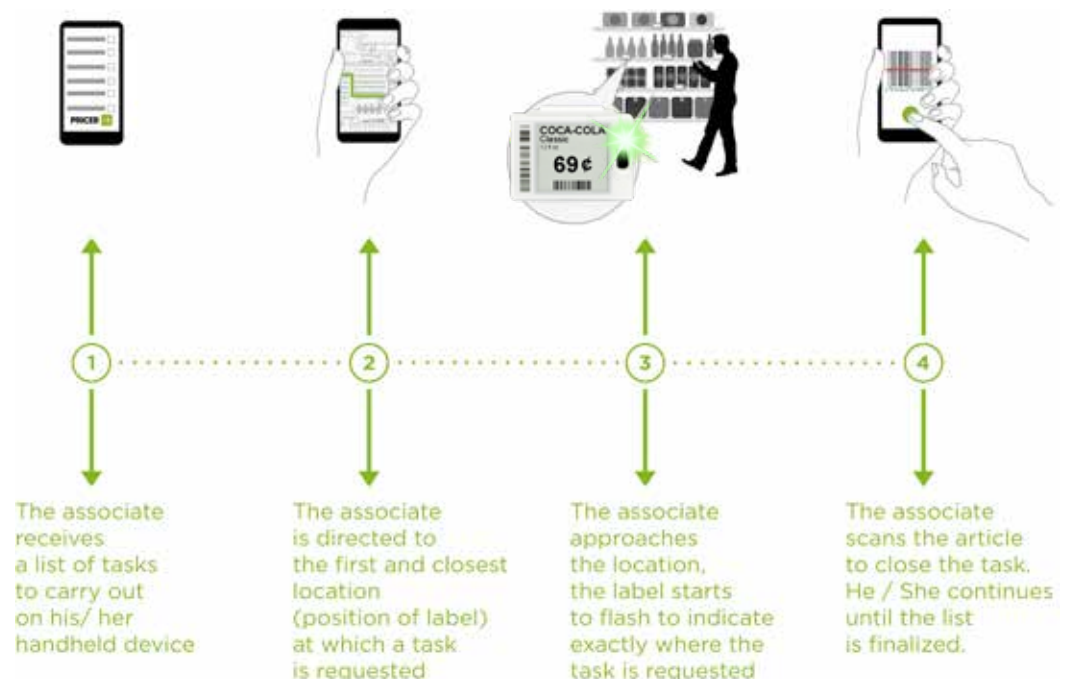
In the store, the map is retrieved from the Cloud. Localization with integrated BLE beacons is used to position the shopper's smartphone which is then displayed on the map. The shortest path from the shopper's location to the next article in the purchase list is shown on the map and is updated as the shopper moves through the store.



## TASK MANAGEMENT

Delisting products, negative stocks, new arrivals, shelf implementation, shelf-talker management... a large portion of the work performed on the shop occurs at an article's position on the shelf. Pricer's Task Management solution aims at streamlining the process of finding an article's position and performing a task at it.

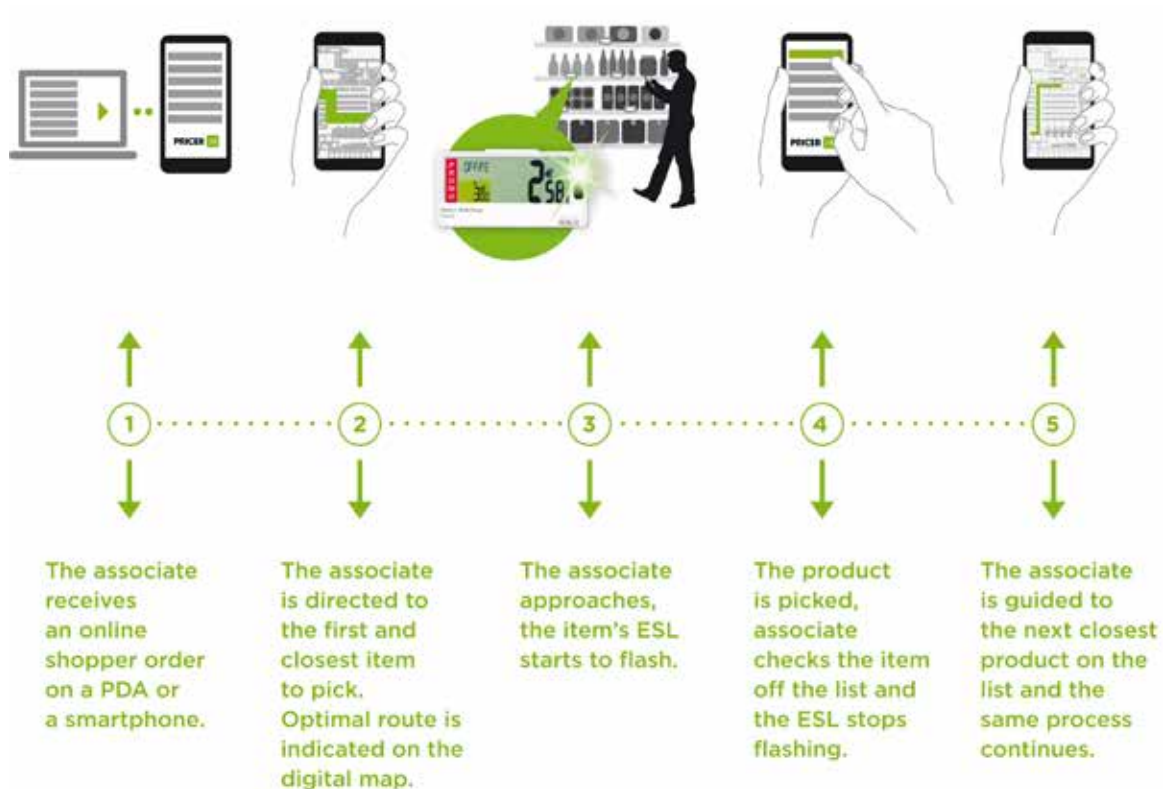
The store associates use the solution to carry out operational assignments. They receive the list of tasks to carry out and are guided in the store to each ESL for which a specific chore is requested. The concerned ESL will flash when it is approached and the assignment to be performed is displayed. The system combines indoor positioning of the handheld device and the position of the ESLs to guide the associates to the right place. Real time SmartFLASH is used to indicate the article on the shelf.



## CLICK AND COLLECT

As online penetration continues to increase and 'Brick & Mortar' stores start to offer their customers Click & Collect, improving picking performance is becoming essential.

The Click & Collect solution draws from all components of the Pricer Communication Platform. The online sales orders are imported as pick lists. The picker is positioned using BLE localization. And with the IR geoposition of ESLs, the optimal route is established for the picking process. The picker and the articles are positioned on the store map of his or her handheld device together with the shortest path to the next article in the list. SmartFLASH then provides the final visual guidance to the specific article.



# Pricer Attachment Solutions

## RAILS



Pricer has partnered with the world leading as well as important local merchandising companies to provide the most comprehensive shelf rail solutions.

## MOUNTING SOLUTIONS (EXAMPLES)

### Peg Hook 1

PVC peg hook holder or wire holder for  $\varnothing$  9 to 12 mm. Distance between hooks 12 mm.



### Peg Hook 2

PVC peg hook holder or wire holder for  $\varnothing$  4 to 9 mm, with anti-sliding pin. Distance between hooks 8 mm.



## MOUNTING SOLUTIONS FOR FRUIT AND VEGETABLE AREAS (EXAMPLES)



WHITE  
SUSPENSION HOOK



LARGE MARKET  
BLACK SLATE



MULTIPOSITION HOOK



FRUIT AND VEG CLAMP

### White suspension hook

Hook to fix the SmartTAG HD 110 on wire baskets, tubes or similar.

### Large market black slate

To hang SmartTAG HD 110 in the fruit and vegetable area. The label is displayed on a black background with the picture of the fruit or vegetable (a photo kit is provided).

### Multiposition Hook

Multiposition hook to be attached to furniture or crates in order to fix the SmartTAG HD 200 or the SmartTAG HD 110 in the fruit and vegetable area. The label can be positioned in a landscape or portrait mode.

### Fruit and Veg clamp

It is used to display the SmartTAG HD 110 or SmartTAG HD 200 in a 360° mode on a crate or a basket.

## MOUNTING SOLUTIONS FOR DELICATESSEN OR FISH AREA (EXAMPLES)



WHITE ARTICULATED  
STAND



SEMI-TRANSPARENT  
ICE PICK

### White articulated stand

Mainly used to place the label on flat surfaces in the delicatessen area. Can be attached to the SmartTAG HD 110 or S, M, L sizes (segment or graphic).

### Semi-transparent ice pick

The ice pick is directly put into the ice and is used for the fish area. Can be attached to SmartTAG L, SmartTAG HD L or SmartTAG HD 110.

## MULTIMEDIA HOLDERS

### Document holder

A technical document or product sheet can be inserted in the document holder. The label is attached right underneath.



DOCUMENT HOLDER



ADAPTER PLATE



LARGE FOOT HOLDER

### Adapter plate

Adapter plate is used to fix the SmartTAG HD 110 or HD 200 on a flat vertical surface. The adapter plate can be magnetic, adhesive or used with screws.

### Large foot holder

Used for placing the SmartTAG HD 200 on flat surfaces. The label can be portrait or landscape oriented.

## MERCHANDISING ACCESSORIES

### Colored Snap-on

Customizable frame (color and logo) that can be clipped to the front of the label.



COLORED SNAP-ON



COLORED SNAP-ON

### SmartCLIP

The SmartCLIP is inserted in the label. It is used to sturdily fix a shelf talker on the left side of the label.



SMARTCLIP



PEG HOOK + HOOKTALKER



SCORPION CLAMP



HD 110 WATER PROTECTIVE BOX



SMARTCARD



TRANSPARENT SNAP-ON + MASK

## NEW PRICER PRODUCTS

### Peg hook

Multiple angles adjustment, position stays fixed.  
ESL is locked in the peg hook holder.  
Compatible with Continuum & SmartTAG.  
A «hooktalker» can be added below it to increase visibility of product.

### Scorpion clamp

Strong clamp and articulated arm, the scorpion clamp allows to position your ESL under a multitude angles

### HD 110 water protective box

Transparent box to prevent ESL from water.  
In fresh or humid environment (Fruit & Veg and Fish area) this box is not re-openable.

### SmartCARD

The SmartCARD, an easy way to customize ESL with your own communication. Any shape, color, logo...

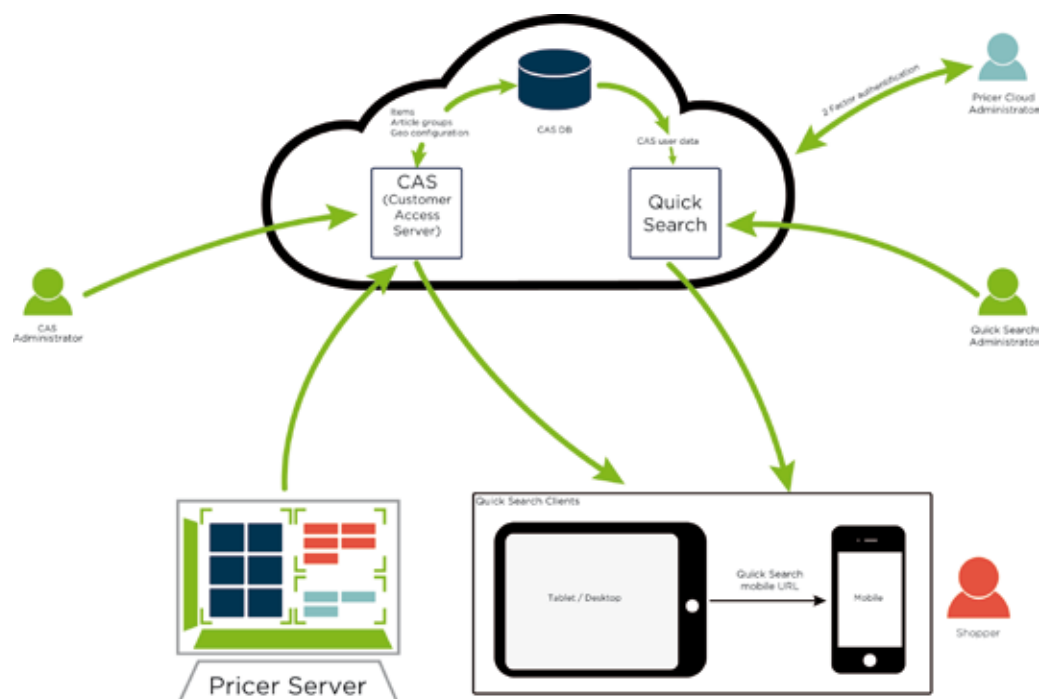
### Transparent Snap-on + mask

Screen protection cover.  
Pricer can provide customized communication "mask" to insert behind the cover.

# A Breakthrough In Omni-channel Retail

*Automated in-store product positioning has remained the 'holy grail'. As retailers digitally transform their businesses, several technologies are forming the new fabric of store infrastructure, enabling real-time interactions with products, people, and processes.*

Infrared technology is playing an important role, bringing product positioning to life in brick-and-mortar retail. The instrumentation of the shelf and intelligent application of product positioning open up significant opportunity for more efficient retail execution in the store as well as better customer service for omni-channel retail on the sales floor.







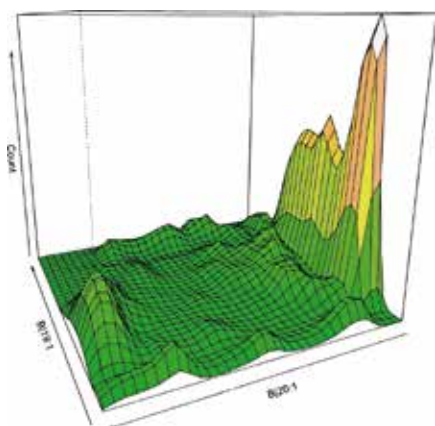
A fast and energy-saving technology, infrared (IR) communication accomplishes this task in conjunction with algorithms that calculate the position of products using trilateration.

IR technology can literally map where products have been placed on the sales floor, which can help engage customers in-aisle, help customers find products in-store, and manage product placement compliance.



## WHAT IS IR GEO POSITIONING - HOW DOES IT WORK?

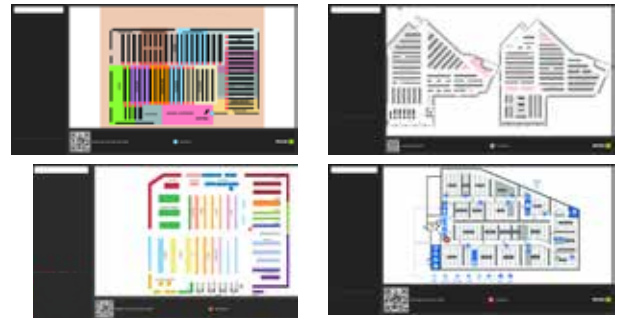
- A typical Pricer label response signal is seen by multiple points in the communication network reading different signal strengths depending on the distance from the label: that is trilateration.
- All labels are automatically positioned either on-demand or scheduled.
- Work with individual products or categories.



## IN-STORE MAPS



With Product Geo-positioning, it is critical to have appealing and accurate maps. Pricer provides the tools to create, update and distribute maps for multi-store retailers. Automatic cloud distribution to mobile apps. SDK for IOS and Android.



## IN-STORE CONSUMER GUIDANCE - THE PRICER SEARCH



The Kiosk provides shoppers with product location based on Pricer's ability to automatically geo-locate the product's Electronic Shelf Label in the store.

The shopper can search products directly on the interactive terminal or transfer the link of the digital store map to a smartphone without opening a specific application.

Pricer Search supports all Pricer Electronic Shelf Labels generations.

### Customer and store benefits :

- The shopper becomes more autonomous to find products and promotions
- Automatic item location in the store through the Pricer Search or a Smartphone
- Supported by shopper application integration or direct URL link
- Associates can guide with precision customer requests by showing a PDA screen
- Enriching the customer experience and improved customer loyalty
- Ability to enforce and audit the planogram compliance

# PRICER



BRINGING TRUST TO RETAIL

FOOD RETAIL - DO IT YOURSELF - ELECTRONICS



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