Hanshow

INTERACTIVE SHELF LABEL SYSTEM

Leading the Future
of Digital Retail

> # WHAT WE DO

Hanshow Technology is dedicated to providing competitive end to end solutions for retailers in the world.

As an integrated and professional **Interactive Shelf Label** (ISL) manufacturer, Hanshow is aiming for providing its customers with **world class ISL solutions and services.** Hanshow ISL system is based on custom-made Wireless Application Protocol Technology, which is widely applied for every type of retail environment including hypermarkets, shopping malls, boutiques, chain stores, pharmacies and all other retail sectors using price labels.

The ISL system is designed to **replace the conventional paper labels** and it ensures the prices update in stores is **instant** and **accurate.** Additionally, the ISL system can also **reduce operational costs, optimize management flow of supplier chain** and **add dynamic features to retail business management.** One of the major trends in retail is called **Omni-channel** which is a cross-channel business model used to increase customer experience.

In this new model, ISL plays an important role of **connecting online/offline channels and synchronizing information in real time.** By implementing this solution, retailers will stay in **constant contact** with consumers via smart phones or other internet media channels.
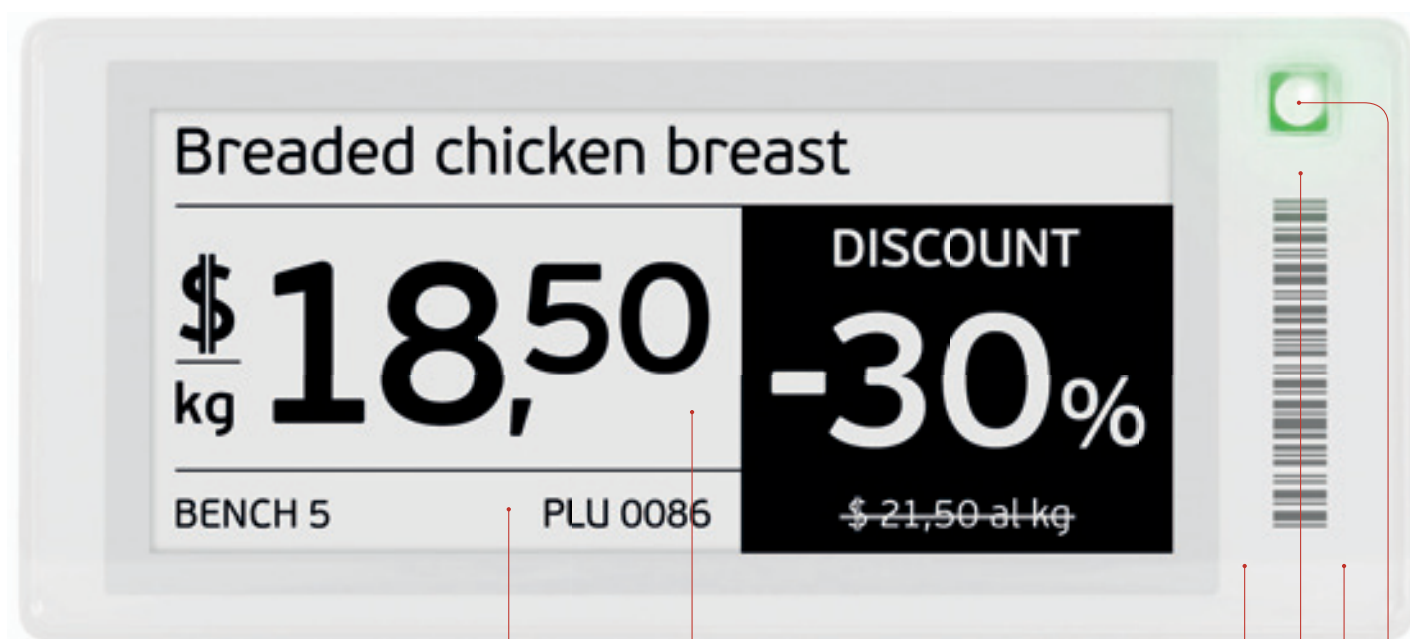
> OUR PRODUCTS

ISL: The Power of Information

The new **Interactive Shelf Labels** (ISL) are battery powered electronic displays for the automatic shelf prices update.

Back office information can be displayed on ISL: price changes, stock inventory, stock-outs, orders in progress and more.

ISL has been designed to **interact with users,** therefore, not only to show the correct prices, but to optimize, speed up and improve the efficiency of the store activities.

Breaded chicken breast

$ **18,50**
kg

DISCOUNT
-30%

BENCH 5   PLU 0086 $ 21,50 al kg

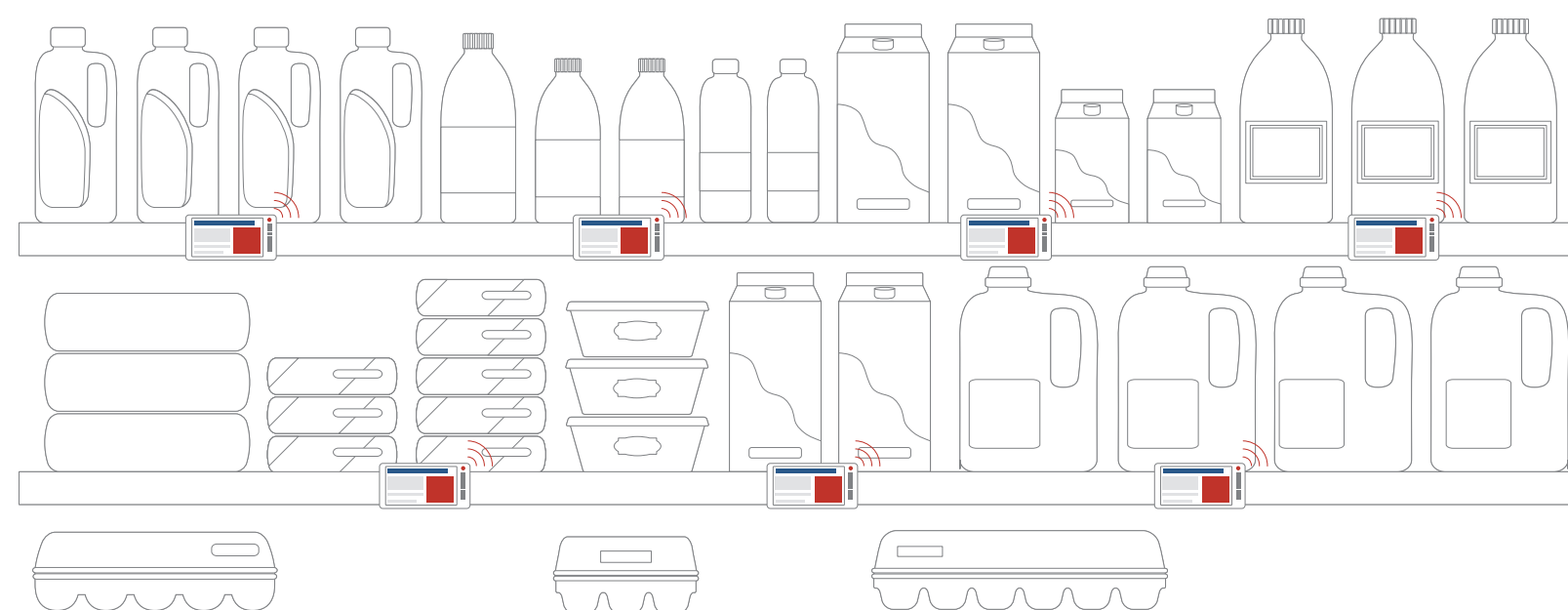### RELIABILITY

> Operation management automation

> High performance e-paper display

> 5 Years battery life

> Data encryption transmission

> Automatic monitoring and warning system

> Three color led indicator (optional)

CONVENIENCE

> System software remote update

> Self-checking system

> Automatic renewal in case of power outage

> Easy installation

FLEXIBILITY

> Multiple pages

> Custom templates

> Multiple languages

> Compatible with variety of terminals and platforms

> Variety of accessories for different scenarios

> **PRODUCTS ADVANTAGES**

LCD: Small and Medium

> Red field for promotion

> Highlight the items for picking,
  indicate stock information, highlight
  promotion items, validity date checking

> Segment display, easy to read

> Oversized price field, highlight prices

> More field for information

> Three color led indicator

SKYLINE S

Small Space for Lots of Information

All important information about products can fit in this small screen. It is the ideal solution for narrow shelves.

Technical Features

Size: 48 x 35 x 12.9

Weight: 24g

Temperature: from + 0 C° to + 30 C°

Transmission speed: up to 18.000 labels per hour

Barcode: frontal

3 color LED flash ● ● ●

Display

Technology: LCD in segments

Size: 37 x 23.7 mm

Number of segments: 160

Number of pages: 8

Battery

Battery: 1 x CR2450 = 550 mAh
or 1 x CR2477 = 1000 mAh

Battery life: 3 years (4 updates per day for CR2450)
5 years (4 updates per day for CR2477)

SKYLINE M

Monitor LCD in the Best-selling Format

Clarity and simplicity for complete information.

Technical Features

Size: 70 x 35 x 13.1

Weight: 34g

Temperature: from + 0 C° to + 30 C°

Transmission speed: up to 18.000 labels per hour

Barcode: frontal

3 color LED flash ● ● ●

Display

Technology: LCD in segments

Size: 57 x 23.7mm

Number of segments: 160

Number of pages: 8

Battery

Battery: 2 x CR2450 = 1100 mAh

Battery life: 5 years (4 updates per day)

Technical specifications are subject to change without notice

>

PRODUCTS ADVANTAGES

EPD: Maximum choice

> Support text in multi-language, digits, graphics and custom templates

> E-paper display has 180° Viewing angle and applicable to different lighting environment

> Applicable to -10 to -25 degree freezer

> Support NFC function

> Better buying experiences by applying barcode and QR code on labels

The temperatures marked here are black&white ISL operating temperature, for other screen temperature parameters, please contact the sales.

STELLAR S

Maximum Information, Minimum Space

Minimal facing: suitable for accessories, pharmaceuticals, perfumery, hygiene and beauty.

Technical Features

Model: S1.54

Size: 48 x 35 x 13.2 mm

Weight: 22 g

Temperature: from + 0 C° to + 30 C°

Internal memory: non-volatile 2 MB

Updating time: up to 18.000 labels per hour

Barcode: frontal

3 color LED flash ● ● ●

Display

Technology: e-ink bi-stable graphic

Size: 27.6 x 27.6 mm

Resolution: 152 x 152 pixel

Visual angle: > 170°

DPI: 140

Battery

Battery: 1 x CR2450 = 550 mAh

Battery life: 3 years (4 updates per day)

Technical specifications are subject to change without notice

STELLAR M

E-ink Display in its Best-selling Format

Label with compact and functional design. Perfect in every type of department.

Technical Features

Model: M2.13

Size: 70 x 35 x 13.5 mm

Weight: 34 g

Temperature: from + 0 C° to + 30 C°

Internal memory: non-volatile 2 MB

Updating time: up to 18.000 labels per hour

Barcode: frontal

3 color LED flash ● ● ●

Display

Technology: e-ink bi-stable graphic

Size: 48.55 x 23.71 mm

Resolution: 212 x 104 pixel

Visual angle: > 170°

DPI: 111

Battery

Battery: 2 x CR2450 = 1100 mAh

Battery life: 5 years (4 updates per day)

Special

Technology NFC/Freezer on request

STELLAR L

Freedom of Layout and Perfect Visibility

High-definition display.
Perfect for texts and graphics visualization.

Technical Features

Model: L2.9

Size: 91 x 41 x 13.35 mm

Weight: 43 g

Temperature: from + 0 C° to + 30 C°

Internal memory: non-volatile 2 MB

Updating time: up to 18.000 labels per hour

Barcode: frontal

3 color LED flash

Display

Technology: e-ink bi-stable graphic

Size: 66.9 x 29.06 mm

Resolution: 296 x 128 pixel

Visual angle: > 170°

DPI: 112

Battery

Battery: 2 x CR2450 = 1100 mAh

Battery life: 5 years (4 updates per day)

Special

Technology NFC on request

Technical specifications are subject to change without notice

STELLAR XL

Great Definition and Visibility

Perfect for served bench top placement, fruit & vegetables and appliances section. It allows to show price, QRcode, bar code, messages, on just one screen.

Technical Features

Model: XL4.2

Size: 104.8 x 94 x 10.5 mm

Weight: 95 g

Temperature: from + 0 C° to + 30 C°

Internal memory: non-volatile 2 MB

Updating time: up to 18.000 labels per hour

Barcode: frontal

3 color LED flash

Display

Technology: e-ink bi-stable graphic

Size: 84 x63 mm

Resolution: 400 x 300 pixel

Visual angle: > 170°

DPI: 120

Battery

Battery: 4 x CR3032 = 2200 mAh

Battery life: 5 years (4 updates per day)

Special

Technology NFC on request

STELLAR XXXL

Free and Highly Effective Communication

Even more effective promotions,
thanks to its large screen allowing high-definition images
for an impacting visual effect.

Technical Features

Model: XXXL7.5

Size: 183.9 x 126.9 x 13.2 mm

Weight: 290 g

Temperature: from + 0 C° to + 30 C°

Internal memory: non-volatile 2 MB

Updating time: up to 18.000 labels per hour

Barcode: frontal

3 color LED flash

Display

Technology: e-ink bi-stable graphic

Size: 163 x 98 mm

Resolution: 640 x 384 pixel

Visual angle: > 170°

DPI: 100

Battery

Battery: 6 x CR2450 = 6 x 550 mAh

Battery life: 5 years (4 updates per day)

Special

Technology NFC on request

   >   # PRODUCTS ADVANTAGES

RC: Remote Control Model HS-RC8310

> It can have **direct interaction** with labels, flip pages and control flashing lights through magnetic induction.

> The Remote Control and ISL interactive function parameters can be **configured** based on needs.The Hanshow software contains a configurator for the remote control. The configuration can be unloaded to the remote controller via USB cable.

Remote Control key commands correspond key sequences.

Remote Control controls the ISL page turn time and flash parameters.

Remote Control attributes: such as motor function, buzzer function, LED function parameters**.**

> **Reminder function:** LED indicators, buzzer and beep can be used for status alerts like successful communication with the label or the system.

**Interaction** between the Remote Control and ISL status reminder.

Battery status reminder: Alert when power is low.

Charging status reminder: charging or charging completed status.

> **Key lock function:** In order to prevent false trigger button or in the case of a long time without the use of keys, the key will automatically lock until use the combination of keys to unlock and the key function can be restored.

> **USB charging function:** it is provided a standard charging adapter and it usually takes 2 hours to be completed. Full battery lasts for 1 week using the key for 100 times a day.

> **USB upgrade:** The Remote Control can be upgraded through the USB interface.
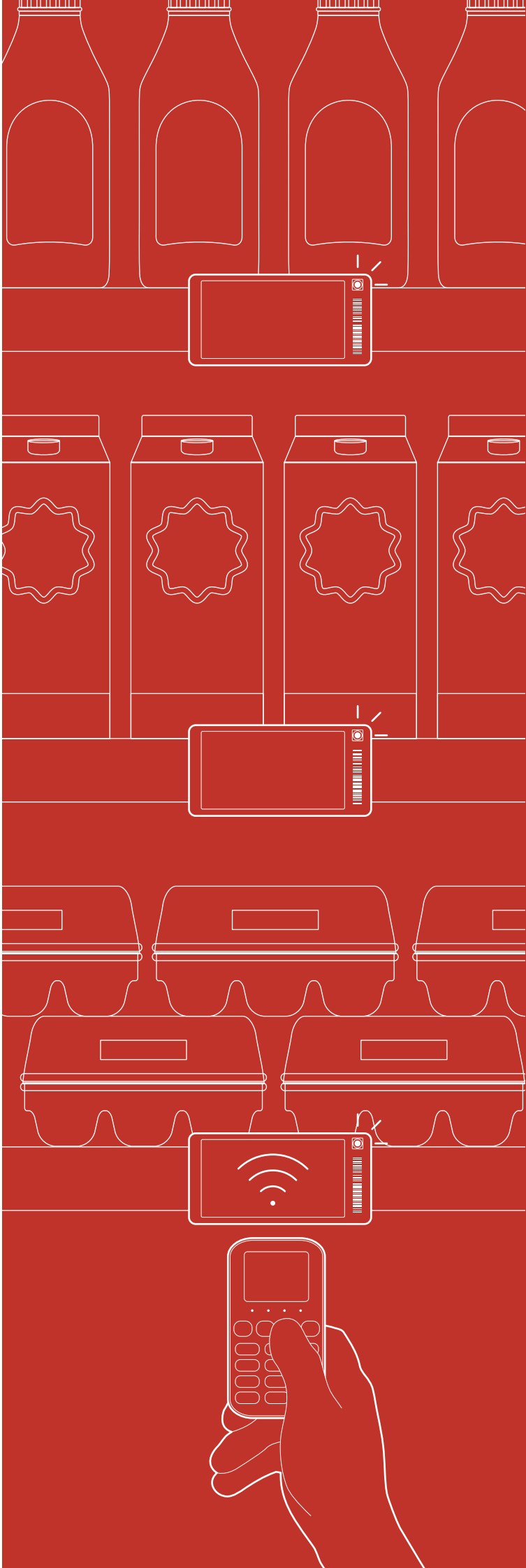
The Remote Control (Model: HS-RC8310) is a hand-held terminal developed by Hanshow based on its own wireless communication protocol and magnetic induction function.

It is compatible with Hanshow third-generation labels and able to manage the functionalities such as flipping pages and LED flashing control.

The Remote Control integrated vibration motor, ring, lithium-ion battery and supports USB charging.

Technical Features

Production Name: RC-1	
Type: HS-RC8310	
Size: 88.4 mm x 48.2 mm x 12 mm	
Case Color: Black	
Communication Module: Hanshow 2.4 GHz transmission module	
Beeper: Supported	
Vibration: Supported	
LED Light: 1 Red Single color LED	
Charge Type: Micro USB 2.0 (USB 2.0 Full Speed Interface)	
Program Interface: Micro USB 2.0 (USB 2.0 Full Speed Interface)	
Battery: Replaceable Li-on 360 mAh (500 times charge)	
Working Temperature: 0 - 40 C°	
Storage Temperature: 0 - 40 C°	
Buttons: 4 advanced buttons	
Name Card: Supported	
Magnet: Supported	

> ## ACCESS POINT

Hanshow AP The 2ND Generation
of ISL Access Point System Developed by Hanshow

Hanshow AP is an important part of Hanshow Interactive Shelf Label system, it as a **data transmission link** responsible for the important task of data forwarding:

> Forwarding uplink data: The ISL Access Point connected to ISL-Working over a wired network, to send the price changes, inventory, templates and other data to ISL;

> Forwarding downlink data: The ISL Access Point operates in the 2.4G protocol specification, based on the ISL radio protocol standard to ISL-Working platform to forward ISL Heartbeat and other information.

CLOUD DATA CENTER   LOCAL SERVER   SWITCHER   AP   AP

ISL   ISL   ISL   ISL

It operates in the 2.4G wireless frequency range and is responsible for **data transmission and information exchange** between ISL-Working system and ISL system.

The second-generation ISL Access Point system continues the basic functions of the first generation ISL Access Point system, and greatly improved the processing and carrying capacity of the system on the basis of first generation.

Main processing system:
Embedded Linux operating system, responsible for data interaction with ISL-Working system, including ISL Access Point system's registration, Heartbeat reception, data transmission;

Radio frequency system:
Modular RF subsystem, supporting four RF subsystems, supporting parallel communication, improving the communication success rate, and improving the channel utilization;

Support first generation EPD, second generation EPD, 3rd generation EPD, and 3rd generation LCD series ISL.

TECHNICAL DETAILS:

Linux
OS Linux embedded system platform supports upgrade by Ethernet port

4-way antenna
Designed to supports parallel communication

Automatic
Configures and connects to ISL-Working

Real-time
Communication between AP and ISL-Working is based on real time connection

LED Indicator
Big LED indicator displays assigned number and information about any communication error status

Compatibility
Supports all generations of LCD and EPD ISL

Multiple power input
Supports both AC power supply and POE power supply

Visualization
Each of the four antennas is equipped with LED light which allows to identify working status easily

A. **2-digit LED: Green, which displays base station ID**
B. **5-group LED: one green LED, which indicates the power state. Four blue LEDs, which indicate the operation state of base station RF sub-system**
C. **1-digit LED: red, which displays base station ID**
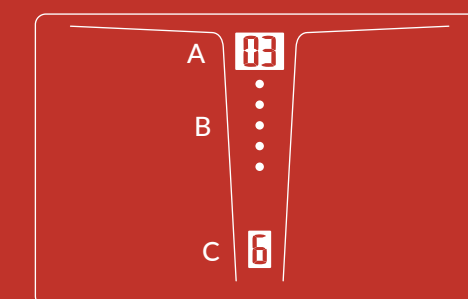
> **S H O P　W E B**

Shopweb Smart Retail System
The new platform

Shopweb Smart Retail System (hereafter referred to as Shopweb) is the third generation of Hanshow smart electronic price management platform. Shopweb can effectively manage store commodities, prices, inventory and other information in real-time.
Additionally, the system can accurately synchronize all information to stores anywhere in the world.
Shopweb uses the industry-leading modular design concept to provide a standardized interface.
Customers do not need to transform their existing ERP system, only in accordance with Shopweb interface specification, the product data will be delivered to Shopweb and the system integration will be completed.
Moreover, Shopweb will automatically send the correct commodity data to customer's different stores.

Product Features

> Easy To Use
The software is designed to meet the needs of different users, which is user friendly and has the practical query function too.

> Advanced
Shopweb is using the international advanced and mature technology, making the design more user friendly and more advanced.
By fully considering the characteristics of electronic price label and paying attention to the practicality of the system, Shopweb uses the most advanced software and hardware environment.
Regarding the software development, Shopweb developers strictly follow the standards of

software engineering and object-oriented theory to ensure the advanced nature of the system.

> Extendibility
The system has very good compatibility.
With the continuous development of Internet technology, the system can be easily upgraded.

> Stability
The system is able to handle multiple tasks at the same time.
In the event of unexpected circumstances, the system can handle and give a good error prompt, and can be recovered in a timely manner to reduce unnecessary losses.

SHOPWEB

STORE (1, 2, ...)

MAIN FUNCTION INTRODUCTION

1) Store management
The system supports functions such as adding, modifying, viewing, enabling and disabling.

2) User management
The system supports functions such as viewing, modifying and deleting; it can also assigns stores and give permissions to users.

3) Commodity management
Users can view, add, modify, delete commodities in the system; also bind or unbind price label according to commodity number.

4) Label management
The system supports importing data or deleting data, binding or unbinding labels with commodities, and refreshing label screen.

5) Data statistics
The system supports viewing the updated records and historical price changes of commodities, as well as the updated records and historical price changes of price labels.

6) Early-warning Monitor
The system can monitor AP and docking time, and abnormal data will be sent to designated personnel.

7) Internationalization
The system can set the default language, the language can be switched through the interface.

I S L   W O R K I N G

The **Core** of Network

Hanshow ISL-Working is the **core** of managing the Interactive Shelf Label (ISL) network control system. It manages **all the access points (AP) and labels in each store, collects and process data, sends information to labels via AP.**
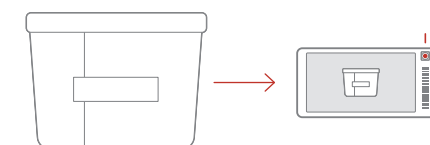
FUNCTION

> Bind
Bind is to **connect** labels with products on shelf and enables the labels to display the correct information.

> Unbind
Unbind is to **disconnect** labels with products. The labels will display "OFF" or appointed templates after the unbinding.

> Netlink
Hanshow ISL-Working system **recognizes the unique ID** of each label and communicates with the appointed label. Labels will be divided in different network groups for **effective communication.** Additionally, the system is able to **relocate** the labels in other groups and optimize the communication.

> Heartbeat
Labels **communicate** on 2.401 GHz in default and broadcast their ID to AP every 3 minutes. AP **monitors the frequency** and **sends the status data of the labels** to the ISL-Working system. Meanwhile, AP also sends feedback to the ISL-Working system **every minute.** This is what we call **Heartbeat**, which makes **sure** the system receive and monitor status timely.
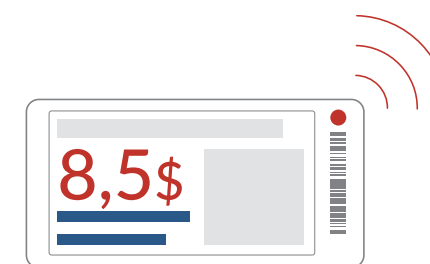
> Roaming
The ISL-Working roaming functions **automatically assigns the AP's to the labels.** This dynamic function ensures **optimal communication** between the system and the labels continuously, even when labels are moved around.

> Open Platform
It is an open platform that supports the **development of new functionalities.**

> API Interface
Hanshow ESL-Working system has standard API for users to personalize GUI (Graphical User Interface).

The interface is compatible with functions include **label update, binding, unbundling, led indicator, multiple-pages, state query & summary, configuration modification, templates update and label ROM update.**
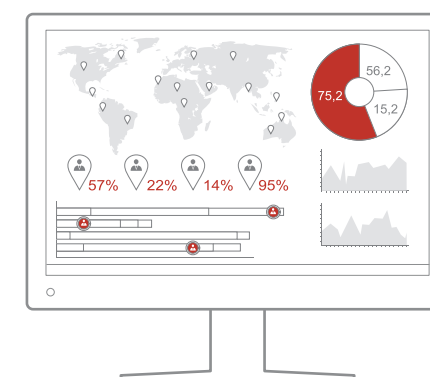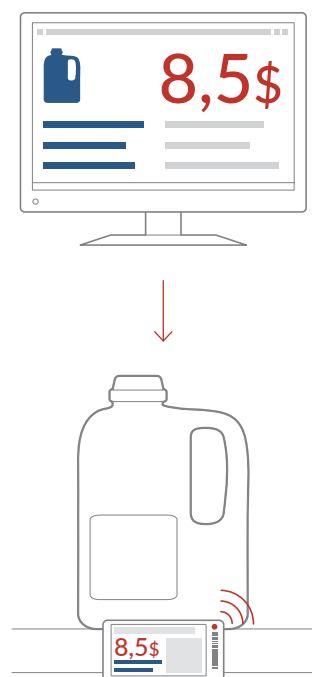
ISL SOLUTION

The **Perfect** Organization of the Store

PRICE MANAGEMENT

8,5$

8,5$

SHELF MANAGEMENT

6,5$
5,0$
1,5$

6,5$
5,0$
1,5$

STOCK MANAGEMENT

PRECISION MARKETING

PROMO
TAKE 3 PAY 2

ORDER PICKING

> **Real-time price update**
  Price update is simply done
  by the back-office system

> **Price synchronization**
  Online and offline prices are
  automatically synchronized

> **Information synchronization**
  Online and offline product
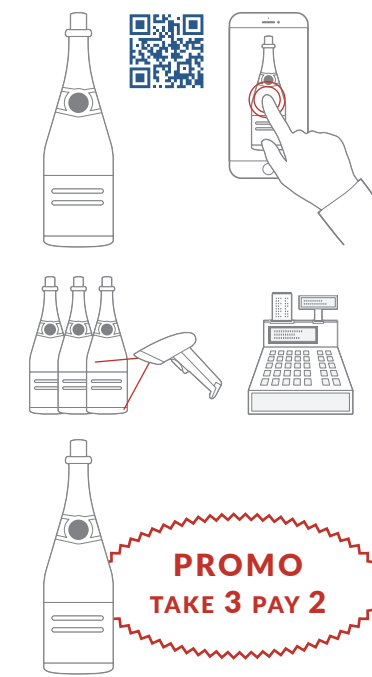 information is also synchronized
  automatically
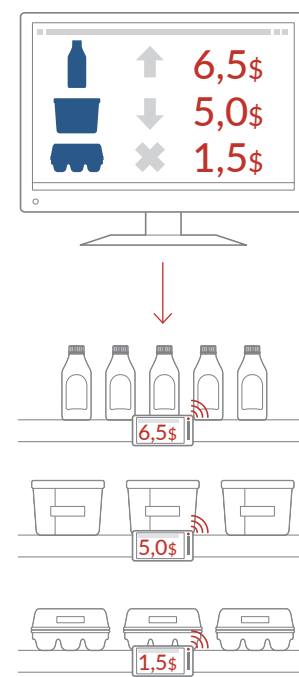
> **Better shelf management**
  Better execution in shelf
  management and easier evaluation
  on working processes

> **Paperless operation**
  Improve working efficiency
  and lower the operational costs

> **Visualized planogram in the system**
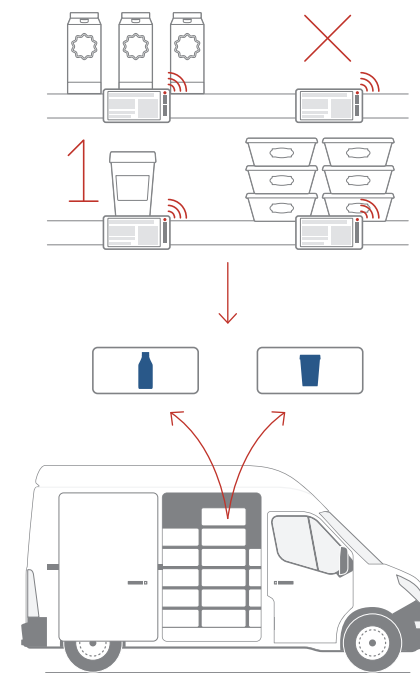
> **Online / offline** information
  synchronization

> **Automatic update on stock status**
  By using PDA, the stock
  management system contains
  functions like replenishment,
  receiving, RTV-physical counting,
  picking & delivery management

> **Customer buying behavior analysis**
  Collecting customer buying behavior
  through APP / POS / ISL /
  QR code / CRM

> **Customized QR codes**
  QR codes (2D barcodes),
  when viewed from smartphones,
  they activate store coupons

> **Targeted marketing**
  The customer behavior analysis
  enables retailers to conduct more
  effective marketing activities
  towards the right target groups
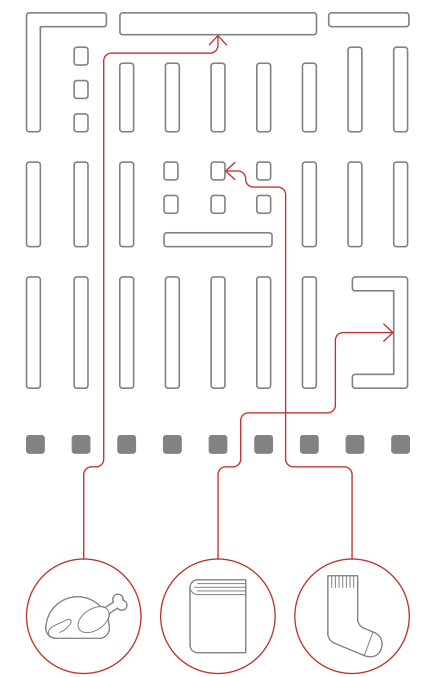
> **Route guidance**
  The system provides the best
  route for store staff to find
  the target item

> **Picking indicator**
  The LED indicator on labels
  highlights the target item
  to be picked up

Hanshow

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