Electronic Buffet Label Solution

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2. Hardware
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EFFIROX

What Challenges Can Electronic Buffet Label Address?

Is manually updating buffet labels eating up your time and resources?

In a typical hotel buffet, menu items can change up to three times per day—requiring approximately 150 labels and nearly two hours of work daily. The repetitive process of printing and replacing paper displays is not only inefficient but also difficult to sustain with consistency.

Are you struggling with last-minute menu changes or inaccurate dish labels?

Unexpected ingredient shortages or mid-service discovery of mislabeled items can lead to rushed corrections, added stress, and operational disruption.

EFFIROX

What Problems Would You Solve with Electronic Buffet Label?

Short-staffed and short on time?

With the current hospitality labor shortage, every minute matters. Reduce manual effort and reclaim valuable time by automating label updates.

Need to comply with allergen disclosure regulations?

Accurately displaying allergen data is not only a legal requirement—it's also a complex and error-prone process when handled manually.

Preparing to welcome international guests?

Creating multi-language labels under time constraints is often a bottleneck that affects both service speed and guest experience.

EFFIROX

Redefine Your Buffet Presentation: Key Benefits

Elegant Design

The sleek and elegant design aesthetic perfectly complements the upscale hotel setting.

Built for Demanding Environments

Our e-ink displays are splash-resistant and dustproof, ensuring flawless performance day in and day out.

Exceptional Battery Life

Engineered for efficiency, our labels consume power only when the content changes. A single battery can last for 3-5 years, minimizing maintenance.

Tailored to Your Brand's Look

Enjoy creative freedom with customizable templates to match your ambiance.

Sustainability

Move beyond disposable paper labels. Our durable, reusable signs help you save paper, reduce waste, and lower long-term costs while supporting your eco-friendly goals.

Save time

Save up to 80% of staff time with our easy-to-use software.

EFFIROX

Redefine Your Buffet Presentation: Key Benefits

Effortlessly Manage Dishes

Upload dish information individually or in bulk to the cloud and assign it to labels instantly with a single click.

Multilingual

Instantly adapt to your guests' needs by generating labels in multiple languages, ensuring a welcoming experience for an international clientele.

Clear Allergen Icons

Promote guest safety and compliance with regulations. Easily display standardized allergen icons directly on the labels.

Scheduling

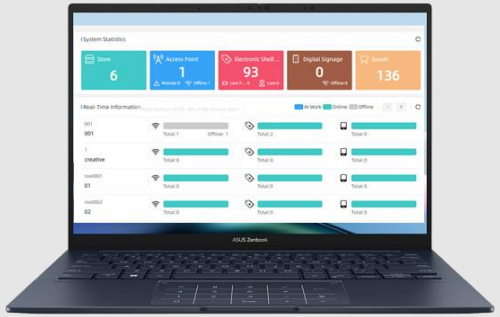
Pre-schedule your breakfast, lunch, and dinner menus. The system updates labels automatically at set times, guaranteeing accuracy and a professional appearance around the clock.

Main Features

- ✓ Label Management System in the Cloud, accessible from anywhere with internet access.
- ✓ Wireless connection, fast implementation.
- ✓ Customizable design, multi-language.
- ✓ With API for easy integration with your current management system.
- ✓ Liquid resistant.

EFFIROX

How it Works



TRANSMIT

Wireless

UPDATE

1. Management Software

It contains the database of dishes for each item and maintains the data communication between the software and the electronic labels.

2. Base Station

Utilises a wireless base station to transmit the information from the software to the electronic label with stability and reliability through a long distance.

3. Electronic Labels

The electronic label that functions as a receiver from the communication base station to display the info configured from the management software.

Available Sizes

Ideal for short labels or use of fewer languages. Suitable for displaying the names of sauces, pickles, side dishes. Its size also makes it perfect for name cards.

The most commonly chosen size by clients, these digital signs are suitable for displaying up to 3, maximum 4 languages.

Available Sizes

7.5 inch

Perfect for listing various dishes like baked goods, cheeses, salads, or providing more detailed information about certain dishes to enhance the guest experience (e.g., local product, world cuisine). These versatile digital signs are also ideal as a wine list, event program, or menu besides being a food label.

Product Specifications

Model: DL0350 Size: 3.5 inch

Product Dimensions (mm*mm*mm)	101*49.8*12.3
Case Color	white or black
Weight (g)	47
Display Technology	Full graphic E-ink display
Display color	BWRY
Active Display Area (mm*mm)	79.6*38.2
Display Size (inch)	3.5
Resolution (pixel)	384*184
DPI	122
Working life	10 years (1 updates per day)
Battery Spec	2 * CR2450, replaceable battery pack
Working Temperature (˚C)	0~40
Storage temperature (˚C)	0~40
Working Humidity (%RH)	45~70
Protection Level	IP65
Wireless firmware update	Yes
Usable pages	8
LED color	Red,Green and Blue,7 colors can be displayed
Wireless connectivity	Private Protocol
RF Wireless Communication Parameters	Working Frequency：2400MHz ~ 2480MHz
Communication Mode	AP
Communication Distance	Within 20m (Open distance: 50m)
Packing quantity	300/Box(full), 15.7kg

Model: DL0420 Size: 4.2 inch

Product Dimensions (mm*mm*mm)	99*89*12.3
Case Color	white or black
Weight (g)	47
Display Technology	Full graphic E-ink display
Display color	BWRY
Active Display Area (mm*mm)	84.8*63.6
Display Size (inch)	4.2
Resolution (pixel)	400*300
DPI	119
Working life	10 years (1 updates per day)
Battery Spec	3 * CR2450, replaceable battery pack
Working Temperature (˚C)	0~40
Storage temperature (˚C)	0~40
Working Humidity (%RH)	45~70
Protection Level	IP65
Wireless firmware update	Yes
Usable pages	8
LED color	Red,Green and Blue,7 colors can be displayed
Wireless connectivity	Private Protocol
RF Wireless Communication Parameters	Working Frequency：2400MHz ~ 2480MHz
Communication Mode	AP
Communication Distance	Within 20m (Open distance: 50m)
Packing quantity	180/Box(full), 16.2kg

Product Specifications

Model: DL0750 Size: 7.5 inch

Product Dimensions (mm*mm*mm)	178*126*9
Case Color	White or Black
Weight (g)	188
Display Technology	Full graphic E-ink display
Display color	BWRY
Active Display Area (mm*mm)	163*98
Display Size (inch)	7.5
Resolution (pixel)	800*480
DPI	124
Working life	10 years (1 updates per day)
Battery Spec	6 * CR2450, replaceable battery pack
Working Temperature (˚C)	0~40
Storage temperature (˚C)	0~40
Working Humidity (%RH)	45~70
Protection Level	IP65
Wireless firmware update	Yes
Usable pages	8
LED color	Red,Green and Blue,7 colors can be displayed
Wireless connectivity	Private Protocol
RF Wireless Communication Parameters	Working Frequency：2400MHz ~ 2480MHz
Communication Mode	AP
Communication Distance	Within 20m (Open distance: 50m)

What Makes Us Different?

Electronic Buffet Labels

High-hardness screen protector safeguards the digital display

①

Industrial-grade surface material resists long-term discoloration

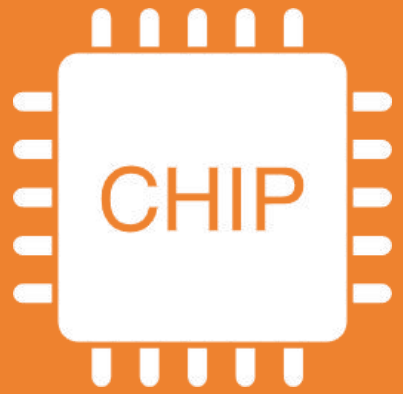
②

High-transparency matte coating reduces glare for optimal visibility

③

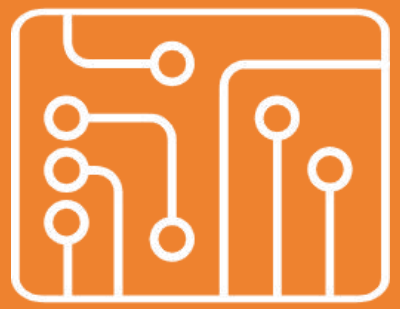
What Makes Us Different?

Electronic Buffet Labels



Industrial-grade chipset ensures extended lifespan and stable connectivity

④



Reinforced circuit board with premium materials enhances durability

⑤

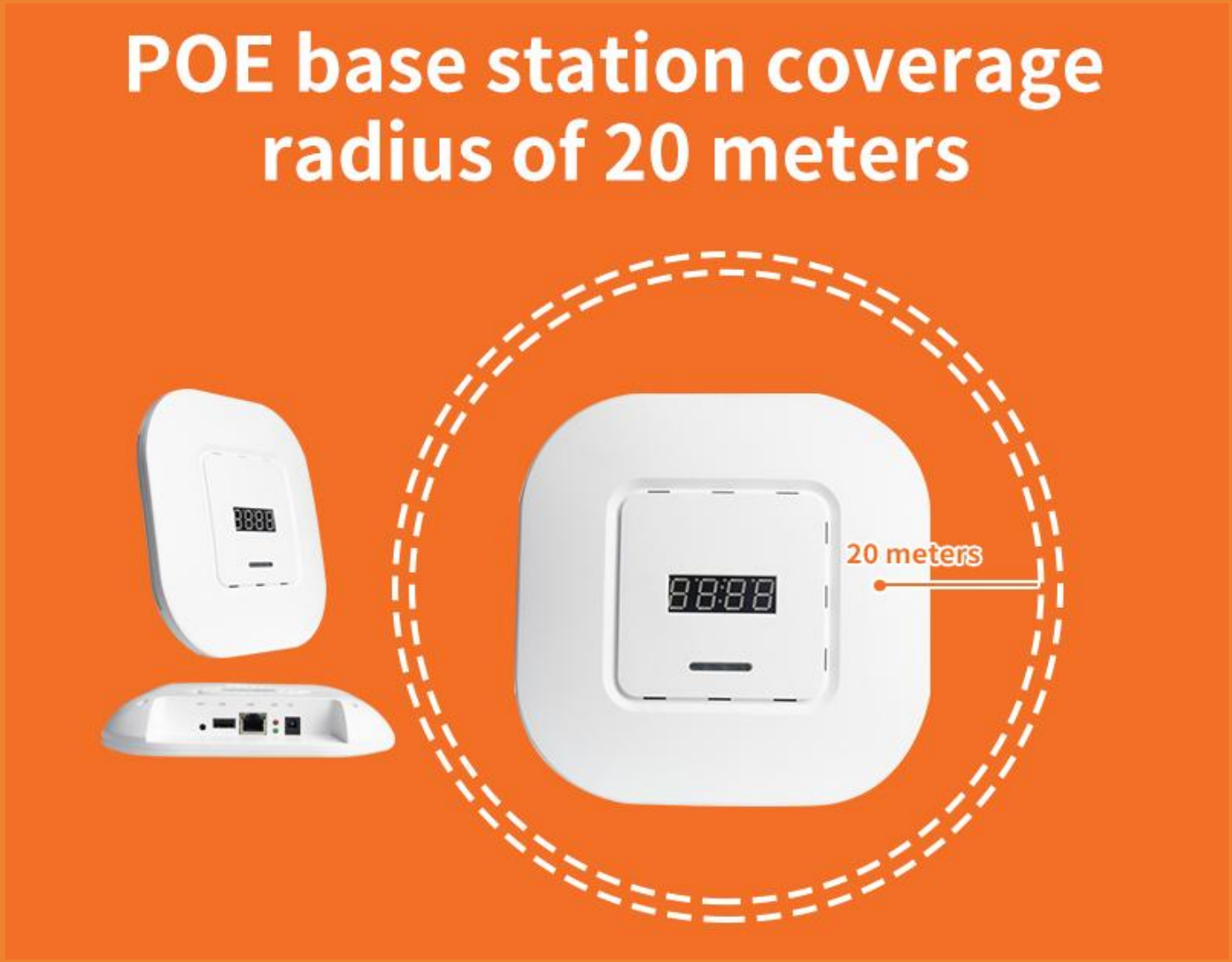
Programmable LED indicators enable customized visual alerts

⑥

Hardware--
Base Station

Features

- Communicate to display units automatically in the initial setting
- High-speed bi-directional communication
- Simple installation, plug & play
- High capacity and wide coverage



Coverage of Base Station

20 m radius

Coverage per Base Station: 20 m radius / 700 sqm (indoor)
Capacity per Base Station: No restrictions

For reliable performance and fast updates, we recommend connecting up to 2,000 displays to a single Base Station. This recommendation is based on rigorous testing that accounts for physical obstructions and network efficiency, guaranteeing a stable and responsive system.

Communication Technology

Base
Station

RF at 2.4Ghz by
private communicaton
protocol

Electronic
Buffet Labels

The Heart of the System - Reliable Communication

Core Technology: A Private Network for Your Hotel, A Dedicated Highway for Your Data

Our system operates on a secure, private wireless network using the 2.4GHz frequency. This dedicated channel is exclusively designed for your dish data, ensuring that every update is transmitted with priority, stability, and security.

Guaranteed Reliability: Experience peace of mind knowing your dish information is delivered accurately and on time, every time.

How Our Electronic Buffet Label System Operates

Instant Updates

Modify dish names, languages, designs, or assigned menu sections in real time—no delays, no reprints.

Wireless & Seamless

Our platform syncs effortlessly with electronic menu labels through secure wireless technology.

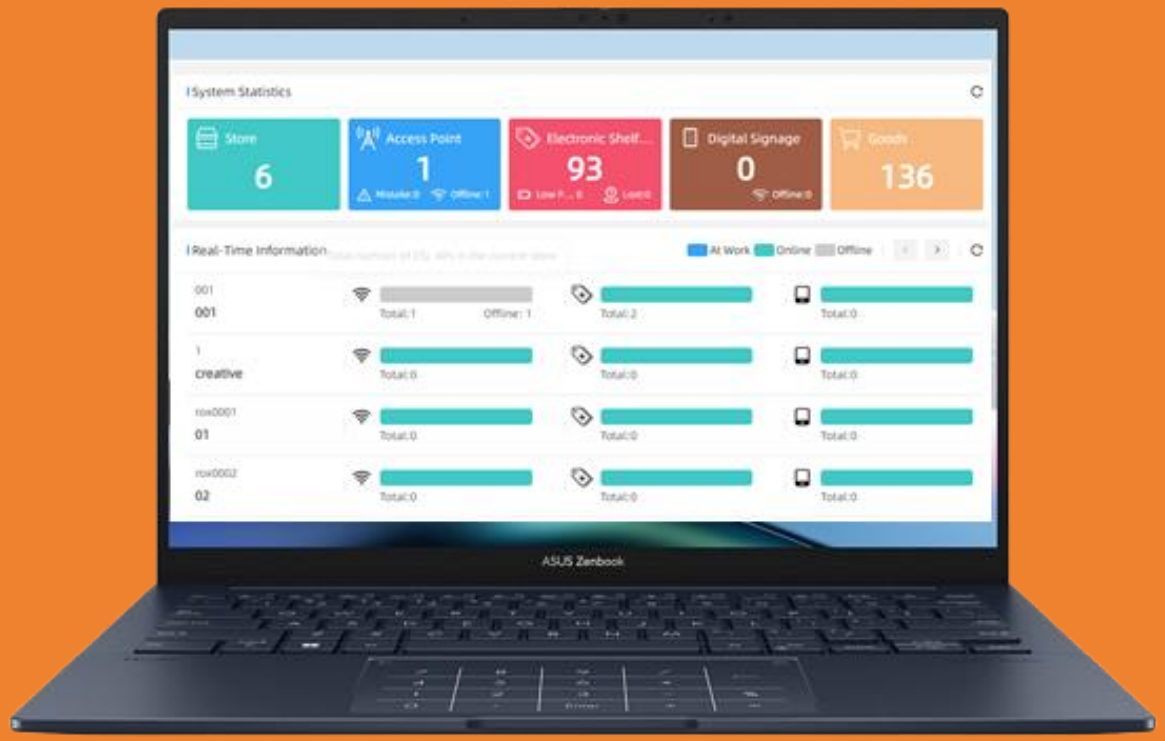
Customizable Templates

Design and save multiple visual templates for various occasions—all easily reusable and adaptable.

Intuitive Multilingual Interface

A user-friendly admin panel allows effortless management by staff of any language background.

Web-Based Management Platform



The command center for your buffet. Update data remotely for hundreds of items at once.

Web-Based Management Platform

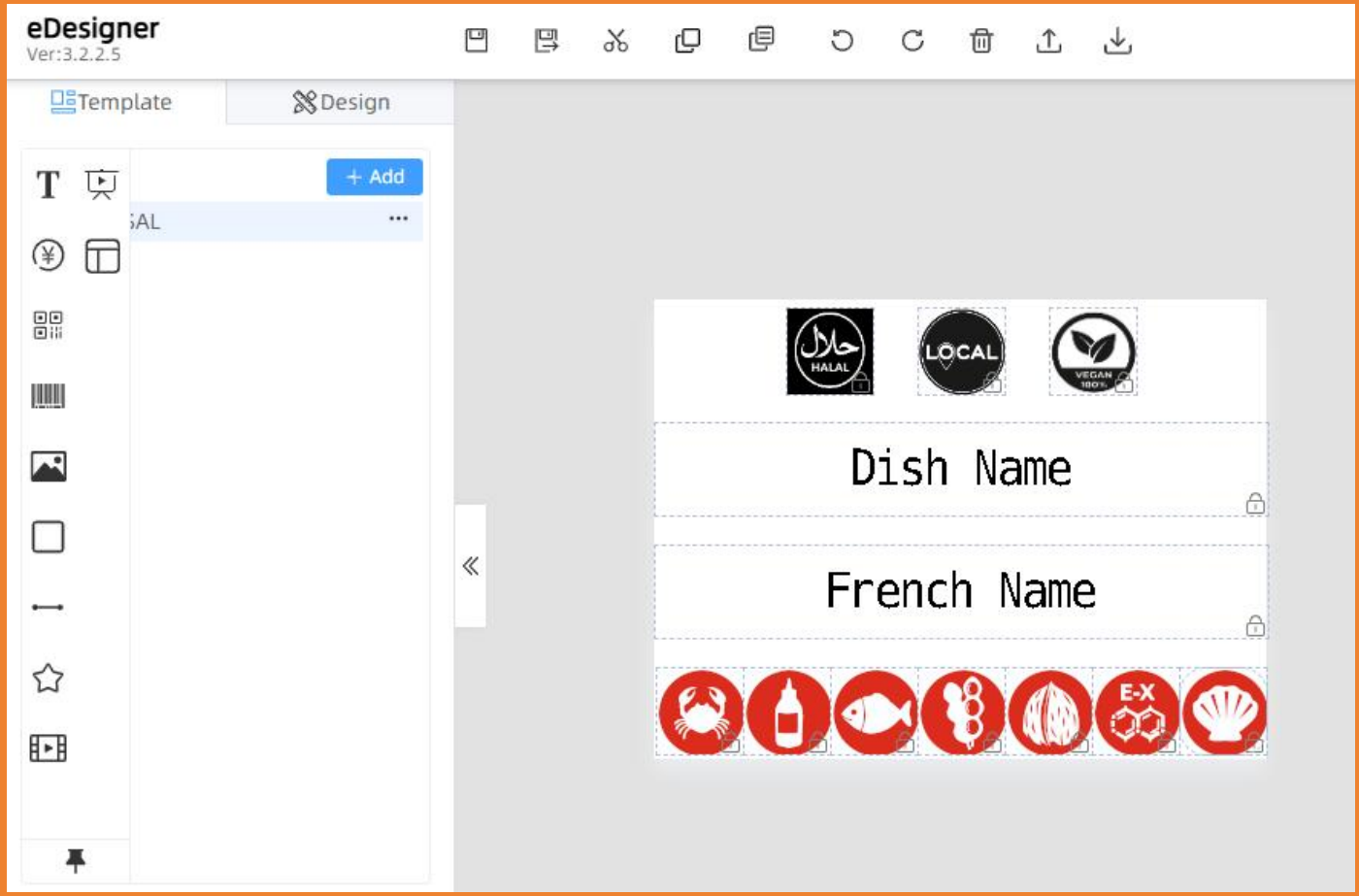
Software Features

- User-friendly, reduce your training costs and improve operational efficiency;
- Multilingual software supports over 11 languages:English, Japanese, Korean, Chinese, German, Spanish, French, Portuguese,Italian, Arabic, and Russian.
- With visual template editor for easy template creation;
- Users don’t need to write code to create a template. Anyone who can use office can create a template.

Software Functions

- Centralized multi-store management;
- Dashboard for overview
- User Management, Commodity Management, Device Management, Template Management, System Management.
- Template Editor with Scripting Capabilities
- The software allows for pushing images to displays.
- Configure alerts for system events to receive notifications by email or other means.

Visual Template Editor



The template editor allows personalized editing and typesetting of graphics, images, text, number and QR code;

What is our advantage in allergen display?

The scripting feature enables allergen display variations per dish within one template, optimizing efficiency, save a lot of time

Template Editor with Scripting Capabilities

Think of it as setting simple "if-then" rules. IF a dish contains peanuts, THEN the label automatically shows a "Peanut Allergen" warning

You create just one master template, and the system automatically populates the right information based on your pre-set conditions—like allergens, promotions, or stock levels. It’s the simplest way to ensure incredible accuracy and dynamic messaging across your store, all while drastically cutting down your design and management time.

Software Deployment

We offer flexible deployment solutions to meet your specific needs.

Public Cloud (SaaS)

Description: We provide the management software as a service on our cloud platform. Customers can access it directly over the internet.

Advantage: Quickest setup with minimal IT overhead. We handle all maintenance, security, and updates.

Ideal For: Most customers, especially those who want a fast start, predictable subscription costs, and no internal IT burden.

Private Cloud

Description: We deploy the management software on a cloud server managed and maintained by your own IT team.

Advantage: Full administrative control over the server and data.

Ideal For: Companies demand maximum control and is equipped to manage the cloud server.

On-Premises

Description: The management software is installed and runs on physical servers located within your company's own data center.

Advantage: Maximum control and data sovereignty. All data remains entirely within your internal network.

Ideal For: Large enterprises with strong IT teams, strict data residency policies, or limited internet connectivity.

Server configuration requirements for installing display software

Keep your costs affordable. Our display software is designed to be lightweight, reducing your server bill.

Hardware: CPU 2 cores, memory 4G, hard disk 50G, can support 40,000 displays, more than 100,000 items (support both single store and multiple stores)

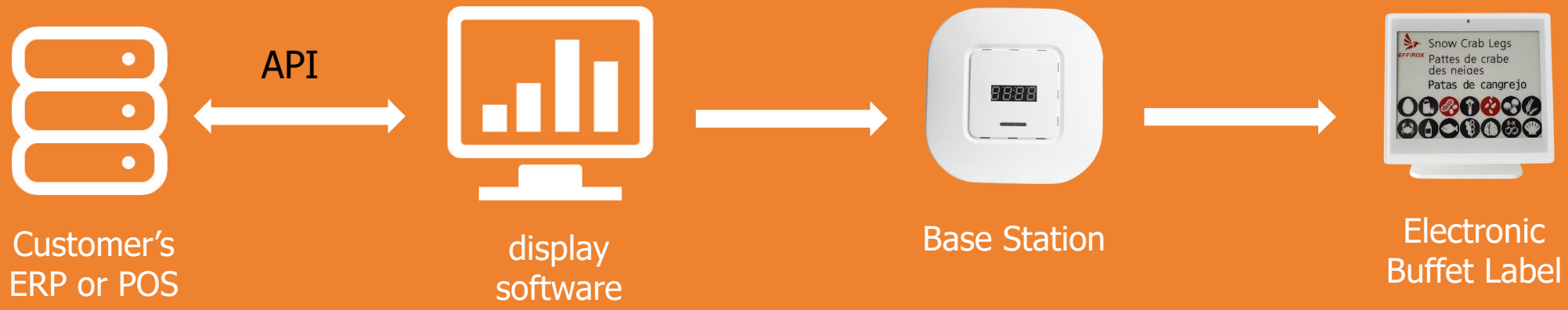
Operating system: Ubuntu LTS or CentOS stream 9 or other Linux, Windows

We suggest a Linux-based server for its superior reliability and stability over Windows. This will minimize your server maintenance requirements and simplify long-term usage.

Integration

Our integration support includes:

- Software APIs: For connecting to your ERP, POS, and other systems.



This method requires the customer to have development capabilities. Integration is achieved by calling our display System APIs, which cover store management, device management, product management, display updates, and more.

Integration

Hardware APIs: For customers who need to build their own management applications.

We provide a full API document that allows your server to connect directly to our Base Station. This means you can use your own software to send update commands to the Base Station, which then transmit the data to the display screens, eliminating the need for our display software.

System Integration

Integration model that requires no custom development from the client. In other words, it is a pre-built integration method within our system

1. Database Integration
This method requires the customer to provide the database credentials (IP, Port, Username, Password) and structure containing the product data to be displayed. Our display system will then proactively query this database to retrieve updates.

2. FTP File Transfer
This method requires the customer to provide an FTP server (IP, Port, Username, Password). Data must be formatted according to a predefined specification (e.g., CSV, XLS, XLSX) for our display system to fetch and process the files.

If the methods above cannot meet specific integration requirements, we offer custom development services to create a tailored solution.

Service

We're Here to Ensure Your Success

Brand Customization Services

Integration Assistance

Expert Technical Support

Remote Demo & Consultation

And More....

Server Setup

Firmware

Accessories

Why Choose Us?

Enterprise-Grade Reliability. Simplified.

Lifetime Technical Support

Our Commitment to Your Success

2-Year Warranty | Industry-Leading Coverage

Unmatched Peace of Mind

Pre-Configured | Plug & Play

Easy to Setup. 100% Productivity

Why Choose Us?

10 years of know-how

10 years of focus on the R&D and production of low-power electronic paper display products

One stop service

With hardware and software R&D teams, we provide one-stop services from R&D, design, production to after-sales

Well-known brands choose us

More than 50 well-known domestic and foreign brands choose our products

EFFIROX

Customer Case Photos

EFFIROX

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Customer Case Photos

Ready to Build a Smarter, More Efficient Buffet?

1. Schedule a Video Meeting or send us an inquiry
2. Receive a Personalized Quote
3. Start with Sample Testings

Contact Information

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Mobile: 86-13268393250
What'sapp: 86-17701969397

Scan the QR code to add WhatsApp