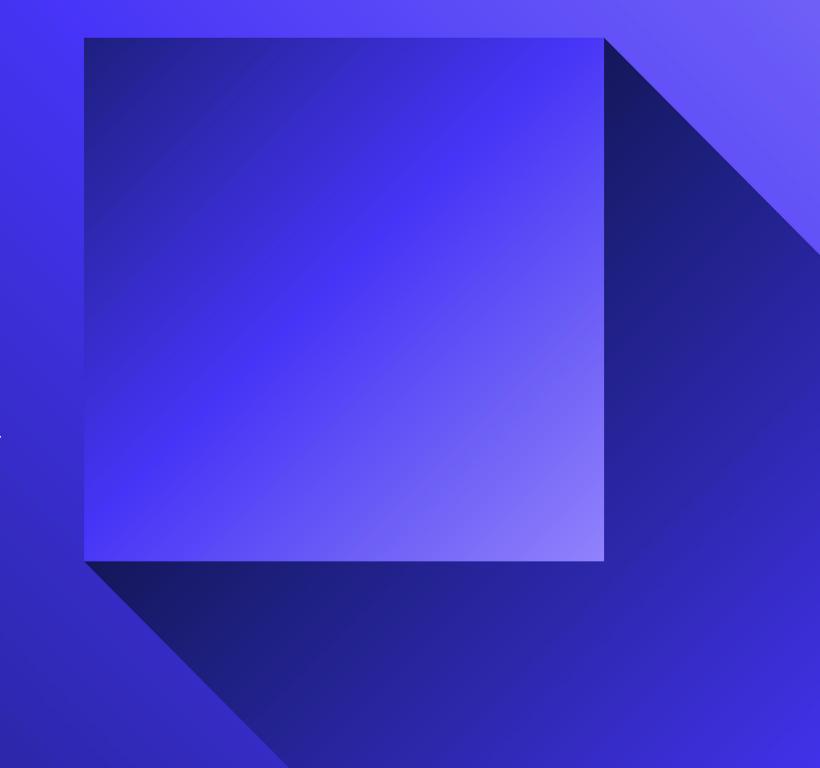
# STORIN Company Intro

Intelligent Warehousing and Logistics Solutions Provider





# STORIN

STORIN specializes in the installation and deployment of AGVs and various warehouse robots. With a modular, flexible, and diversified intelligent warehousing service platform, it provides solution planning, implementation, delivery, training, software system services, and after-sales services, helping enterprises achieve logistics automation and digital transformation.



2019

hardware and software

Promote integrated logistics and The founding team warehousing services, from RT-Mart and integrate Logistics intelligent independently warehousing solutions developed a with WMS, enterprise successful full-process resource services, AGV, collaborative WMS automatic sorting machines, and other

2018

2020

The team provides a logistics warehouse and distribution center for a well-known retail hypermarket, carrying out automated warehouse transformation to support the company's daily processing of millions of orders.

2022

**Established operations** centers in Singapore and China as the predecessor of STORIN 2023

Asia

Launched a warehousing project Received orders from for the electronics Japan's electronics and industry in Thailand; apparel industries; in obtained ISO9001 and the same year, ISO27001 certifications; established an added new operations center in collaboration projects Thailand to expand business in Southeast in the medical, automotive, and industrial sectors.

The STORIN brand was officially launched, positioning itself as a flexible intelligent warehousing service platform, providing a standardized RaaS model to help enterprises reduce costs and increase efficiency.

STORIN

# Servicing Global Markets

Greater China

Southeast Asia (Malaysia, Singapore, Thailand, Vietnam)

Northeast Asia (Japan, Korea)

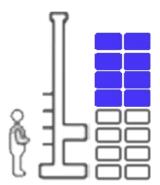
Oceania (Australia, New Zealand)



# KEY INDUSTRY END CUSTOMERS



# Service Advantages



Up to 500% Storage Density Increase

Improve storage density, minimize density, and fully realize the potential of vertical warehousing.



300-600% Increase Efficiency

Improve operator productivity, eliminate repetitive and low-value tasks, and streamline daily operations.



99% Accuracy

Improve operators'
accuracy in picking, sorting,
storage, outbound and
internal handling tasks,
ensuring precision and
rigor in every step.



Fast 2 Yr ROI

Maximize storage capacity per square meter, reduce labor costs and accelerate operational return on investment, quickly recovering your investment.



Artificial Intelligence

Leveraging advanced cybersecurity, digital twins, and intelligent algorithms, we harness the power of AI to secure operations, optimize performance, and enable smarter decisionmaking.



# Intelligent Warehouse Solutions



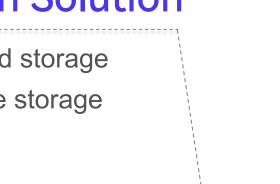
### Rack to Person Solution

Light and medium load storage Low ceiling and dense storage High Throughput



**Intralogistics Solution** 

Intra Warehouse moving
Tote, Cartons, Pallets
Different floor moving





### **Tote to Person Solution**

Light storage and Unique goods
High Vertical and Dense Storage
High Throughput



### Pallet to Person Solution

Full-case picking
High Density storage



### **Automated Forklift Solution**

Platform receiving and dispatching area

Truck-to-truck transfer within the warehouse

Moving and Storing Operations





Pick and Sort Stations

Inbound and Outbound workstations

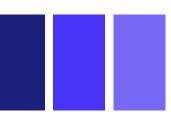
Goods to workers



High Density Storage Connecting conveyor line

Production line side warehouse





# High Density, AS/RS, and Large Heavy Solutions





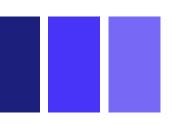
# High Density Storage Shuttle System

Two-way and Four-way systems to maximize available space, increase throughput for warehouses with fewer unique products, low ceilings and high throughput requirements.

# Automated Storage and Retrieval Systems (AS/RS), Mini Load ASRS, Heavy to Oversized Loads Solutions

Systems designed to store and stack light, medium to heavy loads, oversized dimensions, quickly, safely and efficiently.





# **Tote to Person Solutions**

High Throughput, Maximize Vertical Density Storage, Order and Inventory Accuracy

Tote or carton as the core storage and retrieval unit, through the collaborative operation of robots, automated equipment and intelligent software systems, the required specific tote is automatically transported to the operator at a fixed workstation, thereby completing sorting, picking, review and other operations.

# **Efficiency Increased**

• Picking efficiency can reach 450-600 pieces/hour/workstation, significantly accelerating order response times.

### **Cost-Down**

• This effectively reduces picking labor by 50%-70%, while also reducing reliance on skilled workers and improving space utilization.

# **Accuracy Improved**

• Picking accuracy can exceed 99.99%, significantly reducing losses and after-sales costs caused by incorrect orders.

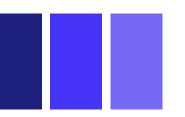
# Data Management

• It enables real-time inventory visualization and seamless integration with enterprise ERP/WMS management systems.

# **Scalability**

• The modular system design supports rapid warehouse scalability and flexibility to fulfill seasonal throughput





# **Shelf to Person Solutions**

High Throughput, Fast ROI, Order and Inventory Accuracy

Autonomous Mobile robots transport shelves, pallets and bins directly to operators at fixed workstations, completing tasks such as picking, shelving, and inventory. This revolutionizes the traditional "people looking for goods" approach and achieves a "goods moving, people not moving" approach.

# **Efficiency Increased**

• Picking efficiency increases by 2-4 times or more, shortening order response time from hours to minutes.

### **Cost-Down**

• Effectively reduces picking labor by 50%–70%, while also reducing reliance on skilled labor. Improved space utilization minimizes bin spacing to just 2cm.

### Accuracy Improved

• Through system-wide light guidance and barcode/RFID verification, picking accuracy reaches over 99.99%, significantly reducing losses and after-sales costs caused by order errors.

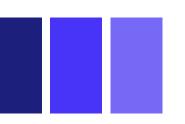
### Data Management

 Achieve real-time inventory visualization and seamless integration with enterprise ERP/WMS management systems.

### **Scalability**

• The modular design supports rapid warehouse layout adjustments and smooth business expansion.





# Pallet to Person Solutions

Full load pallet transport, Fast ROI, Order and Inventory Accuracy

This solution automatically moves the entire pallet and its contents to an operator at a fixed workstation, completing operations such as storage, retrieval, and picking. It is particularly suitable for scenarios where full-pallet operations are the primary focus, while also handling partial case and split-case picking.

### **Efficiency** Increased

 Automated equipment replaces manual search and handling, increasing picking efficiency by up to 3 times compared to traditional manual labor.

#### **Cost-Down**

• It effectively reduces the need for forklift drivers and pickers, reducing reliance on skilled labor. Higher space utilization reduces warehouse rental costs.

### Accuracy **Improved**

• The system precisely positions pallets, reducing manual contact and errors, significantly improving picking accuracy.

# **Data**

• It enables real-time inventory visualization and seamless integration with enterprise ERP/WMS management systems.

# Scalability

• The modular design supports rapid warehouse layout adjustments and smooth business expansion.



# Smart Sorting Solutions Automation, Increased Efficiency, Picking Sorting Accuracy

It is a smart warehousing solution that uses advanced technologies such as computer vision, machine learning, and robotics to automatically identify, classify, and sort packages. Simplifying operator tasks.

# **Efficiency Increased**

 Automated equipment replaces manual searching and handling, increasing picking efficiency by up to three times compared to traditional manual labor.

#### **Cost-Down**

• The modular design allows for expansion based on business growth needs.

### Accuracy Improved

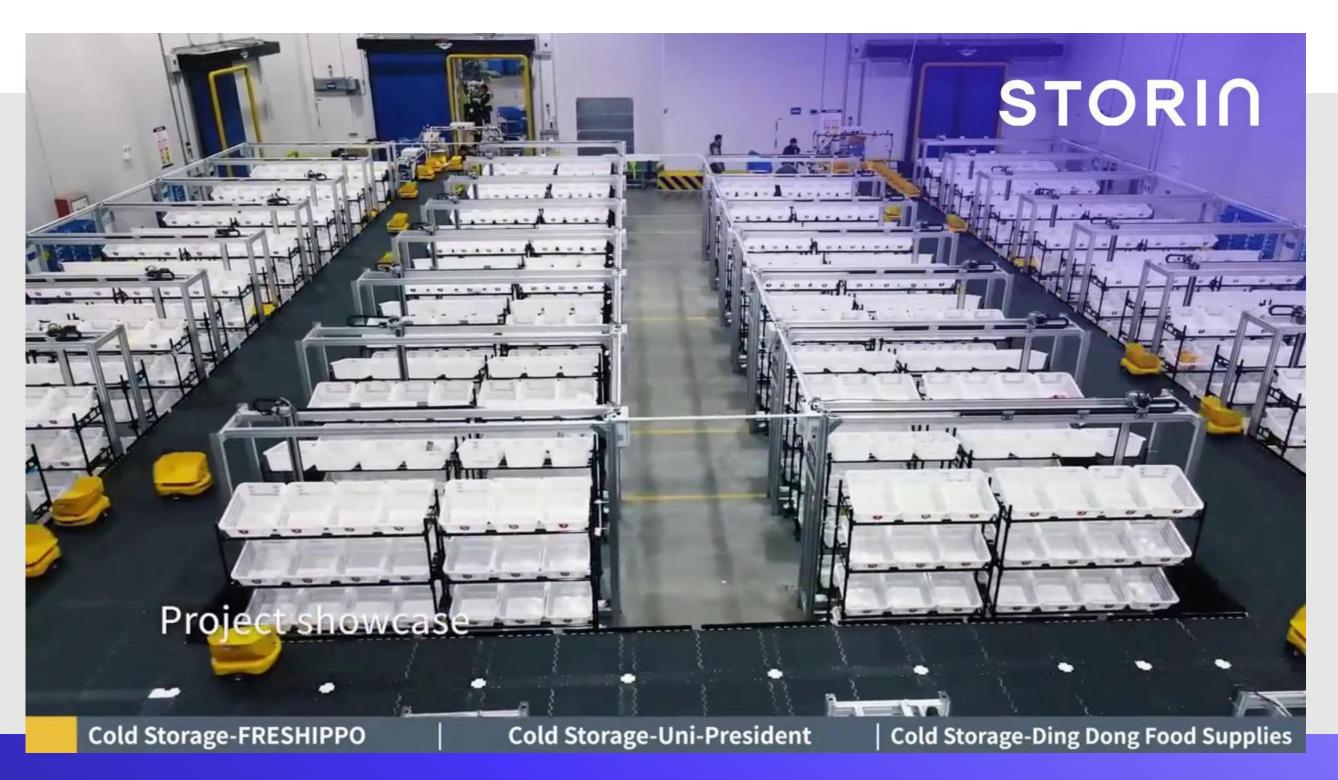
• Machine recognition enables precise operation and reduces error rates.

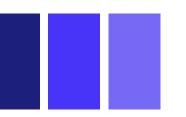
### Data Management

• Real-time data visualization throughout the entire process enables intelligent management.

### **Scalability**

• This reduces labor intensity, reduces mixing of people and vehicles, and improves safety.





# **Smart Forklift Solutions**

Automation Safety, Precision Detection, Smart Deployment

Autonomous driving tech, intelligent navigation and IoT technology, traditional forklifts have been transformed into "smart partners" that can autonomously complete cargo handling, stacking, loading and unloading.

# **Efficiency Increased**

• 24/7 continuous operation with precise and robust task response.

# Safety

 Multiple safety protection mechanisms including Lidar, cameras, radar to ensure the safety of personnel and goods.

# Accuracy Improved

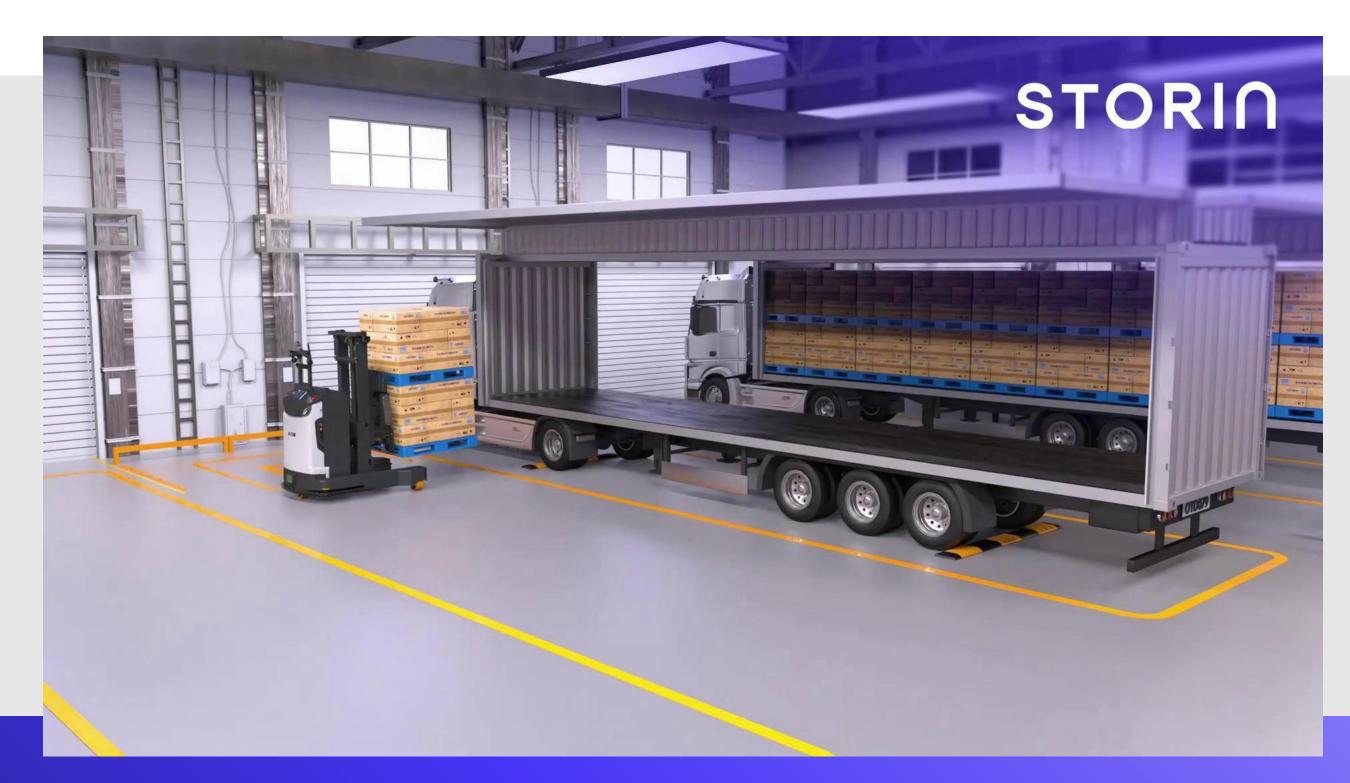
• It enables millimeter-level precision operations, minimizing damage to goods and shelves.

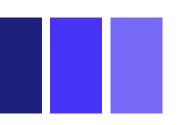
# Data Management

• It provides real-time visual inventory management and seamlessly integrates with enterprise ERP/WMS management systems.

### **Scalability**

• It supports rapid warehouse layout adjustments and business expansion, allowing for smooth handling of peak traffic.





# Multi-way Shuttle Solutions

High Density Storage, High Throughput, 4-way and 2-way shuttles

Wood, steel, and plastic pallets as carriers, this solution is designed for high-density storage and overall picking scenarios in compact spaces or low ceilings, also cold storage. Available with 4-way or 2-way travel, on-site track change, automatic handling, intelligent monitoring, and dynamic traffic management. Driven by an intelligent scheduling system, multiple layers, multiple vehicles, and multiple devices work in parallel.

# High Density

• Compared to stacker crane, storage density is increased by approximately 30%.

### **Precision**

 The system features multiple position verification mechanisms and automatic sensing and stopping, enabling equipment separation and distributed control.

# Flexible Scalability

• Modular system design, equipment configuration can be adjusted based on actual efficiency needs, resulting in a lightweight design, flexibility and long service life.

### Adaptability

• Its adaptability to various space requirements makes it a significant advantage in low ceilings the cold storage.





# ASRS, Mini load ASRS, Crane Solutions

Maximize Vertical Storage, Automation, Heavy and Oversized loads

Maximize vertical storage with ASRS for the same warehouse footprint. For heavy and oversized difficult loads such as yard logistics sorting, this solution is essentially a revolution in thinking from "flat storage" to "three-dimensional space." By compressing, sharing, eliminating, or dedicating warehouse aisles, it transforms previously wasted space into tangible storage capacity and economic benefits.

# Maximize Vertical Storage

• Directly increase storage capacity by 20% to 80%

# **Efficiency Increase**

• Narrow aisles reduce forklift travel distance, improving picking and warehousing efficiency;

# Accuracy / Safety

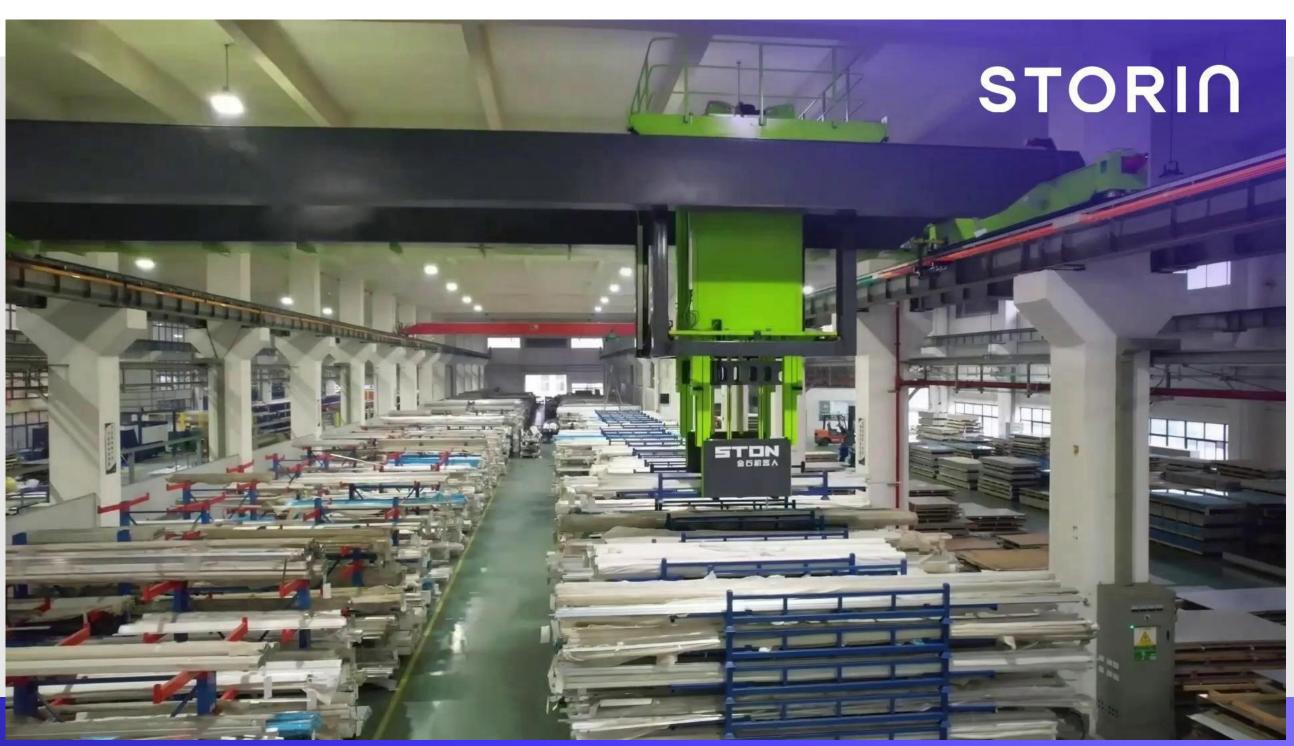
 Narrow aisle systems use guidance technology to prevent collisions and enhance operational safety;

# Cost-Down Automation

• Significantly reduce reliance on skilled forklift drivers;

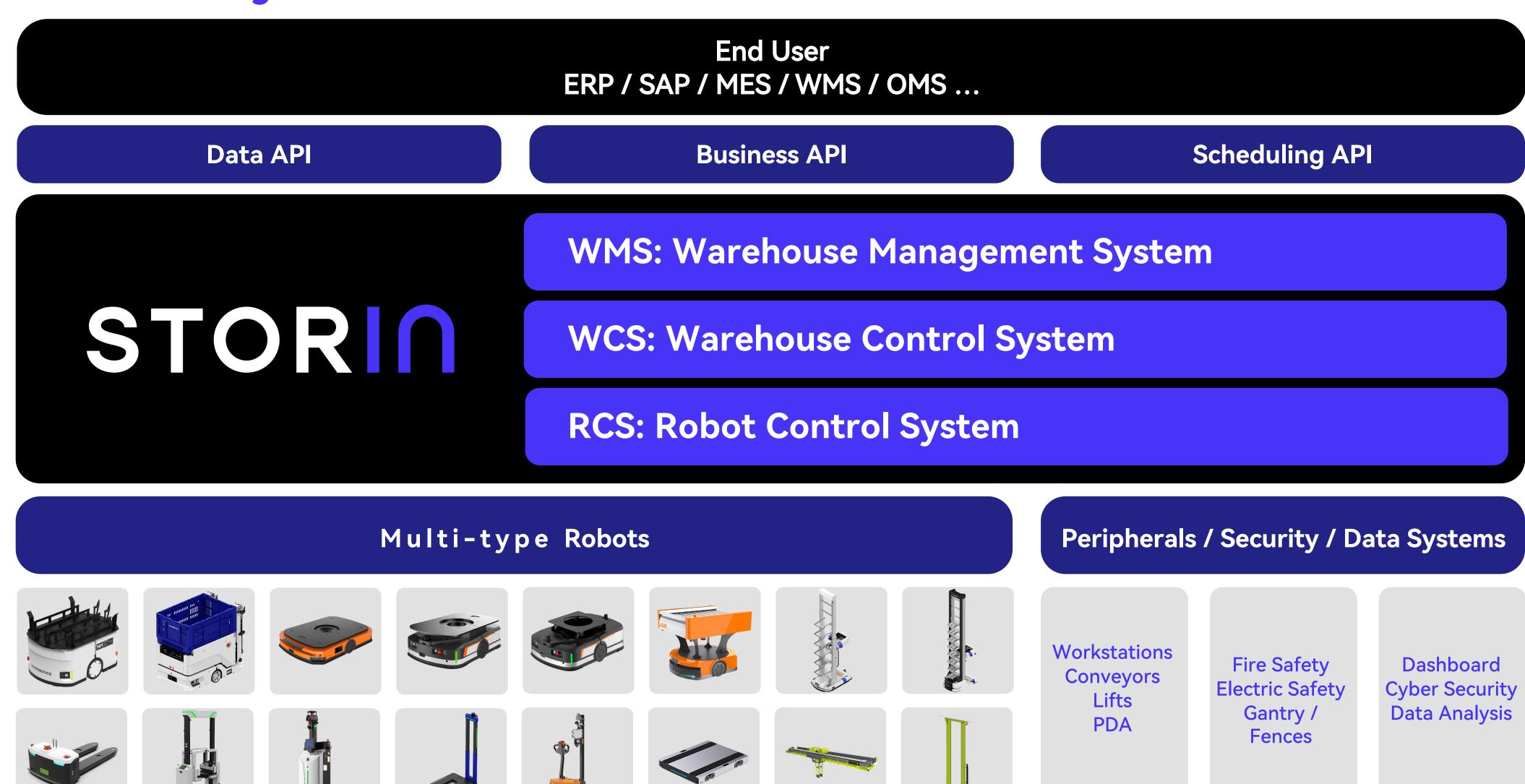
# Data Management

• Enable real-time inventory visibility and precise batch management.

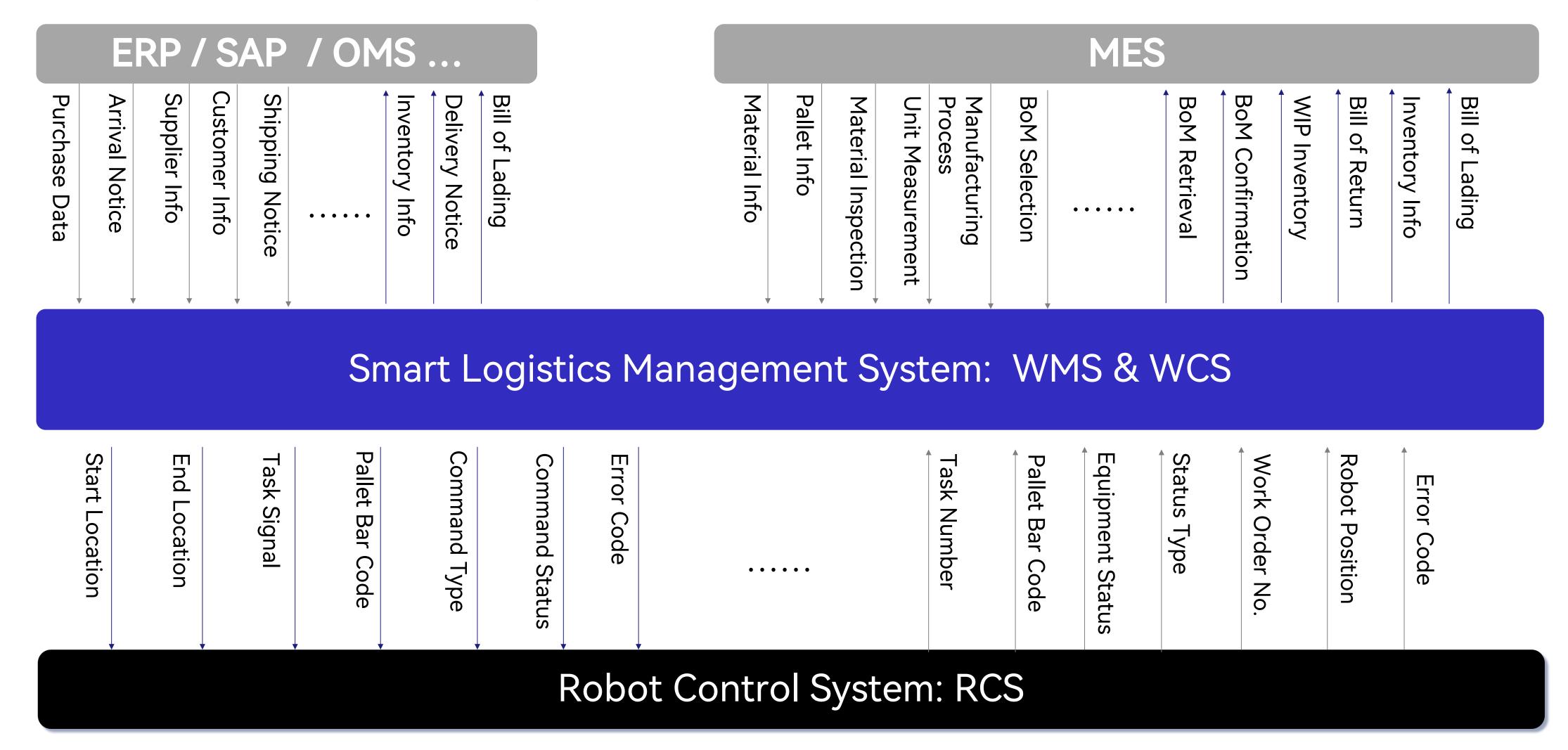


Click to view

# STORIN System Architecture



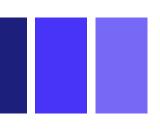
# STORIN Software System Interface



# STORIN WMS System Functions

#### **Function Modules** Location Container Customer Group Item Info Batch/Lot Packing File Management Management Management Management **System Setting** Op. Rules **Inbound Management PDA** Inbound System Automated Inbound Receiving Receiving Stock Stocking Order Rules Config Document Distribution Stocking Inspection Repack Rules Type Data System Picking **Parameters** Library **Outbound Management** Inventory Fulfillment Shipment Distribute Order Data Task **Reports** Management Inventory Analysis Moving Task List **Inventory Management** Reports Inventory Automatic Storage Storage Inventory Count Warnings Warehouse Management Tasks Bay Area Inventory Inventory Inventory Inventory Count Moving Rearrangement <u>Freeze</u>





# Case Study – E-commerce

# E-commerce

# Project

Faced with the rapidly growing e-commerce market, traditional logistics are becoming increasingly inefficient and inflexible. E-commerce logistics generally face multiple challenges, including a massive number of SKUs, volatile order volumes, and demanding delivery deadlines.

A certain e-commerce platform is an internet company that sells discounted branded goods online. Founded in August 2008 and headquartered in Guangzhou, it was listed on the New York Stock Exchange in 2012. It primarily sells a wide range of designer goods online, including apparel, shoes, bags, cosmetics, maternity and baby products, and home goods.

# Challenges and Issues

- Labor efficiency bottlenecks: High inbound and outbound traffic leads to low manual efficiency and high error rates.
- Difficult SKU management: Massive SKUs and large inventory fluctuations make storage management challenging.
- Difficulty in part-picking: The need for efficient and accurate part-picking on a large scale cannot be met manually.

### Solutions

- Solution: Shelf to person solution
- High throughput: Daily shipping capacity reaches 80,000–100,000 pieces, meeting the demands of major promotions.
- Multiplied picking efficiency: Picking efficiency is three times that of manual labor, reaching up to 600 pieces per hour.
- Significant cost reduction and efficiency improvement: Significantly reduces labor costs while effectively improving storage density.
- System flexibility: Flexible and adjustable picking strategies can easily cope with the peak order volume during major promotions.

### Results

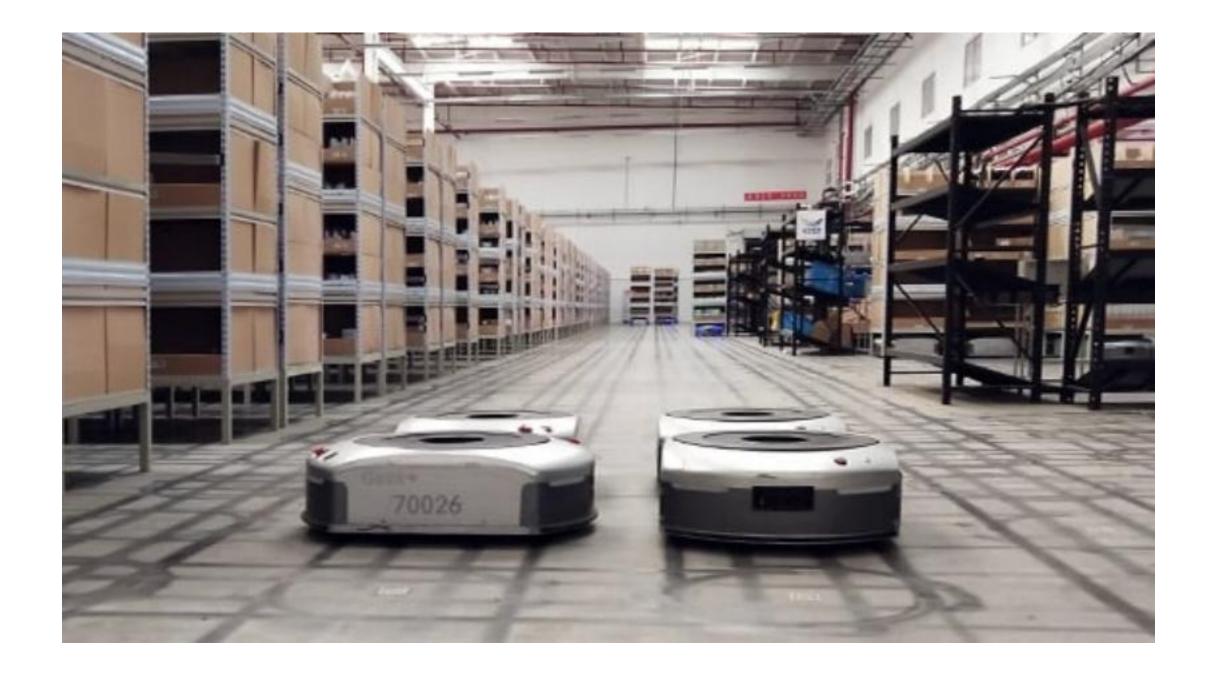
Warehouse Space 3000m<sup>2</sup>

100k<sub>pcs</sub>
Daily Average
Outbound

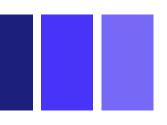
600 pcs/h
Picking
Performance

500%
Storage
Density
Increase

99.9<sub>%</sub>
Picking
Accuracy







# Case Study – Electronics

# Electronics

# Project

The electronics manufacturing supply chain faces three major challenges: a massive number of SKUs, short lifecycles, and high-value materials. Warehouses must accurately store and retrieve a vast number of tiny components, strictly implement a "first-in, first-out" system, and ensure full traceability and security of high-value materials.

A global leader in energy management and automation, an electrical company manages tens of thousands of product specifications. The complex supply chain poses significant challenges to warehouse efficiency and accuracy. To meet increasingly complex market demands, the company decided to introduce advanced automation technology and upgrade its core warehouse to a more intelligent one, creating a more agile and efficient supply chain system.

# Challenges and Issues

Inefficiency and process obstruction
high costs and extensive management
inaccurate data and delayed response
poor customer experience and lack of flexibility.

### Solution

- Solutions: Tote to Person Solutions ,Smart Sorting Solutions
- Model and Quantity: 14 telescopic and 34 AMR Robots
- Rack Height: 7.3m

Results

Warehouse Space 3000m<sup>2</sup>

38831

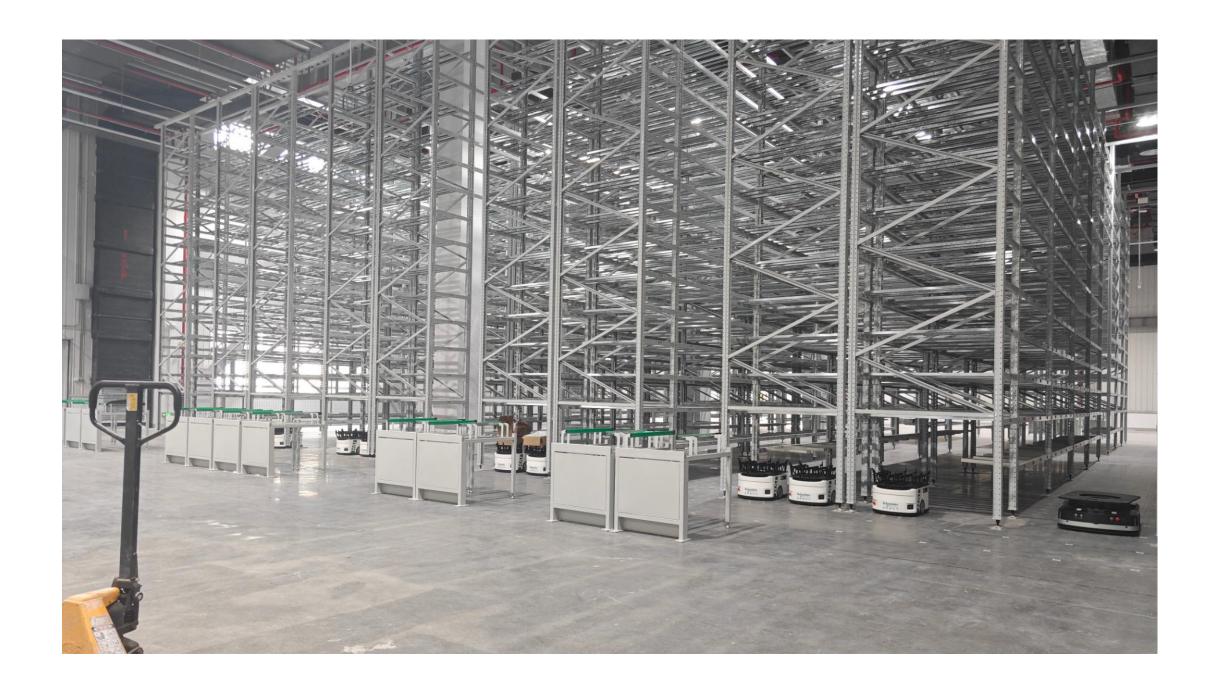
totes

<2yr

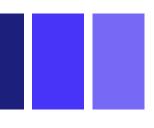
Picking Accuracy

99.9 %

30 % Picking Efficiency Increase







# Case Study - Retail

# Retail

# Project

In the era of omnichannel retail, consumers' pursuit of immediacy presents core challenges for traditional warehousing, including order fragmentation, a surge in SKUs, compressed delivery times, and peak sales.

A well-known home appliance chain is building a competitive advantage by prioritizing customer experience. To support its omnichannel growth and improve service standards, the company decided to build an intelligent and efficient logistics center. With its national headquarters warehouse in Dongguan serving as a core hub, inbound and outbound efficiency became a key area requiring significant improvement.

# Challenges and Issues

- Complex order processing: Multiple business models are difficult to balance.
- Fulfillment time challenges: Extreme timeliness requirements push the limits of human resources.
- Storage management challenges: Large number of SKUs and low storage density.
- "Man-to-management" bottleneck: Traditional models are inefficient and prone to errors.

### Solution

- Solution: Shelf to person solution, Smart Sorting Solutions
- High-density storage: 9-meter-high shelves support nearly 5,000 SKUs.
- High throughput: Over 1,000 orders can be shipped daily, supporting omnichannel business.
- Ultimate efficiency: "Flash Delivery" order efficiency has increased by another 85%.
- Perfect fulfillment: Picking accuracy reaches 99.99%

### Results

150k+pcs

Storage Density 1000+

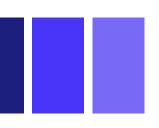
Daily Average Orders 99.9 %

Picking Accuracy 85 %

Efficiency Increase







# Case Study – Automotive Electronics

# Automotive

# Project

Warehousing in the automotive supply chain faces stringent requirements of extreme complexity and zero tolerance. It must precisely respond to the production line's Just-in-Time/Just-in-Sequence (JIT/JIS) supply chain to avoid costly downtime. Simultaneously, it must balance the conflicting operational models of high-turnover production materials and the massive volume of low-frequency aftermarket spare parts.

An automotive electronics company faced challenges with narrow aisle handling at its production bases in Shanghai and Wuxi. The existing traditional manual operation model had reached bottlenecks in efficiency and cost, and lacked transparent data management. Furthermore, due to the presence of other intelligent equipment on site, route management and equipment linkage were necessary.

# Challenges and Issues

- Narrow workshop aisles limit traditional equipment utilization, resulting in low space utilization.
- Traditional manual handling is inefficient, costly, and difficult to meet production schedules.
- Manual handling lacks data records, resulting in opaque material status and traceability.
- System coordination and integration challenges arise, as do the multiple and complex movement paths of on-site equipment.

### Solution

- Solution: Smart Forklift Solutions
- Model and Quantity: Combination of 30 robots
- Operating Environment: 1.2m narrow aisles

### Results

6million+
Cost Savings

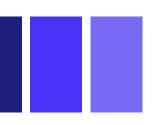
99.9 %
Injury Incidents
Decreased

40 %
Accuracy
Increase

50 % Efficiency Increase







# Case Study – Healthcare

# Healthcare

# Project

The warehousing phase of the medical supply chain must strictly adhere to regulations such as Good Manufacturing Practices (GSP), ensuring accurate tracking of product batch and serial numbers, and enforcing the "first-expired-first-out" (FEFO) principle and temperature and humidity control.

A leading medical company, consistently ranked among the top four in China's pharmaceutical industry, leverages its core competitiveness to build a unique nationwide service network. The company primarily distributes Chinese and Western medicines and medical devices, and provides value-added services such as logistics. As of 2018, its annual sales revenue exceeded 87.1 billion yuan, and it operates 1,287 retail pharmacies.

# Challenges and Issues

- Efficiency Bottleneck: Outbound efficiency requires 10,000 lines per hour, and traditional manual operations have reached their limits.
- Accuracy Challenge: The pharmaceutical industry requires 99.99% accuracy, and manual picking is prone to errors, creating compliance and safety risks.
- Scaling Challenge: Efficiency, accuracy, and replicability are required across 127 centers nationwide, which cannot be achieved with manual methods.

### Solution

- Solution: Shelf to person solution
- Model and Quantity: 100 AGV robots and intralogistics systems
- Process: Seamlessly connected with vertical warehouse conveyor belts, side forklifts, elevators and other equipment, the system realizes the automatic handling and multi-floor temporary storage of materials

### Results

10000 Lines/h

<2yr

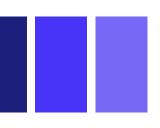
 $33_{\text{\%}}$  Storage Density Increase

99.9<sub>%</sub>

Picking
Accuracy







# Case Study - Railway Company

# Industrials

# Project

Due to the long, heavy, and diverse nature of the products in the profile industry, warehousing faces four core challenges: difficult handling and high safety risks; extremely low space utilization with traditional storage methods; complex SKU and batch management with stringent traceability requirements; and conflicting order processing procedures.

A well-known company specializes in providing high-strength, lightweight, critical aluminum alloy profile body structural components for high-speed trains, intercity trains, and urban subways. Every aspect of its production and warehousing management system must adhere to the highest standards of "zero tolerance."

# Challenges and Issues

- Low space utilization: Large profiles take up a lot of space, making traditional storage costly and inefficient.
- Low picking efficiency: "Bulk-in, bulk-out" demand is high, making manual picking cumbersome and inefficient.
- Disorganized inventory management: A wide variety of products are stored in disorganized storage, resulting in inaccurate inventory information and difficulty locating items during inventory.
- High operational risk: Relying on manual labor and heavy equipment, the work is intensive and carries high safety risks.

#### Solution

- Solution: Laneway space solution
- An intelligent aerial sorting warehouse has been deployed, centered around a space logistics truss robot.
- The system utilizes efficient "bulk-in, bulk-out" technology.
- Precise storage and sorting have increased outbound efficiency by fourfold.
- Warehouse storage density has increased by threefold.

### Results

Warehouse Space 1300m<sup>2</sup>

**4X**Outbound
Efficiency Increase

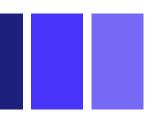
Storage Increase

Bulk-in
Single-out
Capability

Cost-Down
Efficiency
Increase







# Case Study - Online Grocery

# Grocery

# Project

Cold chain logistics must ensure the safety and quality of temperature-sensitive products such as food and pharmaceuticals. Its core is precise temperature control throughout the entire cold chain. This industry faces extremely strict regulations, high operating costs, harsh working environments, and zero-tolerance fulfillment requirements.

A fresh produce shopping platform, founded in May 2017, is committed to providing users with a guaranteed fresh produce experience with guaranteed quality, guaranteed delivery, and guaranteed assortment through direct sourcing from the source, distribution from pre-warehouses, and delivery in as fast as 29 minutes. This technology-driven industry chain upgrade provides users with a trusted, user-friendly online shopping experience, ensuring quality, guaranteed delivery, and guaranteed product selection. With services covering cities including Shanghai, Beijing, Shenzhen, Hangzhou, and Suzhou, the platform serves as a trusted, user-friendly internet company.

# Challenges and Issues

- Fragmented operational processes: Operations inside and outside the warehouse are separated, resulting in poor workflow and the risk of temperature control being disrupted.
- High reliance on manual labor: Relying on manual labor in a harsh environment leads to low efficiency, high costs, and poor stability.
- Technical application bottlenecks: Robot navigation becomes inaccurate and battery life is short in low temperatures, making automation difficult.

#### Solution

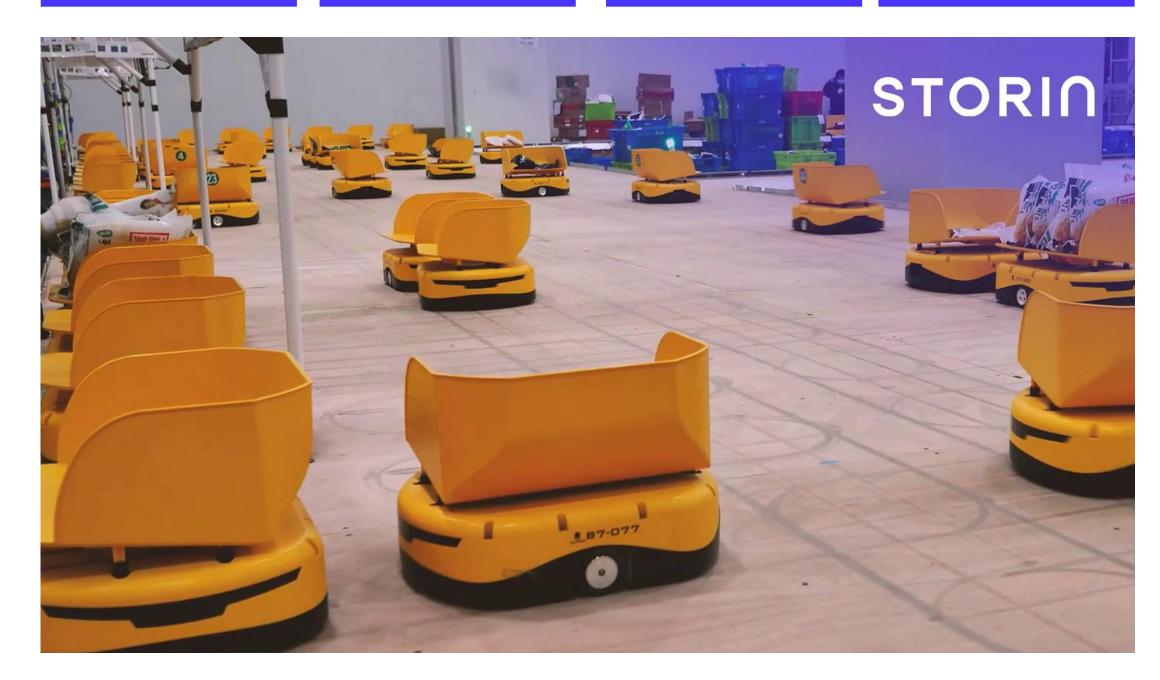
- Solutions: Smart Sorting Solutions
- An intelligent sorting system consisting of standard and tilt-flip robots is deployed.
- Items are manually placed in the loading area and automatically scanned before being taken over by a fleet of robots.
- Low-temperature lithium battery technology enables the robots to automatically charge directly within the cold storage.

### Results

Multi-system
platform
optimized cold
storage
operations

Low Temp Li
Battery
operating in
cold chain

Operation Process Redesigned 60 % Labor Savings





# After-Sales Service

# Quick Response

24/7

Remote Support

# 10min

Response to customers

48h

Arrive on site

### Services



#### Remote Service

- · 24/7 remote demand response
- · Fault handling and upgrade services
- ·Remote technical training



### Spare Parts Service

- ·Establishment of spare parts warehouses (central, regional, project-specific)
- ·Timely delivery of spare parts
- ·Purchase, storage, and distribution of spare parts beyond the warranty period



to customer needs

#### Maintenance Service

- Services acco
- · Provide regular inspection and maintenance of robots
- · Peripheral equipment and environment inspection and maintenance



#### **Training Service**

User operation training, basic fault handling training, equipment-related training Operation and maintenance equipment training



#### On-site Service

- ·Provide maintenance services according ·Fault handling services
  - · Equipment maintenance services
  - ·On-site training and upgrade services



### On-site Support

24/7 on-site support based on customer needs

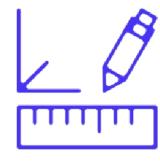




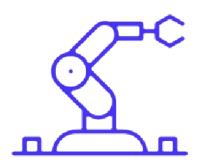




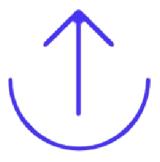
# End-To-End Total Solution Service













Planning & Design

Detailed Planning

Design & Manufacturing

Implementation & Debugging

Launch & Operation

After-Sales Service

- Requirements gathering
- Site planning
- System design
- Equipment configuration

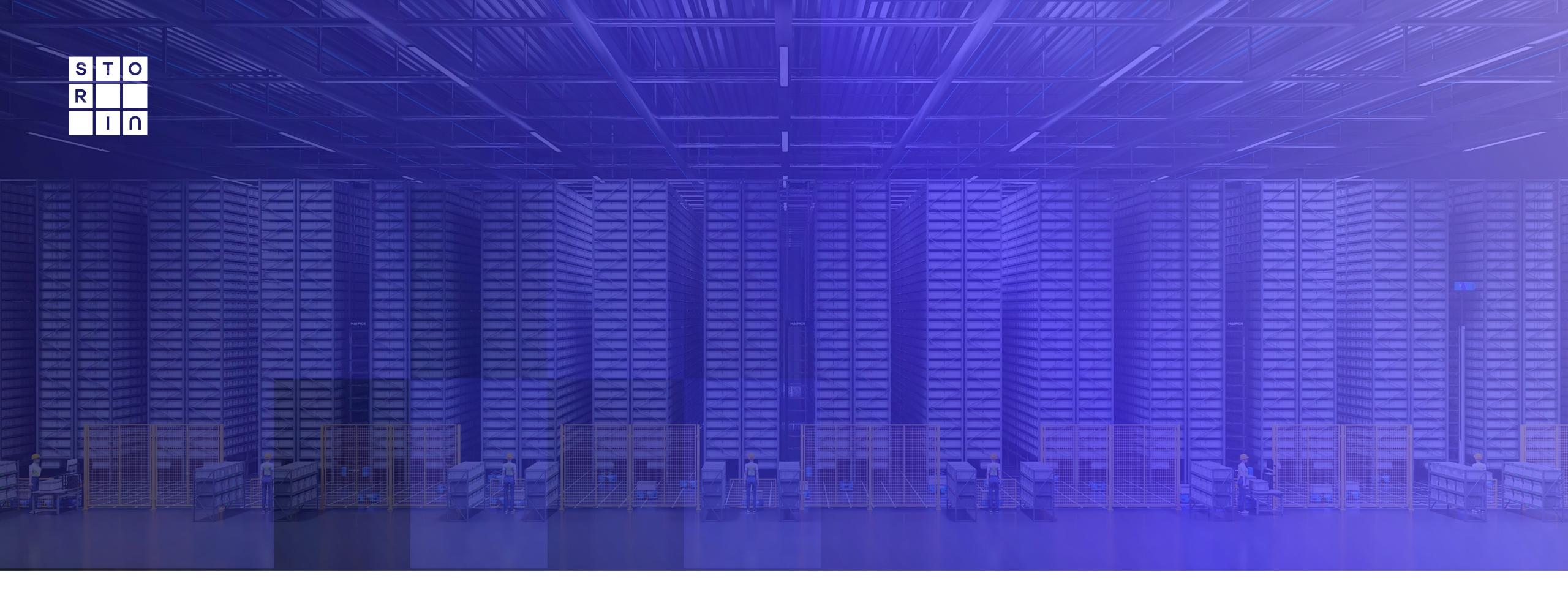
- Detailed design
- System interfaces
- Integration solutions
- Construction plans

- Software design and development
- Electrical control design and development
- Customized
  equipment
  manufacturing

- Project mobilization
- Equipment installation
- System debugging
- Preliminary project inspection

- Go Live
- User training
- System operation
- Project acceptance
- Routine Maintenance Checks
- System maintenance
- Spare parts supply



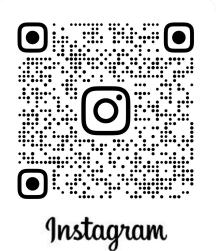




More than just warehousing, warehousing as a service in the future







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