FULFILLMENT
AT RETAIL SPEED

A Guide for Solving the Top 4 Challenges in Retail Logitics Today:
Throughput, Efficiency, Labor Productivity & Space Constraints

Honeywell

Intelligrated®

TABLE OF
CONTENTS

WHY RETAIL
FULFILLMENT NEEDS A
SMARTER APPROACH

Retail fulfillment has become one of the most visible drivers of customer experience. Delivery speed, store availability, and order accuracy now shape how shoppers perceive a brand—often more than price or product selection.

Across retail networks, performance challenges consistently trace back to four core constraints: throughput, efficiency, labor, and space. These challenges are deeply interconnected. Solving one without addressing the others rarely delivers lasting results.

Modern fulfillment requires networks that act like intelligent ecosystems: coordinated, visible, flexible, and capable of adapting in real time. This guide examines the four most persistent challenges shaping retail fulfillment today:

- Challenge #1: Throughput
- Challenge #2: Efficiency
- Challenge #3: Labor Productivity
- Challenge #4: Space Constraints

Each section blends industry research, operational insight, and practical strategies to help fulfillment leaders build resilient, future-ready operations.

1. THROUGHPUT:
Meet SLA's by moving inventory fast enough to meet SLA demands, especially during peak periods.

2. EFFICIENCY:
Leverage automation to streamline systems and allocated resources.

3. LABOR:
Augment your labor to scale with automation.

4. SPACE CONSTRAINTS:
Scale with the space you have.

CHALLENGE #1 THROUGHPUT: MEETING RETAIL DEMAND

Consumers now expect near-instant fulfillment, regardless of channel. Whether orders originate online or in stores. Shoppers judge retailers primarily on speed and reliability. This pressure mounts as retailers support wider assortments, multiple fulfillment locations, and complex order mixes. The question is no longer how much a warehouse can move, but how consistently and predictably it can move everything at once.

63%
OF CONSUMERS EXPECT DELIVERY IN TWO DAYS OR LESS[1]

UNDERSTANDING WHERE RETAIL FLOW BREAKS DOWN

Throughput breakdowns in retail follow familiar patterns. Highly mixed orders, particularly apparel, tend to slow down induction and sortation. Promotional SKUs overwhelm systems designed for steady flow. Manual overrides are introduced to protect store shipments during peak, but many of those workarounds quietly become permanent.

Over time, throughput becomes constrained not by equipment capability, but by how well store and e-commerce flows are coordinated.

HOW RETAILERS STABILIZE THROUGHPUT ACROSS STORE AND E-COMMERCE DEMAND

Retailers that consistently meet delivery promises and store cut-off times take a system-level approach to throughput.

Rather than relying on static processes, high-performing operations increasingly depend on software-driven orchestration, intelligent control systems, and high-throughput material handling to coordinate flow across channels. Warehouse Execution Software, machine-level controls, and modular sortation work together to keep operations flexible. This allows teams to adjust order release, routing, and priorities as demand changes.

By synchronizing decision-making across software, controls, and automation, retailers can absorb holiday and promotional spikes without sacrificing stability elsewhere in the network.

INSIGHT

E-commerce volume continues to grow. Global e-commerce is projected to exceed $6.8 trillion by 2028[2].

7_Throughput1. McKinsey & Company, What do US consumers want from e-commerce deliveries, 2025. [Accessed Oct 10, 2025]

2. Forrester, Global Retail E-Commerce Sales Will Reach $6.8 Trillion By 2028, 2024 [Accessed Feb 10, 2026]

WHERE SOLUTIONS MAKE THE DIFFERENCE

Retailers that stabilize throughput focus on orchestrating flow across channels, not prioritizing one at the expense of the other. Warehouse execution software, intelligent controls, and targeted automation help retailers protect store cutoffs, dynamically release e-commerce orders, and reroute flow as promotions spike.

Automation supports this orchestration by absorbing peak volume without pulling labor away from store-critical work.
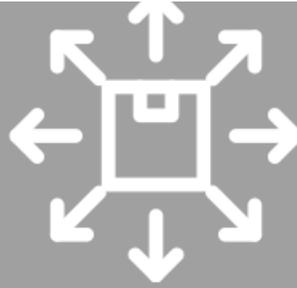
COORDINATE FULFILLMENT AS ONE INTEGRATED SYSTEM

Align order release timing to store cut-off windows	Identify where store and e-commerce flows compete for resources	Use orchestration logic to dynamically balance priorities	Apply automation selectively to protect peak retail moments

CHALLENGE #2
EFFICIENCY: TURNING
COMPLEXITY INTO
COORDINATED FLOW

As retailers layer e-commerce and returns onto store-centric fulfillment models, inefficiencies emerge quietly. Extra touches, longer travel paths, and reactive labor shifts become normalized.

Individually, these inefficiencies feel manageable. Collectively, they erode margin and slow execution, especially during peak seasons.

INSIGHT
Studies show that receiving, picking, and shipping remain the most labor-intensive and least efficient processes in retail-style warehouses[1]

IDENTIFYING THE FRICTION HIDDEN INSIDE WORKFLOWS

Efficiency problems usually reveal themselves through subtle symptoms, extra walking, intermittent congestion, unpredictable pack-out delays, or zones that seem "busy but unproductive." These frictions compound quietly.

Disconnected workflows are common. Picking is optimized independently from packing. Returns disrupt outbound flow. Labor is shifted reactively throughout the day to chase bottlenecks. Efficiency suffers not because teams lack discipline, but because no one owns the system end-to-end.

CREATE CONTINUOUS FLOW ACROSS EVERY RETAIL CHANNEL

Across leading retail networks, efficiency gains are driven by a combination of operational design expertise, performance analytics, and integrated automation. By using data to expose hidden waste and redesign workflows holistically, retailers can simplify fulfillment paths, reduce unnecessary touches, and better align labor with automation.

1. ScienceDirect, Design and control of warehouse order picking, 2024 [Accessed Feb 10,2026]

ACTIONS RETAILERS CAN TAKE TODAY

• Map store, e-commerce, and returns workflows end-to-end

• Reduce handoffs and unnecessary touches

• Balance zones to minimize waiting and travel

• Align automation to support—not complicate—retail flow

CHALLENGE #3
LABOR PRODUCTIVITY:
ALIGNING PEOPLE, PROCESSES, AND AUTOMATION

3

> Retail fulfillment teams operate in a constant state of change. New workers come on, systems grow more complex, and consistency across shifts becomes harder to maintain.
>
> Without structured training and support, performance variability quickly impacts both store service levels and e-commerce execution.

SUPPORTING TEAMS THROUGH TRAINING AND OPERATIONAL SUPPORT

Retailers stabilize labor performance by investing in Lifecycle Services, including OEM-led training, audits and assessments, resident maintenance, and ongoing operational support.

These services reduce reliance on tribal knowledge, improve uptime, and help teams operate complex environments with confidence, especially during seasonal transitions and peak demand.

Automation further supports labor by handling repetitive or physically demanding tasks, allowing people to focus on higher-value work that protects store and customer commitments.

TRAIN TEAMS TO PERFORM CONSISTENTLY AT ANY SCALE

Consistency is the foundation of workforce resilience. Retailers who thrive under variable demand invest in systems that give employees clarity and confidence.

This includes structured onboarding, digital work instructions, predictable task flows, and coaching practices grounded in real performance data. When expectations are clear and learning is repeatable, teams adapt more easily to peak periods, promotions, or assortment changes.

Cross-training further strengthens resilience by enabling associates to flex across zones as channel mixes change throughout the day.

"When labor strategy integrates people, processes, and automation into a unified model, performance becomes far more resistant to staffing volatility"

HONEYWELL INTELLIGRATED RETAIL VERTICAL LEADER

ACTIONS RETAILERS CAN TAKE TODAY:

- Assess training gaps across operations and maintenance roles
- Introduce OEM-led, site-specific training
- Use audits to reduce dependency on tribal knowledge
- Position automation where labor is least reliable
- Redesign workflows to minimize unnecessary movement or cognitive load

CHALLENGE #4
SPACE CONSTRAINTS:
UNLOCKING CAPACITY INSIDE EXISTING RETAIL FACILITIES

Retailers face growing pressure to scale without expanding. SKU proliferation, seasonal inventory, and returns quickly consume available space—especially in facilities not designed for current demand.

The challenge isn't lack of space. It's how effectively space is used.

SEEING SPACE AS A SYSTEM, NOT A FOOTPRINT

Many facilities show untapped potential. Vertical cubes often go unused; staging areas sprawl beyond necessity, and legacy conveyor paths create congestion that reduces usable space. Zones designed for outdated workflows still govern movement even when channel mixes have shifted.

Space efficiency improves when the layout supports how work should move, not how it has historically moved.

ENHANCE CAPACITY THROUGH INTELLIGENT AUTOMATION AND SIMULATION TOOLS

Before investing capital in redesigns, leading retailers use simulation and digital twin technology to stress-test proposed changes.

Simulation can reveal:

- Whether slotting changes eliminate congestion
- How AMRs or high-density storage solutions would interact with current flows
- Whether seasonal load balancing is possible within current constraints
- The true impact of adding or removing process steps

UNLOCKING CAPACITY INSIDE THE FOUR WALLS

Retailers unlock capacity through high-density storage, compact automation, vertical conveyance, and intelligent layout design. Paired with analytics and modeling, these solutions maximize every cubic foot while preserving flexibility for future growth.

Many "space shortages" dissolve once inefficient flow paths, staging practices, or slotting patterns are corrected.

EVALUATING YOUR TRUE NEEDS BEFORE YOU BUILD MORE

Before considering expansion, retailers should examine your:

- **Utilization**: How much vertical or horizontal capacity remains?
- **Performance**: Are existing assets meeting engineered throughput levels?
- **Coordination**: Could orchestration software increase effective capacity without new construction?

HaiPick System

ACTIONS RETAILERS CAN TAKE TODAY

- Identify underutilized vertical space
- Re-evaluate layouts against current SKU mix
- Introduce compact automation to free floor space
- **Use simulation and digital twin tools before expanding footprints**

SOLVING THE FOUR CHALLENGES TOGETHER

CHALLENGE #1: THROUGHPUT

Retail throughput improves when fulfillment operations stop treating store replenishment and e-commerce as competing priorities. The strongest operations manage both as part of a single flow, adjusting how work is released and routed throughout the day. This makes it possible to protect store cut-off times while still meeting delivery expectations, even as demand fluctuates.

CHALLENGE # 2: EFFICIENCY

Efficiency gains come from simplifying how work moves through the operation. Retailers that step back and look at flow end to end uncover unnecessary touches, handoffs, and workarounds that quietly drive up cost. By aligning processes across store, e-commerce, and returns, teams can move faster and more predictably without disrupting daily operations.

CHALLENGE #3: LABOR PRODUCTIVITY

Labor challenges are not solved by staffing alone. Operations that perform consistently put structure around how people are trained, supported, and set up for success. Clear expectations, ongoing system support, and well-defined processes reduce reliance on tribal knowledge and help teams maintain steady performance across shifts as the workforce changes over time..

CHALLENGE #4 :SPACE CONSTRAINTS

Space constraints often have less to do with square footage and more to do with how space is used. As assortments grow and returns increase, retailers that rethink layout and storage design can unlock meaningful capacity inside existing facilities. Using vertical space and more compact solutions allows operations to scale throughput and storage without expanding their footprint.

HOW INTELLIGRATED CAN HELP YOU BE READY FOR RETAIL SPEED

> Meeting the four critical challenges in retail fulfillment requires more than incremental fixes. It calls for a partner who can deliver integrated solutions that perform under real-world conditions and evolve with your business.

Honeywell Intelligrated brings decades of experience in material handling and warehouse automation, trusted by retailers worldwide. As a full systems integrator, we design and deploy end-to-end solutions that align people, processes, and technology into one coordinated ecosystem.

Our portfolio spans:

- **Conveyor** and **sortation** systems to power high-throughput, high-accuracy flow across distrisbution and fulfillment operations

- **Alvey palletizers** and **robotic palletizing systems** to streamline heavy-load handling

- **Automated Storage and Retrieval Systems (AS/RS)** for high-density storage and dynamic space utilization

- **Autonomous Mobile Robots (AMRs)** to decouple labor from travel and flex capacity during peaks

- **Putwalls and goods-to-person** workstations for faster, more accurate order consolidation

- **Momentum Warehouse Execution System (WES)** for real-time orchestration across assets and workflows

- **Lifecycle services** and remote support to sustain uptime and accelerate ROI over the long term.

These solutions are engineered to solve the four critical challenges explored in this guide - throughput, efficiency, labor, and space - while delivering measurable improvements in cost per order, order accuracy, and operational resilience. Whether you need modular automation for a brownfield site or a fully integrated system for a new facility, Honeywell Intelligrated can help provide the technology, expertise, and partnership to keep your retail network moving at speed.

Ready to take the next step? Request a consultation with our team of retail automation experts to explore how we can help you design a fulfillment strategy that meets today's demands and prepares you for tomorrow.

REQUEST A CONSULTATION