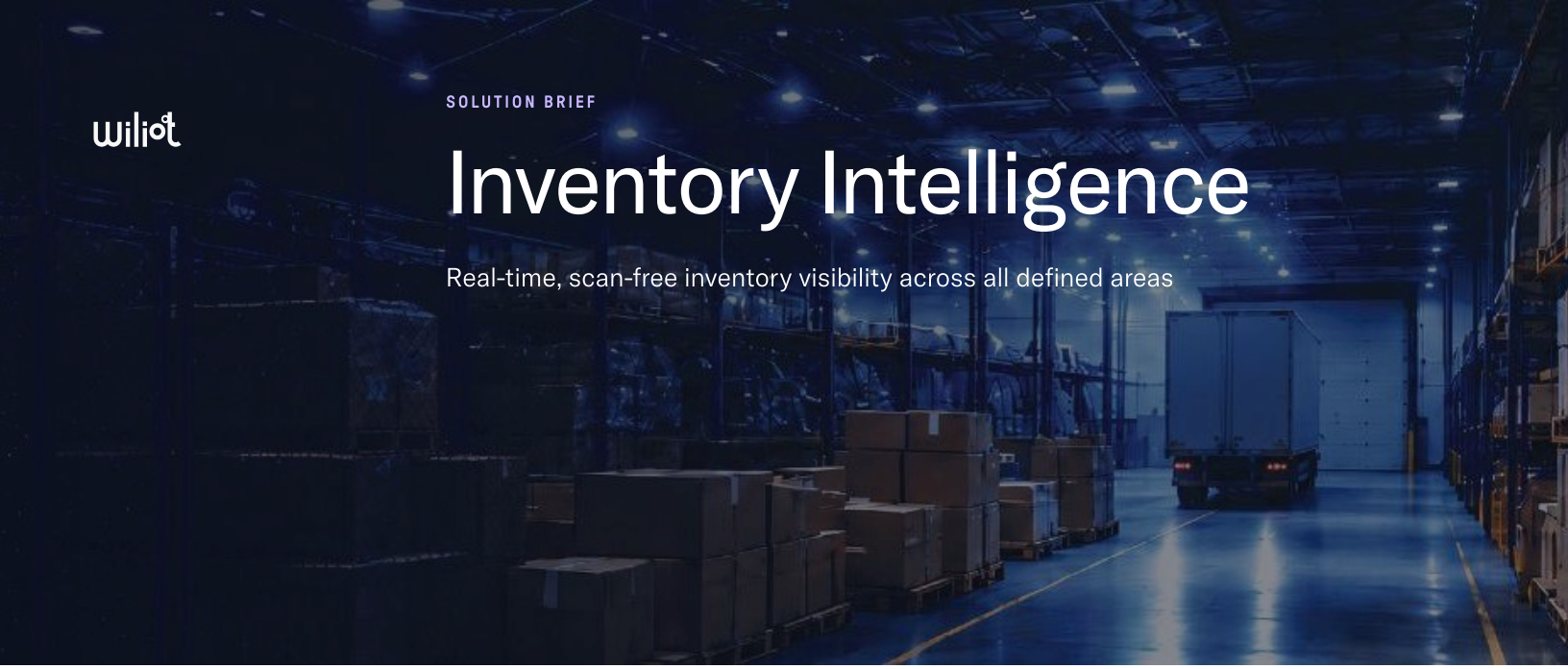


SOLUTION BRIEF

Inventory Intelligence

Real-time, scan-free inventory visibility across all defined areas

SOLUTION BRIEF
SUPPLY CHAIN OPERATIONS

The challenge

Manual cycle counts consume 100+ labor hours weekly, forcing compliance with painful customer mandates while achieving only 60–80% accuracy.

Wiliot delivers continuous accuracy—no scanning required

AT A GLANCE

$5M–$25M	< 1 year	99%+
Annual savings	Average ROI capture	Inventory accuracy

THE PROBLEM OPERATIONS FACE

Accurate inventory visibility is the foundation of efficient operations, yet most organizations struggle with:

- Manual cycle counts consuming substantial labor resulting in lost revenue opportunities, service downtime, and increase in overtime pay
- Forced to comply with customer-mandated cycle counts that are painful, costly, and operationally disruptive
- Inventory discrepancies between system records and physical reality (often 5–15% error rate)
- Stockouts despite “in-stock” system data—inventory exists but can’t be located
- Excess safety stock to buffer against inaccuracy (typically 20–30% overstocking)
- Operational delays—can’t trust system data for picking, fulfillment, replenishment
- Slow inventory turns—unclear what’s actually available for sale/use

Why traditional approaches fail

TRADITIONAL APPROACHES FAIL

- Annual physical counts are too infrequent—accuracy degrades immediately after count
- Manual cycle counting is labor-intensive and disruptive to normal operations
- Barcode scanning only captures inventory when actively scanned (no visibility between scans)
- RFID requires expensive infrastructure and doesn't work well in all environments

INDUSTRY BENCHMARKS

95%+
Inventory accuracy targeted by best-in-class warehouses

60–80%
Accuracy achieved by average operations

$5–15
Cost of manual cycle counts per SKU per count

20–30%
Inventory carrying costs as a share of inventory value annually

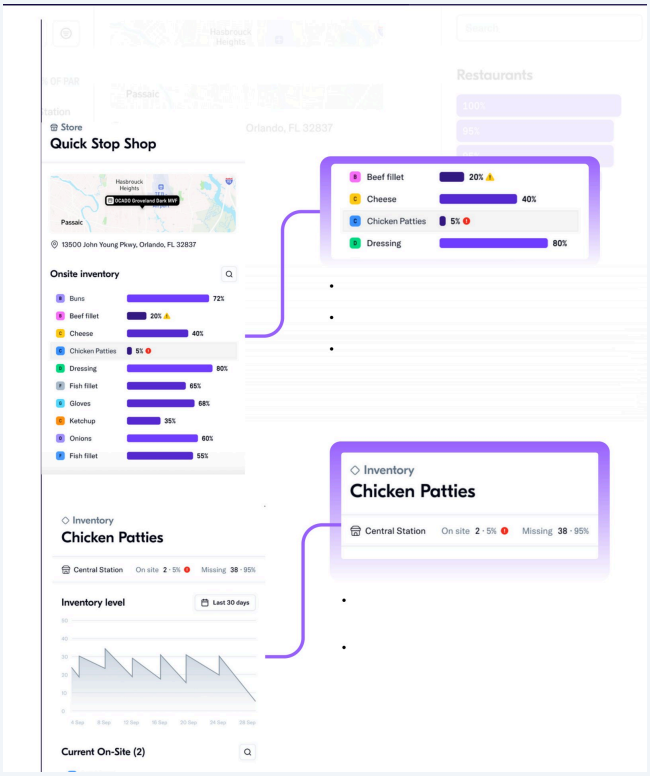
WHICH OF THESE APPLY TO YOU?

- ☑ You manage inventory across multiple defined areas (storage rooms, coolers, vehicles, retail floor)
- ☑ Current inventory accuracy is < 99%
- ☑ You conduct regular cycle counts requiring significant labor allocation
- ☑ Inventory dwells in defined areas

Wiliot business insights

WILIOT BUSINESS INSIGHTS

Views from the Wiliot solution application



01 See what inventory you have onsite without manually counting

02 As items leave the defined area, the inventory dashboard updates

03 Reduce waste from better FIFO/FEFO

04 See historical inventory counts and take action when levels drop below necessary thresholds

05 Set automated replenishment alerts

WHAT WILIOT PROVIDES

Automated, continuous inventory visibility across all defined areas using battery-free IoT Pixels and area-based infrastructure.

The solution automatically:

- Counts inventory continuously without manual scanning
- Tracks inventory movement between defined areas in real-time
- Identifies discrepancies between system records and physical location
- Provides area-level inventory accuracy (storage rooms, coolers, freezers, vehicles)

No scanning required: Inventory updates automatically as products move through facilities.

How it works

HOW IT WORKS

01 Tag inventory

IoT Pixels applied to cases, pallets, or RTIs:

- At supplier/manufacturer (integrated into packaging)
- Upon receiving at your facility
- Via automated applicators for high volumes

02 Deploy infrastructure

Fixed infrastructure per defined inventory areas: defined areas of your facility (e.g., coolers, backrooms, storage rooms, vehicles). It's not a physical barrier or gate, but an area our infrastructure can observe continuously.

03 Continuous monitoring

Wiliot solution automatically:

- Detects all tagged inventory in each area
- Tracks movement between areas
- Identifies discrepancies (system says in cooler, actually in backroom)
- Flags anomalies (inventory not seen for extended periods = potentially missing)

04 Real-time dashboard

Solution application provides:

- Current count by defined area and SKU
- Inventory movement history
- Discrepancy alerts for investigation
- FIFO/FEFO expiry tracking—identify products approaching expiry
- Automated replenishment alerts

05 System integration

Seamless integration via C2C data transfer, plus SDK and APIs for easy adoption.

PROVEN OUTCOMES

Typical transformation

BEFORE	AFTER
80–95% accuracy	99%+ accuracy
Significant counting hours	Major reduction in counting
Excess safety stock	Dramatic inventory reduction
Frequent stockouts	Improved availability

Average time to ROI: less than 1 year

$5M–$25M
Annual enterprise savings

Reduction in excess inventory

99%+
Inventory accuracy

Reduction in manual labor

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KPIs and industry applications

KPIS DRIVING VALUE

Labor reduction
Eliminated manual cycle count labor

Overtime & retention
Reduce forced overtime, improve employee satisfaction

Revenue recovery
Recoup unrecognized revenue from lost or misplaced goods

Inventory optimization
Trust system data and reduce safety stock buffers

Improved availability
Find inventory faster, reduce stockouts from “can’t locate” issues

Faster fulfillment
Accurate location data accelerates picking and order processing

Shrink prevention
FIFO, identify loss quickly with continuous monitoring

EXAMPLES OF INDUSTRY APPLICATIONS

INDUSTRY	CHALLENGE	OUTCOME
Quick-service restaurants	Managing inventory across dry storage, coolers, freezers with limited staff	Reduction in manual counting, significant reduction in waste from better FIFO/FEFO
Grocery & retail backrooms	Knowing what’s available in backroom vs. sales floor	Improved order fulfillment, reduction in safety stock
Healthcare facilities	Tracking medical supplies, linens, equipment across departments	Reliable inventory accuracy, reduction in emergency re-orders
Warehouse operations	Continuous cycle counting across large, multi-zone facilities	Millions in annual labor savings, elimination of annual physical counts
Distribution centers	Managing inbound, storage, and outbound inventory simultaneously	Faster order fulfillment from accurate location data

Implementation & investment

IMPLEMENTATION

Timeline	System live in weeks
Area definition	Defined area(s) where inventory sits—such as a cooler, backroom, storage area, or vehicle. It is not a physical barrier or gate, but a logical area our infrastructure can observe continuously.
Infrastructure	Standard low-voltage installation Minimal disruption to ongoing operations Scalable area-by-area rollout
Integration	Seamless integration via cloud-to-cloud (C2C) data transfer, plus SDK and APIs for easy adoption.

VALUE DRIVERS

- Eliminated manual cycle count labor
- Recoup unrecognized revenue from lost or misplaced goods
- Reduced excess inventory (trust data, reduce safety stock)
- Improved product availability (find inventory faster, reduce stockouts)
- Faster order fulfillment (accurate location data)
- Prevented shrinkage (identify loss quickly)
- FIFO/FEFO compliance without manual box inspection (major labor saver for managers)
- Reduced overtime costs

PAYBACK PERIOD

Less than one year (average)

Most deployments achieve positive ROI within 12 months

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Business impact snapshot

WILIOT CUSTOMER

Retail distribution center

CHALLENGE

- 200 labor hours/week cycle counting
- Only 75% inventory accuracy causing operational issues
- Excess safety stock buffers due to lack of trust in data

SOLUTION

Inventory Intelligence

TOTAL ANNUAL BENEFIT

$3.5M+

Investment: ~$400K first year

PAYBACK: <6 MONTHS

RESULTS AT A GLANCE

LABOR SAVINGS

$450K/year

180 hours/week eliminated

INVENTORY OPTIMIZATION

$2M

20% reduction in excess inventory

IMPROVED AVAILABILITY

$1M/year

5% sales lift from better in-stock availability

VALUE SUMMARY

If your operations require regular cycle counting or struggle with inventory accuracy below 99%, automated cycle counting can save millions annually while freeing up warehouse staff for value-added activities. The solution pays for itself through labor reduction and inventory optimization within 6–12 months.

Learn more at wiliot.com →