

INVENTORY MONITORING

Use Cases Across Retail, Manufacturing & Supply Chain

Real-time stock visibility and control — powered by BLE tags, RFID, barcode scanning, sensors, and cloud-based software — applied across ten common business scenarios. Each use case outlines the challenge, how continuous monitoring solves it, and the resulting benefit to the business.

1. Multi-Location Retail Chains
2. Warehouse & Distribution Centres
3. Manufacturing Raw Material Tracking
4. Cold Chain & Perishable Goods
5. Pharmacy & Healthcare Inventory
6. E-Commerce Order Fulfilment
7. Construction Site Material Management
8. Restaurant & F&B; Stock Control
9. Office & Facility Consumables Management
10. Equipment & Asset Inventory Tracking

1. Multi-Location Retail Chains

CHALLENGE

Retail chains with multiple stores struggle to maintain a consistent, accurate view of stock levels across locations, often leading to stockouts in one store and overstock in another.

MONITORING SOLUTION

- Barcode/RFID-based tracking updates stock levels in real time at every store
- Centralised cloud dashboard shows inventory across all locations from a single view
- Automated alerts flag low-stock items for timely inter-store transfer or reorder

BENEFIT

Improves stock availability across the chain while reducing excess inventory carrying costs at individual locations.

2. Warehouse & Distribution Centres

CHALLENGE

Large warehouses handling high volumes of SKUs face frequent misplacement, slow manual counts, and delays in locating specific items for order fulfilment.

MONITORING SOLUTION

- BLE and RFID tagging enables real-time indoor location tracking of pallets and bins
- Automated cycle counts replace time-consuming manual physical stock takes
- System guides staff to exact item locations, reducing pick-and-pack time

BENEFIT

Increases warehouse throughput and order accuracy while cutting the labour hours spent on manual inventory counts.

3. Manufacturing Raw Material Tracking

CHALLENGE

Manufacturers need continuous visibility of raw material stock to avoid production delays from unexpected shortages or unnoticed overordering.

MONITORING SOLUTION

- Sensors and tags track raw material consumption in real time on the production floor
- Automated reorder triggers activate when stock crosses a defined threshold
- Usage data feeds into production planning for more accurate procurement forecasting

BENEFIT

Minimises production downtime from material shortages while reducing capital tied up in excess raw material stock.

4. Cold Chain & Perishable Goods

CHALLENGE

Perishable inventory requires both quantity tracking and condition monitoring, since spoiled or expired stock represents a direct financial loss if not caught early.

MONITORING SOLUTION

- IoT sensors monitor temperature and humidity alongside stock quantity
- Automated alerts flag conditions that risk spoilage before losses occur
- Expiry-date tracking prioritises stock rotation on a first-expiry-first-out basis

BENEFIT

Reduces spoilage-related losses and improves compliance with food safety and quality standards.

5. Pharmacy & Healthcare Inventory

CHALLENGE

Hospitals and pharmacies must track medicines and consumables precisely, given strict regulatory requirements, expiry sensitivities, and the risk of critical stockouts.

MONITORING SOLUTION

- Barcode/RFID tracking logs every unit of medicine or consumable from receipt to dispensing
- Automated alerts flag near-expiry batches and low-stock critical items
- Digital audit trail supports regulatory compliance and reporting

BENEFIT

Reduces the risk of stockouts on critical medicines while simplifying compliance and audit-readiness.

6. E-Commerce Order Fulfilment

CHALLENGE

E-commerce businesses risk overselling out-of-stock items or delaying orders when online inventory data doesn't match actual warehouse stock in real time.

MONITORING SOLUTION

- Live inventory sync between the monitoring system and the e-commerce platform
- Automatic stock-level updates prevent overselling of unavailable items
- System flags fast-moving SKUs for proactive replenishment ahead of demand spikes

BENEFIT

Improves customer experience through accurate stock display while reducing order cancellations from oversold inventory.

7. Construction Site Material Management

CHALLENGE

Construction sites often lose track of building materials due to theft, weather damage, or poor record-keeping across multiple active project sites.

MONITORING SOLUTION

- Tagged material stacks and containers are tracked by location and quantity
- Alerts flag unusual material movement or usage inconsistent with project progress
- Centralised view across multiple sites supports better material allocation

BENEFIT

Cuts material losses from theft or mismanagement and improves cost control across concurrent projects.

8. Restaurant & F&B; Stock Control

CHALLENGE

Restaurants and food outlets face frequent wastage and cost overruns from manual stock tracking that fails to keep pace with fast-moving perishable ingredients.

MONITORING SOLUTION

- Digital stock tracking updates ingredient levels as items are used in daily operations
- Automated low-stock alerts support timely supplier reordering
- Usage trends help identify wastage patterns and portion inconsistencies

BENEFIT

Reduces food wastage and ingredient cost overruns while improving supplier order accuracy.

9. Office & Facility Consumables Management

CHALLENGE

Offices and facilities often over-order or run out of everyday consumables like stationery, pantry supplies, or maintenance items due to lack of visibility into usage patterns.

MONITORING SOLUTION

- Sensor-based or scan-based tracking monitors consumption of common facility items
- Automated reorder points prevent both overstocking and unexpected shortages
- Usage reports help facility teams right-size procurement budgets

BENEFIT

Lowens unnecessary procurement spend while ensuring everyday supplies are consistently available when needed.

10. Equipment & Asset Inventory Tracking

CHALLENGE

Businesses that manage reusable equipment or tools alongside consumable stock struggle to track which items are currently in use, in storage, or missing.

MONITORING SOLUTION

- BLE/RFID tags distinguish and track both consumable stock and reusable equipment
- Real-time status updates show whether equipment is in use, available, or unaccounted for
- Combined dashboard gives a single view across both stock types

BENEFIT

Improves accountability over reusable assets alongside consumables, reducing loss and supporting better utilisation planning.