



ZoneX

RFID Application Solutions

RFID — Where Every Item Counts.

Automatic reading. Mass processing. Zero disruption.

Manufacturing | Hotels & Hospitality

Warehousing & Logistics | Industrial



Automatic

1

No human action needed. Assets are detected as they pass through any RFID-enabled gate, door, or zone — day or night.

- No scanning required
- Works 24/7 without staff
- Instant cloud notification
- Alarm on exception

Mass Processing

2

Read 100+ items in a single pass. No line-of-sight. Through cartons, plastic, and packaging. Any orientation.

- 100+ tags simultaneously
- No line-of-sight needed
- Through packaging & boxes
- Any tag orientation

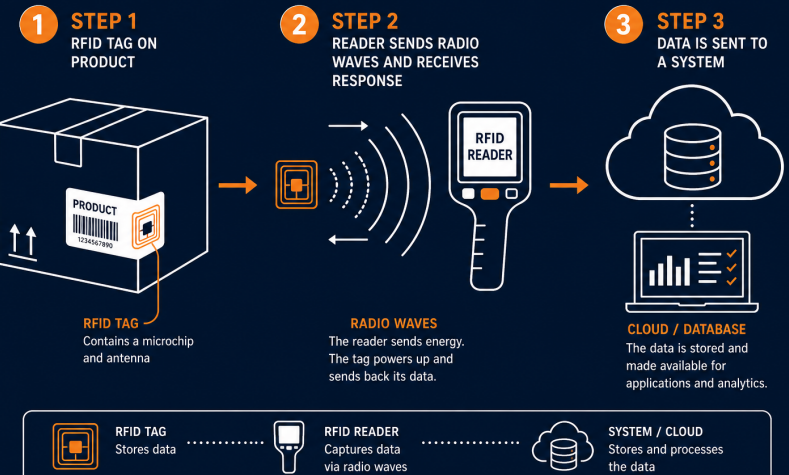
Non-Intrusive

3

Assets and people move as they always have. RFID becomes invisible infrastructure that records every event silently.

- Zero workflow change
- No operator training needed
- Invisible to staff & assets
- Retrofit into any site

HOW RFID WORKS



RFID vs. Manual / Barcode — The Transformation



RFID eliminates every manual step — items are identified automatically as they move.

Capability	Manual / Barcode	RFID — ZoneX
Item identification	1 scan per item, manually	100+ items in one pass
Line-of-sight required	Always	Never
Gate detection	Staffed checkpoint	Automatic, unattended
Inventory duration	Days — full team effort	Minutes — one operator
Movement records	Paper / end-of-day entry	Every event, real-time
Anti-theft/alert	Discovered after the fact	Instant SMS + alarm
Works 24/7	No — needs staff	Yes — fully automatic
Integration	Manual re-entry into ERP	API sync in < 1 second



Challenges

- Finished goods pallets leave the production area unrecorded — losses untraceable.
- Manual inventory of the cold store takes a full shift and is never fully accurate.
- FIFO rotation not enforced — older batches shipped after newer ones.
- Dispatch errors: wrong products loaded onto trucks, discovered at delivery.
- No real-time visibility of stock levels between production and warehouse.

How RFID Solves This

Gate auto-detection Pallets logged automatically as they enter/leave the warehouse — zero manual step.

Conveyor RFID Reader mounted above conveyor reads every case leaving the production line.

FIFO enforcement System flags batches leaving out of order; alert sent to supervisor instantly.

Loading dock control Fixed readers at each dock door confirm loaded pallets match the despatch order.

Cold store inventory Handheld reads 500 pallets in under 30 minutes; gap report auto-generated.

Batch traceability

Cold chain monitoring

FIFO compliance

Dispatch control

Production line tagging



Automatic RFID reader above food production conveyor — zero manual intervention.



Challenges

- Stock shrinkage between production and dispatch — no movement audit trail.
- Receiving errors: supplier deliveries checked manually, discrepancies missed.
- Inter-site transfers documented on paper; reconciliation takes days.
- Returned goods mixed with good stock — no quarantine control.
- Regulatory traceability audits require days to compile manually.

How RFID Solves This

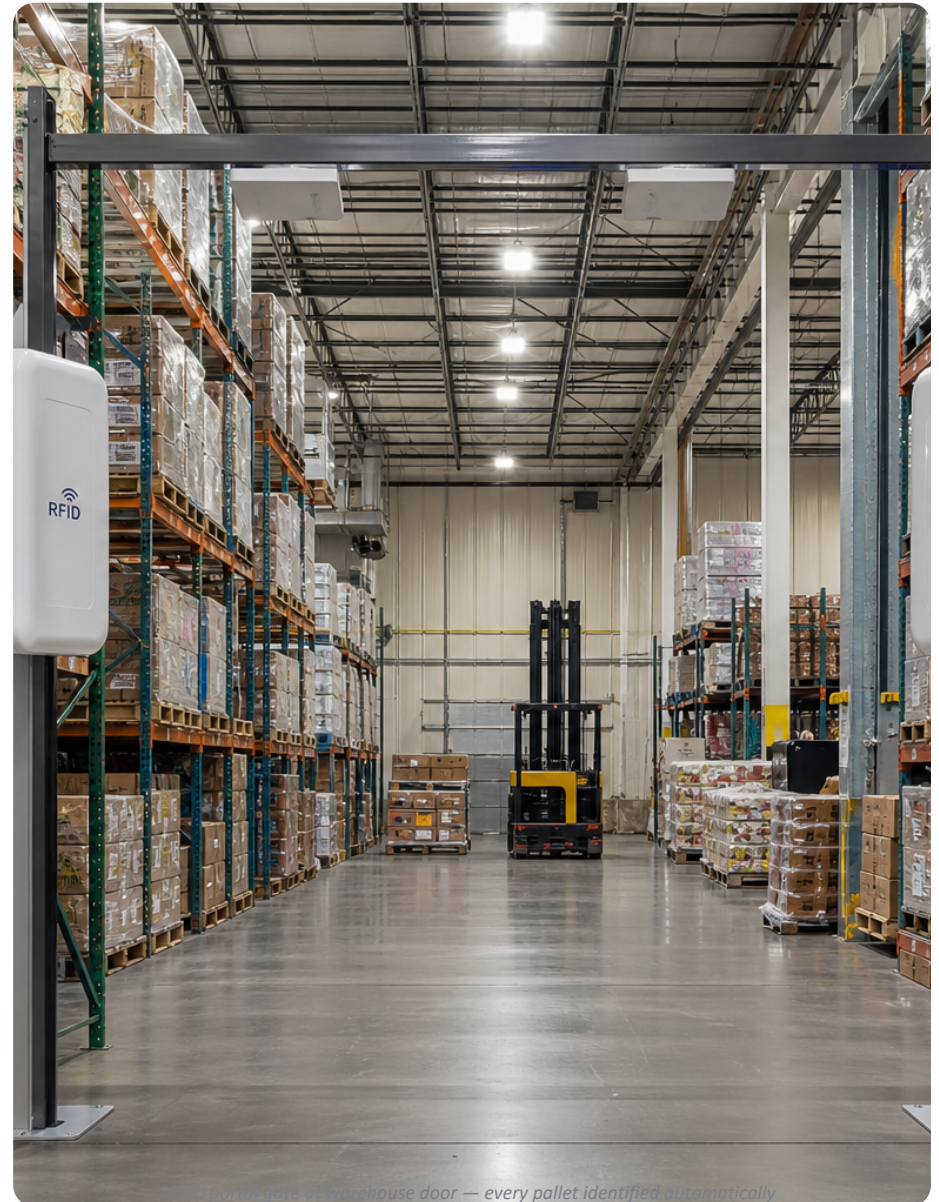
Forklift RFID Forklift-embedded reader logs every pallet moved — who, when, to which zone.

Receiving gate Supplier pallets auto-counted at inbound dock; discrepancy alert in real time.

Quarantine zone Rejected or returned stock flagged in system; physically separated zone enforced.

Inter-site transfer Transfer declaration via mobile app; both sites updated simultaneously.

Audit trail Complete movement log exportable in one click for any audit period.



RFID receiving gate at warehouse door — every pallet identified automatically

Receiving control

Inter-site transfers

Quarantine management

Audit export

Loss prevention



Challenges

- Linen losses are untracked — towels and sheets disappear without record.
- Full linen inventory requires stopping laundry operations for hours.
- Housekeeping carts leave the linen room without a count — under/over-stocking.
- No proof of linen circulation between laundry partner and hotel.
- Lost items discovered only at period-end audit — too late to act.

How RFID Solves This

Linen room gate RFID reader at linen room exit counts every item leaving on trolleys — automatic.

Laundry handover RFID tunnel at laundry partner counts pieces in and out — eliminates disputes.

Daily stock report Mobile handheld counts linen on all floors in under 20 minutes each morning.

Loss alert If count drops below threshold, alert sent to housekeeping manager instantly.

Lifecycle tracking Track wash cycles per item — replace when quality threshold reached.



Hotel linen room with RFID reader — every item counted automatically

Linen tracking

Laundry audit

Trolley control

Loss prevention

Cycle counting



Challenges

- Annual FF&E audit (furniture, fixtures, electronics) takes weeks to complete.
- TV, tablets, hairdryers disappear between renovations — no record.
- Asset transfers between rooms/floors not recorded — phantom assets.
- Insurance and depreciation reporting lacks accurate asset count.
- No proof of asset condition at check-in vs. check-out.

How RFID Solves This

Room RFID sweep Handheld sweep of all rooms on one floor takes under 15 minutes — complete count.

Fixed reader at lift Assets moving between floors auto-detected at elevator lobby reader.

Asset movement alert Any FF&E item leaving the building triggers instant alarm.

Condition tagging Tag each asset with purchase date and condition — depreciation report auto-generated.

Insurance report Full asset list with location, condition, and value exported in one click.



FF&E inventory

Room asset tracking

Anti-theft

Condition reporting

Insurance export



Challenges

- Receiving discrepancies only found during manual check — hours of delay.
- Put-away errors send goods to wrong rack locations — costly to find later.
- Picking mistakes discovered at shipping — re-work, late departures.
- Truck loading: manual pallet count — errors cause customer complaints.
- Stock accuracy drops to 70-80% between annual audits.

How RFID Solves This

Inbound portal Supplier truck drives through RFID portal — all pallets auto-counted in seconds.

Put-away confirm Forklift reader confirms pallet placed at correct rack — mismatch alert.

Pick verification Handheld verifies picked items against pick list — error blocked at source.

Loading dock RFID gate at each dock door confirms loaded pallets match despatch order.

Cycle counting Rolling inventory with handheld — 99%+ accuracy maintained continuously.

Inbound control

Put-away accuracy

Pick verification

Truck loading

Cycle counting



Modern distribution centre — RFID at every dock door and rack



ZoneX Edge

Cloud

Software embedded in fixed UHF readers at every gate and door. Processes 100s of EPC reads/sec. Automatic direction detection (entry vs. exit). MQTT push to cloud in < 1 second. GPIO: rotating light, siren, door lock. Ethernet + 4G failover. Offline buffer.

ZoneX Mobile

Cloud

Android app (Chainway C72 / Hopeland HY820). Walk-through inventory in minutes. Targeted search: LED/beep locate. Field enrollment & transfer declaration. Adjustable read range 1cm-12m. Offline mode + auto sync.

ZoneX Cloud

Users

Web dashboard from any browser. Unlimited asset registry by site, zone, category. Real-time map & list view. Inventory cycles with gap report. Full movement log. Alert engine: email, SMS, push. Exportable Excel / PDF reports.



Chainway

Leading global RFID terminal manufacturer. 8,000+ clients in 150+ countries.

C72 / C5 UHF Handheld

Android 11/13 — Best-in-class UHF performance. Adjustable read range.

MC51 5G UHF Reader

5G + Android 14 — flagship speed and range for demanding sites.

URA4 Fixed Reader

Android RFID fixed reader with 4 antenna ports.

UR8 Fixed Reader

8-port fixed reader for high-density deployments.

Vehicle Computer V600S

Forklift/truck-mounted. Rugged, always-on fleet terminal.

Hopeland

China-based RFID pioneer. Authorized representative: ZoneX.

HH340 / HH380 Fixed

4/8-port Android UHF fixed reader. ZoneX Edge pre-loaded.

HY820 / HY830 Handheld

Long-range Android handheld. 1-6m. Wi-Fi / 4G / Bluetooth.

RL8000 Integrated

Self-contained integrated reader. Up to 8 antennas.

Industrial RFID Sensors

HF/UHF read heads for production-line automation.

UHF Antennas

Circular & linear: 8-12dBi. IP66. CE, FCC, RoHS certified.

Why Choose ZoneX



RFID eliminates every manual step — items are identified automatically as they move.

Criterion	Typical RFID Vendor	ZoneX
Scope	Hardware OR software	Hardware + software + support
Industry depth	Generic platform	Industry use cases: F&B, Hotels, Logistics
Deployment	Weeks to months	1-3 days per site
Offline resilience	Requires network	Buffer + 4G failover — never loses a read
Hardware	Single brand lock-in	Chainway + Hopeland — certified, proven
Support	Remote only	Sfax, Tunisia — on-site in hours
Reference	Pilot or demo	SOTUBI/SAIDA (F&B factory) + Tamaris Hotel
Pricing	Complex licensing	Hardware + annual SaaS subscription



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Making Every Asset Visible.

