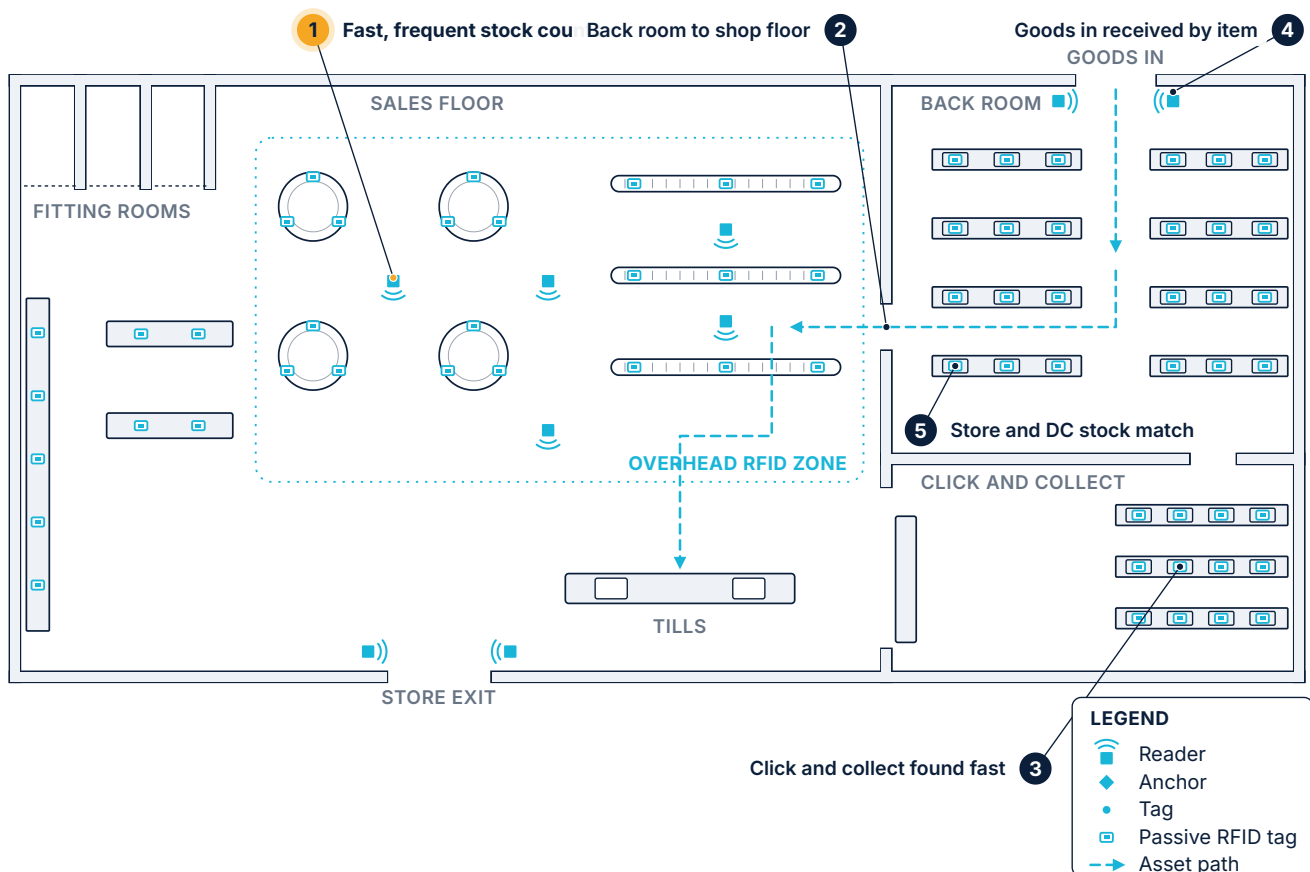


RETAIL · SHOP FLOOR, BACK ROOM AND GOODS IN

The system says three in stock. The customer cannot find one.

A plain guide for stores: stock counts you can trust, back room to shop floor, click and collect, goods in and matching store and distribution centre (DC) stock. It explains item-level RFID (radio-frequency identification) in plain words.



Callouts match the use cases on page 2. Legend: a **reader** reads passive RFID (radio-frequency identification) tags, which have no battery; a **tag** is an active tag, which has a battery; an **anchor** is a fixed unit that locates UWB (ultra-wideband) tags. Terms used: UHF RFID: ultra-high frequency RFID, passive tags read at longer range.

WHO SHOULD READ WHAT

KPI: key performance indicator, a measure you track. Everyone: your own row and KPI are in the table on page 4.

Store managers

Page 2 use cases, page 3 payback.

Stock and inventory leads

Page 2: use cases 1, 2 and 4 and the KPIs you would own.

Click and collect and shop floor leads

Page 2: use cases 2 and 3.

Loss prevention, goods in and supply chain

Page 2: use cases 4 and 5 and the stock loss KPI.

IT, finance, procurement and leadership

Page 3: technology, links to your systems and payback.

One next step: book a free 30-minute call to talk through your site and your use case.

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Book a free 30-minute call

What goes wrong today

Counts that drift

Stock records move away from what is on the shelf between counts.

Stock stuck out back

Items sit in the back room while the shop floor shows a gap.

Slow click and collect

Staff search for the order while the customer waits.

Unknown loss

Shortages show late, so supply errors and store loss blur.

USE CASES

Numbered to match the floor plan on page 1. Each card ends with the technology that usually fits.

1 Fast, frequent stock counts

Pain: Hand counts are slow, so they are rare.

What good looks like: Staff count a whole area with a handheld RFID scanner, not item by item, so counts happen more often.

Fit: UHF RFID (passive item tags), handheld RFID scanners

2 Back room to shop floor

Pain: Gaps on the shop floor are spotted late.

What good looks like: Handheld counts of back room and shop floor, against sales, show items short on the floor.

Fit: handheld RFID scanners; fixed RFID readers at the door

3 Click and collect found fast

Pain: Orders are stored wherever there is space.

What good looks like: Staff record the shelf when they store each order, so they go straight to it. The order is checked at hand-over.

Fit: barcode or RFID on order bags, shelf locations

4 Goods in received by item

Pain: Cartons are accepted without item checks.

What good looks like: Deliveries are read on arrival and checked against the ASN (advance shipping notice) and order before receipt.

Fit: fixed RFID portal or handheld RFID scanner

5 Store and DC stock match

Pain: Store and DC records disagree, and nobody knows where the gap began.

What good looks like: Items are read leaving the DC and arriving at the store, so gaps show between checkpoints.

Fit: UHF RFID at DC dispatch and store goods in

ALSO COVERED

- **DC picking:** slotting and pick paths from real movement.
- **Chilled and frozen:** temperature in store and in transit.
- **Store space:** back room and shop floor use by zone.
- **Roll cages and totes:** read by fixed RFID readers at the dock and handheld RFID scanners in store.
- **Yard and deliveries:** trailers found before the dock slot.
- **DC forklifts:** where trucks are, and their use.

KPIS TO TRACK

A KPI is a number you track. Measure it the same way before and during the pilot, by sample if needed.

KPI	WHO OWNS IT	HOW TO MEASURE IT
Stock record match	Stock and inventory lead	Counted against recorded stock, by line.
Items in back room but not on shop floor	Shop floor lead	Gaps found by each count.
Click and collect hand-over time	Click and collect lead	Time from customer arrival to hand-over.
Goods in errors found at receipt	Goods in lead	Short or wrong items; more can mean better checks.
Store and DC stock gaps	Supply chain lead	Items sent against items received.
Unexplained stock loss	Loss prevention manager	Loss left after supply and process errors.

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Technology fit

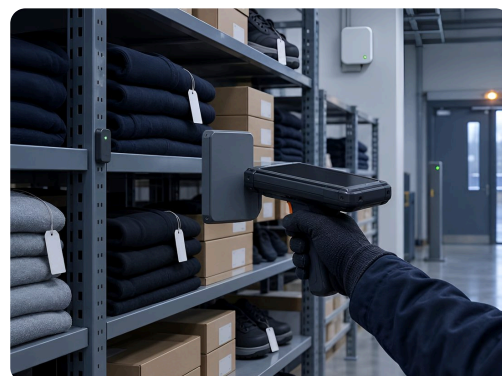
Pick the simplest option that answers the question you have

Technology	Where it fits here	Watch for
Barcode	Price labels, click and collect bags, low-volume lines.	One item per scan, so full counts are slow.
UHF RFID (passive item tags)	Item-level stock counts, goods in and the back room door.	Liquids and metal affect reads. Tags work best fitted at source by the product supplier.
Fixed RFID readers (overhead or at doors)	Continuous counts in set areas, without staff scanning.	Higher cost. Needs careful design to avoid stray reads.
BLE (low-energy radio tags with a battery)	Roll cages, totes and other returnable equipment.	Not for items. Batteries need replacing.
UWB (ultra-wideband location tracking)	Rarely needed in a store.	Cost is seldom justified for stock.

Integration

Checked stock events update your stock system, under your change control

- **Stock and ERP:** checked counts and receipts update your stock system and ERP (enterprise resource planning). Staff review missed reads and gaps first.
- **Orders and tills:** click and collect and till sales use the same item data.
- **DC:** dispatch reads from the DC warehouse system match receipt reads at the store.
- **Customers and staff:** check local rules on item tags that leave the store with customers. Check local privacy and employee-consultation rules, such as works councils or unions, before tracking people, or tools and equipment linked to people.



ROI AND PAYBACK

ROI (return on investment) compares what you gain with what you spend. Payback is the time until the savings cover the cost. The method below works out payback from your own pilot data, not technology provider averages.

Payback (months) = one-off cost ÷ (annual benefit – annual running cost) × 12

Annual benefit = (counting and search hours saved × loaded hourly rate) + (extra sales made × margin per sale) + (fewer units lost × cost per unit)

The annual benefit is an estimate: count only savings you can really make, and count each one once. If it is not bigger than the running cost, there is no payback. Loaded hourly rate means pay plus on-costs such as tax, pension and overheads.

Inputs to gather

- **One-off cost:** tags, readers, portals, survey, installation, integration, training, adviser fees and travel.
- **Running cost per year:** licences, support, tags on new stock, staff time.
- **Hours today:** counting and search time, from your baseline.
- **Lost sales** when items are in store but not on the shop floor.
- **Stock loss per year,** split by cause where you can.

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What it means for you: find your role and your KPI

YOUR ROLE	WHAT IT MEANS FOR YOU	YOUR KPI
Store manager and stock lead	Stock records you can trust, from frequent counts.	Stock record match
Shop floor team leader	See what to bring from the back room.	Items in back room but not on shop floor
Click and collect lead	Orders found fast while the customer waits.	Click and collect hand-over time
Goods in, supply chain and DC	Short deliveries found on arrival; see where DC gaps begin.	Goods in errors; store and DC gaps
Loss prevention manager	Receipt checks and investigated gaps help narrow the causes of loss.	Unexplained stock loss
The IT team	Item events into stock, order and till systems, under change control.	Events reaching the linked system
Finance, procurement and leadership	Payback on your numbers, then a go or no-go.	Payback months, go or no-go

Events reaching the linked system: share of events arriving without manual entry.

How a TRACIO project works: five stages

1 Discovery

Your pain points, site, process and KPIs.

2 Assess and shortlist

Site survey, then the options that fit compared.

3 Pilot with KPI baseline

KPIs measured first. Pass marks agreed in writing before set-up.

4 Integrate

If useful, one agreed link into your stock system, under your change control.

5 Multi-site roll-out

Only after a go decision, one area at a time.

How a pilot runs: set-up, then live weeks in normal use, then a short written report with a go or no-go. Timings are agreed per site.

Questions we hear

"We already have a system."

We give a free second opinion and check how it performs against your KPIs, using your live data and a site visit.

"How do we know it will work here?"

Judge us on method: a pilot, KPIs measured before and during it, and a written go or no-go.

"Can you bid with us, or for us?"

Yes. We team with integrators, or act as the buyer's independent adviser, but never both on the same bid.

"Do you sell or resell hardware?"

No. We don't sell hardware, so our advice stays independent. We rent pilot equipment and offer survey and installation support.

Free second opinion

Send us your technology provider's quote or spec for a free second opinion. What to send: the quote or spec, a floor plan or site photos, item counts and your current process. Bring it to the call or send it via tracio.com/contact.

TRACIO consultancy fees

- **UK:** £3k to £30k per project, £1,200 a day
 - **Europe:** €3.5k to €35k per project, €1,400 a day
 - **US and Canada:** \$4k to \$40k per project, \$1,600 a day
 - **Middle East and Australia:** \$4k to \$40k per project, \$1,600 a day
 - **Rest of the world:** \$3.5k to \$35k per project, \$1,400 a day
- Scoped per project, no packages. Fees cover our work only; hardware, software licences and other supplier costs are separate. \$ = US dollars. Travel extra.

Why TRACIO: we work for you, not for the technology providers. We compare the options across the market that fit your site, provide site surveys and installation support, and work worldwide under your change control.

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