



Smart Infrastructure.  
Real Impact.

# WHY MANUAL STORAGE BREAKS LEISURE VENUES AT SCALE (AND WHY IT BECOMES A BOTTLENECK)

Manual processes create hidden costs, frustrated guests, overworked teams, and missed opportunities.



## SLOW INGRESS

Long queues and delays frustrate guests and impact spend.



## OVERWORKED STAFF

High physical demand, fatigue and turnover.



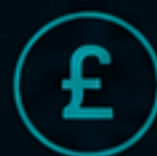
## HIGH ERROR RATE

Lost or misplaced items, claim disputes and unhappy customers.



## LIMITED CAPACITY

Manual systems make it impossible to scale during peak demand.



## REVENUE LOST

Bottlenecks reduce satisfaction, repeat visits and lifetime value.



## MANUAL STORAGE ISN'T JUST INEFFICIENT—IT'S EXPENSIVE.

It holds back your venue, your team, and your growth.  
It's time to remove the bottleneck.



SMARTER STORAGE.  
BETTER EXPERIENCES.  
STRONGER RESULTS.

LONG QUEUES

OVERWORKED STAFF

HIGH ERROR RATE

LIMITED CAPACITY

REVENUE LOST

MAIN ENTRANCE



STORAGE AT CAPACITY

PLEASE EXPECT DELAYS



LONG QUEUES

CLAIMS & DISPUTES

SLOW SERVICE = LOST REVENUE


CLAIMS & DISPUTES


CLAIMS & DISPUTES

# WHY MANUAL STORAGE BREAKS LEISURE VENUES AT SCALE

Manual storage is often introduced as a simple solution:

-  CLOAKROOMS
-  BAG DROPS
-  STAFF-MANAGED STORAGE AREAS



 At low volume, it works.

 At scale, it fails completely.



Because manual storage cannot handle **peak demand, high volume, or fast-moving crowds.**





## AND WHEN IT FAILS:

-  Queues form
-  Entry slows
-  Security is impacted
-  Crowd risk increases

Manual storage doesn't just become inefficient — it becomes a **CRITICAL FAILURE POINT** in venue operations.





## WHAT IS MANUAL STORAGE IN LEISURE VENUES?

Manual storage refers to systems where staff:

-  Receive items (bags, luggage, belongings)
-  Tag or label them
-  Store them in a shared area
-  Retrieve them on request



## THIS IS COMMON IN:

-  Stadium cloakrooms
-  Event bag drops
-  Festival storage areas
-  Entertainment venues



**MANUAL STORAGE ISN'T BUILT FOR SCALE.**

As volumes grow, the cracks widen — leading to longer queues, frustrated guests, operational stress, and increased risk.



# WHY MANUAL STORAGE FAILS AT SCALE



MANUAL STORAGE CANNOT KEEP UP WITH MODERN DEMAND



MORE PEOPLE. MORE ITEMS. MORE PRESSURE.



SLOWER SERVICE. LONGER QUEUES. HIGHER RISK.



A BOTTLENECK THAT IMPACTS THE ENTIRE VENUE EXPERIENCE.



EXPECT DELAYS

High demand is causing longer wait times



STORAGE AT CAPACITY

## 1 SEQUENTIAL PROCESSING LIMITS THROUGHPUT

Manual storage is linear:

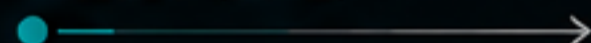
- One staff member
- One item
- One interaction at a time

At scale:

Throughput is capped — demand is not.



THROUGHPUT (CAPPED)



DEMAND (UNLIMITED)



THIS LEADS TO:

- ✗ Immediate queue formation
- ✗ Long wait times
- ✗ System overload

## 2 DEMAND ARRIVES IN EXTREME PEAKS

Leisure venues experience surge demand:

- Pre-event entry
- Just before security checkpoints
- Peak arrival windows

This creates:

Hundreds or thousands of items arriving at once.



INSTANT PRESSURE ON STORAGE SYSTEMS. MANUAL SYSTEMS CANNOT ABSORB SUDDEN DEMAND SPIKES.

## 4 RETRIEVAL IS SLOWER THAN STORAGE

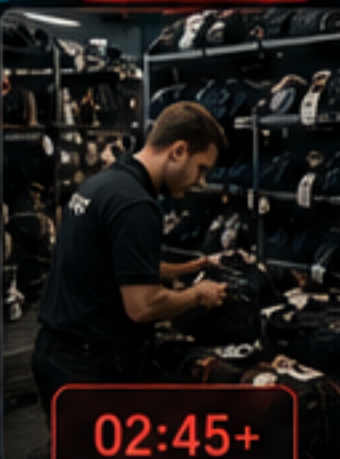
Drop-off is quick. Retrieval is not.

At collection:

- Users return simultaneously
- Staff must locate specific items
- Storage areas are disorganised



00:15 SECONDS



02:45+ MINUTES



THIS LEADS TO:

- ✗ Delays
- ✗ Queue buildup
- ✗ Frustration

## 5 STORAGE AREAS BECOME CHAOTIC

Manual storage relies on:

- Open areas
- Shelving or stacking
- Staff memory

At scale:

- Items are moved frequently
- Organisation breaks down
- Retrieval time increases



THE FULLER THE STORAGE AREA, THE SLOWER THE SYSTEM BECOMES.

## 3 DOUBLE HANDLING DOUBLES THE PROBLEM

Every item is handled twice:

- 1 Drop-off
- 2 Collection



This means:

- Two queue events per user
- Double the labour
- Double the congestion



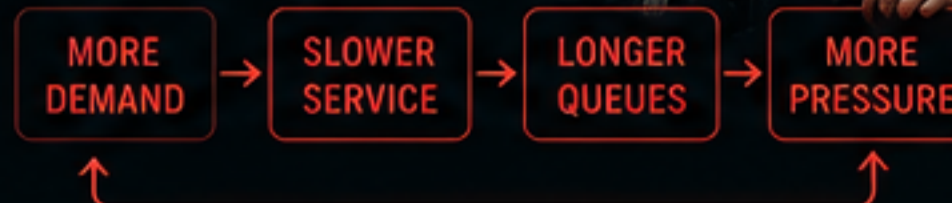
TWICE THE QUEUES. TWICE THE WORK. TWICE THE CONGESTION.

## 6 STAFF BECOME THE BOTTLENECK

As demand increases:

- Staff are overwhelmed
- Speed decreases under pressure
- Errors increase

This creates a cycle:



MANUAL STORAGE DOESN'T JUST BECOME INEFFICIENT — IT BECOMES A **CRITICAL FAILURE POINT** IN VENUE OPERATIONS.



**LONGER QUEUES**  
Guests wait longer and experience less



**SLOWER ENTRY**  
Throughput drops across the venue



**SECURITY IMPACTED**  
Crowd flow and visibility are compromised



**INCREASED RISK**  
Higher pressure leads to greater crowd risk

# THE HIDDEN IMPACT OF MANUAL STORAGE

What looks like a simple service becomes a major operational and commercial problem at scale.



## VISITOR EXPERIENCE BREAKDOWN

Guests experience:

- Long queues
- Delays before entry
- Friction at arrival



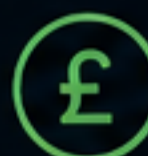
## SECURITY AND INGRESS RISK

Manual storage slows:

- Bag removal
- Security checks
- Entry throughput

This creates:

- Larger external queues
- Increased crowd density
- Greater risk exposure



## REVENUE LOSS

Queues reduce:

- Time inside the venue
- Spending on food, beverage, and retail



## INCREASED OPERATIONAL COST

Manual systems require:

- More staff
- More space
- More management



## REDUCED FLOW EFFICIENCY

Manual storage introduces:

- Bottlenecks
- Congestion
- Disrupted movement



## WHY TRADITIONAL FIXES DON'T WORK



### ADD MORE STAFF



- Increases cost
- Limited throughput improvement



### EXPAND CLOAKROOM AREAS



- Requires space
- Does not improve speed



### IMPROVE TAGGING SYSTEMS



- Reduces errors
- Does not reduce queues



### SEPARATE STORAGE ZONES



- Moves congestion
- Does not remove it



MANUAL STORAGE ISN'T JUST INCONVENIENT. IT'S COSTING YOU **EXPERIENCE, SAFETY, REVENUE, AND CONTROL.**



Smart Infrastructure.  
Real Impact.

# THE CORE PROBLEM: MANUAL STORAGE IS A THROUGHPUT CONSTRAINT

## MANUAL STORAGE SYSTEMS ARE:



**SEQUENTIAL**  
One staff member.  
One item at a time.



**STAFF-DEPENDENT**  
Everything relies  
on human capacity.



**FIXED IN CAPACITY**  
Limited by physical  
space and people.

## LEISURE VENUES OPERATE WITH:



**PEAK DEMAND**  
Surges happen in  
minutes.



**HIGH VOLUME**  
Hundreds to thousands  
of items at once.



**TIME-SENSITIVE FLOW**  
Guests expect fast,  
seamless entry.



## THE SCALABLE SOLUTION: AUTOMATED, SELF-SERVICE STORAGE

To eliminate bottlenecks, storage must become:



**SELF-SERVICE**  
Guests store and retrieve  
items independently.



**PARALLEL**  
Many users at once.  
No waiting.



**HIGH-THROUGHPUT**  
Built to handle volume  
and peaks.



## SMART LOCKER SYSTEMS FOR VENUES

Smart lockers transform storage into a scalable infrastructure.



**PARALLEL USAGE**

- Multiple users  
simultaneously
- No queues



**NO STAFF DEPENDENCY**

- Guests store items  
independently
- No bottleneck



**INSTANT RETRIEVAL**

- No searching
- No delays



**STRUCTURED STORAGE**

- Each item has a  
defined space
- No chaos



**IMPROVED ENTRY FLOW**

- Faster security processing
- Reduced congestion



**SEQUENTIAL SYSTEMS  
CANNOT HANDLE  
SIMULTANEOUS DEMAND.**



## WHY TRADITIONAL FIXES DON'T WORK



**ADD MORE STAFF**

- Increases cost
- Limited throughput  
improvement



**EXPAND CLOAKROOM AREAS**

- Requires more space
- Does not improve speed



**IMPROVE TAGGING SYSTEMS**

- Reduces errors
- Does not reduce queues



**SEPARATE STORAGE ZONES**

- Moves congestion
- Does not remove it



**THE PROBLEM ISN'T OUR STAFF. THE PROBLEM IS THE SYSTEM. TO UNLOCK SCALE, STORAGE MUST BE PARALLEL, NOT SEQUENTIAL.**

# REAL OPERATIONAL IMPACT

With automated storage systems:



**QUEUES ARE ELIMINATED**

No waiting.  
No frustration.

**↓ 90%**

LESS WAIT TIME



**ENTRY THROUGHPUT INCREASES**

More people.  
Faster entry.

**↑ 3-5x**

MORE THROUGHPUT



**STAFF COSTS DECREASE**

Fewer staff needed.  
Lower operational cost.

**↓ 30-50%**

LOWER LABOUR COSTS



**CROWD FLOW IMPROVES**

Smoother movement.  
Less congestion.

**↑ 40%**

IMPROVEMENT IN FLOW

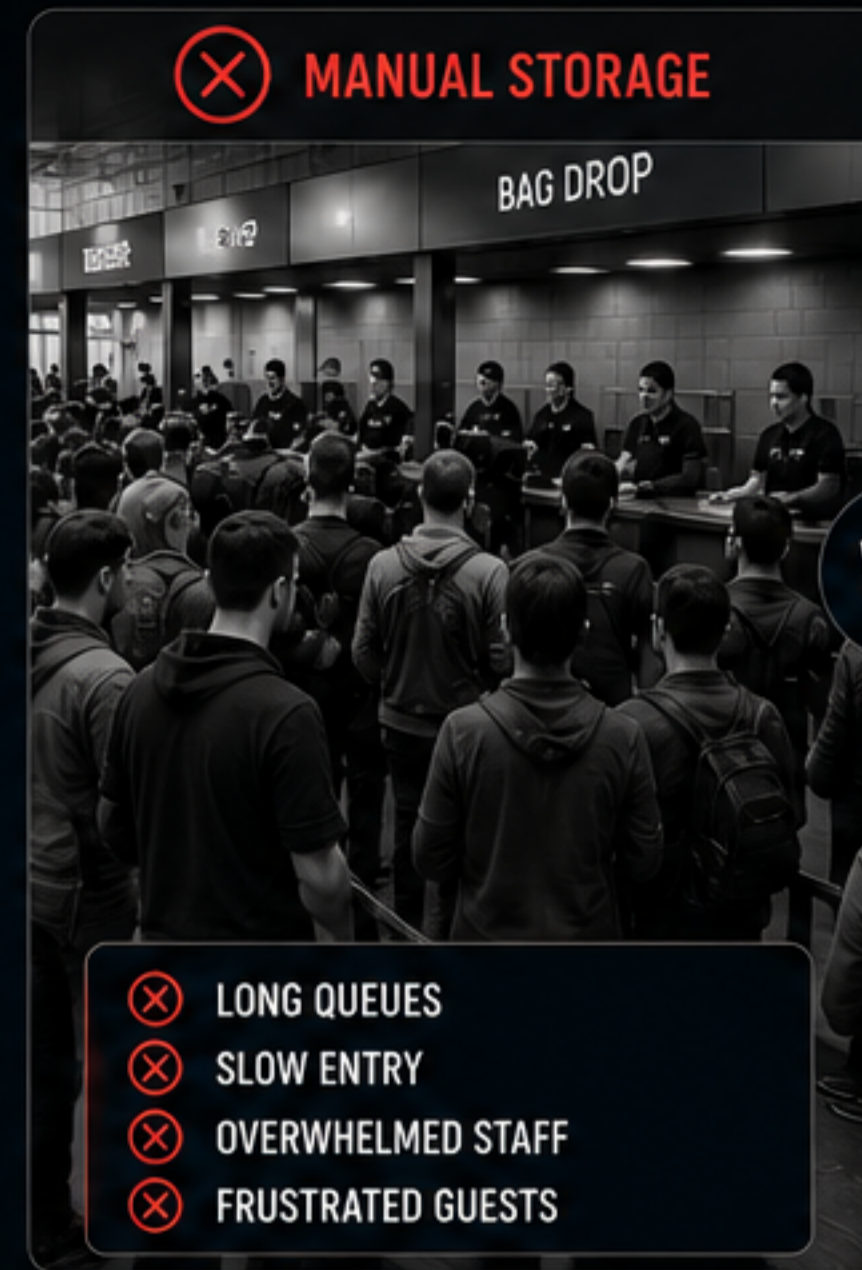


**VISITOR EXPERIENCE IS ENHANCED**

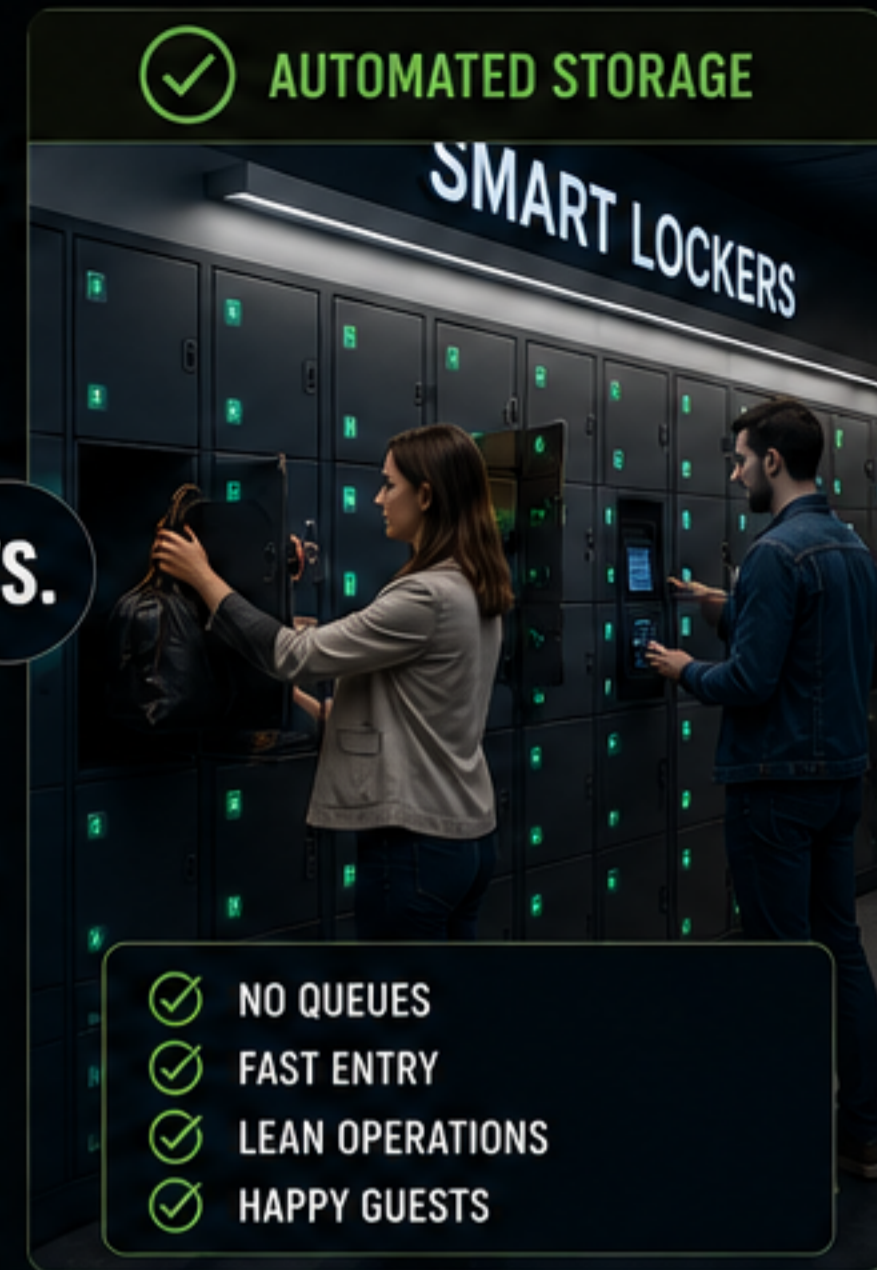
Convenience.  
Speed. Satisfaction.

**↑ HIGHER**

NPS & SATISFACTION



- ⊗ LONG QUEUES
- ⊗ SLOW ENTRY
- ⊗ OVERWHELMED STAFF
- ⊗ FRUSTRATED GUESTS



- ✓ NO QUEUES
- ✓ FAST ENTRY
- ✓ LEAN OPERATIONS
- ✓ HAPPY GUESTS

VS.

## THE BOTTOM LINE

**MANUAL STORAGE IS NOT DESIGNED FOR SCALE.**



**AT SCALE:**



Demand spikes



Throughput is limited



Bottlenecks form

The solution is not better manual processes.



IT'S REPLACING THEM WITH SYSTEMS DESIGNED FOR **HIGH-VOLUME FLOW.**



SCALES WITH DEMAND



MAXIMIZES THROUGHPUT



IMPROVES SAFETY & SECURITY



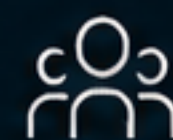
DRIVES REVENUE & VALUE



DELIVERS GREAT EXPERIENCES



**AUTOMATED STORAGE ISN'T JUST A CONVENIENCE. IT'S A STRATEGIC OPERATIONS ADVANTAGE.**



MORE CAPACITY  
Handle more guests



MORE SPEED  
Move people faster



LOWER COST  
Operate efficiently



BETTER EXPERIENCE  
Delight every guest

# 4-STEP SMART LOCKER BAG & LUGGAGE STORAGE PROCESS

Simple. Secure. Self-Service. Scalable.

## 1 STORE

Guest arrives and selects a locker



- ✓ Choose the required locker size
- ✓ Place bag or luggage inside
- ✓ Locker automatically secures the item

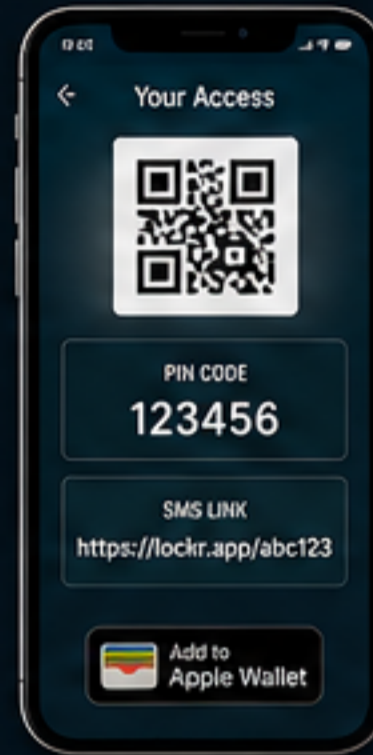


### BENEFIT:

Fast, self-service storage with no staff involvement.

## 2 VERIFY

Access credentials are issued instantly



- QR code
- PIN code
- SMS link
- Mobile wallet pass (optional)

Every transaction is:

- ✓ Time-stamped
- ✓ User-linked
- ✓ Recorded in the audit trail

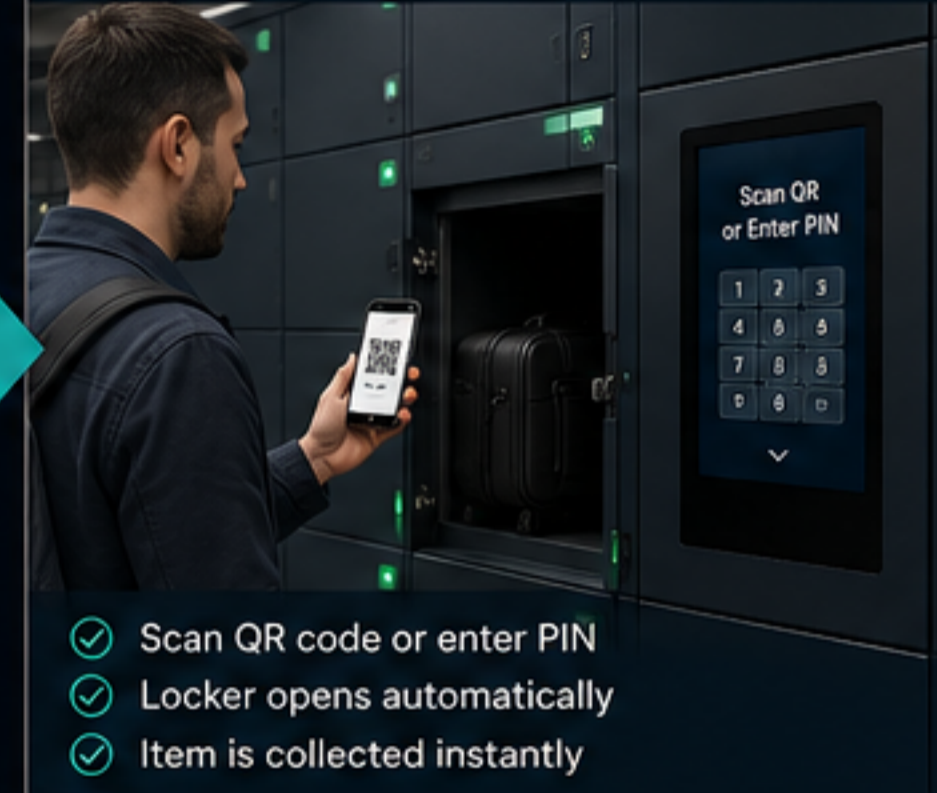


### BENEFIT:

Secure ownership verification and complete accountability.

## 3 RETRIEVE

Guest returns when convenient



- ✓ Scan QR code or enter PIN
- ✓ Locker opens automatically
- ✓ Item is collected instantly

No:

- ✗ Queueing
- ✗ Searching
- ✗ Staff assistance

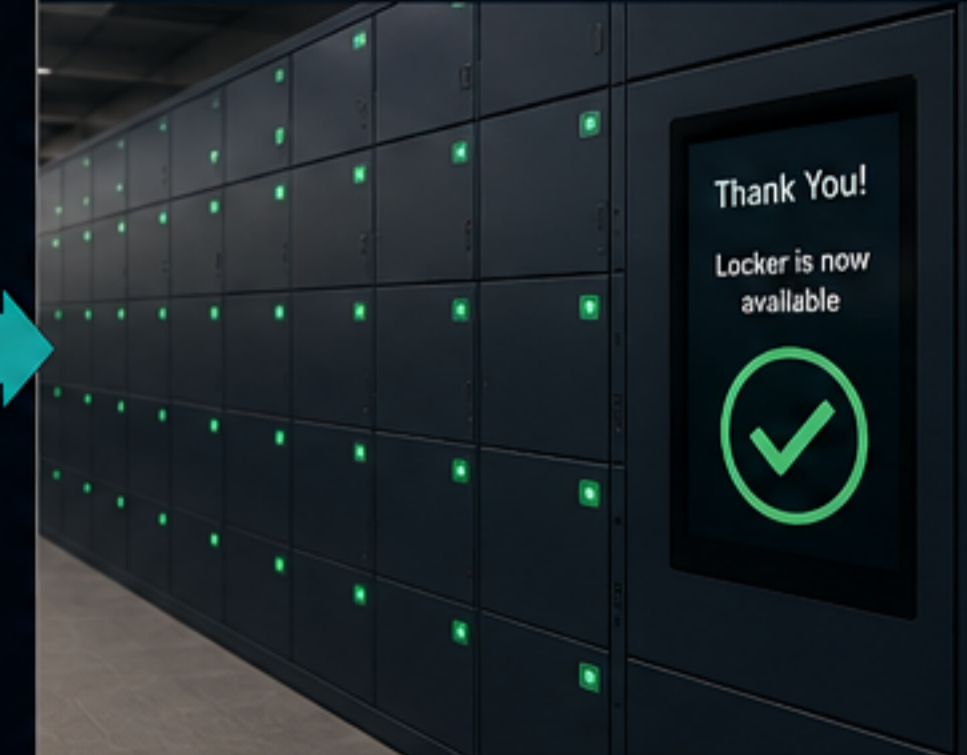


### BENEFIT:

Rapid collection and improved visitor experience.

## 4 RESET & REUSE

Locker automatically become available



- ✓ System records collection
- ✓ Audit trail is completed
- ✓ Locker returns to inventory for the next user



### BENEFIT:

Continuous operation, maximum utilisation, and scalable throughput.

## OPERATIONAL OUTCOME



### SECURE STORAGE

Every item stored in an individual, controlled compartment.



### FASTER ENTRY & EXIT

Removes cloakroom and bag-drop bottlenecks.



### IMPROVED CROWD FLOW

Multiple users can store and retrieve items simultaneously.



### REDUCED OPERATING COSTS

No manual tagging, handling, or retrieval labour.



### SCALES WITH DEMAND

Perfect for stadiums, arenas, festivals, hotels, transport hubs, and leisure venues.



STORE



VERIFY



RETRIEVE



RESET & REUSE

A simple process designed for high-volume visitor flow.