

INDOOR TRACKING

EBOOK



PURPOSE OF THIS EBOOK

This eBook is created to **show how Indoor Tracking Software adds real value** to your operations. It explains how the software helps track people and assets inside large buildings like hospitals, airports, warehouses, and more.

It also aims to **help system integrators** understand how they can add this feature to their client solutions. You'll find easy-to-follow examples and simple details that make it easier to explain and use this software.

The eBook shares **real-world use cases** to show how different industries are already using indoor tracking to solve common problems — like delays, crowding, and lost equipment.

You'll also see **data-backed results** that prove how this tool improves performance, safety, and productivity.

Finally, it's made to support **easy integration** — helping you offer this as a new service, add more value for your clients, and grow your business.

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INTRODUCTION



Many businesses today struggle to track people and equipment once they enter a building. GPS doesn't work indoors, and manual tracking takes too much time.

Indoor tracking software solves this problem. It uses technologies like BLE and Wi-Fi to show where things and people are in real-time on a map. Whether it's a lost trolley, a staff member in a large hospital, or tools in a warehouse, this solution gives you full visibility inside your space

With indoor tracking, businesses can:

- Avoid delays
- Save time
- Improve safety
- Manage everything better



CHALLENGES IN INDOOR TRACKING





1

No GPS signal indoors

GPS doesn't work inside buildings, so you can't track people or assets using regular outdoor methods.

2

Assets get lost or misplaced

Trolleys, tools, and machines are often left in the wrong place, causing delays and confusion.

3

Manual searches waste time

Staff spend a lot of time walking around looking for equipment or people, slowing down operations.

4

No visibility across multiple floors or zones

It's hard to monitor where assets or staff are in large or multi-floor buildings without a tracking system.

5

Crowded areas go unnoticed

Without live data, you can't tell when a space is getting too crowded or blocked.

6

Unauthorized movement or access

People or equipment may enter restricted zones without alerting anyone, risking safety and compliance.

“**SOLUTION THROUGH
FEATURE**

To improve visibility, safety, and efficiency inside buildings, our indoor tracking software offers a smart way to monitor people and assets in real time. With advanced features like live location, smart alerts, indoor navigation, and heatmaps, businesses can easily manage operations across multiple floors and zones.

Whether it's helping someone find their way in a hospital or tracking tool usage inside a warehouse, our software is built to meet real-world needs with speed and simplicity.

This section explores each powerful feature in detail, showing how our solution makes indoor operations more accurate, safe, and efficient.



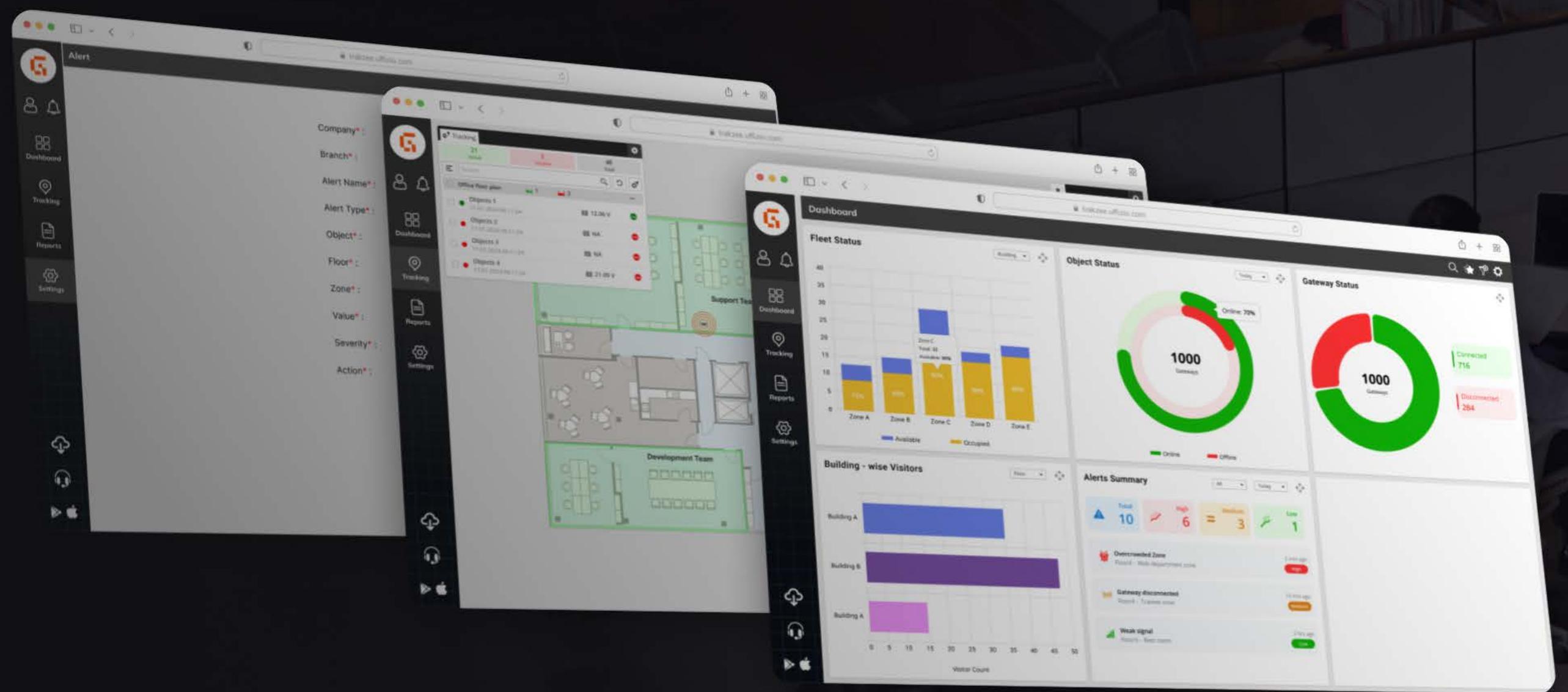
Live location



Geofencing & Alerts

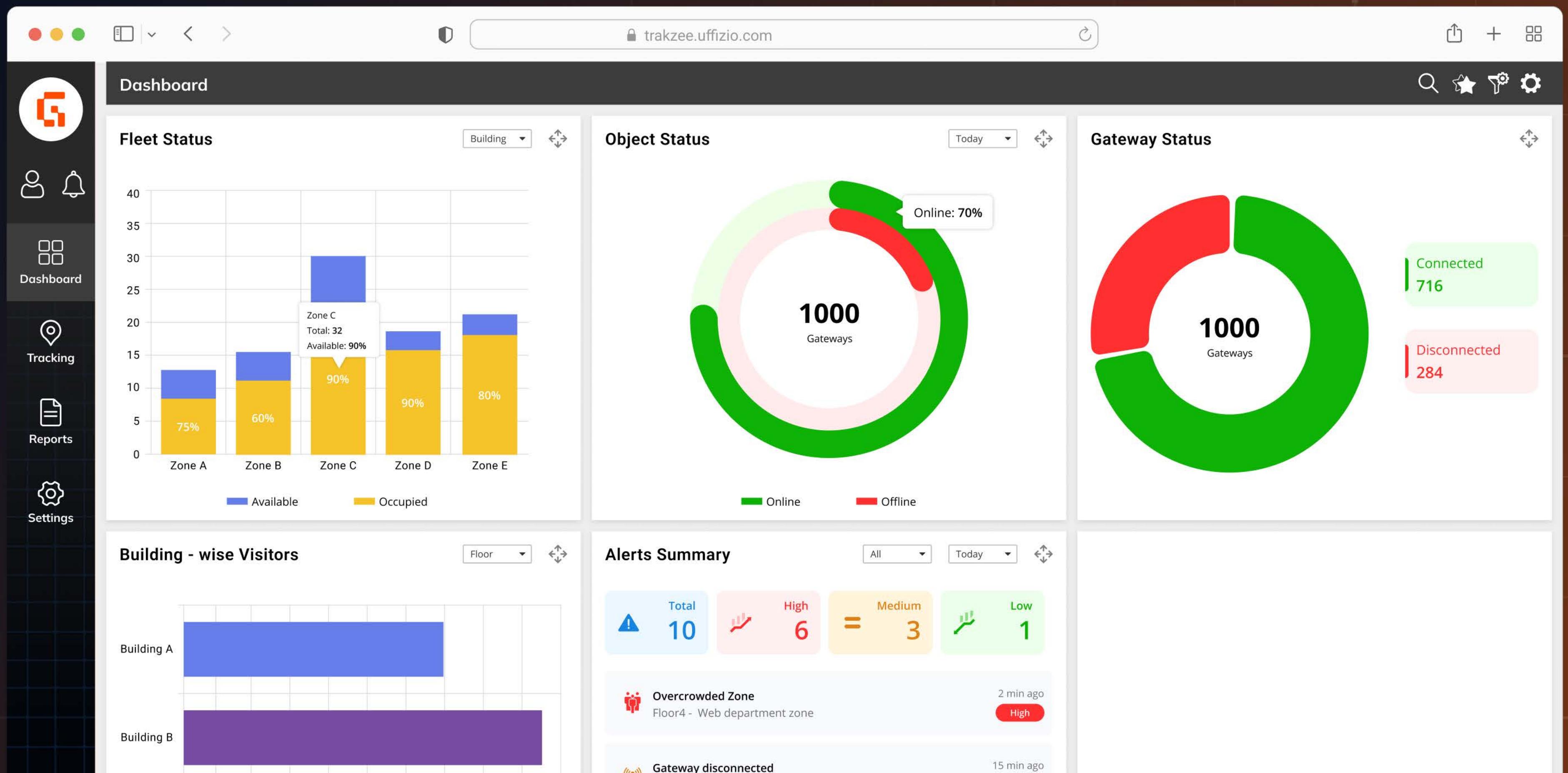


Heatmaps



DASHBOARD

Stay in control with real-time insights from a single screen. The dashboard provides a quick overview of everything happening across your facility. This helps managers take fast, informed decisions without digging through multiple reports.



KEY INSIGHTS

1

Zone-wise availability

See which areas are occupied vs. available in real time, helping manage floor traffic better.

2

Object status summary

Monitor all tracked items — online, offline, or in warning state — at a glance.

3

Gateway connectivity

Keep track of total gateways and check how many are currently connected or disconnected.

4

Visitor count by building

Know how many people are in each building or floor at any given moment.

5

Live alerts panel

View alerts by severity (high, medium, low) for issues like overcrowding, disconnection, or weak signal.

BENEFIT

Gain complete operational visibility from a single screen — making it easier to monitor, respond, and scale

LIVE TRACKING

The Live Location Tracking feature gives you a clear, real-time view of everyone and everything moving inside your facility. From staff members to assets and devices, everything is tracked on a digital floor plan with pinpoints and live coordinates.

The screenshot displays the Trakzee live tracking software interface. The top navigation bar shows the URL trakzee.uffizio.com. The left sidebar menu includes icons for User, Bell, Dashboard, Tracking (selected), Reports, and Settings. The main content area features a digital floor plan of a building with various rooms and team areas labeled: 'Support Team', 'Development Team', and 'Design and BA Team'. The floor plan shows the locations of tracked objects, represented by green boxes and red location markers. A sidebar on the right provides detailed information for a tracked sensor:

- Sensor Name:** Router icon
- Active:** 12.06 V
- Device ID:** ABC97654btcg
- Last Updated:** 2 min ago
- Location:**
 - Building: A - Wing
 - Floor: Floor 4
 - Zone: Conference Room
 - Coordinates: X:245, Y:367
- Environmental:**
 - Temperature: 48° C
 - Humidity: 45%
- Connectivity:**
 - 1 (blue box)
 - 2 (blue box)
 - 3 (blue box)
 - 4 (blue box)
 - Gateway ID: GW-492-BB7

KEY INSIGHTS

1

Customizable pin colors

Managers can set pin colors based on their own criteria, making it easy to identify people or assets at a glance.

2

Live status panel

Lists all tracked objects with their location, status (active/inactive), and last updated time

3

Interactive floor plan

Lets you view team zones, restricted areas, and exact positions

4

Sensor details

All sensor details like battery, signal, temperature, humidity are shown for each tracked object

5

Heatmap

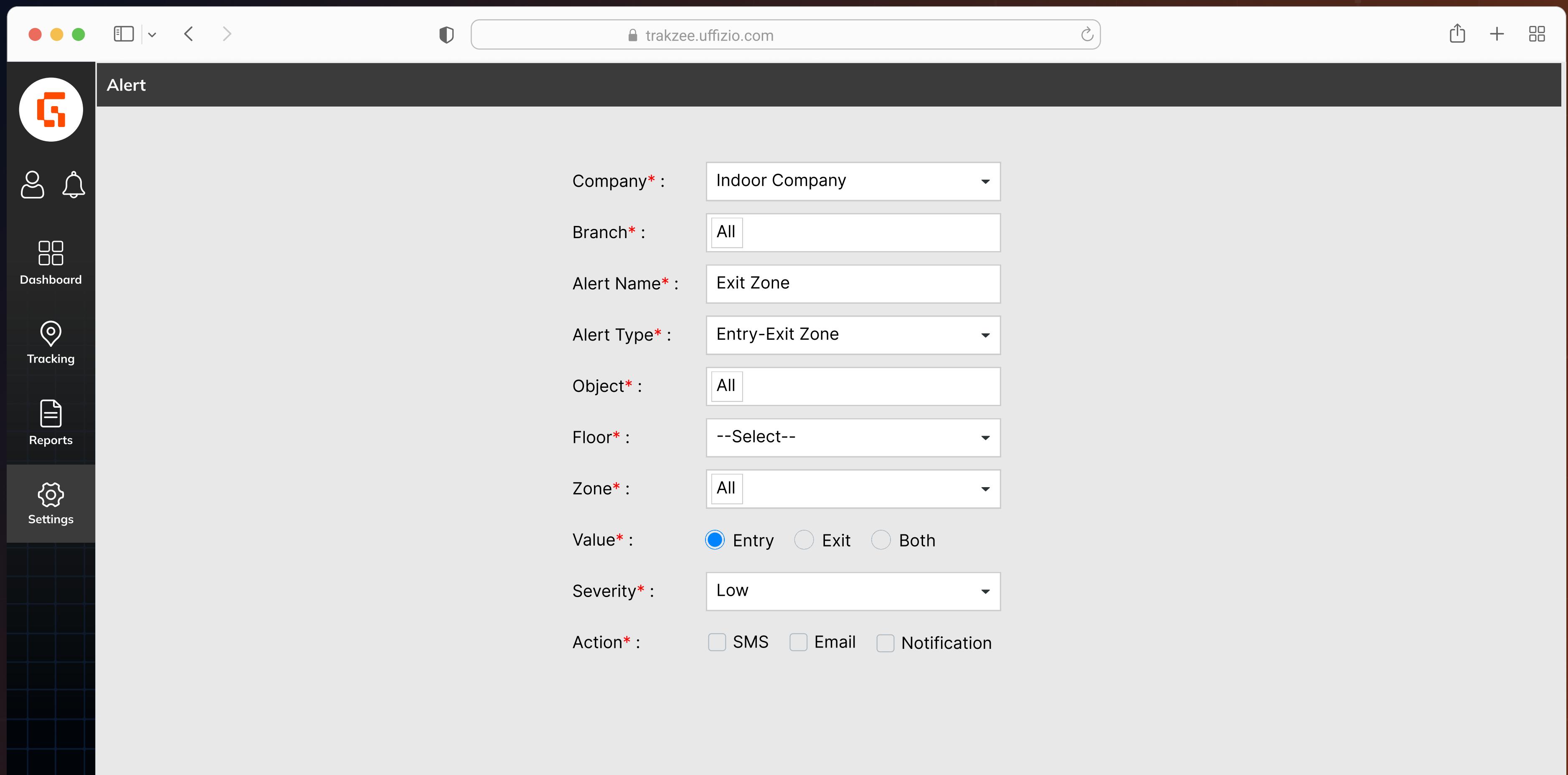
Visualize areas with the highest activity levels for both people and objects. This helps optimize space usage or asset management efficiently

BENEFIT

Gain instant visibility into staff and asset locations for better coordination and faster on-ground actions.

CRITICAL ALERT NOTIFICATIONS

The system sends instant alerts to help and respond faster, avoid risks, and improve operational control. Whether it's a movement, a signal drop, or a critical device issue, you're always in the know.



The screenshot shows the 'Alert' configuration page of the Trakzee web application. The URL in the browser is `trakzee.uffizio.com`. The left sidebar has icons for User, Alert, Dashboard, Tracking, Reports, and Settings, with 'Alert' being the active tab. The main form contains the following fields:

- Company*: Indoor Company
- Branch*: All
- Alert Name*: Exit Zone
- Alert Type*: Entry-Exit Zone
- Object*: All
- Floor*: --Select--
- Zone*: All
- Value*: Entry Exit Both
- Severity*: Low
- Action*: SMS Email Notification

KEY INSIGHTS

1

Zone in / Zone out alert

Get notified when a person or asset enters or exits a defined zone.

2

Gateway active / Inactive alert

Know immediately if a gateway goes offline or comes back online.

3

Overcrowded zone alert

Be alerted when a specific area exceeds safe or predefined capacity limits.

4

Low battery alert

Get early warnings when a tracking device's battery runs low.

5

Weak signal alert

Identify devices with poor connectivity for quick troubleshooting.

BENEFIT

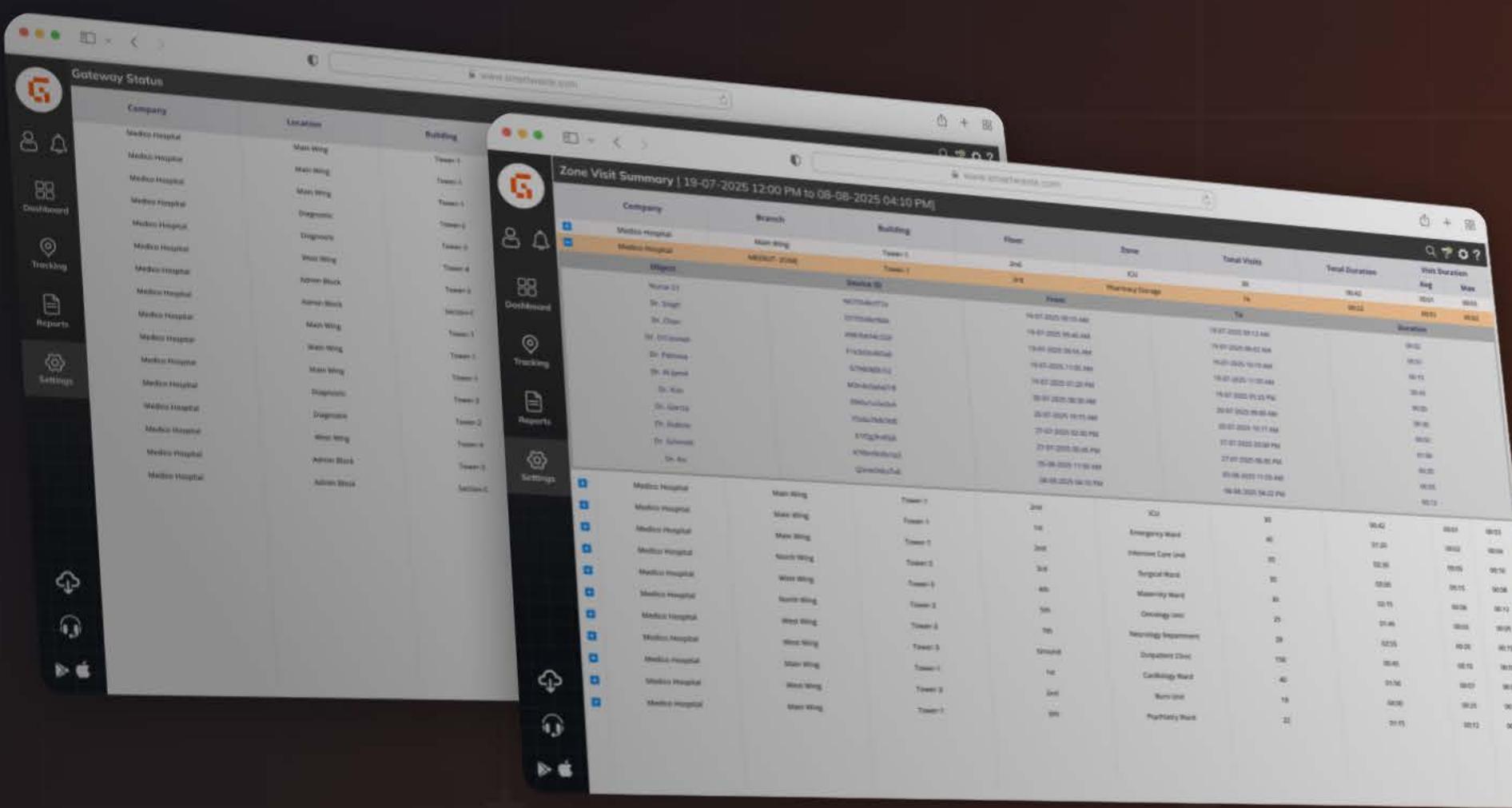
Supports safety and compliance monitoring.



DETAILED REPORTS

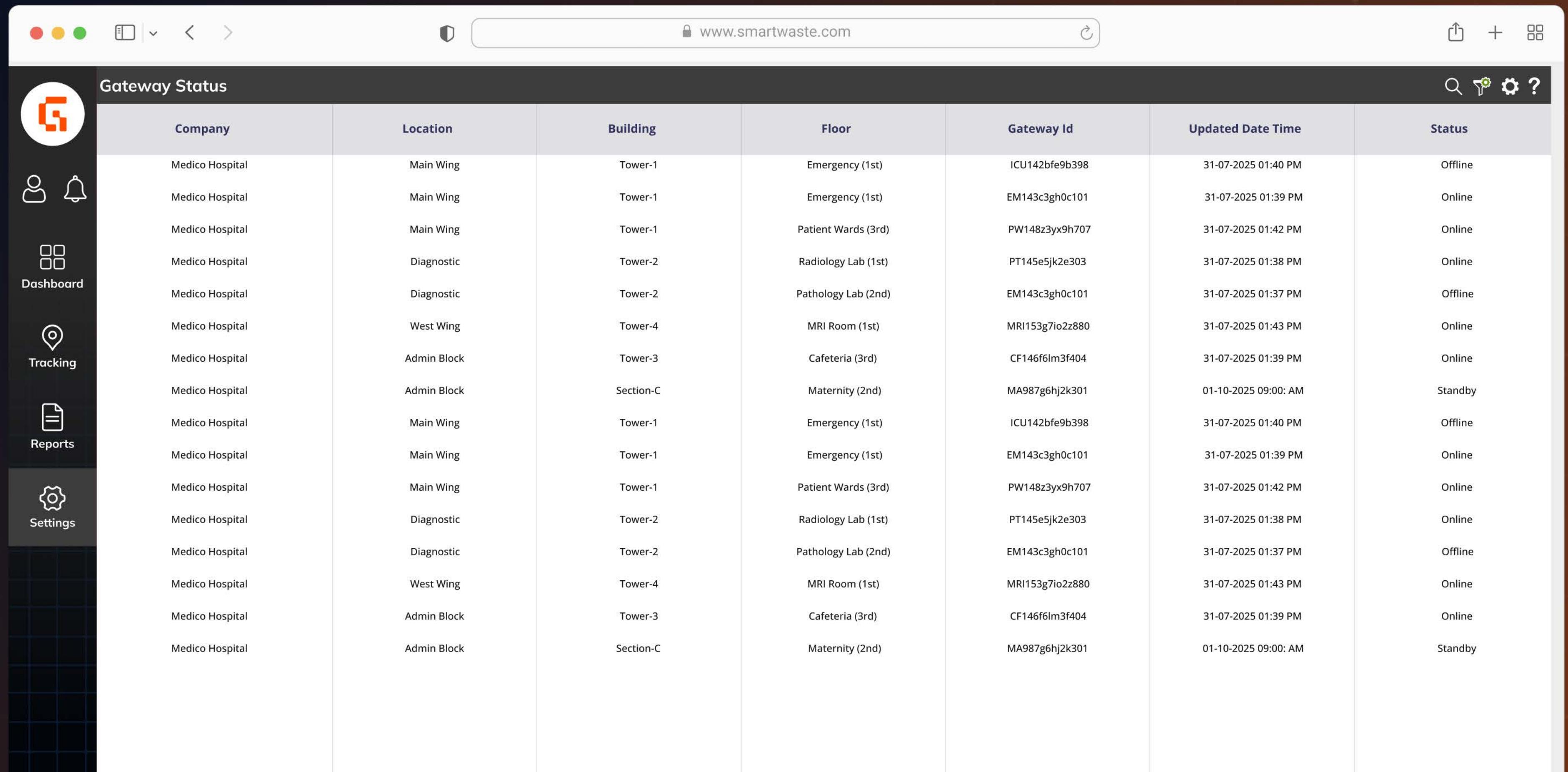


“ Whether it's tracking where staff moved or reviewing past alerts, our reporting tools give you the clarity you need to make smarter, faster decisions — without digging through data.



GATEWAY STATUS REPORT

Track the connectivity and health of every gateway in your network. This report helps you monitor the status of all installed gateways across companies, buildings, floors, and zones so you always know if the system is performing as expected.



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Gateway Status

Company	Location	Building	Floor	Gateway Id	Updated Date Time	Status
Medico Hospital	Main Wing	Tower-1	Emergency (1st)	ICU142bfe9b398	31-07-2025 01:40 PM	Offline
Medico Hospital	Main Wing	Tower-1	Emergency (1st)	EM143c3gh0c101	31-07-2025 01:39 PM	Online
Medico Hospital	Main Wing	Tower-1	Patient Wards (3rd)	PW148z3yx9h707	31-07-2025 01:42 PM	Online
Medico Hospital	Diagnostic	Tower-2	Radiology Lab (1st)	PT145e5jk2e303	31-07-2025 01:38 PM	Online
Medico Hospital	Diagnostic	Tower-2	Pathology Lab (2nd)	EM143c3gh0c101	31-07-2025 01:37 PM	Offline
Medico Hospital	West Wing	Tower-4	MRI Room (1st)	MRI153g7io2z880	31-07-2025 01:43 PM	Online
Medico Hospital	Admin Block	Tower-3	Cafeteria (3rd)	CF146f6lm3f404	31-07-2025 01:39 PM	Online
Medico Hospital	Admin Block	Section-C	Maternity (2nd)	MA987g6hj2k301	01-10-2025 09:00: AM	Standby
Medico Hospital	Main Wing	Tower-1	Emergency (1st)	ICU142bfe9b398	31-07-2025 01:40 PM	Offline
Medico Hospital	Main Wing	Tower-1	Emergency (1st)	EM143c3gh0c101	31-07-2025 01:39 PM	Online
Medico Hospital	Main Wing	Tower-1	Patient Wards (3rd)	PW148z3yx9h707	31-07-2025 01:42 PM	Online
Medico Hospital	Diagnostic	Tower-2	Radiology Lab (1st)	PT145e5jk2e303	31-07-2025 01:38 PM	Online
Medico Hospital	Diagnostic	Tower-2	Pathology Lab (2nd)	EM143c3gh0c101	31-07-2025 01:37 PM	Offline
Medico Hospital	West Wing	Tower-4	MRI Room (1st)	MRI153g7io2z880	31-07-2025 01:43 PM	Online
Medico Hospital	Admin Block	Tower-3	Cafeteria (3rd)	CF146f6lm3f404	31-07-2025 01:39 PM	Online
Medico Hospital	Admin Block	Section-C	Maternity (2nd)	MA987g6hj2k301	01-10-2025 09:00: AM	Standby

KEY INSIGHTS

1

Company and location

Know exactly where each gateway is deployed.

2

Building and floor mapping

See which gateways belong to which part of your facility.

3

Gateway ID reference

Unique IDs make it easy to identify or replace any specific gateway.

4

Last update time

Shows the most recent data received, helping spot outdated or inactive devices.

5

Status monitoring

Instantly see if a gateway is online, disconnected, or facing issues.

BENEFIT

Ensures uninterrupted data flow across the tracking network

ZONE VISIT SUMMARY REPORT

Track where each person or asset has been and for how long. This report gives you a summary of how many times a zone was visited, by whom, and for how long. It's helpful for analyzing movement patterns within your facility.

Zone Visit Summary [19-07-2025 12:00 PM to 08-08-2025 04:10 PM]

Object	Device ID	From		To		Duration	
		From	To	From	To	Avg	Max
Nurse-21	N675546cf77x	19-07-2025 09:10 AM	19-07-2025 09:12 AM	19-07-2025 09:12 AM	19-07-2025 09:12 AM	00:02	00:02
Dr. Singh	D775546cf66k	19-07-2025 09:40 AM	19-07-2025 09:42 AM	19-07-2025 09:42 AM	19-07-2025 09:42 AM	00:01	00:01
Dr. Chen	A987b654c32d	19-07-2025 09:55 AM	19-07-2025 10:10 AM	19-07-2025 10:10 AM	19-07-2025 10:10 AM	00:15	00:15
Dr. O'Connell	F1e2d3c4b5a6	19-07-2025 11:05 AM	19-07-2025 11:50 AM	19-07-2025 11:50 AM	19-07-2025 11:50 AM	00:45	00:45
Dr. Petrova	G7h8i9j0k1l2	19-07-2025 01:20 PM	19-07-2025 01:25 PM	19-07-2025 01:25 PM	19-07-2025 01:25 PM	00:05	00:05
Dr. Al-Jamil	M3n4o5p6q7r8	20-07-2025 08:30 AM	20-07-2025 09:00 AM	20-07-2025 09:00 AM	20-07-2025 09:00 AM	00:30	00:30
Dr. Kim	S9t0u1v2w3x4	20-07-2025 10:15 AM	20-07-2025 10:17 AM	20-07-2025 10:17 AM	20-07-2025 10:17 AM	00:02	00:02
Dr. Garcia	Y5z6a7b8c9d0	27-07-2025 02:00 PM	27-07-2025 03:00 PM	27-07-2025 03:00 PM	27-07-2025 03:00 PM	01:00	01:00
Dr. Dubois	E1f2g3h4i5j6	27-07-2025 05:45 PM	27-07-2025 06:05 PM	27-07-2025 06:05 PM	27-07-2025 06:05 PM	00:20	00:20
Dr. Schmidt	K7l8m9n0o1p2	05-08-2025 11:00 AM	05-08-2025 11:55 AM	05-08-2025 11:55 AM	05-08-2025 11:55 AM	00:55	00:55
Dr. Ito	Q3r4s5t6u7v8	08-08-2025 04:10 PM	08-08-2025 04:22 PM	08-08-2025 04:22 PM	08-08-2025 04:22 PM	00:12	00:12

Company Branch Building Floor Zone Total Visits Total Duration

Visit Duration

Avg Max

+	Medico Hospital	Main Wing	Tower-1	2nd	ICU	30	00:42	00:01	00:03
-	Medico Hospital	MEERUT- ZONE	Tower-1	3rd	Pharmacy Storage	16	00:22	00:01	00:02

Object	Device ID	From	To	Duration
Nurse-21	N675546cf77x	19-07-2025 09:10 AM	19-07-2025 09:12 AM	00:02
Dr. Singh	D775546cf66k	19-07-2025 09:40 AM	19-07-2025 09:42 AM	00:01
Dr. Chen	A987b654c32d	19-07-2025 09:55 AM	19-07-2025 10:10 AM	00:15
Dr. O'Connell	F1e2d3c4b5a6	19-07-2025 11:05 AM	19-07-2025 11:50 AM	00:45
Dr. Petrova	G7h8i9j0k1l2	19-07-2025 01:20 PM	19-07-2025 01:25 PM	00:05
Dr. Al-Jamil	M3n4o5p6q7r8	20-07-2025 08:30 AM	20-07-2025 09:00 AM	00:30
Dr. Kim	S9t0u1v2w3x4	20-07-2025 10:15 AM	20-07-2025 10:17 AM	00:02
Dr. Garcia	Y5z6a7b8c9d0	27-07-2025 02:00 PM	27-07-2025 03:00 PM	01:00
Dr. Dubois	E1f2g3h4i5j6	27-07-2025 05:45 PM	27-07-2025 06:05 PM	00:20
Dr. Schmidt	K7l8m9n0o1p2	05-08-2025 11:00 AM	05-08-2025 11:55 AM	00:55
Dr. Ito	Q3r4s5t6u7v8	08-08-2025 04:10 PM	08-08-2025 04:22 PM	00:12

+	Medico Hospital	Main Wing	Tower-1	2nd	ICU	30	00:42	00:01	00:03
+	Medico Hospital	Main Wing	Tower-1	1st	Emergency Ward	45	01:20	00:02	00:04
+	Medico Hospital	Main Wing	Tower-1	2nd	Intensive Care Unit	20	02:30	00:05	00:10
+	Medico Hospital	North Wing	Tower-2	3rd	Surgical Ward	35	03:00	00:15	00:08
+	Medico Hospital	West Wing	Tower-3	4th	Maternity Ward	30	02:15	00:08	00:12
+	Medico Hospital	North Wing	Tower-2	5th	Oncology Unit	25	01:45	00:03	00:05
+	Medico Hospital	West Wing	Tower-3	7th	Neurology Department	28	02:55	00:20	00:15
+	Medico Hospital	West Wing	Tower-3	Ground	Outpatient Clinic	150	00:45	00:10	00:03
+	Medico Hospital	Main Wing	Tower-1	1st	Cardiology Ward	40	01:50	00:07	00:09

16

KEY INSIGHTS

1

Company and branch

Filter data based on organization or specific branch.

2

Building, floor & zone

Know exactly where the visit occurred.

3

Object movement

Identify which person or item entered and exited the zone.

4

Visit count

Number of times a zone was accessed by a specific object.

5

Visit duration

Average and maximum time spent in each zone.

BENEFIT

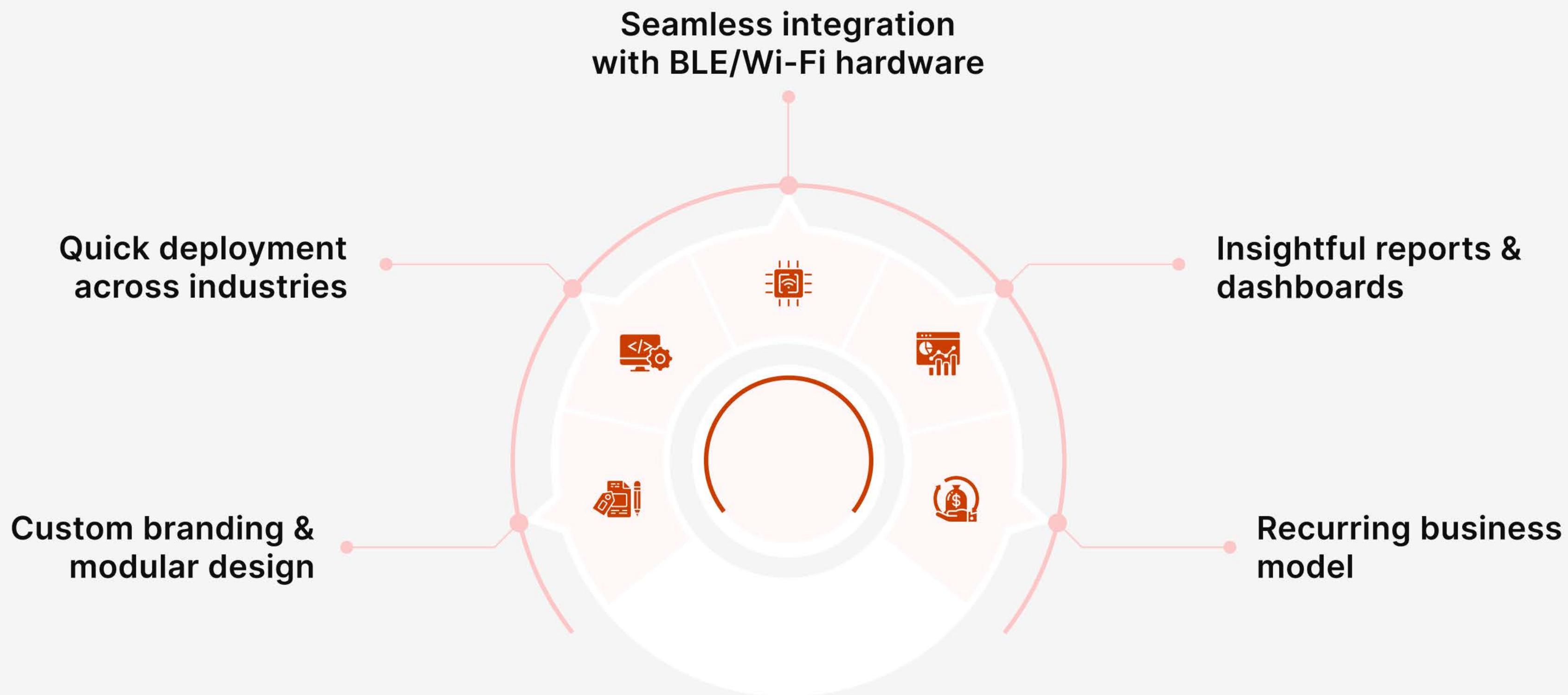
Useful for security audits and zone-level access tracking



KEY REASONS TO INVEST

WHY SYSTEM INTEGRATORS TRUST OUR INDOOR TRACKING SOFTWARE

System integrators choose our platform because it's scalable, hardware-agnostic, and ready for real-world deployment across industries. Here's what sets it apart:





USECASES ACROSS INDUSTRIES



Airport operations



Health care facilities



Manufacturing plants



Warehouse operations



Mall operations



AIRPORT OPERATIONS



CHALLENGES

- **Baggage gets delayed or lost**

Causes frustration for passengers and increases airport costs.

- **Staff waste time finding tools or vehicles**

This slows down work and creates flight delays.

- **Important equipment gets misplaced**

Leads to buying extra items that aren't needed.

- **Long queues and crowding**

Passengers face delays and bad experiences at security and boarding gates.



SOLUTIONS

→ Track baggage in real time

Helps airport staff know exactly where each bag is and prevents it from getting lost.

→ Give directions to staff inside the airport

Makes it easier for them to find tools, gates, and other team members faster.

→ Monitor equipment and vehicles live

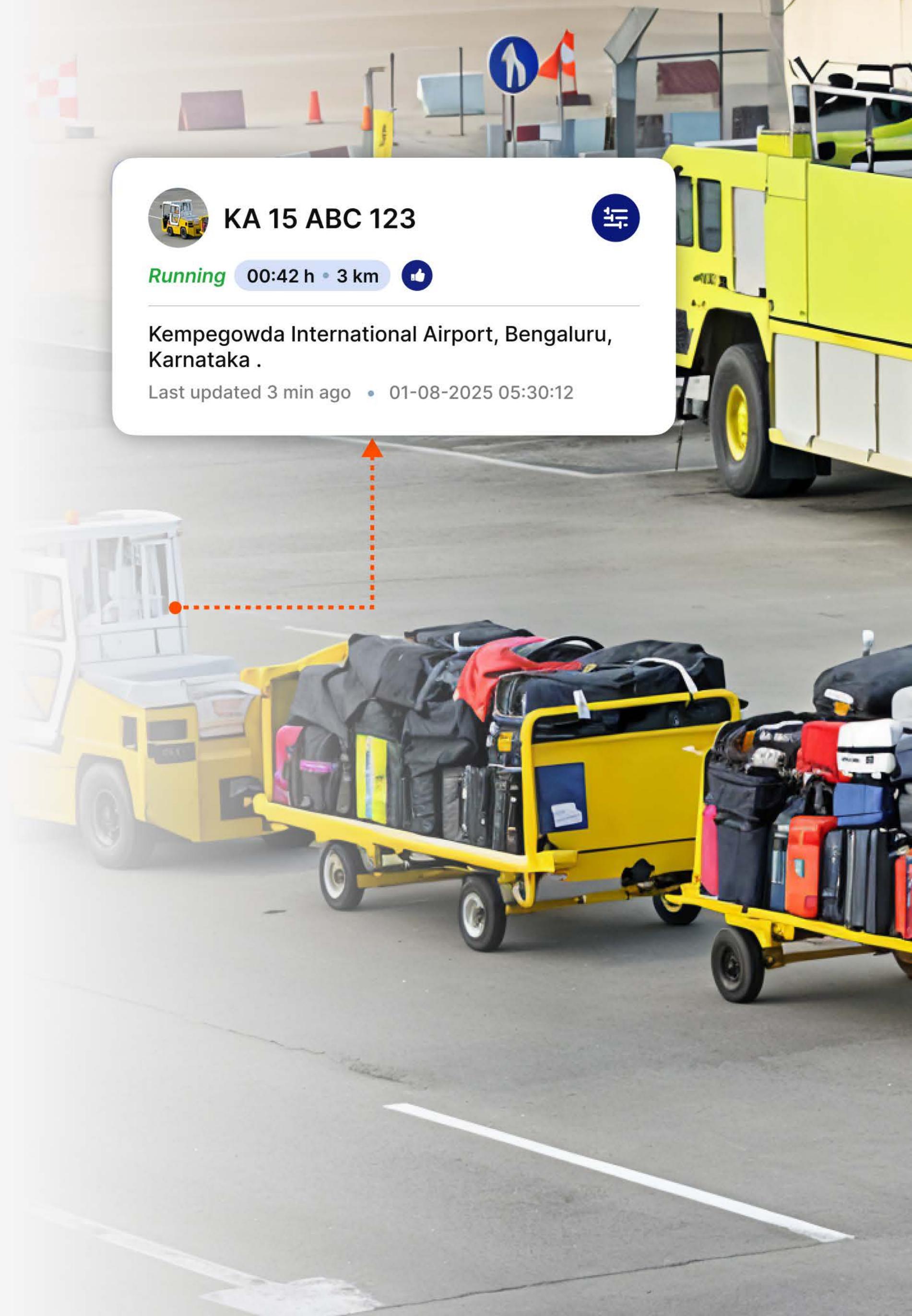
Keeps track of high-value tools so they don't go missing or sit idle.

→ Use heatmaps to see crowded areas

Shows which places are too busy so staff can be moved to help manage the crowd.

→ Set safety zones with alerts

Sends notifications if someone or something enters a restricted area.



RESULT



5

1

Faster baggage handling

Approx 87% fewer issues with lost or delayed bags.

2

Better staff performance

Work gets done faster, and fewer delays happen.

3

Shorter queues and happier passengers

Crowds are handled better, and boarding is smoother.



HEALTH CARE FACILITIES

CHALLENGES

→ Lost or misplaced equipment

High-value items like syringe pumps or ECG machines go missing, delaying treatment and increasing costs.

→ Security risks in infant care

Babies can be moved out of protected zones without alerts, creating serious safety and legal risks.

→ Time wasted by staff

Nurses and doctors spend too much time searching for equipment or rooms instead of focusing on patients.

→ Missed cleanings in critical zones

ICU and patient rooms may be skipped or delayed, affecting hygiene and compliance.

→ Patients can't raise emergency alerts independently

Without a direct panic button or alert option, patients must wait for staff to check on them, delaying response in critical moments.

Where is the
ECG Machine?



SOLUTIONS

→ Live tracking of staff and assets

Shows real-time location of doctors and equipment during emergencies, improving response time.

→ Asset tracking with alerts

Helps locate syringe pumps, ECGs, and other machines instantly; sends alerts if they are moved without permission.

→ Infant safety tags with zone monitoring

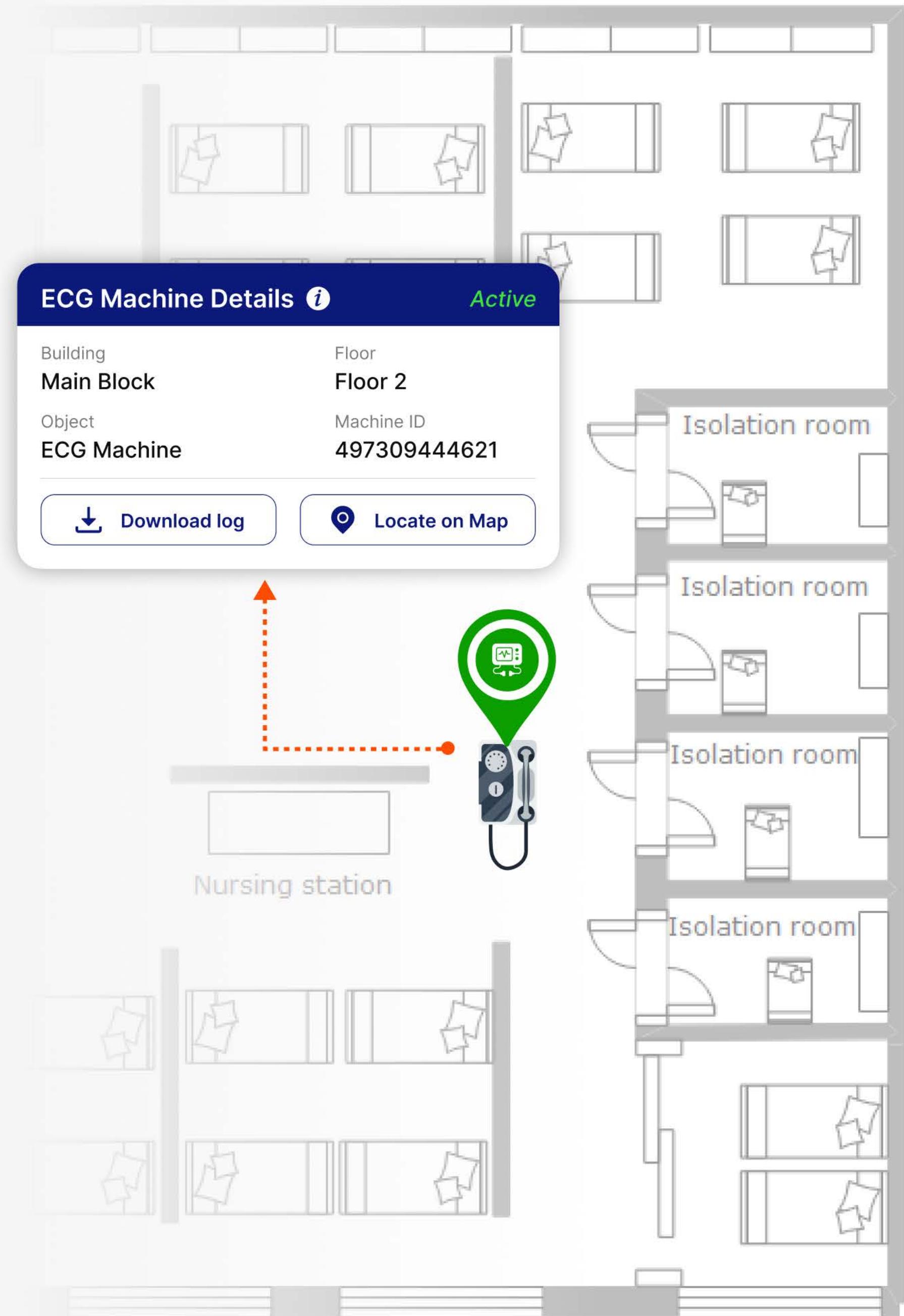
Notifies staff if a baby is taken outside the protected area, preventing unauthorized movement.

→ BLE-based check-ins for cleaning staff

Ensures cleaning is done on time in ICUs and rooms, supporting audit readiness.

→ SOS feature for emergency alerts

Patients can press the SOS button on their device to send an instant alert. The system logs the exact zone and floor from where the SOS was raised, enabling rapid medical response.



RESULT



- 1
- 2
- 3
- 4

Approx. ₹7 Lakhs/year saved

By avoiding duplicate purchases due to missing assets.

Better infant safety

Prevents unauthorized movement and builds parental trust.

ROI of 120–250%

Most hospitals break even in less than a year, with pure profit from year two onward.

Improved emergency response

SOS alerts help staff act immediately, minimizing critical delays in patient care.



MANUFACTURING PLANTS



CHALLENGES

→ No visibility during emergencies

In fire or gas leaks, it's hard to know who is still inside, delaying rescue.

→ Workers entering unsafe zones

Leads to injuries, legal risk, and heavy compliance penalties.

→ Delays in material movement

Misrouted WIP or raw material causes production delays and rework.

→ Tools and equipment get misplaced

Shared items go missing, increasing cost and causing production stalls.

→ Forklifts and plant vehicles operate unsafely

Poor tracking leads to accidents and delays.



SOLUTIONS

→ Support emergency evacuation dashboards

Track last known location of each person for faster rescue during emergencies.



→ Set up safety zone alerts for workers

Prevent access to hazardous or restricted zones with real-time alerts.

→ Track raw materials and inventory in real time

Prevent delays by knowing exactly where semi-finished goods are.

→ Use tags for tools and assets

Track usage and location of high-value equipment to prevent loss or theft.

→ Optimize forklift and vehicle routes

Monitor vehicle movement and ensure safety inside plant premises.



RESULT



1

Approx. ₹25–30 Lakhs/year saved

By improving movement of WIP and raw materials between departments.

2

Higher workplace safety

Entry alerts for restricted areas improved compliance and reduced accidents.

3

Reduced equipment loss

Managers could locate tools instantly. This saved time and avoided unnecessary replacements.



WAREHOUSE OPERATIONS



CHALLENGES

→ Poor visibility of inventory location

Items, pallets, etc. often go missing or are stored in the wrong place.

→ Time wasted in picking and locating items

Staff spend too much time searching for goods across large zones.

→ Equipment like trolleys and forklifts go untracked

Increases downtime and creates delays in order fulfillment.

→ Unsafe movement of workers or vehicles

Staff or machines may enter restricted areas, causing safety risks.

→ No tracking of worker productivity

Difficult to know how much time is spent on picking, packing, or idle.



SOLUTIONS

→ Live tracking of inventory and pallets

Quickly find items inside the warehouse with location updates.

→ Navigation support for staff

Show shortest paths to items or zones for faster picking.

→ Real-time monitoring of forklifts and trolleys

Track their routes and status to reduce idle time.

→ Geofencing and zone alerts

Prevent entry into high-risk or restricted zones with instant notifications.

→ Worker activity tracking

Monitor time spent on different tasks to optimize shift planning.



Asset Tracking

Real-time monitoring

Active Assets

247

High-Value Items

18

Utilization Rate

87%



RESULT



1

Faster order processing

Picking speed improves, reducing time to pack and ship.

2

Reduced search time

Workers spend less time finding misplaced items.

3

Better asset usage

Trolleys and forklifts are used efficiently, with fewer delays.

Improved safety

Accidents reduce due to alerts and restricted zone monitoring.



MALL OPERATIONS



CHALLENGES

- **Emergency response is delayed**

No visibility of crowd movement or staff during incidents.

- **Overcrowding in certain areas**

Food courts, washrooms, and exits get packed during peak hours.

- **Low visibility of cleaner and staff movement**

Some areas are missed or not cleaned frequently enough.

- **Lack of footfall data for tenants**

Store owners have no idea how much traffic they receive.

- **Inconsistent guest service**

Staff availability and direction assistance vary by location or shift.



SOLUTIONS

→ Real-time location tracking of staff and visitors

Helps security and management know what's happening across the mall.

→ Heatmaps to monitor crowd density

Identify busy areas to optimize layout and manage flow.

→ Tracking and scheduling of cleaning staff

Ensure all zones are cleaned as per routine with zone check-ins.

→ Footfall analytics for stores

Share zone-wise traffic reports with retailers for better sales planning.

→ Staff movement tracking

Improve customer service by ensuring team presence in help desks, entrances, or activity zones.

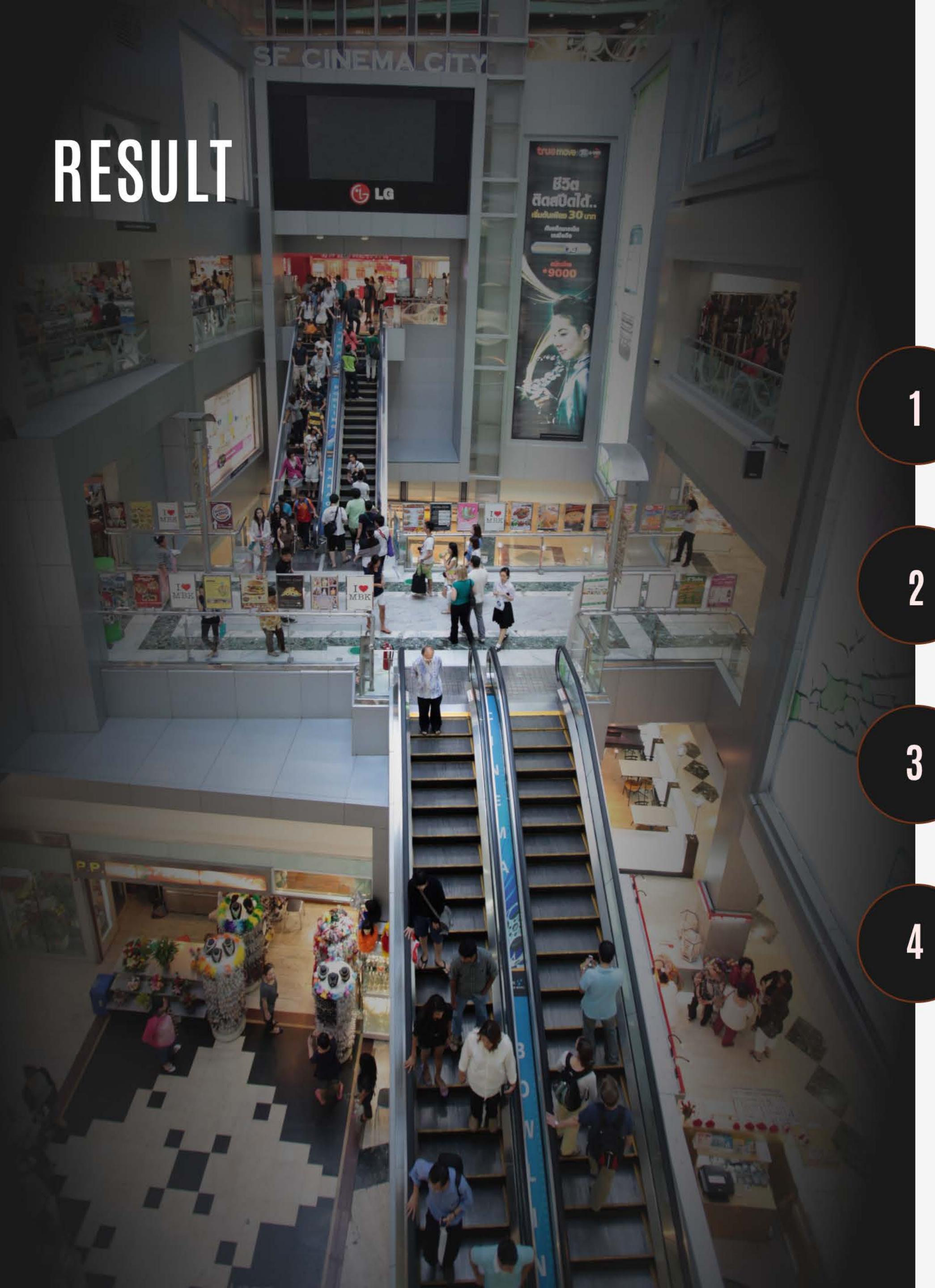
Crowd Density Alerts

All Today 

Event	Location	Time Ago	Severity
High crowd density in Electronics section	Electronics	2 min ago	High
Checkout queue exceeding capacity	Entrance	5 min ago	Medium
Food court reaching maximum occupancy	Food Court	8 min ago	Low



RESULT



1

Improved safety

Real-time tracking supports faster evacuation and emergency response.

2

Optimized layout planning

Heatmaps help in redesigning traffic-heavy or underused areas.

3

Cleaner and more maintained spaces

Staff accountability improves through movement logs.

4

More valuable data for tenants

Store owners gain real insights into customer traffic and patterns.

KEY TAKEAWAYS FROM INDOOR TRACKING SOFTWARE

Here's what you've learned about Indoor Tracking and how it transforms indoor operations:

- ✓ Enables real-time tracking of people and assets across zones, floors, and buildings to improve visibility and control.
- ✓ Sends automated alerts for zone entry/exit, device status, overcrowding, and emergencies like SOS requests
- ✓ Provides seamless location-based insights to enhance safety, monitor behavior, and reduce operational risks
- ✓ Supports industries like hospitals, warehouses, malls, and airports with flexible, scalable deployment.
- ✓ Offers rich data through visit reports, zone history, and alert logs to support audits and decision-making
- ✓ Helps system integrators expand their portfolio with a white-label-ready solution that adds measurable client value.

Notes

uffizio

www.uffizio.com