



## BBX VISIBLE Monitors and Guards Patient Safety in a Hospital

### CHALLENGE

A 500-bed multi-specialty hospital needed to ensure its patients' safety. The hospital required a solution that meets the following stipulations:

- Must provide alerts for patients loitering outside of the ward/room
- Must report real-time location of a patient inside the hospital and include a panic button for an emergency
- Requires wearable and fixable panic button device with location alerts
- Must report real-time location of a patient inside the hospital and include a panic button for an emergency

### SOLUTION

The BBX VISIBLE IoT Platform solves all of the hospital's challenges:

- Acquires real-time data from wireless BLE-based ID card and wearable panic button using gateways connected to BBX VISIBLE
- BBX VISIBLE platform displays data in real-time on dashboards, tracking movement and location of patients inside the hospital
- Determines if a patient is loitering outside the designated ward or room and sends an alert to the nurses' station
- Ensures patient safety and security inside the hospital with remote monitoring from anywhere, anytime

### RESULTS

The hospital personnel now have greater peace of mind about patient safety. The BBX VISIBLE platform delivers the following:

- Intuitive and intelligent dashboard monitors the patient's indoor location in real-time
- Functions as a remote and wireless RTLS system
- Sends real-time alerts for accidental falldown or prolonged no movement
- Sends loitering alerts for any patient moving out of the ward or room
- Connects alerts to nurses' stations

### IMMEDIATE OUTCOMES

Before BBX VISIBLE was implemented, an average of one patient per month loitered out of the ward, which is risky and dangerous to the health and safety of the patient and detrimental to the reputation of the hospital. With the new solution, loitering incidents have been eliminated.

The patients have been instructed and trained to use the wearable SOS button in case of any dizziness or discomfort. Post implementation, there have been many such occasions where the patients were given emergency care upon SOS alerts.

Accidental fall downs were detected and immediate action was taken, saving valuable lives.

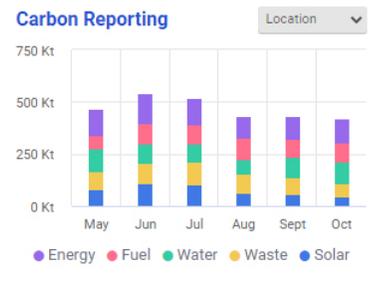
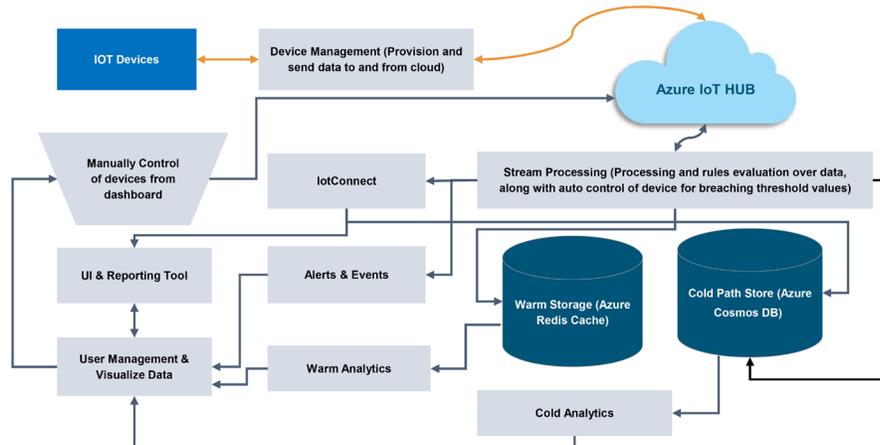
### NEXT STEPS AND EXPECTED RESULTS

- Productivity management: Expected improvement of efficiency by 23%
- Smart toilets: Improved experience. Decrease in people cost of cleaning staff by at least 7% up to 11%
- Automated lighting: Decrease in energy costs by 10%
- Remote monitoring of diesel generator sets: Save fuel costs by 5% and decrease in maintenance costs by 15%
- Remote monitoring of critical patients: Save people costs by 20% improved monitoring and critical care
- Remote monitoring of caregivers: Save people costs by 5%, improving compliance





## Data Flow Diagram for VISIBLE IoT PLATFORM



### ABOUT BLACK BOX

Black Box® is a trusted IT solutions provider delivering cutting-edge technology products and world-class consulting services to businesses across the globe in every industry. The breadth of our global reach and depth of our expertise accelerate customer success by bringing people, ideas, and technology together to solve real-world business problems.

