Smart Healthcare Operations

HID Location Services
enabled by BluVision
Healthcare facilities are being redefined with the acceleration of digitization to improve patient and clinical staff experiences. Furthermore, healthcare executives continue to leverage innovative technology to ensure a safe and efficient environment without compromising the delivery of the patient experience or the bottom line.

Critical challenges arise in operating a multi-dimensional healthcare organization:

**Clinician Accountability** - Complete visibility into staffing schedules and secure access credentials is needed to deliver cross-functional care in controlled environments. Furthermore, effective emergency response requires absolute readiness from clinical and support teams.

**Patient Throughput** - Streamlined visits and holistic patient experiences within the facility are paramount. Synchronized workflows from patient to clinician improve wait times and overall bed turnover rate.

**Asset Management and Location** - Not having the right equipment readily available to treat patients can be a tremendous burden—and even catastrophic during an emergency. Additionally, security policies, access controls and sanitation processes must follow compliance and safety standards. Without precise visibility and compliance, procurement, management and operational costs increase.

**Disparate Technologies** - Acceleration of digitization can also cripple the most advanced hospital organizations. Implementing multiple point solutions and disparate technologies from multiple vendors are expensive to acquire, implement and maintain. This combination can be detrimental to operational efficiencies in addition to overwhelming the clinicians who are tasked with learning and operating the many different devices and tools.

Real-time visibility across the hospital: Provider, Patients and Devices

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Who, What, When and Where

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Smart Healthcare Solution:  
HID Location Services, Enabled by Bluvision

To address the unique dynamics and optimize the many processes of hospital and clinical facilities, the biomedical and operations teams need a real-time view of how clinicians and staff work throughout the building and engage with patients in order to create the best overall patient experience. This solution is now available thanks to HID Global.

HID Location Services, enabled by Bluvision is a unified solution that delivers real-time location (RTLS) awareness of patients, staff and equipment assets at a fraction of the cost of traditional location service technologies. The system combines the power of Bluetooth low-energy beacons (BLE), current Wi-Fi infrastructure and cloud management technologies to provide a unique experience inside and outside of the hospital.

As a result, hospital organizations receive increased visibility into the precise location of facility assets in a defined space and can use data-driven analytics to optimize clinician accountability, patient throughput, and asset management.

**Asset Location:** Provides visibility into location of mobile medical assets, reducing required inventory and search times  

**Efficient Collaboration:** Locates medical personnel quickly to improve emergency situations and optimize workplace utilization  

**Patient Safety:** Raises alerts based on defined policies when patients leave their “Safe Zone”  

**Wayfinding:** Helps patients and visitors find their destinations at the campus through the assistance of beacons and wayfinding apps  

**Extended Solution Enablement:** Monitor temperatures, verify sanitation compliance, enable smart parking
Solution Architecture: One System, Seamless Experience

Smart Components

**BEEKs™ BLE Beacons**

1. **BEEKs Badge:**
   Familiar, unified staff credentials for building access, location awareness and wireless duress calls, patient care and equipment authentication

2. **BEEKs Soft Beacon:**
   BluVision SDK, virtual beacon inside the mobile device

3. **BEEKs Patient Wristband:**
   Active patient safety and awareness, interoperable mobile devices, digital procedure verification, medical equipment/patient authentication

3. **BEEKs Lite or Industrial:**
   Designed for equipment location and fleet management; tamper-evident model available

**BluFI™ Gateway**
Cloud-enabled, bi-directional BLE to Wi-Fi gateway for remote management of beacons; AC-powered units, battery or solar versions optional

**Bluzone™ Cloud**
Single-scalable cloud architecture for location and tracking of assets, built-in customizable dashboards and reporting, robust rules engine to define policies, alerts and location-aware conditions; over 200 RESTful API integration points enabling endless business applications
The entire facility is outfitted using the same, wireless infrastructure, thereby keeping implementation costs low and optimizing the edge beacon devices to the back-end systems. Combining the BLE, Wi-Fi and the cloud service portal together delivers a seamless operational experience—a true Internet of Things (IoT) experience.

**Easy Deployment** - With a single provider of identification and sensing technologies, RTLS is quick to install and does not require additional investments in complex servers, antennas or other ancillary equipment.

**Superior Accuracy** - Streamlined proprietary technology is architected into compact components, providing industry-leading precision less than 2 meters—powerful performance without the complexity.

**High Security and Privacy** - Compliant with Health, Environment, Safety, Security (HESS) and leveraging end-to-end AES encryption, data transferred within solution is highly secure. Communication between BEEKs, BluFi and Bluzone cloud is encrypted with strong AES 256 bit SSL/TLS algorithms. Additionally, strict policies are set to aggregate and create autonomous tag data to prevent personal traceability.

Realizing the Benefits:

The HID Location Services, Enabled by Bluvision delivers:

- **Improved Operational Efficiencies**
  Simplified, secure, and automated experience for staff and patients

- **Optimized Equipment Utilization**
  Easily locate necessary assets and reduced inventory and management costs

- **Unified Technologies**
  Cloud architecture, existing infrastructure and consolidated devices for smarter healthcare operations