

## HID Location Services and Condition Monitoring



**Enabled by Bluvision** 



## Powering an End-to-end Internet of Things Ecosystem

Passive RFID transponders are used across numerous industries to simplify inventory management and tracking and automate operational processes. As industry operations evolve, demands arise to have real-time visibility of assets and items to optimize the workplace, to understand their location as well as past, present or future condition of critical equipment. To fulfill these needs active tags based on Bluetooth Smart (BLE) technology are being adopted. Organizations need an end-to-end ecosystem to collect, aggregate, and manage real-time data into useful information to drive mission critical decisions. HID Global's visionary technology continues to fuel limitless opportunities for partners and users to develop and secure Internet of Things (IoT) applications through a robust cloud platform and advanced BLE components.

One platform, to deliver real-time building utilization, easily locate assets and improve production with predictive analytics on equipment.







- Breakthrough RTLS (Realtime Locating System) requires little infrastructure to achieve 1 meter accuracy
- Sophisticated, flexible platform delivering user-defined policies and geo-fences
- Data-driven decisions using path history, heat maps and predictive analysis

### Easily Locate and Manage Assets

HID Location Services, enabled by Bluvision, address a growing demand for accurate, real-time visibility into the location of an organization's assets and item management to improve operational efficiency across different functions – ability to track assets including historical path location within 1-meter accuracy.

Industrial or healthcare organizations need to find tools in a factory, hangar or expansive work areas throughout the building or across multi-building facilities. From ladders, carts, to emergency hospital equipment, implementing RTLS can save valuable time to locate required items and the right tools to be productive. Production and inventory management processes are automated to gage equipment utilization, personnel accountability and increase locational awareness of products and tools.

Safety and security measures are important elements on the operation's floor. Facility managers can quickly extend location alerts using geo-fences to improve safety in dangerous areas. For example, policies are easily set to track moving vehicles or hazardous materials within a location or multiple locations. Item management has significantly become easier with historical movement which can be used to study trends for predictive analysis.

HID Location Services can also be used to optimize building utilization and management. Organizations can quickly analyze occupancy rates for health and safety compliance, empower facility & security personnel to react quickly during emergencies with immediate occupancy data. Implementing a collaborative working environment is also top of mind. The platform provides real-time visibility on open meeting rooms to improve workplace efficiency. Furthermore, employees and visitors can easily navigate within the building or across campus.



### Achieve Optimal Performance and Equipment Health

Lost capacity and equipment downtime are the biggest threats to a manufacturing operation. In many cases, organizations need increased visibility into equipment performance using multiple data points to monitor and react quickly to critical events. Instant information, creating predictive and actionable analysis in a meaningful format is achievable through HID Condition Monitoring Services, enabled by Bluvision. Armed with valuable equipment data, operations immediately know when equipment fails, therefore, improving the operational workflows and performance efficiencies across the organization.

Knowing the operational health of motors and motorized equipment such as conveyors, bearings, and lifts, operations can monitor equipment's telemetry data, including motion, vibration and temperature. Using advanced algorithms, operations can filter out non-vital data using business criteria to accurately portray trend-lines, predict failure and receive alerts. Obtaining predictive analysis, operations can implement remedial actions before critical failures occur to reduce equipment downtime and avoid lost capacity.





- Easy to install end-to-end platform
- Highly flexible, scalable and equipment agnostic
- Simple, powerful architecture
- Increased visibility to actionable data





#### The system combines the power of Bluetooth Smart (BLE) beacons, BLE to Wi-Fi gateways and cloud service portal.



### One System, Seamless Experience

The entire facility is outfitted using the same, wireless infrastructure, thereby keeping implementation costs low and optimizing the entire operation. The system combines the power of Bluetooth Smart (BLE) beacons, BLE to Wi-Fi gateways and cloud service portal. Together, these technologies deliver a seamless operational experience across the organization and turn beacons into true Internet of Things (IoT) sensors.

#### Realizing the benefits:



**SEAMLESS EXPERIENCE** – BEEKs<sup>™</sup> Sensor Beacons are available in multiple form factors to deploy across many applications, support multiple beacon protocols and use cases simultaneously, with longest battery-life in the market.



**EASY TO DEPLOY** – cloud service platform easily integrates into existing business application systems using REST APIs to customize data streams, dashboards, and reports. The complete system requires minimal infrastructure that is compact, easy and quick to install. Additional investment in costly complex servers, antennas or other ancillary equipment is no longer required.



**SUPERIOR ACCURACY** – Streamlined proprietary technology is architected into compact components to provide industry-leading precision, despite challenging environments. BluFi<sup>™</sup> Gateways are used to communicate the beacon location and sensor data via BLE and Wi-Fi directly to the HID Bluzone<sup>™</sup> Cloud Service portal - experience powerful performance and accuracy without the complexity.



**HIGHLY SECURE** – Leveraging end-to-end AES encryption, data transferred within the platform is secure. Communication between beacons, BluFi and Bluzone cloud is encrypted with strong AES 256 bit and SSL/TLS algorithms. Additionally, strict policies are set to aggregate and create autonomous tag data to prevent personal traceability.





# Platform Components

#### BEEKs<sup>™</sup> BLE Beacons



#### Multiple form factors:

- BEEKs Lite
- BEEKs Industrial
- BEEKs Badge

Multiple beacon protocols; Apple iBeacon and Google Eddystone compatible simultaneously

Extensible architecture

Multiple sensor and memory options

Water resistant

Multi-year battery life



Connects BLE Beacons in vicinity via WiFi to the Cloud

Enables over the air management of Beacons and BluFis

Fast, easy implementation Easy to install AC-powered units

Enables RTLS positioning of beacons



Cloud capabilities for beacon management, workflows, and analytics—alerts and/or message notification

Portal-based service dashboard and development options

Integration to third party applications via RESTful APIs

Remote tracking of beacon or BlueFi status

Predictive analytics for condition monitoring

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