

## Active Bluetooth BLE RFID for IT Asset Tracking

**This Executive Overview provides the answer to the question.....How do I accurately and cost effectively capture IT asset location, real-time inventory visibility and anti-theft security in large enterprise and government building sites?**

**WIRELESS**  
**Eliminates costly power and network cabling infrastructure**  
**WITH TAMPER-PROOF**  
**Real-Time Alert upon Removal Attempt**



*The Mini Tamper-Proof Tag*

*IT assets are constantly on the move and all that movement needs to be tracked and flow into the inventory, regulatory and financial system. In addition to compliance rules, a number of industry standards and laws require such firms to protect the sensitive personal data of its customers. This translates into the need to be able to account for the location and status of every IT asset that contains private information.*

Until now, there was little way for companies to ensure that beacons or RFID Tags were not tampered with. If someone were to remove a beacon from an asset or location, he or she could potentially walk away with the very asset that a BLE system was designed to manage or protect. In some cases, the perpetrator could simply use a cutting device as basic as a razor blade, heat gun, solvent or fishing line to sever the adhesive connection between the asset and the beacon. In many cases, tamper-evident meant the tag was simply broken upon removal. This vulnerability on the part of the beacons

and RFID Tags created obstacles for companies and agencies that wanted to track such items as high-value assets, firearms and combat gear at police and military armories or electronics in an office environment or in a supply chain. Utilizing special conductive technology, the new Mini Tamper-Proof Tag overcomes these issues.

## Terminology Distinctions

Often we note misuse of tamper terminologies. Following is provided for clarity.

*Tamper-Proof* – Cannot remove without an immediate alert being initiated

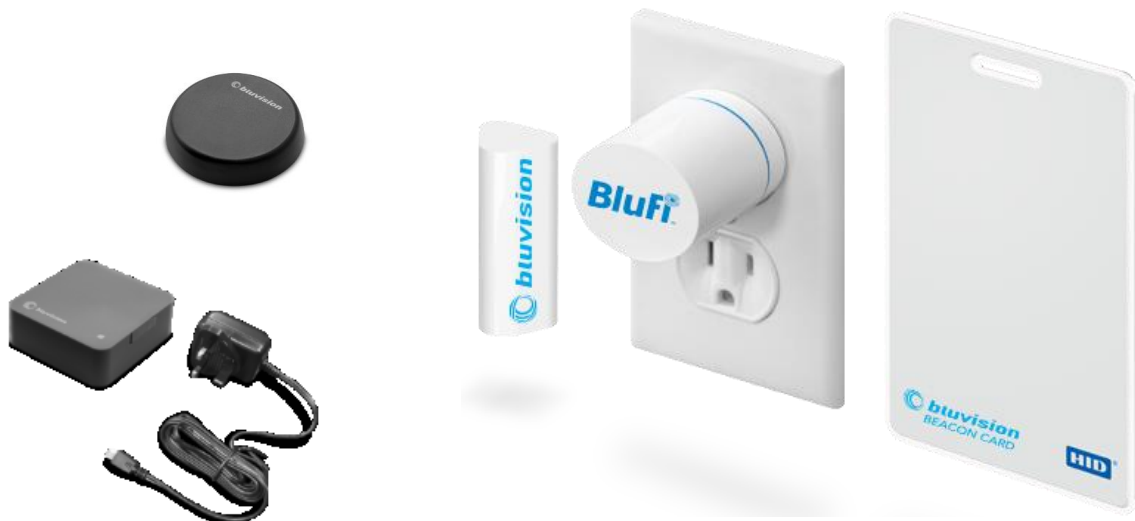
*Tamper-Evident* – visual evidence of removal attempt, typically a ‘Break-on-Removal’ approach generally not noticed until the next scan with a RFID reader or visual inspection. Not Real-Time.

*Tamper-Resistant* – includes tag or seal constructed of high strength materials making removal tampering difficult or requiring special equipment. Typically require visual inspection to detect.

## System Description

*The system uses small Bluetooth Low Energy (BLE) Gateways that plug into standard AC power outlets (DC, PoE and Solar versions also available), as well as beacon tags and cloud-based software, to enable a fast and low-cost solution for RTLS tracking with location granularity down to 1 meter.*

FSN’s Active BLE RFID-Enabled network detects zone location, movement and sensor data of tagged assets or inventory items moving around an area in which BluFi nodes are installed. It offers a low-cost alternative to other RTLS or Passive UHF RFID Locating Systems. If BluFi Gateways are installed approximately 10 meters (32.8 feet) apart, they will provide location data accuracy < 2 meters in a typical deployment.



## Fast and quick to implement

Other solutions require major installation investments in terms of servers, cables, antennas etc. FSN's cloud-based solution based on Bluvision **does not require wired hardware**. The installation entails plugging in of AC-powered BLE to WiFi gateways and attaching the sensor beacons to assets being tracked. For additional system description detail please refer to *FSN Brochure 1703-RFID 2.4 GHz Asset Locate System*

At the size of two US quarter coins, the device is suitable for mounting on a variety of assets from computers and medical equipment to high value tools and inventory, where there is a requirement for discrete size and small footprint. As with the rest of the BLE Tag family, it is IP67 rated and can be ordered with several sensors including an accelerometer for vibration or movement, magnetometer, light and a sensor for temperature monitoring.



The solution is based on customer-defined business rules and real-time alerts for any violations of those rules. Thereby, operational visibility is considerably enhanced as well as automated and consistent operations workflow according to those defined policies. So, if a user wanted managers to receive alerts only if a **beacon tag** is moved at specific times and locations, they could direct the system accordingly. The solution, for example, can be programmed to send tamper alerts to one official, and other data (such as beacons' movements) to another individual.

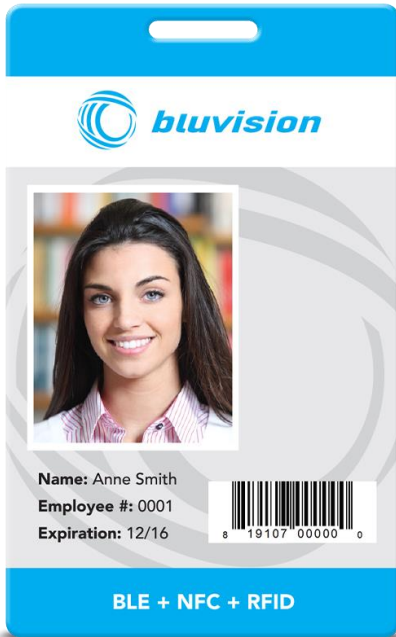
## Create Geofences

Security professionals will always advise that multiple layers of security are always better than one good one. Add an additional layer of anti-theft security with the creation of 'geo-fences'. Exit doorways, restricted building and parking areas can be defined in software as 'geo-fences along with the associated automated actions in the event of violations of those business rules. For example, a laptop enters a geo-fence defined area. If the business rule states this is an unauthorized movement, then an audible, light, text or email alert can be initiated in real-time. This security layer can be further enhanced by the implementation of BLE Beacon Personnel Badges along with the authorization credentials of that employee including whether or not a Laptop exiting the building is in the custody of an employee authorized to do so or whether the employee enters a restricted area.

## Assists Audits

Real-Time Reporting means a real-time inventory status is always available and thereby saves considerable time in doing manual inventory counts. Location is based on last

place seen. The system can also list tagged items missing or not seen in x days or in locations not authorized.

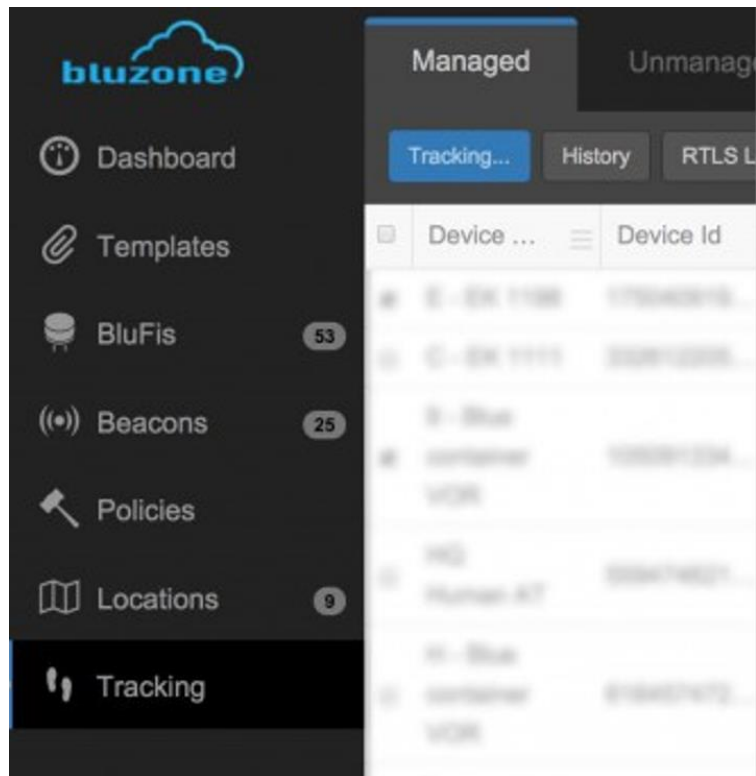


## Workforce Optimization

Similarly, our BLE-enabled name badges enable employers to better manage their workforce, ensuring that the right employees are at the right place at the right time, ascertaining optimal performance. Adding these BLE Personnel badges creates further business value by enhancing the systems business rules by creating an association between an IT Asset being moved and the person moving it. This enables credentials to be defined and levels of authorization established for moving IT Assets as well as geofence creation for building area access restrictions and movement history. Further, our solution integrates with Passive RFID Access Control systems such as we offer from HID Global.

## Software Platform

Our Hosted BluZone Cloud platform means we provision and maintain the IT hardware, software and networking infrastructure complete with full redundancy, data back-ups, security and tech support in a world class datacenter for a monthly subscription fee.. It uniquely offers security, safety, compliance, and Active Bluetooth BLE RTLS and Passive RFID functionality all in one integrated system and includes both precise location and instant choke point detection and access control for doorways and gates thanks to its Active and Passive RFID dual frequency implementation.



The system is built upon industry standard hardware and software such as Microsoft.NET and SQL Database.. It can be implemented using either wired Ethernet (with or without Power over Ethernet (PoE)), or using Wi-Fi connectivity. It can be configured to be a standalone system, or can be a sub-net within the facility's primary local network, making installation simple. The Hosted and Managed CLOUD-based nature of the system also allows for cost-effective remote monitoring, diagnostics, and software updates, making maintenance and management of the system easy, efficient and cost-effective.

### **FALKEN Secure Networks(FSN)—Your partner for RFID automation**

If you choose to pursue RFID implementation in your organization, here is the FALKEN Secure Networks commitment to you:

- FSN will provide solution architects to work with you to define system requirements for your particular installation. Multiple locations can be networked together for a central and real-time view and centralized management.
- FSN will do a RFID site survey to validate radio frequencies, tag types, system design and performance
- FSN will provide all necessary hardware and software to make the system work for you
- FSN will integrate the system with your existing enterprise management software
- FSN will provide documentation for the system, including operating procedures
- FSN will train your people
- FSN will provide warranty and continued system support

**FALKEN Secure Networks (FSN)** is the leading System Integrator and Consulting Solution Architect for advanced Active/Passive Unified RFID systems that leverage Best-In-Class standards-based hardware technologies integrated with its **Hosted CLOUD** software platform. FSN integrates RF technologies for asset visibility, using industry standard RFID, 802.11 b,g,n Wireless LANs and Real-Time Location Systems (RTLS) for cost-effective design, technology selection and turn-key project implementation in complex and challenging environments for enterprises globally. The breadth of FSN's domain expertise and applications solutions portfolio across all industries is unsurpassed. FSN is vendor-neutral regarding RFID hardware yet has all RFID hardware available, thereby assuring clients that all possible solutions have been reviewed and selected to be Best-In-Class for each application and not just pushing one vendor's hardware.



**FALKEN Secure Networks Inc**  
647-930-7373 (CANADA)  
sales@falkensecurenetworks.com

