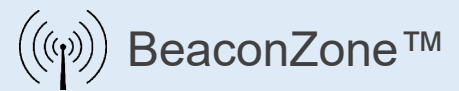# BeaconServer™

Ready-made system to collect multi-location beacon advertising data

 BeaconZone™

What does it do?

Collects and decodes advertising data from beacons at multiple locations and makes information available to other people, systems and apps.

How is it unique?

The only ready-made system that collects generic beacon data. Provides a quick and flexible solution.

Who is it for?

Any industry that needs to store and make use of historical and current location/sensor data. Suitable for use with IoT, real time locating (RTLS) and generation of data for AI machine learning.

How does it work?

Beacons (small hardware a few cm in size) are attached to objects or worn by people. Fixed gateways (small hardware with antennae) receive advertising data from the beacons that's passed to BeaconServer™. BeaconServer™ decodes the data and stores the raw and decoded data in a database. Data in the database is viewable via and industry standard HTTP REST interface and also via a more human readable Swagger web interface.

Gateways are placed where you wish to detect beacons. The gateways connect to your network via WiFi or Ethernet and are powered by USB connection or power over Ethernet (PoE).

Web page based configuration in each gateway allows you to point data to a specific BeaconServer™, filter data sent to the server, throttle redundant data and set up time stamping.

WiFi Gateway

Benefits

- No coding required to collect location and sensor data.
- Works with all Bluetooth beacons.
- Can be used as a standalone system or can be integrated with your existing systems and apps.
- Gateways and beacons can be set up manually or programmatically.
- Security features prevent unauthorised access and man-in-the-middle (MITM) attacks.
- Can be used as the basis of a simple real time locating system (RTLS).
- No sharing of a public platform. We supply a system for your sole use.
- Predictable cost. One-off software license cost rather than a variable subscription fee.
- Financially scalable. Running costs do not depend on the number things tracked or how often they report their position.
- You control your data. Your data doesn't go through, nor is held by, a third party.
- Run on your server, in the cloud, on a hosted server or we can supply server hardware.

BeaconServer™ vs BeaconRTLS™

We also supply BeaconRTLS™ that not only stores data but performs additional processing to determine what is where over time. It solves the complex problems of overlapping detection areas and varying wireless signal levels. BeaconRTLS™ also has a web UI that plots locations and sensor information onto user-provided maps or floorplans and manages/creates alerts based on received beacon data.

BeaconServer™ is a stripped down version of BeaconRTLS™. It uses exactly the same code to initially process the data and place it in the database. It's intended for use where maps/floorplans and alerts are not required or where these additional facilities will be provided by other systems.

As BeaconServer™ does much less server side processing it can handle more updates per second and is hence more suitable than BeaconRTLS™ for solutions involving very large numbers of tracked assets.

Key Features

Beacon Data Collection

Receives data from multiple pre-configured gateways. Stores the data in a database for a configurable number of days.

Data Decoding

- iBeacon UUID, major and minor.
- Eddystone UID namespace and instance, URL, TLM temperature and voltage.
- Sensor beacons' battery, temperature, humidity, light level, acceleration, button press, magnetic switch, movement, proximity.

Security

Supports user authentication and SSL.

Extendable via REST API

Stores data which can be accessed by other systems via HTTP REST. This REST interface can also be used to configure gateways and beacons from other systems. Supports the standard HTTP(S) change stream as an alternative to inefficient polling. A Swagger interface is also provided to provide an additional human-accessible way of manipulating the data via REST.

To Learn More

Contact us via our help desk to set up a free initial chat to determine if a BeaconServer™ based solution might benefit your organisation.

Ask about a demo and trial.

http://bzone.click/support

Available as a Mini PC, self install or complete solution

Specialists in Bluetooth® Beacon Solutions
www.beaconzone.co.uk

((( ))) BeaconZone™