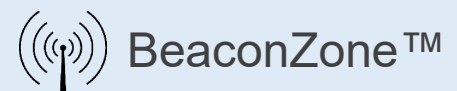


Benefits of Beacons

How beacons can benefit your company or organisation



What do they do?

Beacons provide locating and sensing indoors where GPS doesn't work. They are used to identify items and people, trigger information in apps and provide sensing of movement (accelerometer), temperature, humidity, air pressure, light, switch/magnetism (hall effect), proximity, smoke, gas, water leak, heart rate and fall detection

How are they unique?

Being based on Bluetooth® LE, unlike competing technologies such as barcodes, QR codes, RFID and ultra wideband they have longer range, have batteries lasting up to 10+ years and are tolerant to electrically noisy environments typically found in industrial situations. Bluetooth is also readable on the widest range of devices including smartphones, gateways, laptops and desktops.

We advocate using **generic beacons** rather those locked or tied to a particular platform. Some platform vendors have a self interest in locking you into their proprietary beacons and subscription platforms. Using generic OEM beacons means you are:

- Not locked to using the beacon with a particular platform.
- Not locked to a paid subscription for a particular platform that will probably change in the future.
- Not locked to a platform from a VC funded company that might not be around next year.
- Not limited to the advertising types and sensors provided by a particular locked beacon.
- Not limited by the technical limitations of a platform.
- Not dependent on the service level of a shared platform.
- Have the choice to host a platform yourself or via hosting provider and hence keep your business data away from a shared server.
- Can mix different beacon types and manufacturers to suit your physical environment.
- Can second (or third) source beacons to reduce longer term risk.

Benefits

- Automate the auditing of the location of assets, components or even people.
- Create data for regulatory compliance or to audit client service levels.
- Captured asset data is more accurate than human form-filled data leading to greater quality of data and fewer customer problems due to missing items and 'human' errors.
- Accurate data gathering provides better visibility for management leading to decisions based on data rather than gut instinct.
- In industry, beacons are part of what's called the 4th Industrial Revolution (4IR) which is the use of technology to make production more efficient and hence your company more competitive.
- Beacons also provide easy entry into the Internet of Things (IoT) where sensing drives other business processes.
- In retail and hospitality, beacons are used for location-based triggering in iOS and Android apps that leads to increased consumer engagement.
- Produce new data that it can be used to feed into new data science and AI machine learning techniques.

Industries

Beacons are being used in a large range of industries. Here are some common uses:

Retail

Use an app to send location based messages to customers.

Manufacturing

Track and find stock, assemblies, equipment and people.

Logistics

Find the location of pallets or equipment. Know if an expensive asset is being fully utilised.

Health

Track vulnerable patients, find equipment, monitor medicine location and temperature.

Hospitality

Provide information, automated checkin/out, indoor navigation and alerts.

Transportation

Provide location based timetable information, navigation, guidance and assistance.

Making Use of Beacon Data

Beacons are seen by any devices that can scan for Bluetooth LE devices. Most implementations read beacons using iOS and Android smartphone apps or using Bluetooth gateways. Gateways send information on to servers via WiFi or Ethernet.

Many organisations are including Bluetooth beacon detection in their apps to provide for location specific triggering and information.

Bluetooth mesh extends the range of locating and sensing site-wide.

Gateways send sensor information to software such as our BeaconServer™ and BeaconRTLS™ where it is displayed on maps/floorplans, trigger alerts or used by other business processes and systems.

Beacon data is an extra form of sensor data that's used with AI machine learning to detect complex patterns in data to detect, classify and predict situations. Systems such as our SensorCognition™ edge device provide localised rather than server-based machine learning to bring about a step improvement in your organisation's processes.

To Learn More

Visit our web site to view beacons, gateways, articles, our blog and frequently asked questions.

<https://www.beaconzone.co.uk>

Types of Beacon

We stock 100+ beacons from 30+ manufacturers.


- Large battery – for 10+ years operation
- Long range – up to 4Km for large spaces such as stadiums
- Waterproof – for use outside
- Tracker – specifically for tracking items and vulnerable people
- Sensor – for detecting quantities such as temperature and humidity
- Logger – logging and storing temperature over a longer period
- Bluetooth mesh – for communicating sensor data over large areas
- Wearable – form factors suitable for wearing
- USB – powered by USB for independence from batteries
- Rechargeable – to prevent replacing of batteries
- Solar – self-powered
- Timed – turning on and off according to a schedule
- On off – for turning advertising on and off
- Relay – for driving mains relays

We also stock a wide range of gateways, batteries, faraday bags, lanyards, stickers and spectrum analysers.



iGS01S Bluetooth Gateway

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

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