

What is Bluetooth Beacon?

Advantages Bluetooth Beacon in Inventory and Warehouse Management



Introduction

Are you looking for ways to manage your inventory? Did you know that a lot of new technologies have emerged to address the inventory and warehouse problems. Yes, technology. It is something that you can see in your everyday life, but we still forget to implement it during our tough times. Well, don't worry. We will talk about the latest technology and how you can save or rectify any inventory or warehouse related problems.

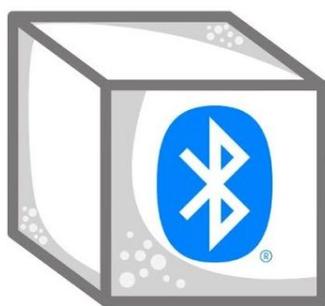
Firstly, let me guide you through the term - Bluetooth Beacon. This will simplify things a lot. Most people know Bluetooth through mobile devices and connecting it with an

earphone. And prior to the modern wireless earphones, Bluetooth was used to transfer data from one phone to another.

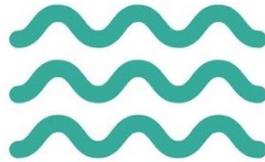
What is a Bluetooth Beacon?

Bluetooth Beacons are small and wireless transmitters that broadcast themselves to nearby electronic devices and permit them to perform actions within close proximity of the Bluetooth receiver.

This same technology is being used to manage the warehouse and inventory activities. You can say, with the continuous growth of the eCommerce industry, Barcode and RFID have shown certain limitations, and Bluetooth beacon has come in as a possible solution.



Bluetooth beacon broadcasting



BLE enabled device within range



Image Courtesy: Novelbits

Why is the Bluetooth Beacon a Better Option?

Bluetooth Beacon works in a quite similar fashion as the barcodes, but they are much more advanced. Barcodes and RFID have reached their peak, and it is the right time to introduce yourself to the latest technology. With the rise in the eCommerce market, there has been a growth of an improved technology and a cost-effective solution to increase productivity and operational efficiency. And, as barcodes and RFID have seen

quite a few limitations, Bluetooth Beacon offers Bluetooth enabled inventory and tracking tags as the solution.

All the information regarding the inventory is transmitted through the Bluetooth signals and the tags can be placed within the packed goods as well, unlike barcodes, where we needed a barcode sticker on the packed goods.

So, to sum it all:

- a. Bluetooth Beacons are much evolved and are a low-cost technology
- b. Any Bluetooth device or phone is sufficient and much hardware is not required
- c. Functions the same as Barcode, but does not need a barcode sticker
- d. Unlike RFID, a Bluetooth Beacon is less expensive

Advantages of a Bluetooth Beacon

1. Efficient Optimization of Space

Every warehouse wants to optimize their space effectively and organize to stock in more products and better count for every item. Bluetooth devices are known to transmit tons of data. This way, through Bluetooth beacon, there is continuous capture and record of the warehouse data, which can be saved, analyzed, and studied for further developments. This enables real-time visibility of the inventory and provides immediate updates about empty warehouse shelves. Thus, inventory management goes a step further than the traditional simple inventory management process. You can also tap into the previous data of location optimization and warehouse employees and make decisions regarding vacant shelves, average bin location time, allocation of warehouse space and warehouse employees, and transit time.



2. Saves Manual Labor and Scanning Process

As we discussed earlier, Bluetooth Beacon has come in as an advanced and better technology compared to barcoding and RFID. We also discussed that in Bluetooth Beacon, you would not need a barcode scanner. Thus, eliminating the time and manual hard work behind scanning each product. Unlike barcode scanning, the tags do not have to be within sight of the barcode scanner, thus, the tags can also be placed within the boxes. These tags can also withstand rough handling of the packages, and you do not require expensive devices to capture the data.

3. Get Notified when Movement or No Movement in Inventory

Many times when working with vast quantities of inventory or during extreme rush hours / festive times, you tend to lose the inventory count when there is a lot of inventory movement. This can also happen when the staff changes; there is a possibility that the other or new staff is not updated enough to gather the actual inventory count. Under these circumstances, you do wish for an effective technology. Well, Bluetooth Beacon does that. It sends you a notification each time the inventory is moved from its place. Also, someone needs to keep track of the immobilized goods; how will you come to know if goods haven't moved for a long time! This way, your warehouse space will

stay unnecessarily occupied. Bluetooth Beacons send alerts when a package has not left its shelf for a long time.

This way, you will always be aware if an inventory has stayed in the warehouse for more than its defined timeframe, goods that are wrongly placed in shelves, separating old stock with new ones, and constantly being aware of the inventory location.



4. Quick Inventory Update

Bluetooth Beacon is known to capture tons of data without any interruption or lags. This way, all you have to do is bring the tagged goods within the range of the sensors. Or take a walk within the warehouse, and along the way, capture the tagged products by the sensors. Every month when warehouse workers perform manual counts to confirm the inventory levels, they utilize the entire day, and still, there are chances of manual errors. With the Bluetooth Beacon technology, there is no chance of error; it is quick and saves a lot of time. Also, you can get real-time updates on the inventory and get information on available spaces.

5. Track the Warehouse Assets Performance

Every warehouse needs to know its performance and how to rectify them. Bluetooth Beacon has the ability to track the performance of every asset in the warehouse, and based on that information, you can make necessary adjustments. For example, there are ten (10) lift trucks in the warehouse, and only four (4) are functioning correctly, with the rest 6 in dire need of maintenance; how will you know about this situation? Well, by placing a Bluetooth beacon on each of the lift trucks, you can monitor the performance of each of them. This way, you can identify the assets' low performance of the assets and ensure immediate maintenance or repairs of them. Bluetooth Beacons can monitor the performance, analyze the data, and perform needed audits for every asset.

6. Track Perishable Inventory

Warehouse executives have a hard time tracking perishable assets in their warehouse and making sure each of them leaves the warehouse before the expiration date. And most of the time, chances of error are high when conducting a manual inventory check for each item. Bluetooth Beacon can help you automate the process of tracking and managing the perishable inventory. They can track the inventory's temperature and expiry dates, ensuring the goods are in a safe temperature and within expiration dates.

Conclusion

Bluetooth Beacon has become the new talk of the town for [inventory management](#) and [warehouse management](#) activities. They have also proved their worth. Bluetooth Beacons are less expensive than RFID and require less hardware compared to Barcodes. They also make sure that the chances of error are minimized as there is no tags' involvement, and thus, the chances of scanning errors are less. It is always wise to move forward with new trends and implement the latest [technology](#) within your warehouse and inventory management issues. The reason being, they are more updated, faster, and more accurate than the previous technologies, giving you a chance to stay one step ahead in the game.

References

[Introduction to Bluetooth Beacons](#)

[Bluetooth Beacon for Warehouse Management](#)

[Ways the Bluetooth Beacon can Improve Inventory Management](#)

[Improvement in Inventory Management due to Bluetooth Beacon](#)

[Bluetooth Beacon for Tracking Asset and Management](#)