Using Location Data to **Enhance Customer Experience**.

Real-time locating systems (RTLS), based on affordable Bluetooth® tags, offer tremendous possibilities for optimisation and cost savings in the retail and hospitality industries. From supermarkets and restaurants to amusement parks and interactive museums, location-based services help companies across the world streamline their business processes, while transforming their customer experience.

Retail Stores and Supermarkets

✅ **Real-Time Data & Analytics**

✅ **Self-Scanning Checkout Solutions**

✅ **In-store Navigation**

RTLS opens up exciting new opportunities for fine-tuning store performance and improving customer satisfaction in the retail sector. Inventory management, new shopping applications and smart navigation services are only some of the possibilities.

At the most basic level, high-accuracy location solutions enable retailers to keep track of their inventories in real time. Knowing the exact location of products along with their quantity is essential, especially for large retailers that display items at multiple locations within the store. Handheld scanners used to check items into inventory can be outfitted with Bluetooth location functionality that enables them to be tracked with in-store tracker beacons. This allows precise location data to be logged automatically for each product as it is entered into inventory.

High-accuracy real-time location is the key enabler for new in-store experiences that bring added value to consumers and retailers alike. For example, self-scanning solutions are gaining ground rapidly. Upon entering the store, shoppers pick up a handheld scanner that they use to scan the products that they are purchasing. This enables a faster checkout process while giving retailers valuable real-world data on how consumers move through the store and where they spend the most time before buying the products of their choice.

Real-time location services also opens the door to navigation solutions that enhance the customer's user experience in the store. Smart navigation apps – either on a mobile device or 'smart cart' – can provide instant guidance to hard-to-find products, or interface seamlessly with customers' shopping lists on an app. Applications or 'smart carts' can be set up with a call for assistance button that alerts staff on their own mobile devices. After pressing the button, the customer can continue shopping and the navigation functionality of the system will guide the assisting staff member to them.

For staff, real-time location improves the speed and efficiency of in-store pick-and-collect services. Employees collecting the products can utilise a tablet computer that continuously optimises the next product to be picked, while displaying the route to the correct location.

> " Technology which offers location-based services provides a myriad of opportunities for retailers, and location-based services around the IoT are increasingly important for creating a cross-channel environment

> *What impact will location-based services have on retailers?*
> *Retail Insight Network*
> *retail-insight-network.com*

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Store Layout Analysis

✓ **Shopping Cart & Equipment Optimisation**

✓ **Real-Time Queue Prediction**

✓ **Activity Heat-Mapping**

RTLS can help retailers optimise their operations, using location data to identify the most efficient store layouts, streamline customer traffic and make optimum use of prime in-store real estate.

Research shows that shoppers can take significantly different routes through a store depending on whether they are shopping with large or small shopping carts, wheeled shopping baskets or small handheld baskets. High-accuracy indoor location services offer new possibilities for optimising the range of shopping carts and baskets used by customers. Real-time location of shopping carts and baskets can also be used to predict queue formation and to ensure that enough staff are available at checkout counters.

Data from in-store movement patterns enables powerful analytics that help find the best layout and product placement in the store. Visual and easy-to-interpret heat maps of shopper activity pinpoint the most valuable areas of in-store real estate, which can be monetised for premium brands, key products or seasonal promotions.

Conversely, for items that are offered at multiple places in a store, precise location data can highlight the sales point which holds the highest revenue potential. Retail companies are using real-time location and analytics to pilot and optimise new store layouts at selected locations before rolling them out across the entire chain.

Theft Prevention & Product Monitoring

✓ **Robust & Reliable Theft Prevention**

✓ **Enables Enhanced Customer Service**

✓ **IoT Gateway Functionality**

Real-time location provides a range of possibilities for anti-theft systems. The ability to track the location and movement of high-value assets or products can also help store staff optimise their focus on sales efforts.

Lightweight and cost-effective Bluetooth tags allow the movement of high-value products to be monitored with significantly greater accuracy than traditional RFID based exit gates. This can be useful not only for theft prevention, but also for noting customer interest in key products. Real-time Bluetooth tracking systems can raise an alert if the product unexpectedly disappears from the system as a result of the tag being vandalised or placed in a radio frequency shielded bag. In this case, staff members are immediately aware of the last registered location of the product.

A further benefit of Bluetooth-based location systems is that they integrate seamlessly with various other monitoring and connectivity solutions in retail environments. For example, in-store freezers and refrigerators use sensors for monitoring temperature-sensitive products. The Bluetooth Locators can serve as IoT gateways to pass on the data from external sensors, or temperatures can even be monitored with built-in thermometers on the actual tags.

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Restaurant Ordering Systems

✅ **Customer Table Location**

✅ **Pre-Ordering with Mobile App**

✅ **Scalable Solution**

Real-time locating systems can streamline customer service and speed up table deliveries at fast food restaurants. Integration with mobile applications enhances the dining experience and enables customers to avoid queues in the restaurant.

Smart tracker tags can transform the traditional delivery and service paradigm at fast food restaurants. Upon ordering at the counter or at a self-service kiosk, customers can receive a tracker tag that enables food runners to locate the correct table without delay. For even faster service, customers can pre-order and pay for their food on a location-enabled mobile app, going directly to the table of their choice upon arrival, without needing to stand in line at the order counter.

Real-time location is particularly valuable for large multi-level restaurants, locations with outdoor seating and drive-in venues. In addition to optimising the processes of the restaurant, knowing the exact location of each order in real time, provides a superior dining experience for the customer.

Exhibitions and Conference Centers

✅ **Visitor & Exhibitor Navigation**

✅ **Venue Layout Optimisation**

✅ **Emergency & Evacuation Support**

At exhibition centers, location data is a valuable asset for visitors, exhibitors and conference organisers. RTLS helps find and connect the right people at the right time, while providing powerful new capabilities for event planning and venue design.

Exhibitors may use location data to gain insight into the typical profile of visitors at their stand, and which products are attracting the most attention. Heat-mapping analytics of the entire venue help organisers optimise floor space and layouts.

For visitors, real-time navigation can help locate exhibitors or presentations. The same functionality can also enable matchmaking services that allow two connected parties to find each other through an app. For organisers, location data can aid in finding key spokespeople before their presentations or ensure that subcontracted service providers such as security, cleaning and catering providers fulfill their service level agreements.

Additionally, in emergencies, real-time tracking of visitor and staff badges helps during the evacuation process and allows a real-time headcount of people still inside the venue, in addition to providing information on their location.

Museums and Amusement Parks

✅ **Interactive Exhibitions**

✅ **Location & Contextual Content**

✅ **Visitor Location for Parents & Staff**

RTLS offers powerful capabilities for immersive content and interactive experiences. The same systems used to deliver content to customers can also be used for access management as well as safety applications without any additional infrastructure.

Museums around the world are using real-time locating systems to take their visitor's experience to the next level. Interactive visitor applications can provide seamless audio guidance or additional content based on how the visitor moves through the museum. Similarly to retail applications, real-time location data enables designers to optimise their offering by understanding the visitor flow and heavily visited exhibits in the museum.

At amusement parks, wristbands used for access control can also be used to keep track of children, either through a mobile application or by allowing staff to locate them in an emergency. Adding location data to the existing payment and access control functionality of the wristbands enables a wide range of added value solutions for park operators.

Companies in every sector of the retail and hospitality industries are using real-time locating systems to improve efficiency, customer experience and gain new business value from location-based data.

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