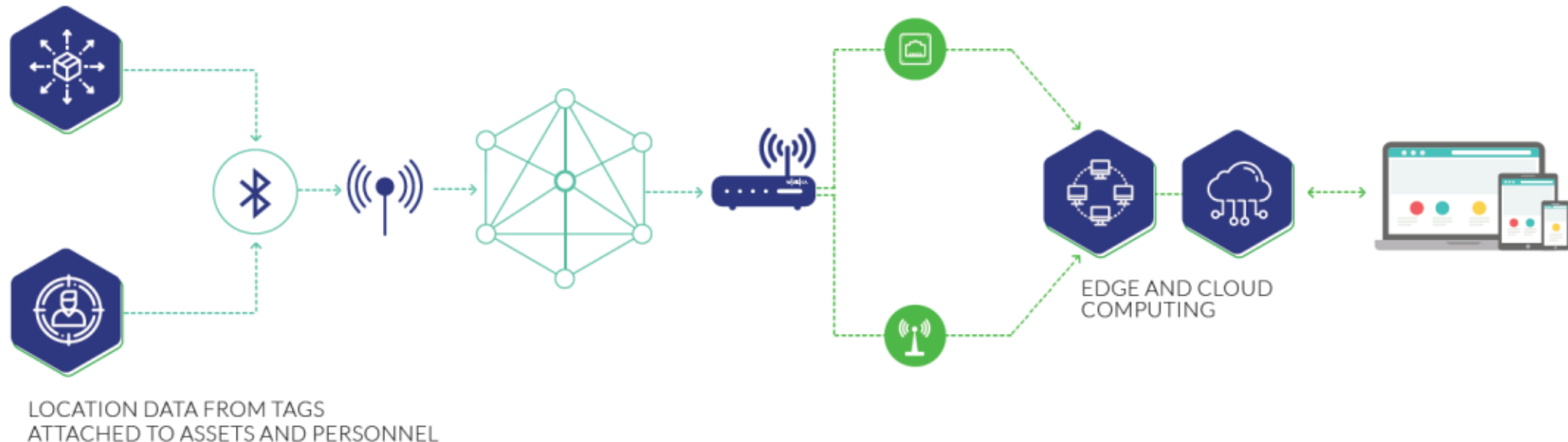




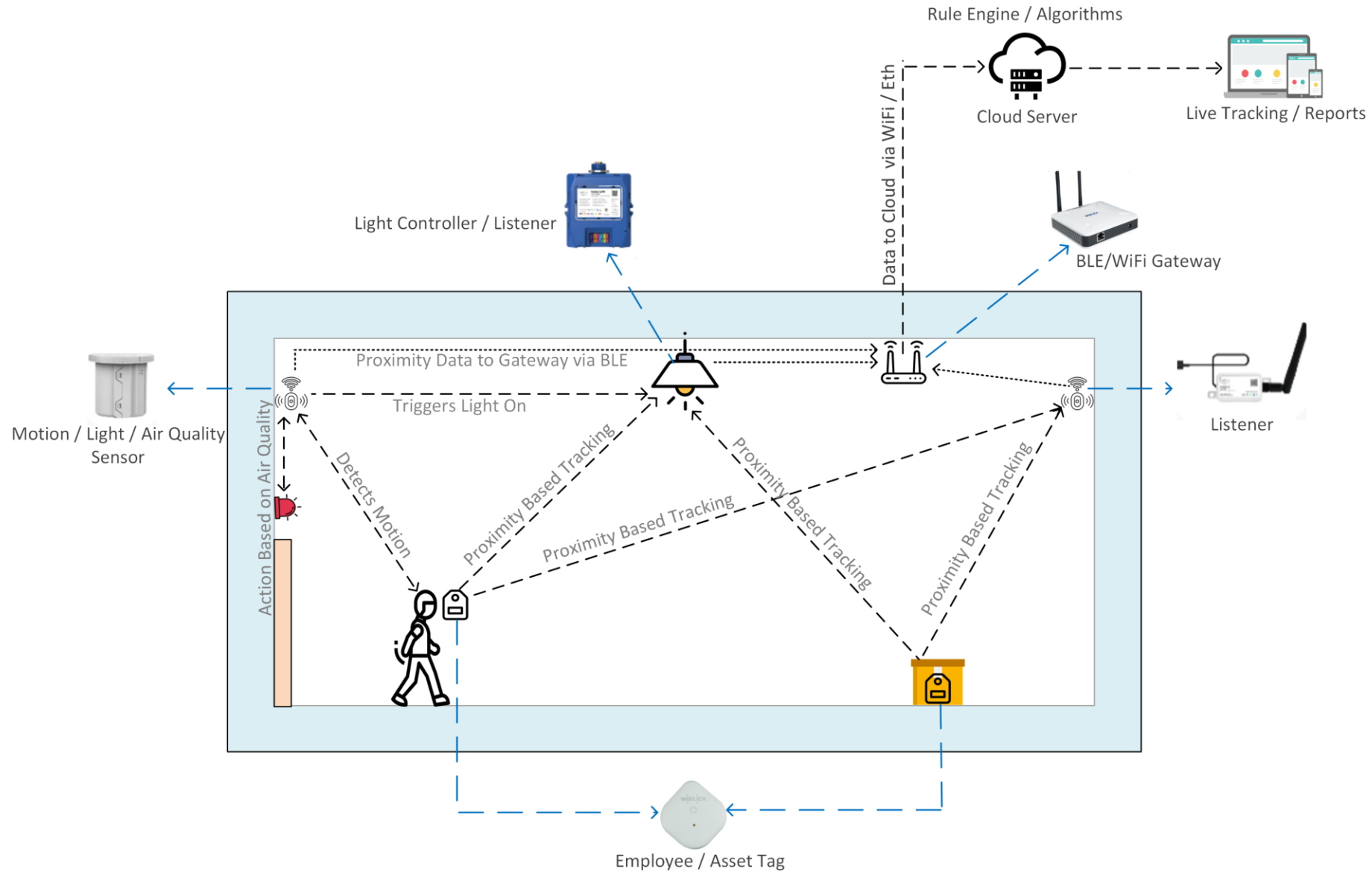
TRAK - Real Time Location System

TRAK Overview

- WiSilica's RTLS solution TRAK is a robust engineering, accomplished by secure beacons and data exchange among tags of various sizes and shapes (depending on use cases), listeners/receivers, connectivity gateways, cloud applications, and devices that provide you with full-scale tracking solutions. TRAK is deployable in companies, schools, warehouses, offices, healthcare facilities and hospitality space and all other places where location of movable entities (people or assets) matter.
- It helps you increase uptime besides hassle-free management of assets, space, employees, and security.
- TRAK leverages WiSilica's intelligent Location Aware IoT Platform, that bridges objects, locations, and people in real time to give location details and business alerts/notification associated with presence/absence of assets/people being tracked.
- TRAK has multi-interface capabilities supporting smartphones, tablets, and web.



TRAK Operational Flow



TRAK Components

- **BLE Listeners / Receivers :** These devices are strategically positioned in areas where the asset / employee location is to be tracked. They can be fixed on walls in places such as rooms, halls and corridors where they scan for beacon advertisements from RTLS Beacon tags and identify their proximity based on signal strength received from beacons. WiSilica's RTLS ecosystem can comprise of dedicated listeners or our smart light controllers that can also be enabled to act as Listeners.
- **RTLS BLE Tags :** These are BLE beacon advertisement tags that can be associated to Assets or People to track their location inside a building. These tags are battery powered with a battery life of upto 6 months depending on the beacon advertisement interval required. The tag's form factor can also be customized to suite different use cases such as Employee Badge, Stick On tag for Assets, Clips, Helmet mount tags and so forth.
- **BLE/WiFi/Ethernet Gateway :** The gateway device connects the on-field RTLS infra to cloud. It relays the data it receives over BLE from Listeners, Sensors, Light Controllers, and relays the data to cloud over WiFi or Ethernet network. The gateway device can also be configured to act as a Listener.
- **Cloud / On-Prem Server :** Server application can be hosted on cloud or in an on-premises environment. This where the data received from gateway device is processed and based on proximity and triangulation algorithms the location of the tag is presented on an intuitive client interfacing web/mobile application.
- **Web Application :** This is the client interfacing web application that provides a centralized monitoring and control interface to the Admin. The Admin can view health status of tags, listeners, gateways, define geo-fencing rules for configuring safe and danger zones, define rule engines for various alert types, view alert reports, real-time movement of tags, historical movement data and much more.
- **Mobile Application :** An intuitive handheld interface for Admins to commission devices, monitor real-time movement of tags, and getting alert notifications for presence, absence based on configured geo-fencing rules, and other sensor based alert notifications. The mobile application is currently available for Android platform and can be easily ported to iOS platform based on requirement.

TRAK Features

- Enterprise-grade tracking with proximity and triangulation algorithms.
- Configurable Geo-fencing rules for defining safe zones and danger zones with associated alerts and notifications.
- Configurable alert rules for triggering alerts based on asset/person presence or absence, based on time/independent of time giving rise to all possible combinations.
- Improved safety and workflow optimization through personnel location and restricting unauthorized access.
- Improved equipment utilization and response efficiency through equipment tracking.
- AI-powered space and asset management reports for informed decision making.
- Reports and heatmaps that can help in defining marketing strategies based on customer location, visit-data, and footfalls.
- Real-time inventory and asset tracking and management made possible.
- Real-time movement and tracking on map view.
- Automated attendance and timesheet login for varied industries. No more punching/swiping etc. needed.
- Marketing promotions with beacon aided location context possible in retail industries.
- Smart infant tracking for neonate security and child-swap prevention.
- Highly scalable Hardware and Software platform that can be extended to include highly sensitive use cases such as gas detection, fall detection and so forth to enable rapid emergency response.
- Historical movement reports.
- Realtime status of Hardware such as tag battery percentage, listener availability, gateway availability.



TRAK – Success Stories

MIDDLEMORE HOSPITAL

ENHANCING HOSPITAL SECURITY AND EFFICIENCY

DEPLOYMENTS

Middlemore Hospital in Auckland, New Zealand



CHALLENGE

Hospitals sought to prevent baby abductions while optimizing asset utilization and safety.

SOLUTION

WiSilica's TRAK solution provides real-time tracking with wearable and asset tags. TRAK listener and gateway devices ensure hospital-wide coverage, while a custom web/mobile app simplifies deployment and monitoring.

CUSTOMER BENEFITS

- **Infant Tracking:** Real-time alerts and efficient live location tracking ensured immediate response for infants moving outside safe zones.
- **Asset Management:** Improved asset tracking with restricted access.
- **Reports:** Enhanced monitoring capabilities for a safer environment.
- **Alerts:** Real-time alerts for incidents, ensured immediate action.

RANGING-BASED WORKER SAFETY SOLUTIONS

ENHANCING WORKPLACE SAFETY

DEPLOYMENTS

NIC (National Innovation Challenge) Singapore,
Boustead Constructions in Singapore

✓ CHALLENGE

Addressing the need for accurate workplace safety solutions in dynamic environments, ensuring compliance and mitigating risks.

✓ SOLUTION

Utilizing Dialog's DA14695 with WiRa SDK, WiSilica's SBR Singapore technology award-winning system achieves precise location tracking through ranging technology, integrating mobile tags, zone locators, gateways, and proximity beacons.

✓ CUSTOMER BENEFITS

- **Enhanced Safety Compliance:** Mobile tags were detected in zones, alerting unauthorized presence, and recording such instances for compliance monitoring.
- **Accurate Location Tracking:** Zone tags enabled real-time monitoring of workers' locations, ensuring adherence to safety protocols and regulations.
- **Efficient Data Transmission:** Gateways relayed zone records to the cloud, facilitating seamless data management and analysis.
- **Proactive Alert Systems:** Proximity beacons provided alerts based on proximity to obstacles, enhancing workplace safety and risk mitigation efforts.

ASSET & EMPLOYEE TRACKING

TRACKING HOSPITAL ASSETS & EMPLOYEES IN OIL REFINERY

DEPLOYMENTS

A Large Telecom, Private Oil & Gas Company in India

✓ CHALLENGE

Addressing the need to accurately track the assets across different rooms and floors in an Hospital building, and monitor movement of blue-collar employees near to the danger zones in their Oil Refinery.

✓ SOLUTION

WiSilica's TRAK solution provides real-time tracking with wearables and asset tags. TRAK listener and gateway devices ensure hospital-wide coverage, while a custom web/mobile app simplifies deployment and monitoring.

✓ CUSTOMER BENEFITS

- **Enhanced Safety Compliance:** TRAK's Geo-Fencing rule engine allows defining Danger Zones based on which the system triggers alerts when it detects movement of employees in designated danger zones.
- **Accurate Location Tracking:** TRAK's triangulation algorithm ensures accurate position of employee and assets in a building/floor.
- **Efficient Data Transmission:** Gateways relay runtime data to the cloud, facilitating seamless and reporting near-to real-time movement of employees or asset.
- **Configurable Alert Rule Engine:** TRAK's alert rule engine and grouping allows configuring alerts for presence, absence, time-based alerts, and can be customized for various other industry specific use cases.

CONTACT TRACING SOLUTION

EMPOWERING SAFETY

DEPLOYMENTS

Royal Caribbean International, Micron-Singapore,
Fred Olsen - Cruise,
Viking - Cruise, Hockey Canada - Sporting Arena in Canada,
TD Gardens - Sporting Arena in Canada, MARii Lab in Malaysia

✓ CHALLENGE

Navigating the complexities of contact tracing and social distancing protocols during the COVID-19 pandemic.

✓ SOLUTION

WiSilica's Bluetooth tags, gateways, and enterprise cloud solutions provided a comprehensive real-time location management and contact tracing suite, that effectively addressed the challenges.

✓ CUSTOMER BENEFITS

- **Efficient Contact Tracing:** Recorded contact tracing data and alerted on social distancing, with customizable notifications and form factors for ease of use.
- **Enhanced Safety Measures:** Real-time monitoring capabilities enabled quick response to breaches, safeguarding public health.
- **Digital Transformation:** Transitioned from manual to automated processes, improving efficiency and accuracy.
- **Cloud Dashboard:** Cloud-based dashboard provided real-time reports, alerts, and analytics on contact tracing and social distancing.
- **Operational Resilience:** Maintained operational resilience by adapting to evolving health guidelines and mitigating risks



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Thank You

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