

INTETICS HELPED ROMBIT CREATE NEXT-GEN INDUSTRIAL SAFETY IOT DEVICE



OBJECTIVE

An experienced IoT service provider aims to make industrial sites safer, more secure and cost-efficient.

CHALLENGE

Grown from Flanders' Most Promising Startup, a Belgium-based company Rombit delivers dashboarding solutions that closely integrate with buy-or-build IoT. The company has expertise in public domain management, integrating safety and security platforms and customizing applications.

Rombit needed to increase the technical team to transform company's development processes. The Client's mission was to help their customers in solving the central issues in the industrial area (unauthorized area access, worker accidents etc.). As an open-minded end-to-end solution provider, they required an experienced software vendor that could revolutionize their existing system. With the passion for the Internet of Things and web technology and needed technical expertise, the Intetics was the perfect match to the Rombit team.

SOLUTION

Rombit wanted to create an all-in-one solution to address both safety and security challenges. The Client already had a team of highly skilled professionals, they needed a fresh view on the development process. After conducting thorough market research, the Intetics Team, with its technical expertise and solid experience in the IoT domain, was tapped to help the Client solve actual business problems.

From the very start of the integration of our Team into the development process, we deeply divided into every detail of the Client's business idea. The scope of work for our team involved fixing different cross-technology tasks, that were assigned during every sprint planning. Only high-quality senior specialists were involved in the development process.

During the development process, Intetics helped the Client put its innovative concept into reality. Our software engineers with their appropriate tech expertise contributed to the implementation of the following functionality to the developed IoT device – Romware Safety Wearable:

- Position detection: reducing accidents at hazard zones by sending a

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- notification when people enter restricted areas;
- Access and Certification: decreasing the risk of unauthorized staff access by providing worker's identification through the IoT device. The usage of restricted vehicles is limited by the device and based on employees' competence;
 - Geofencing: tracking whether a Smart Worker Wearable inside or outside a geofence;
 - Emergency: in case of emergency the device automatically sends an alert to all active wearables and gives evacuation instructions. The IoT device tracks real-time worker's location and checks in at mustering stations;
 - Workers' safety and reliability of the devices was ensured through UWB assistive technology. Romware device can accurately detect man-down situations (fall, shock, no motion

detection) inside small places and tanks and provide immediate communication to HSE services and medical services.

All this functionality was accompanied by the high-tech compliance to the ETSI, GDPR, PRI sensitive data covered by geofencing on device.

Technology stack

- PHP Symfony, JavaScript, React Native
- Java
- CQRS, event-sourcing and micro service architecture (as there are AKKA & Lagom frameworks)
- Docker container management in Kubernetes
- Ansible
- Spring Boot
- Unit Testing
- Git, Kafka, Elasticsearch, PostgreSQL, Cassandra, Scala & Jenkins

Visiting Client helped the Intetics team in discussing challenging issues and establishing

interpersonal contact with the Client's team. For organizing the proper management process the Client integrated Kanban methodology.

The implementation of these processes and functionalities helped Intetics and the Client built long-term relationships lasted more than 3 years.

RESULTS

Working closely with the Client, following its strategy in the development process and integrating new innovative features on our initiative, helped to build the perfect environment to create an innovative product that saves people's lives. Romware, a developed IoT device, offers next-gen IoT devices that greatly improve site safety and security.

A multitude of standards made a uniform certification, access control and position detection were a great challenge, but a high level of technology expertise and team's efficiency put Client's innovative concept into reality.