📖 Datasheet

IoT-Powered Fleet Management with PlumTech

About PlumTech

PlumTech provides software development services to create solutions for private enterprises and government agencies. PlumTech is an official system integrator of Kaa, a leading enterprise-grade IoT platform. Using Kaa's comprehensive set of IoT features and flexible cloud deployment, we implement end-to-end IoT solutions and smart products for a diverse line of industries.

Kaa for Fleet Management

The Kaa IoT Platform is a fast and reliable way to create advanced fleet management solutions. Utilizing the platform's ready-to-go components for IoT enablement, companies can bring cloud capabilities to any part of their supply chains — fleet management, safety enforcement, cargo integrity monitoring, automated warehouse operations and others.

Kaa offers a flexible, hardware-agnostic IoT architecture for connecting all possible assets — sensors, items, containers, equipment, vehicles, and mobile devices — so that an entire logistics infrastructure can be tracked and managed as a consolidated business unit. Kaa is compatible with all popular connectivity protocols and also provides open APIs for integration with third-party analytics software, databases, and enterprise application software.

We place specific emphasis on security of our IoT solutions. By design, Kaa features multiple levels of data encryption, user identity management, and device management as well as provides flexible deployment options for any combination of public and private cloud.

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What you can do with Kaa

Track vehicle telematics

Geofencing

Optimize workloads and routing

Monitor driver behaviour

Predictive maintenance

Storage conditions control

Monitor vehicle operation

Remote security

Track cargo

Vehicle remote control capabilities

Enforce safety compliance

End-to-end visibility into delivery process

Case study

Track, optimize, and expand fleet operations

Customer   US based airport logistics company

Problem   The company suffered from poor cargo delivery planning and lack of real-time visibility into its fleet and warehouse operations. Task management was decentralized and prone to errors and miscommunication. Other issues included cargo misplacement and unsynchronized delivery, which often led to disruption of warehouse operations.

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Solution   The Kaa-based solution includes a cloud platform with custom-tailored management dashboards, portable IoT devices for vehicle telemetry tracking, smart tags for cargo control, IoT gateways, and embedded IoT modules for warehouse equipment. All this enabled the company with real-time monitoring of cargo placement and delivery status, which significantly reduced delivery times and transportation costs. Vehicle movement is tracked using accelerometer and GPS data. Smart tags on freight containers simplified inventory tracking and allowed service managers to identify and relieve a majority of bottlenecks in cargo delivery. The system also allows selecting an appropriate network medium (Wi-Fi / GSM), adapting data rate, and remotely performing other configurations.

✓ Case study

Deliver fleet management cloud services

Customer   Middle East based Telecom operator

Problem   The company intended to expand its footprint on a highly-competitive fleet management market and provide a broad stack of custom-tailored cloud services for a variety of business verticals.

Solution   The Kaa-based private cloud environment that allows the Operator to offer reliable, secure fleet management solutions for an unlimited number of business clients. The cloud-side applications include fleet tracking, routing and fuel analytics, trip scheduling, geofencing, smart alerts and push notifications, driver and asset management. There is also a reporting and statistics module for advanced analytics and data querying. Each client can have its unique combination of applications. The in-vehicle tracking device designed by the Operator was improved to support all cloud applications, allow for remote configuration and firmware updates, and ensure strong data protection. Finally, the solution includes mobile applications for drivers, fleet operators, and managers.

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Build an integrated fleet management, billing and BI system

Customer   US based truck leasing company

Problem   High levels of vehicle attrition, lack of visibility into actual usage by clients; inflexible pricing that made it difficult to differentiate between vehicles depending on their usage history, current maintenance and fuel prices, vehicle actual depreciation, etc; keeping accurate records of all the cost related to a leased vehicle operation.

Solution   The Kaa-based integrated solution for leased truck fleet management, billing and payments, and client & vehicle analytics. Through a purpose-built web application the company can monitor its vehicles operation in the field (using in-vehicle sensors data, telemetry, and GPS) and maintain history data records for each vehicle, such as maintenance, depreciation, insurance cost, etc. Based on this data, managers can easily adjust pricing on particular vehicles / vehicle types right into the system. There is also a client management module, which allows the company to manage billing data of its clients, process leasing documents, and manage discounts. The solution is integrated with the company's BI system and allows generating custom reports. One particularly useful capability is identifying problematic clients who cause greater repair cost to the company's fleet.

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Official integrators of the Kaa IoT Platform ▪ Full-cycle IoT development services ▪

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