WirelessCar

Visit wirelesscar.com

Position & Journey

Location data - accurately compiled, securely managed, and presented with clarity

Position & Journey manages location-related data for vehicles and offers journey-related services for its users. Built on real-world data and learnings from millions of vehicle journeys over the course of many years, we have developed this product to meet the needs of automotive applications. In its essence, it is a product that manages vehicle location and trip data, allows for enrichment of that data, and provides insights into how, when, and where vehicles are driven. So – how does it work, and how can these kinds of services strengthen your offering toward your customers?

Location-based services for the automotive landscape

Connected vehicle services need to be secure and reliable to be useful and globally deployable. Cars naturally move around a lot, sometimes in environments where data streams can be interrupted either by physical aspects of the environment – such as tunnels and ferries - or even by technological or legislative barriers. They also create large amounts of data that need to be stored and efficiently managed so that the data can be packaged and used, both for business intelligence and as a foundation for location-centric services.

What it does

Position & Journey provides OEMs with an easy-to-integrate solution for location ingestion, storage, and exposure. Vehicle-generated location data is streamed to the product's Vehicle API – using custom vehicle adaptors when needed. It is then transformed into a normalized format and stored as a single position point, representing the last known location, or as a part of an ongoing journey. In addition, data security measures are applied to ensure that all privacy aspects are handled appropriately and local legislations – for instance GDPR – are adhered to.

Building services

On the other side of the product lies a Service API that allows you to use the position and trip data, enrich the data, and subscribe to changes in the data so that you can build services for drivers and other stakeholders.

Key features and benefits

Data Management

- Efficient data management and cloud scaling capabilities mean that Position & Journey can support ingestion and storage of data for millions of cars.
- Multi-tenant capable to secure access to only specific groups of vehicles and their location data. Leveraging the global infrastructure of Amazon Web Services (AWS), Position & Journey can be used in markets around the world.

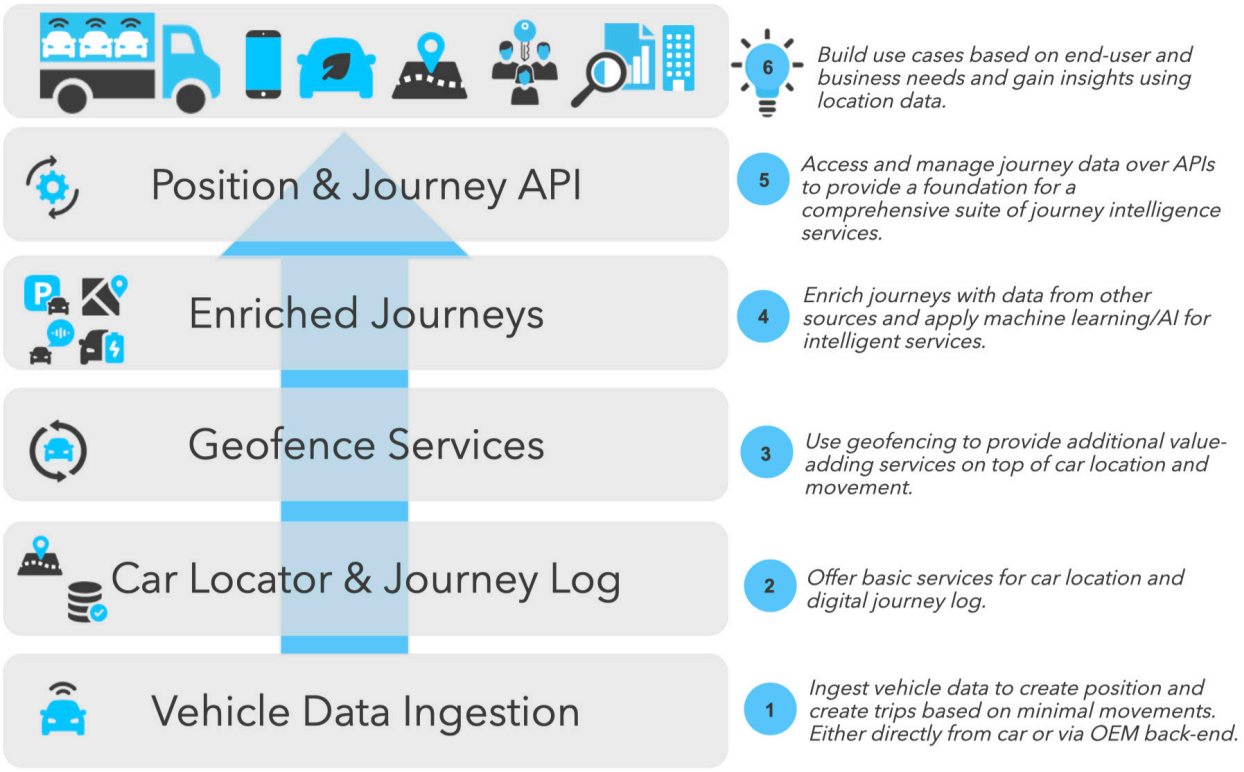
- All location data registered by Position & Journey is tagged according to applicable data and privacy legislation, and securely encrypted and stored.

Data Processing

- Avoid the interruption of data streams when cars move in and out of tunnels, garages, or onto ferries. Position & Journey identifies errors and adjusts itself to create complete trips. Anomalies, usually caused by, for instance, temporarily malfunctioning telematics units (TCUs), loss of connectivity, or invalid data can be detected and reported by error management and logging.

Capabilities

- Position & Journey supports relating vehicles to fleets and provides capabilities to query data for both individual cars and groups of cars.
- Set up a geofence that triggers an alert when the car is entering or leaving a geographical area.
- Offer customer interfaces that enable drivers to classify (business, personal), merge, split, and delete trips as they see fit.



APIs and integration

Position & Journey expose two main APIs:

Position & Journey Vehicle API

Ingest the data from the vehicle or another cloud service. For data ingestion from the vehicle, a customer-specific adapter is used to transform the data into the internal representation of the Position & Journey data

Position & Journey Service API

Handles the integration from Position & Journey towards portals, mobile apps, and other third-party systems.

Why Position & Journey?

The shifts towards EVs and car sharing means that we can anticipate that single cars will be used by more drivers. Costs and other factors associated with driving, parking and travelling into different areas need to be supported with location-based services, all while securing the integrity of the car users along with their individual demands. Meeting drivers' expectations will make it easier to monetize your connected vehicle services and use them to increase your customers' brand loyalty. To succeed, you need data that is accurately collected, distributed, and presented at all times. At its core, Position & Journey is a data lake made specifically to manage and expose location data via an API. It streamlines OEMs' work with digital service creation, vehicle integration, market-specific content integration, and customer and dealer-facing apps and portals. It helps OEMs overcome the challenges of inaccurate location data and allows them to focus on creating the best possible connected vehicle services for their customers.

Examples of Use Cases

Car Finder

Enable users of a mobile app to view the position of their vehicle and navigate to the car. Receive notifications if the position changes.

Journey Log

Create a log that enables users to label their business trips and obtain accurate information for time and distance traveled.

In-Vehicle App

With Android Automotive OS (AAOS) applications, vehicle manufacturers will be able to offer new connected car services with short lead time and dramatically reduced expense. The In-vehicle app collates and tracks details about each ride taken in a vehicle, securely storing the data in the WirelessCar cloud.

Geofence Services

Enforce green driving zones by alerting users of driving restrictions, changing the drive mode, or tagging parts of journeys as green zone areas. Create parental controls and notifications related to where the car is driven when used by a minor.

Journey Enrichment

Enable visibility of the external environment during a trip by including weather data, air quality data, traffic, or road conditions into the trip data.
Driver behavior can be enabled by incorporating data that provides insights into the driving characteristics of ongoing trips throughout the journey.

Valet Alert

Enable user notifications if the vehicle is used inappropriately when left with a parking attendant. The user sets a distance limit and a maximum speed limit for the vehicle on their mobile device. The Speed Alert Service allows users to define the maximum speed threshold for the vehicle, monitor for speed violations, and be notified when this occurs.

About WirelessCar

WirelessCar is one of the world's leading innovators of digital vehicle services. We accelerate service creation and turn vehicle data into business value for consumers, mobility providers, vehicle makers and society. Founded in 1999, WirelessCar has continuously built upon our heritage and grown our expertise within the automotive industry. Today, we are a highly recognized and award-winning company, connecting more than 12 million vehicles in over 100 countries.

www.wirelesscar.com

Headquartered in Sweden, with offices in the US, China and Germany, WirelessCar works with global OEMs such as Volkswagen, Jaguar Land Rover, Mercedes-Benz, Nissan, Subaru of America, and Volvo Cars to leverage the full value of connected services to achieve safe, smart, and sustainable mobility.

To learn more about WirelessCar's Position & Journey, **visit our website** or contact us directly to book a meeting or demo.

Contact Info

Peter Håkanson, Product Manager
peter.hakanson@wirelesscar.com