Enabling M2M/IoT with Solutions and Services

M2M industry is an emerging industry where tremendous opportunities are available via M2M platforms, M2M devices and M2M management services. Happiest Minds has the capability to work with product/platform companies to help enhance the products in the M2M ecosystem and has the capability to consult with the enterprises to create the right solution to bring the benefits of M2M to the enterprise.

Our Services range from Designing Hardware devices, cloud enablement, mobility enablement, Engineering and Real Time Analytics and consulting to create end-to-end solutions. Our services also include managed Services via our SOC/NOC to ensure that the M2M infrastructure is up and running for the business.

Happiest Minds brings the ideal blend of technology expertise (to develop/enhance products in M2M chain), domain expertise (for vertical solutions) and consulting expertise (for creating the right solutions with the right partner ecosystem). Our ability to integrate these solutions with business processes makes us the idea partner for creating end to end solutions.

Happiest Minds leverages its thought leadership in the areas of Automotive / Telematics, Smart Homes, Retail, Manufacturing, Insurance, Banking and Consumer Electronics to create the right vertical solutions for the right enterprises.

Happiest Minds is committed to delivering a customer experience which is smart, connected and secure. This would allow delivering services for making our environment, living and enterprises smarter than what they are.

Delivering Smart, Connected and Secure Customer Experience

Industry Partnership

Microsoft Partner

Happiest Minds is a General Member of the Intel® Intelligent Systems Alliance: a community of embedded developers and solution providers
The Happiest Minds portfolio of M2M solutions and services can be tailored to fit any horizontal or verticals of M2M technologies, be it hardware design, M2M platform, M2M services integration. There are quite a few solution accelerators which have been developed to ensure faster time to market for our customers.
Telematics Solution Overview

**Automotive OEMs**
- Predictive Analytics
- Supplier Performance Analytics
- BI and Trend Reports
- Proactive Diagnostics

**Service Stations / Dealer**
- Remote Diagnostics
- Remote Configuration of Vehicles
- Service Schedule Optimization
- Notification and Alert of Vehicle Owners

**Vehicle Owners**
- Vehicle Performance Reports
- Service Appointment Schedule
- Alerts and Notifications
- Locate Nearest Service Station

**Happiest Minds’ Assets:**
- Oxscape 1000: Telematics device
- Simulators for CAN Bus and Vehicle movement
- Cloud Advisory and Assessment Platform
- Solution to validate mobile applications for geo-fencing scenarios.
- Real Time Analytics, Integrating Real time analytics with batch processing, Log Analytics

Telematics solution developed by Happiest Minds is a reference solution which has all the pieces to create a full product out of it. Solution involves the following components:

- **Reference Telematics device:** Device has CAN and UART interface to collect data from the vehicle. It also has the capabilities of GPS and eCall. The storage on board is useful to store the information intermittently in case of connectivity loss.
- **Cloud based platform:** This platform can be custom created for various businesses:
  - **Small Business:** The cloud platform gives the functionality of connectivity, data storage and analytics. This can be custom developed from scratch for specific customers, giving them a low cost option.
  - **Enterprises:** This will come with integration with enterprise grade platforms like deviceWise platform from ILS. This platform gives scalability, reliability and robustness which enterprises require. This is an off the shelf cloud platform which is available in hosted model (for low cost entry) as well as in-premise installations.
- **Reference solutions developed**
  - Geo-fencing solution

This solution has both mobile and web based variants. It allows the admin to define a geo fence on the maps for a set of vehicles. If the vehicles cross the geo-fence, the admin would get an alert of the event. The admin can then send an appropriate message to the driver which is displayed on the reference device inside the vehicle. The admin can continue to monitor the real time locations of the vehicles being tracked on the map.
• **Vehicle tracking solution**

This solution has been developed keeping in mind the scenario where 3rd party vendors are used for transportation. Solution is designed to monitor vehicle activity on predefined route and waiting time as a result of queuing at the depots etc. Vehicles will carry a SIM enabled GPS device which will give real time location update.

A command center for Admins to track and monitor vehicle activity in real time over Google map driven console. Flags to be raised if any inappropriate activity by the vehicle is suspected. SFDC was used as backend to optimize the total cost of ownership.

• **Order fulfillment and tracking solution**

The solution was designed for workload Balancing, to decide on which Vehicle should take which route to fulfill Customers daily demand. Algorithm was developed to utilize vehicles effectively to maximize area coverage, to track vehicle’s route plan and dynamically change it on need basis. The algorithm uses variables like Shortest Path, Goods Perishability, Customer Delivery Time, and Priority Customers among others.

The solution allows for re prioritizing delivery schedule, generate new route plan and real time order status tracking. SFDC was used as backend to optimize the total cost of ownership.

For more information on the Service Offerings, contact: business@happiestminds.com

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**Happiest Minds**

Happiest Minds is a next gen IT solutions & services company, delivering transformational solutions for enterprises by leveraging disruptive technologies of cloud computing, social media, mobility solutions, business intelligence, analytics and unified communications. Happiest Minds offers high degree of skills, IPs and domain expertise across a set of focused areas that include IT Services, Product Engineering Services, Infrastructure Management, Security, Testing and Consulting. Happiest Minds secured a $45 million Series A funding led by Canaan Partners, Intel Capital and Ashok Soota.

For more information visit [www.happiestminds.com](http://www.happiestminds.com). Write to us at business@happiestminds.com

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