A Glimpse into the Future of Fleet Management

Chad Vander Veen | June 6, 2014

When discussions of the future of transportation arise, the context is almost invariably around how things will change on a personal level. But what about at the enterprise level? Organizations public and private maintain a massive number of vehicle fleets and manager of those fleets are often at the forefront of intelligent vehicle solutions.

A San Mateo, Calif.-based startup called Local Motion is betting that it can offer the next great leap forward in fleet management by leveraging the so-called "sharing economy".

With companies like Lyft and Uber making headlines with their ride-sharing operations, Local Motion is applying a similar concept to fleet management. Started two and a half years ago by Stanford graduate schools students John Stanfield and Clement Gires, Local Motion came to life as an electric vehicle company. The idea was to create a network of shareable vehicles that would serve specific environments, such as corporate or university campuses.

The technology Stanfield and Gires developed enabled vehicles to be highly sharable, interactive and user friendly. But when initial funding plans didn't come together, the company made the Silicon Valley "pivot" – and refocused their vehicle-sharing technology on fleets.

"The aim of the company is to make transportation more efficient, to make every vehicle more sharable, and to make sharing a vehicle as convenient as if you had your own car," said Neil Zeller, Local Motion's Senior Vice President of Business Development.

Fleet managers face extreme logistical challenges – overseeing large numbers of vehicles, where they go, who is driving them, how far they're being driven, and keeping up with maintenance. Local Motion believes it has found the right combination of modern technology to make more intelligent fleet management possible.

Fleets using Local Motion can transform an ordinary fleet vehicle into a shareable vehicle in about 20 minutes. All it takes is the installation of Local Motion's version of a black box, some modifications to the locking mechanisms and the inclusion of an electronic vehicle immobilizer. Lastly, an LED display is mounted onto the windshield. Once the installation is complete, employees' badge or key card is synched with the system and becomes a universal key that opens and starts any vehicle in the fleet. An employee needing a car simply looks for one with a green LED light, taps his or her keycard on the windshield, and drives away.

Employees can also reserve cars via a mobile app and fleet managers can likewise remove cars from availability for maintenance or other issues.

"We basically turn your fleet into a keyless operation," Zeller said. "We're applying technology, not inventing technology."

With the system in place, fleet managers immediately remove one of their biggest headaches – keys. Beyond that, fleet managers, using either a web or mobile app, can instantly set up rules and restrictions around who can use which vehicle. Authorized users can be instantly added or removed.

Starting a car still generally requires a key, which are kept inside the car. On the surface, that seems like an obvious security flaw. But the Local Motion hardware prevents the car from starting until it detects an authorized badge in close proximity.

"You know who is accessing what, when and how," Zeller said. "It gives you all kinds of ways to improve behavior. You can audit and track how everything is being used. You get a ton of information about the insights on mobility needs and how to optimize your fleet. This means number of vehicles can be reduced, the fleet is more highly utilized, and you can even figure out which vehicles you could replace with electric vehicles based on range and usage."

One of Local Motion's first government fleet customers is the city of Sacramento, Calif. Last year, the city was named the " No. 1 Government Green Fleet " at the Green Fleet Conference. Fleet manager Keith Leech is known nationally for his innovative approaches and has applied Local Motion to 20 of his fleet vehicles.

"Because of the convenience of a tap and go car share solution that does not require a large capital outlay, our authorized car share users use their facility access card that they already carry," Leech said. "It's also a tremendous benefit to our customers to be able to reserve a plug-in vehicle with the Local Motion phone application that informs them where the closest available vehicle is and its state of charge."

Zeller said the company is working to help fleets share their vehicles not only internally but with other organizations and departments – or even with the general public.

"We're very much focused on fleets and a large part of our early adoption initiatives are around cities, counties, and municipalities of different kinds," he said. "Ultimately we hope to enable sharing between historically separate entities – a municipality lending vehicles to other cities or renting them to the community on the weekend."

Zeller gave the example of a homeowner doing weekend renovations. The Local Motion system could, in theory, allow a city to rent out its maintenance trucks on the weekends. Or, he said, a neighboring city in need of an extra tree-trimming truck could easily "borrow" one using the Local Motion solution.

It's a goal Leech has already set his sights on.

"We hope to expand soon to facilitate sharing of low-use specialty equipment between departments like dump trucks and back hoes," Leech said.

What makes the system work, Zeller said, is the company's focus on data. Most of Local Motion's employees are engineers, programmers and data scientists. And in true FutureStructure fashion, by connecting fleets with technology and creating an intelligent system, the data generated helps fleet managers make better, more informed decisions.

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