

## Introducing Trip Convergence Ltd from Auckland, New Zealand

### What Do We Do?

We help local, regional, state, provincial, and national government agencies achieve greater sustainability of their transportation systems by making it easier and more rewarding for people to share rides in private vehicles.

### How Do We Do That?

We offer an integrated set of solutions that help to encourage increased occupancy of private vehicles in a corridor, especially during peak commute times. Built on the foundation of an electronic 'ride sharer ID card' and with proprietary technology that can identify and reward ride sharers according to the relevant business rules for the corridor, the solutions reduce the effort that it takes to reduce the traffic. They provide a positive complement to existing traffic reduction strategies by providing a trusted verification of a person in a vehicle on the road. Biometrics are used.

Encouragement of ridesharing is potentially delivered through three different types of relationships:

1. Between ride sharers,
2. Between transport agencies and ride sharers, and
3. Between employers and ride sharers

Each relationship can be enhanced or simplified using the solutions enabled by the technology, as follows:

#### 1. Transactions between ride sharers

##### Flexible Carpooling

**Description:** A solution that makes it easier for people to make fuller cars by removing the need for pre-arrangement and so making carpooling a more convenient alternative. Members walk, ride, or drive to meeting places and form fuller cars in order of arrival, travelling along pre-established routes to



set destinations. Members share in the benefits of the system through automatic transfer of ride credits from riders to drivers. The system is described in more detail at:

[www.flexiblecarpooling.org](http://www.flexiblecarpooling.org).

**Process:** Origin and destination flows are analysed. Routes are defined based on the traffic flows. Origin end meeting places are established. Destination end drop off points, and evening meeting points are defined. Pre-screened membership is built using viral and physical marketing and online application and approval. Technology is issued to approved members. Route is launched with much fanfare. VMT is reduced.

##### Vanpooling

**Description:** A solution that makes it easier to manage existing vanpools, and for vanpooling to be a logical extension of flexible carpooling (above).

**Process:** Existing vanpools are provided with technology to make tracking and reporting usage a streamlined process, reducing the administrative

overhead of vanpool management and improving its accuracy. Flexible vanpooling becomes an extension of flexible carpooling when, as people who like to be drivers in flexible carpooling upgrade their vehicles, they are encouraged to get slightly larger vehicles and then to take more riders.

## 2. Transactions between transport agencies and ride sharers

### Virtual HOV Lane

**Description:** A solution that enables highway authorities to reward people for sharing rides without the expense of building an HOV lane. The solution involves installation of an RF reader at the bottleneck point (such as a bridge) and the issuing of the Ridesharing Technology to any carpoolers who wish to participate. Each time the participants go past the reader in a qualifying carpool they become entitled to a reward. The reward can be specific to times of day, numbers of people, and even dynamic traffic conditions. The reward is typically a payment into an account registered by the participant, linked to their ID from the technology.

**Process:** Identify the constraint. Install the reader. Establish the online account system. Market like crazy. Issue technology to all who apply. See traffic reduced. Pay people rewards. Rates of reward can be varied and tested to establish the elasticity of the reward system.

### HOT – Managed Use Lane Occupancy Declaration

**Description:** A solution that reduces the cost of enforcement for HOT/Managed Use lanes and increases revenues from tolls by enabling declaration from within the vehicle, of exactly the number of people within the vehicle. If implemented with a 'toll all vehicles' approach, this maximises revenues and minimises enforcement costs. The electronic occupancy declaration generates an HOV credit that can be varied

according to the number of people in the car, the time of day, or other business rules.

**Process:** Specify the solution. Install readers. Establish system software. Agree business rules. Establish distribution of technology to carpoolers. Market like crazy. Commence operations. See traffic reduced as more carpooling occurs.

## 3. Transactions between employers and ride sharers

### Leave Days for Ridesharing

**Description:** This is an example of one way employers are considering rewarding their staff for taking alternatives to the single occupant vehicle. Some alternatively provide financial rewards. Using the ridesharing technologies the audit trail for entitlement to these rewards becomes very reliable. A reader is installed at the parking facility (it can be dedicated parking for the employer, or part of a larger parking facility provided by a third party). Technology is issued to carpoolers who want to earn the reward. Each day, according to the business rules, participation is automatically captured as the participants use the technology to declare their presence.

**Process:** Install the reader at the entrance to the parking facility. Establish the online software and the business rules. Offer the technology to people who might share rides. Market like crazy. Commence operations. Report carpooling. See traffic reduced as more carpooling occurs.

### Pre-Tax Deduction of Ridesharing Costs

**Description:** Employers are allowed, in the USA, to provide employees with a pre-tax payment for vanpooling and transit costs. This benefit is not extended to carpoolers, generally because there is no mechanism for identifying costs. But by sharing rides, while riders save, they might also be contributing real money to the driver, or providing the vehicle and operating costs at other times. A key barrier to offering the pre-tax benefit for carpooling is that there is no capture of the

transactions. The ridesharing technology provides the mechanisms for capturing ridesharing transactions and could enable a change to the status of ridesharing.

**Process:** This is an opportunity that will take some time to bring to fruition, since it requires a change to the law. By employers implementing a reliable data capture system there is a greater likelihood that legislators will agree to offer these incentives.

### **Dedicated Carpool Parking**

**Description:** This is similar to the incentives item (above), except that the benefit is a dedicated or preferred carpool parking zone in an employer's parking area (or in a structure provided by a third party). A key issue for providing dedicated parking for carpoolers has been an inability to know for sure that the cars were used for carpooling on any given day. With the technology on board and participants recording their presence from start to finish of the carpooling trip, data is captured to provide a verifiable record of use of the car for a carpooling trip. Business rules can be used to determine qualification based on data captured. A report can be accessed from the web at any time to show the qualifying parkers that day, or trends and totals over a week, month, or year. This takes the uncertainty out of providing dedicated carpool parking.

**Process:** Install readers. Establish business rules. Issue technology to interested users. Monitor usage. Celebrate greater levels of carpooling, better utilisation of parking capacity, and reduced traffic.

### **4. An Integrated Solution Set**

Installed as an integrated solution set within a corridor, the solutions above can be seen to make it both easier and more rewarding for people to share rides. The use of the proprietary technology provides confidence that the riders really are participating. The rewards can be varied to test elasticity or to manage traffic flows.

## **Who are the Trip Convergence People?**

### **Paul Minett, Co-Founder, Chief Executive**



Qualified Accountant (Canada, NZ), MBA (Auckland). Financial controller (various employers). Strategy and process improvement consultant (KPMG Consulting Inc). Own strategy consulting business, Strategic Lift Ltd. Chairman, Precision Marine Ltd (jobbing machine shop). Innovative 'big picture' person. Currently carrying out all networking and market development activities.

### **John Pearce, Co-Founder, Director**



Mechanical Engineer. Held senior positions in a corporate environment and has experience in general management, change management, industrial relations, strategic business planning, public representation, research management, operations management, decision analysis, negotiation, construction project management, acquisitions & divestments, quality management, and environmental policy. Has own management consultancy: Quality Strategic Decisions Ltd.

### **Paul Toliver, Advisory Board**



34 years of experience in the transportation industry including Director of the King County Department of Transportation, Transit Director for Seattle Metro, Deputy General Manager/Chief Transportation Officer for the San Francisco Municipal Railway (Muni) and Assistant General Manager for Operations for the New Orleans Regional Transportation Authority. Paul is a current member and former Chair of the Board of Trustees for the Norman Y. Mineta Institute, and a former

