An International Perspective

UK

1967

1985

1987

Trip Convergence Ltd.
TRANSPORTATION EFFECTIVENESS
Who we are, what we do

We’re a global company domiciled in New Zealand. Small nimble team.

We develop and introduce technologies and systems that make it easier and more rewarding for people to share rides.

We’re a young business. Until this week I would have said we are ‘pre-revenue’. A week ago last Friday we were offered a contract in Seattle.
Why we do it

In our vision for the future people have

– more family time,
– more money to spend,
– cleaner air to breathe,
– and when they travel to work, a more enjoyable trip.
– traffic flows more freely and
– Departments of Transport don’t feel so much pressure to expand their infrastructure.
Our guiding concept

🚗 If everyone shared a ride one day a week, there would be 20% less traffic.
Technology

ḫ We’ve developed technology that allows us to verify the number of people in a car.

ḫ This information can be used to:

– transfer ride credits from riders to drivers in a flexible carpooling system,

– give a toll credit for carpoolers on a High Occupancy or Toll (HOT) lane, and

– monitor dedicated carpool parking

ḫ The technology can also enable a ‘universal transportation account’
Traditionally, carpooling has been an inflexible mode of transport, (because:)

You need to be in a particular seat at a particular time, and if you are late you inconvenience not only yourself but one or two other people

(We should really respect those who do it!)
Casual Carpooling

An estimated 9,000 people use this ‘informal flexible carpooling system’ each day (6,000 riders, 3,000 drivers (1998))

Our analysis of use of HOV lanes in San Francisco showed that those lanes where casual carpooling was operating were used twice as much as the others.
Casual carpooling

In casual carpooling it is as if there is a taxi-stand for carpoolers:

– Cars line up till people get there, or
– People line up till cars get there
– Riders get into the first car in the line.
– The benefit is a free ride, and a faster trip as the car goes down the carpool lane
– There is no safety system, no money is paid
– Half the users are female
Results of inflexibility

“Lack of flexibility is frequently cited as a deterrent by solo drivers to joining carpools. Formal carpools are more of a commitment than one-day, one-way casual arrangements. Changing the image of formal carpools to one of greater flexibility and less commitment might encourage more participation”

1998 Update on Casual Carpooling in the Bay Area of San Francisco
Flexible Carpooling

In flexible carpooling we use:

- Suburban parking facilities (with parking by destination) instead of the ‘taxi stand’ for the morning commute
- The equivalent of the taxi-stand for the evening journey
- Membership prescreening and technology to provide safety for participants
- Technology to enable tracking of participation
- Ride credits transferred from riders to drivers to make it rewarding
Flexible Carpooling

We create a commuting community among people who would otherwise drive single occupant vehicles along the route.

Note that the destination of the system could be a ‘park and ride’ where you would get three passengers per parking space instead of one....
Flexible Carpooling

We’ve developed a complete system that makes it possible to introduce flexible carpooling onto a congested route and reduce the traffic at a fraction of the cost of (and much more quickly than) other approaches.

The system is patented in NZ, patent pending in USA.
Ride Credit System

Each Member will have two flexible carpooling accounts

**Financial Account**
- Increases:
  - Deposit funds
  - Sell Ride Credits
  - Receive Incentives
- Decreases:
  - Withdraw funds
  - Buy Ride Credits
  - Pay Service Fee

The price of a Ride Credit will be set by the members themselves through our ‘Ride Credit Trading System’ (like a share market)

**Ride Credit Account**
- Increases:
  - Provide Rides (+1/rider)
  - Buy Ride Credits
- Decreases:
  - Take a Ride (-1)
  - Sell Ride Credits
Technology for Flexible Carpooling

Driver: Paul
Rider 1: John
Rider 2: George
Destination: Abbey Lane

Personal Accounts ($ + Ride Credits)

Vehicle Transceiver

Infrared Personal Identification Card (I-PIC)

Infra red trigger
Infra red data
RF data
WLAN
Promotional Video

☞ Please go to www.hoverport.org and click on the YouTube video at that site, to see a short animation of how our system works.

☞ HOVER and HOVERPORT.org is our ‘working title’ for the system

☞ Apologies for the driver being on the wrong side of the car
Flexible Carpooling ‘Extras’

- Coffee
- Lost and Found
- Daily Quiz
- Prize Draws
- Moderated feedback system
- Other potential commercial ventures
HOT Lane Management

Using our technology, all vehicles can be charged a toll, and a credit can be generated for HOVs depending on the number of people in the vehicle.

We call this the ‘Occupant Count Verification System’ (OCVS)

The technology would be issued to all people who want to carpool on the HOT lane
Technology for HOT lanes

**Toll System**
- Toll System Transponder
- Gantry Mounted Receiver
- Offsetting Credit to Account or Credit Card

**OCV System**
- If HOV
- Record to database and carry out ongoing analysis to detect fraudulent use.

**Additional Information**
- Toll Charge to Account or Credit Card
- Offset Credit to Account or Credit Card
- Infrared Personal Identification Card (I-PIC)
- Infra red trigger
- Infra red data
- RF data
- WLAN
Seattle:
Flexible Carpooling to SeaTac

- Flexible carpooling committee
- 100 parking spaces in Federal Way
- WSDOT Trip Reduction Performance Program (TRPP) funds $430 per annual trip reduced
- Route destination is SeaTac
- Members will be staff of airport employers, 17-20,000 staff on the airport
- Project cost $150K, $107K funding gap
- We start in March 2008!
Discussion
For more information

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