

## → Member in the Spotlight

May 2012: Strathclyde Partnership for Transport (SPT)

### Development of Demand Responsive Transport Services in Strathclyde - The SPT experience

*Throughout Europe the issue of mobility for elderly and disabled people is a matter of concern. The development of Demand Responsive Transport Services (DRT) is now becoming recognised as a possible solution.*

Strathclyde Partnership for Transport (SPT) has been operating DRT services in the Strathclyde area for 22 years. One of 7 Regional Transport Partnerships in Scotland, its role involves planning and delivering transport solutions for all modes of transport across the region, in conjunction with member councils and industry partners. SPT is at the centre of the region's transport planning; analysing all travel needs and developing the transport system for now and the future, including:

- Developing and implementing the Regional Transport Strategy
- Operating the Subway (13 million passengers each year)
- Providing socially necessary DRT Bus Services – MyBus
- Developing Community Transport throughout Region
- Delivering school transport
- Subsidising bus services
- Developing integrated ticketing, e.g. Zonocard
- Providing bus infrastructure
- Providing travel information
- Leading the development of Integration and the Virtual Fleet Management Agenda in Scotland

SPT works on behalf of its 12 member councils in the West of Scotland, East Dunbartonshire, East Ayrshire, East Renfrewshire, Glasgow City, Inverclyde, North Ayrshire, North Lanarkshire, Renfrewshire, South Ayrshire, South Lanarkshire, West Dunbartonshire and the Helensburgh and Lomond area of Argyll and Bute. This covers an area of approximately 9300 km<sup>2</sup> serving 2.16 million people, 42% of Scotland's population.

A Travel Dispatch Centre (TDC) is located at their Headquarters in Glasgow. In 2002, an IT-based real-time booking and dispatch system was introduced and the number of TDC staff has grown to 21. The number of phone calls per week taken at the centre currently sits at 5,000 and approximately 500,000 passenger trips are carried out per annum. Bookings can be made Monday to Friday between 0845 and 1630 hours.

The client group for SPT services is mainly elderly and or disabled people. However, this position may change as more DRT services are introduced to replace conventional bus services due to these services being withdrawn, particularly in rural areas.

On vehicle technologies are currently being evaluated to assess the potential of introducing on day, real time scheduling in the region. Currently users must book up to 24 hours in advance. SPT have been testing the use of SMS and Internet web booking of trips. It is hoped that the introduction of non phone booking will free up staff resource at SPT, TDC to expand service network throughout Strathclyde area.

## Brokerage utilising ICT

SPT has recognised that investment in ICT has allowed the organisation to evolve and it now co-ordinates travel for elderly, disabled and rural residents with 16 operators in the area to provide integrated service solutions. The flexibility of using one system to co-ordinate the transport needs for many stakeholder groups has resulted in the following advantages being achieved:

### Financial

- Improve vehicle utilisation and rationalise costs.
- Economies of scale through the use of a single booking and scheduling system.
- Meet increasing demand.
- Enhance budgetary control procedures

### Co-ordination

- More efficient scheduling through the use of a single point booking and scheduling system.
- The better management of co-ordinating transport.
- Better partnership working.

### Operational

- Identify customer needs and requirements.
- Improve vehicle utilisation to reduce the number of journeys.
- Ability to schedule real time by using Mobile Data Terminals.
- Improved accessibility.
- Less vehicle downtime.
- Improved management information to aid service development

## ICMA Project

In 2008, SPT joined the ICMA, (Improving Connectivity and Mobility Access), EU-funded Interreg IVB project (<http://www.icma-mobilife.eu/>). The consortium is made up of 11 organisations from 7 Northwest European countries. SPT along with Transport for Greater Manchester (TfGM) are the two of the UK ICMA Partners that are both exploring the development of Demand Responsive Transport Services to meet the needs of residents and organisations. Both sites share common characteristics; each has a Travel Dispatch Centre utilising ICT solutions to permit real-time scheduling and booking. The ICMA project has developed a number of pilot actions to help the continued development of services.

The continued success of SPT in introducing its virtual fleet approach of scheduling the vehicles of partner organisations utilising ICT solutions to permit real-time scheduling and booking to maximise the downtime identified on these vehicles to achieve more efficient use and meet increasing demand was assisted by the development of the ICMA Cost and Price model by AECOM as an ICMA project activity. SPT worked closely with AECOM in the design of the Cost and Price model. As part of the design process a feasibility study was carried out to test the model. This allowed both AECOM and SPT to gauge the feasibility of integrating evening and weekend services utilising community transport operators instead of paying overtime to council drivers utilising Glasgow City Council vehicles. AECOM tested the ICMA Price and Cost model utilising information supplied by SPT to establish possible costs and pricing structures. Community Transport Operators provide transport to members of their local community, particularly the elderly and disabled, who do not have access to conventional public transport services for their travel needs due to availability, accessibility, affordability or safety and security concerns. These organisations are voluntary, non-profit making and as a



result their cost base is lower than other transport providers due to utilising volunteer drivers and not having a profit margin.

The use of ICT systems both Real-Time scheduling/booking and cost price modeling has dramatically improved the scope of organisations to get a better understanding of the issues surrounding multi organisational co-ordination of resources and understanding of financial issues.

## **SPT Cost and Price Model Results**

Use of Community Transport Operators has provided significant benefits to the community at large as well as to the Community Transport Sector. SPT has shown that Real-Time scheduling and dispatching services can significantly maximise the use of resources already used by elderly and disabled groups in the area to aid long term sustainability of services. Significant savings have been achieved over the past year with costs reduced from £500,000 to under £300,000, representing a 42% saving.

The ability to work with other stakeholders and help them to understand the true costs associated with FTS provision has been a contributing factor in the continued development of co-ordinating Glasgow City Council Services.

## **Expansion of DRT Services in West of Scotland**

A review of shared services across the West of Scotland carried out in 2009 by Sir John Arbuthnot set out a road map for the Clyde Valley Councils (East Dunbartonshire, West Dunbartonshire, North Lanarkshire, South Lanarkshire, Renfrewshire, East Renfrewshire, Glasgow and Inverclyde) to move to a model of integrated service delivery in certain key areas. Following publication of Sir John Arbuthnot's report, the Clyde Valley Councils established a Social Transport and Fleet Management work stream to consider joint scheduling and fleet sharing.

SPT continues to work with a number of local councils to provide a centralised scheduling resource to assist in the management of social work and additional support for Learning (ASL) transport, currently delivered by the council's own fleet. It is hoped that this will represent a "proof of concept" exercise which could be rolled out on a wider basis.

The project due to start in Spring 2012 will involve SPT's DRT section, through its Travel Dispatch Centre, processing all passenger trip information provided by Glasgow City Council and Renfrewshire Council and then, using the same software employed in the MyBus operation, scheduling the transport in as efficient a manner as possible and, where necessary, removing any wasteful duplication of resources. MyBus is SPT's socially necessary door-to-door DRT bus services designed to help people of all ages who have difficulty using standard buses to have access to local facilities and amenities.

SPT will then allocate the work to the combined 234 vehicles in the Glasgow and Renfrewshire Councils fleet and will work to ensure that any "downtime" in their usage can be used productively by, for example, transferring journeys to the internal fleet from taxis, therefore eliminating unnecessary expenditure.

To create optimum flexibility in the use of vehicle resources, it is important that there should be effective two-way communication between SPT's Travel Dispatch Centre and the vehicles and, for that reason, it is proposed that they should be fitted with Mobile Data Terminals (MDTs) as used on MyBus services.

MDTs are GPS – enabled, touch screen devices fitted to the vehicles dashboard which provide the driver with details of the next trip offer and give the contact centre the ability to transmit new work in real time to the

vehicle. This facility will permit any urgent or ad hoc requests for transport to be allocated to the closest available vehicle to the location.

SPT will fund the cost for the 234 MDT units (£478,850). Glasgow and Renfrewshire Council will be responsible for telephony and ongoing support costs associated with the units.

It is anticipated that savings will accrue from this project. There will be in depth monitoring and analysis of the results and, on completion, it is hoped that the project will provide a model which can be rolled out across the other local authorities and SPT will actively engage with each to help in this.

For the long term, effective shared transport requires standardisation of fleet specification to ensure that all partners in any multi authority or multi agency project are in a position to deliver whatever type of transport is required by a specific client group (e.g. multi wheelchair). SPT wishes to play its part in assisting local authorities in taking forward shared transport services and is providing Glasgow City Council with two adaptable buses on a full repairing lease basis to help take forward this initiative.

The approach being used by SPT was outlined in their ICMA proposal bid. The “virtual” agency model is demonstrating significant results including: financial savings, resource savings, improved service for end users, reduction in mileage, CO2 savings from reduced duplication.



Bus of “MyBus Services”



## Transferability of SPT Model

Both SPT and TfGM are working closely together sharing ideas on how their local ICMA initiatives are performing. This approach is aiding the development of a transferrable model.

The Audit Scotland Review of Transport for health and social care (2011) has highlighted the urgent need for organisations to work together to utilise systems and procedures that can replicate the success achieved at SPT.

### Extract from findings linked to SPT:

41. "In addition to scheduling transport well in advance of trips taking place, all councils need to provide some transport on an ad-hoc basis. SPT carried out work with Glasgow City Council to assess the scope for efficiency savings through better scheduling (Case study 2). The Clyde Valley review identifies a potential for £800,000 - £1.1 million of savings if a shared scheduling system was used among the 8 councils in the area to arrange social care transport, with the potential to expand this to include NHS boards for further savings".

44. "Changes to social care day centre opening and closing times could lead to a reduction in the number of vehicles required to service them and make better use of the vehicles available. SPT carried out a scheduling exercise which analysed data from Glasgow City Council and estimated that by changing the time when vehicles were needed for schools and day centres, 49 vehicles could be removed from the fleet and this could potentially save £3.4 million per year. SPT has also estimated that by coordinating stand-by buses in the Clyde Valley area, there is potential for a saving of £2.5 million. When setting up or reviewing health and social services, partners should ensure that they consider all the factors that will help support people getting services that they need when they need them"

71 "The Clyde Valley councils have started to investigate potential for shared services across a number of areas, including social transport and fleet management in partnership with SPT. Glasgow City Council is the lead authority for this work. We have drawn on this work as part of this audit.

**Recommendation:** *"Integrate or share services where this represents more efficient use of resources and better services for users, including considering an integrated scheduling system"*

### Transport Awards

SPT is leading the way in Scotland and is making considerable progress in the design of its multi modal, multi agency, DRT Travel Dispatch Centre. The recent Excellence in Technologies and Innovation award for SPT at the Scottish Transport awards (June 2011) for the use of its virtual fleet and AECOM Cost and Price Model has attracted significant interest in Scotland, UK and Europe.

There is no reason why the SPT model could not be used by transport operators and authorities throughout Europe to aid the design and operation of flexible transport solutions.

