

MOBILITY CONNECTION

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A newsletter tracking the latest information on transit connected mobility services. [www.weststart.org]

PRT, "SKYWEB" DRAW ATTENTION IN MINN., CALIF.

Personal Rapid Transit ("PRT"), a transit concept involving small, automated vehicles traveling along dedicated guideways, is attracting interest from communities in Minnesota and California. While studies on PRT feasibility date back to the 1960s and 70s, interest declined after Germany's well-developed and tested "Cabinetaxi" system failed to launch in the 70s due to budget cuts.

PRT is experiencing a resurgence led by, among others, the Taxi 2000 Corporation, developers of the "SkyWeb" concept. The SkyWeb technology is based on pod-like four-passenger vehicles traveling on a network of easily expandable, elevated guideways, and a network of elevated stations on parallel track cutouts. The

stations function as boarding platforms and collectors for cars that are "offline", so vehicles that have completed a trip and are parked at the station do not block traffic.

Passengers at a station select a destination from a posted map, then purchase an appropriate farecard from an automated machine, swiping the farecard and entering the destination station code on a keypad adjacent to a parked vehicle. Once the door to the vehicle automatically opens, passengers board, and the door automatical-



ly closes. The vehicle then accelerates, merges with passing traffic, and proceeds nonstop to the programmed destination.

The system is attractive due to its potential to reduce congestion and increase mobility at a fraction of the

Skyweb, continued on page 3

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ON-DEMAND ELECTRONIC BIKE PARKING

A new approach to bicycle storage aims to encourage bicycle commuting to and from transit stations by offering an electronically-managed, multi-user storage system within a regional network.

In the past, keyed bike lockers have been the primary means for commuters to store their bikes at transit stations. Maintaining the lockers, managing keys, and manually processing lease

applications can be difficult and tedious for transit agencies. Also, because individual lockers were typically leased to a single user for extended periods, they could be misused for personal storage or left unoccupied for significant periods of time. Inefficient use of valuable transit-adjacent real estate and lack of convenience are obstacles to bike-friendly commuting.

Electronic on-demand storage systems can solve these problems to a large extent. Commuters join online and receive proximity access devices that are used to access electronic lockers. Members can use any bike storage facility on the system, potentially allowing region-wide access. By creating an efficient first-come, first-served multi-

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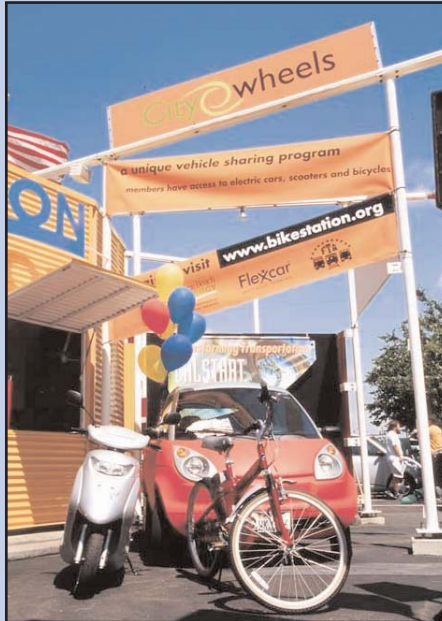


TRANSIT-LINKED MOBILITY ASSESSMENT LAUNCHED

WestStart, in conjunction with the Federal Transit Administration (FTA), has begun a multi-industry assessment to examine how transit-linked mobility services can expand use of transit and appeal to the discretionary transit rider. Mobility services are viewed as a means of increasing transit use, reducing private automobile travel, and reducing park-and-ride lot demand. The inquiry will provide a better understanding of the opportunities and challenges for transit-linked mobility service as well as a clearer picture of the most effective ways to link people with transit.

In less densely populated parts of America, automobiles are often the only way to travel to and from transit. Yet, transit-linked mobility services represent a broad spectrum of modes that can bridge the service gap that exists in transporting people between their doorstep and transit stations. Demand responsive transit (DRT), feeder transit, vanpools, carsharing and bike amenities are all examples of transit-linked mobility services that can provide an alternative to private automobiles and a link to transit.

This assessment will explore options for using similar kinds of services based on the insights and opinions of industry leaders participating in the survey.



WestStart and the FTA plan to evaluate the opinions and experiences of traditional transit operators, a range of private mobility service providers, and transit-oriented development professionals in the United States through an industry phone survey. The survey will ask specific questions of transit professionals in three areas. First, what initiatives are currently underway to grow transit's share of person trips? Second, how are transit-linked mobility services perceived in terms of enhancing transit? Third, what transit-linked mobility services are in place today and what can we learn from them?

Paratransit is a good example of an established transit-linked mobility service that is customized to meet the needs of transit-dependent riders such as the elderly, poor, and handicapped, with public transit.

The survey responses will be analyzed and the results published to provide the transit industry with valuable, insightful information on transit-linked mobility services and how the industry can increase and enhance transit ridership and reduce dependence on the private automobile.

(For more information, contact Chris Buntine at WestStart-CALSTART, cbuntine@calstart.org.)

BIKE PARKING

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user system, transit agencies and bike organizations can make the most of limited storage resources and provide convenient access, encouraging this mobility option.

While transit agencies, including King County Metro, Los Angeles MTA, Bay Area Rapid Transit (BART), and Caltrain, are locally testing electronic on-demand systems that may have regional expansion possibilities. A number of examples of this kind of system already exist:

Bikestation, a non-profit group that develops bike-transit centers, is testing a simple approach using conventional



Image courtesy of Fernando Vazquez, Bikestation

keyed bike lockers and an electronic key box, with pilot demonstrations in Long Beach and Seattle in successful operation.

The eLocker™ system, developed by Steven Curover, which combines a battery-powered locking device with

stored-value smart key operation, is being tested by a number of transit agencies, including BART and Caltrain.

Biketree in Switzerland markets a unique electronic on-demand system that raises attached bikes into a secure, umbrella-like canopy, increasing capacity in a relatively small footprint.

Because commuter surveys repeatedly show that a lack of secure bike parking can impede using a bike to travel to transit stations, electronic on-demand bike parking can be part of an overall strategy to convince commuters to leave their cars at home and instead ride their bikes to transit.

VPSI COMMUTER CENTERS PROVIDE BUNDLED MOBILITY SERVICES



Employees of large organizations and business parks that have a condensed workforce face a myriad of transportation challenges, such as long commutes and parking constraints. To address these concerns, many employers adopt basic mobility plans, work with local transportation authorities, maintain employee coordinated transportation programs, or work with regional government agencies. One very effective way of addressing the need for mobility services is the use of external, private companies.

A company that is actively developing comprehensive, bundled packages of employee transportation services is VPSI, Inc. VPSI's "Commuter Centers" are established on site to serve as a centralized clearinghouse for all employee transportation needs. The



Commuter Centers are designed to address the commuting needs of the greatest cross-section of a company's workforce while capitalizing on existing public and private sector transportation management services. Services can include personalized ride matching for carpools and vanpools, development and management of employee shuttle bus services, sale of public transit passes, biker and walker support, and environmental awareness campaigns.

Currently, VPSI manages Commuter Centers for clients in the United States, United Kingdom, Republic of Ireland, and the Netherlands. VPSI's first U.S.-based Commuter Center was launched in 2001 at Wyeth Pharmaceuticals in Pennsylvania to help its 4,000

employees adapt and adjust to the company's new location. Today, the Center's numerous commuting programs encourage and support carpools, vanpools, walkers, cyclists, transit riders, and an employee shuttle service that registers over 26,000 employee trips per year. Due to these efforts with VPSI, Wyeth has successfully removed an estimated 150 vehicles off the road and conserved over 100,000 gallons of gasoline per year.

In early 2003, VPSI developed a Commuter Center for Compuware Corporation at its corporate headquarters in Detroit. Presently, 13 carpools and 8 vanpools have been established and over 30 employees have converted to transit due to the on-site promotion, sale of fare media, and the implementation of tailored incentive programs. Most recently, VPSI has con-

tracted with another large pharmaceutical company to begin developing a Commuter Center for employees located at Central New Jersey campuses. This program is scheduled to launch in spring of 2004.

In addition to developing programs for corporate clients and business parks, VPSI is exploring ways in which the Commuter Center concept can be applied to other backdrops, such as mixed-use and transit-oriented developments. Plans are being developed to integrate the concept into these settings in the near future.

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SKYWEB

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cost of other public transit systems. While The Public Purpose Transport Fact Book states that capital and operating costs per passenger mile on light rail, commuter rail, and bus are \$1.42, \$0.70, and \$0.50 respectively, Taxi 2000 states capital and operating costs of \$0.38 per mile for the SkyWeb. Taxi 2000 also states that the installation cost of SkyWeb is less than one-seventh the cost of light rail.

SkyWeb has attracted the interest of Minnesota State Representative Mark Olsen, R-Big Lake, and Senators Michele Bachmann, R-Stillwater, and Yvonne Solon, DFL-Duluth, who have proposed a bill to borrow \$12M in funding to construct a \$24M demonstration project in Duluth

and provide other incentives for the concept.

In addition to Minnesota, the communities of Santa Cruz and Marina, California, took notice of the system in December after Taxi 2000 wrote a letter to the Santa Cruz City Council saying that the city would be the perfect place to show the world the capabilities of such a system. SkyWeb is now strongly advocated by Councilman Ed Porter, among others.

Whether or not SkyWeb is ever implemented remains to be seen. But if the favorable economics of the system work out, more communities may explore PRT as a feasible mass-transit option.

STUDY RECOMMENDS DIFFERENTIATION IN FLEXIBLE MOBILITY SERVICES TO TARGET NEW RIDERS

A recently completed examination of Demand Responsive Transport (DRT) suggests that this form of public transport could target new transit rider markets through differentiated service, premium service, and higher prices.

The study also stated that DRT has the potential to provide a more direct and convenient connection to transit and can compliment existing feeder transit. The lessons learned and insights gained from the study are directly applicable to the establishment of flexible mobility-on-demand services in the United States.

The report's identification of choice riders as a DRT niche market is relevant to the provision of door-to-door mobility service that links commuters from their homes or work to transit. The report suggests that large scale, complex, high quality, and relatively expensive DRT systems can be tailored to effectively serve this market by targeting the niche, charging more for what is deemed a premium service, and possibly displacing more expensive forms of travel.

The report, titled "Intermode: Innovations in Demand Responsive Transport", was researched by the Open University of Milton Keynes, United Kingdom (U.K.) in collaboration with the University of West of England and Loughborough University for the Department for Transport and the Greater Manchester Passenger Transport Executive. The report examined composite case studies of DRT in the U.K. by dividing it into four groups:

"Interchange DRT", which provides feeder links from one form of transit, such as rail, to conventional public transport, such as buses.

"Network DRT" that provides additional services or replaces uneconomic services as part of an overall network of public transport at times when demand for conventional public transport is low or dispersed.

"Destination-Specific DRT" that serves particular destinations such as airports or employment locations.

"Substitute DRT" that replaces instead of compliments conventional bus service.

The report recommends that each DRT service target its design to the market it is serving. In particular, the report states that it is important to identify whether users will primarily be "captive", defined as those with restricted transport choices and little to no personal vehicle access, or "choice" users, those with access to personal vehicles but instead travel by transit. Once the market is identified, service differentiation components can include visual appearance and times of operation, which are higher in importance for choice users, and price, which is more important for captive users.

MOBILITY CONNECTION: NEWS & INFORMATION

Mobility Connection provides regular updates on the latest developments, success stories and trends in innovative mobility services. By providing accurate and relevant information on this emerging industry, Mobility Newslink will help increase awareness of a wide array of mobility options that have the potential to:

- Increase personal mobility
- Reduce traffic and parking congestion
- Increase energy efficiency
- Make public transit more viable
- Improve air quality
- Create jobs

Mobility Connection is published on alternating months. All comments and suggestions on how we can improve the quality of this publication are welcome. WestStart is a non-profit organization that works with a wide array of public and private partners to encourage development and commercialization of advanced transportation technologies and systems.

Please direct questions, feedback and story suggestions for **Mobility Connection** to the Editor, **Matt Peak** at mpeak@weststart.org.

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