

Technology Can Make "Exact Change Only" Obsolete

Being in perpetual need of exact change can be a real nuisance for those using public transit. For some individuals, handling money can present a serious problem. Whatever the difficulty, standing on a street fumbling with money is neither desirable nor safe.

Fortunately, there are electronic payment systems to simplify and expedite the fare payment process. Contactless fare cards (also called "smart cards") can be read as the card passes near a reader making it unnecessary to remove it from a purse or wallet. Another advantage to a fare card is that money is automatically deducted from the card as it passes by a reader, making it unnecessary to have correct change. Fare cards can be purchased by passengers directly or for clients by human services agencies such as Medicaid or Welfare to Work. Another benefit is that fare cards provide passengers with anonymity. Because fare cards can be designed to look the same, there is no way other passengers will know if a trip is subsidized or not.



Value can be added to electronic fare cards in varying amounts and at a time that is convenient for the passenger

"Like any other blind person, I am looking to be as independent as possible, and this device is a tool for independence."

– Frank Synoground, Oregon Commission for the Blind

"People come to depend on this technology."

– Steve DeGeorge, Ventura County Transportation Commission

For more information on the use of Intelligent Transportation Systems (ITS) in transit operations, please see *ITS Applications for Coordinating and Improving Human Services Transportation: A Cross-Cutting Study*, EDL #14140, at www.itsdocs.fhwa.dot.gov/jpodocs/repts_te/14140.htm.

For more information on how to improve transit for the transportation disadvantaged, please see the United We Ride website at www.unitedweride.gov.



INTELLIGENT TRANSPORTATION SYSTEMS



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BETTER PUBLIC TRANSPORTATION OPTIONS FOR EVERYONE



Technologies to Improve Accessibility and Service of Public Transportation

Yes, You Can Get There from Here

There are times when a person's travel needs do not match up with printed bus routes or schedules offered by public transportation. In the past, this criticism has caused some riders to avoid transit. However, technologies are now available to assist transit agencies in improving their flexibility in order to meet the real-world demands of transportation-disadvantaged riders.



On-board communication equipment allows drivers to receive and react to scheduling changes more quickly

Paratransit services have begun to use automated routing and scheduling systems that make it possible to schedule trips with multiple destinations on relatively short notice. Real-time vehicle tracking and wireless communication systems make it possible for transit agencies and drivers to make changes to their schedules to meet passenger needs. With the help of technology, the old refrain “you just can't get there from here” is becoming a thing of the past with public transit.

Technology Can Make Transit Information More Accessible to Passengers

When trying to make it to scheduled appointments, uncertainty about their means of transportation can be unnerving for passengers. By taking advantage of some of the latest technologies, transit agencies can now keep riders informed in a variety of ways.

Transit agencies around the country use many kinds of information systems.

- At transit stops, electronic signs display real-time estimated transit vehicle arrival and departure information. These signs can also convert the displayed text into audible messages for those with visual impairments.
- In buses and rail cars, automated annunciators present next-stop information in an audible and visual format. With these systems, passengers will never have to worry that a driver or rail car conductor forgot to call out a stop.
- Web- and telephone-based travel planners accommodate special requirements, such as wheelchair accessibility, fewest transfers, or shortest walking distance, when generating a personalized transit trip itinerary.
- Vehicle arrival notifications systems inform customers automatically (by phone or e-mail) when to expect the arrival of their vehicle.
- Wayfinding navigational systems assist those with visual impairments and cognitive disabilities in locating bus stops, navigating transit facilities, identifying the correct transit vehicle (i.e., route and destination), and boarding and alighting transit vehicles.

Technology Can Improve Security for Passengers at Stops and on Vehicles

There are a variety of technologies in use today that help transit agencies provide better safety and security for their passengers.

- Driver-activated emergency buttons and covert microphones notify authorities in the event of an emergency and allow monitoring of on-board activity.
- Vehicle tracking systems make it possible for authorities to pinpoint a vehicle's exact location at all times.
- Security cameras at key stops and stations as well as on vehicles can have a strong deterrent effect.



Technology can make all transit services more accessible providing for a greater level of independence and security