



San Francisco Bay Area TransLink®

In 1999, the Metropolitan Transportation Commission (MTC) of the San Francisco Bay Area awarded a contract for a regional fare collection system that provides a single smart card to be used on every transit system in the area. This project, in which one card can be used on all modes of transportation with numerous transit providers, is the only project of its kind in the United States.

The Bay Area covers nine counties and 100 cities and has a population of over 6 million people living in an area of 7,000 square miles. On an average weekday, about 1.5 million rides are taken on public transportation. The area includes eight major transit operators and an additional 18 smaller operators.



Approximately 7,000 contactless smart cards, called TransLink cards, have been distributed for Phase 1 of the project. Phase 1 encompasses the six largest transit operators in the San Francisco Bay Area and involves certain buses, light, medium, and heavy rail, and ferries. The travel routes selected for the Phase 1 implementation include transfer points between the six Phase 1 operators, to enable passengers to experience the benefits of an integrated fare collection system using the contactless smart card. This first phase has been operating since mid-2002. In June 2002, the entire San Francisco Muni Metro system was commissioned to accept the TransLink card. Phase 2 of the project commenced with an expansion of the program for two of the transit agencies. Work is also underway to integrate the smart card into existing Bay Area Rapid Transit (BART) system fare gates. Ultimately, up to 26 transit operators could participate in the program.

The Phase 1 system comprises over 1,500 pieces of equipment, including card processors, add-value machines, portable hand-held readers, ticket office terminals, and point-of-sale (POS) devices for use at retail outlets. Phase 2 of the project will involve almost 9,000 pieces of equipment. The add-value machines and selected card processors provide audio in two languages to assist the hearing impaired. Keys on the add-value machines and some card processors also include Braille, to assist the visually impaired.

The card being used complies with ISO/IEC standards for smart cards, including ISO/IEC 7816 and ISO/IEC 14443 Type B, and contains 4 KB of internal memory for data and application storage. The card is a dual-interface card, containing both contact and contactless interfaces for communicating with the card's microprocessor. For the transit system, the contactless interface is essential, providing ease of use and fast boarding times. The contact interface allows the card to be used for other applications, such as at ATMs or POS terminals, where a contact slot already exists or is more acceptable. For example, the third-party merchants that provide card reload facilities use off-the-shelf POS terminals with a built-in contact smart card slot.

A central clearinghouse and service bureau operates and manages the smart card system. This facility processes all transactions and settles payments on a daily basis between all participants in the program. Every 24 hours, transit operators receive payment for the day's activities and have access to detailed financial and operational reports, down to the individual transaction. The service bureau provides all cardholder, transit agency, and merchant support services. Cardholders can order and reload their smart cards using a variety of means, including telephone, mail, the Internet, and "autoload." Reload locations are located throughout the region at transit customer service locations, add value machines, and third-party merchants.

In June 2002, a focus group of TransLink Phase 1 pilot program participants was asked whether they would vote for TransLink to be launched region-wide if they were in charge of Bay Area transit. The participants in the focus group unanimously responded yes. Overall, the focus group was very positive about the TransLink program.

It was always envisioned that the smart farecard would be expanded to carry applications beyond the initial transit application. The first instance of this expansion is parking, with the smart card reader being integrated into new electronic parking meters to be installed in San Francisco in 2003 and 2004. The TransLink card can then be used to pay at parking meters throughout the city. The pilot program for the smart card-enabled parking meters started in early 2003.

Other applications being investigated are tolling (MTC also administers the tolls for the six major bridges in the region), taxis and retail payment.

This profile was developed by the Smart Card Alliance Terminal and eTransaction Infrastructure Task Force with the assistance of David McIlwraith, ERG Group, for the report, "Transit and Retail Payment: Opportunities for Collaboration and Convergence," available at http://www.smartcardalliance.org/alliance_activities/transit_retail_payment_report.cfm. For more information about how smart cards are used for transit and retail payment, visit the Alliance web site at <http://www.smartcardalliance.org>.

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