

Smart Card Technology for Transit Access Pass

Summary of Policy

In August 2001, the Board adopted the Smart Card Technology as the regional integrating technology for Transit Access Pass (TAP) program, formerly known as the Universal Fare System (UFS). TAP is a regional automated, electronic fare collection project, which has spanned a decade in development to create a multi-modal, multi-operator fare system providing seamless travel for customers.

The TAP is intended to be the seamless fare payment system where a passenger can obtain and use a common fare media, smart card, on any operator's system—and perhaps some non-transit uses. The true essence of TAP is the regional sales, acceptance and clearing activities. To accomplish this new, standard data collection equipment is being made available to participants. In many cases, new automated fare collection equipment is being purchased.

TAP provides a fully integrated automatic fare collection and centralized data processing and reporting system suitable for use on all agency operated modes and those of other operators throughout the region, including Metrolink, municipal and local bus operators, heavy rail, light rail, shuttles, and other community transit services. The system will include the design, manufacture, testing, delivery, installation, and support of ticket vending machines (TVMs), stand-alone validators (SAVs), validating bus fareboxes, ticket processor units (TPU), revenue collection equipment, ancillary equipment, spare parts, services, and associated software.

Historical Perspective

Over the last decade, has been involved in the development and implementation of a countywide "universal" fare system. Beginning in 1990, predecessor agency

LACTC first issued an RFP for a consultant to develop a single-ride ticket useable on rail and bus systems throughout Los Angeles County. This initial stored value debit card demonstration project assisted by J.W. Leas & Associates and implemented by several municipal operators has since merged with the agency, which is funding and leading the regional expansion of this project.

In 1997, the Board adopted the Standards Regional Revenue Processing System with two major objects:

1. develop an interface specification, allowing regional transit agencies to procure compatible fare collection equipment; and
2. evaluate alternative systems.

In October 1998, the Board approved the TAP approach that allows us to:

1. pursue the procurement of TAP that would support the agency's Metro Card, with a smart card option, and work with interested operators over the next six months in developing an RFP.
2. procure this equipment through a "negotiated procurement" RFP process.

In June 1999, the Board approved a contract to Booz-Allen & Hamilton, Inc., to prepare specifications for TAP-compatible cash and electronic fare collection systems for the bus, rail, and shuttle systems and for modification of the SCRRRA TVMs to accommodate UFS transactions. This authorization is inclusive of an initial award for Phase I, Farebox specifications; and Phase II, agency and SCRRRA (Metrolink) TVM Specifications.

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The specification for this fare technology system has been developed as a single procurement that will include bus fareboxes and smart card processors which issue and receive electronically encoded transfers; ticket vending machines and card validators for rail stations, "point of sale" devices to add-value to cards, and a computer network to integrate the entire system, provide consolidated reporting and interface to the regional clearinghouse network.

In April 2000, the Board of Directors approved staff's recommendation to proceed with the procurement of automated fare collection equipment by competitive negotiation. This allows a single contractor to have full responsibility to provide all equipment, deal with subcontractor suppliers—if needed—and provide the services needed to support and fully integrate the system.

In July 2000, several Board members and staff visited two peer agencies to examine and discuss evolving technology in fare collection systems. Subsequent to that visit, the Board approved to add a smart card only system as an option in the proposal solicitation.

In August 2001, the Board held a workshop in which staff presented various technology options for the implementation of the TAP. Based on staff's analysis, smart cards have significantly more memory and capability than magnetic striped cards, enhanced integration potential, and a wide variety of fare options on a single card. In addition, smart cards provide greater capability to track and audit trips and transactions, and provide superior security encryption than magnetic striped cards to reduce risks of fraud and counterfeiting on electronic media. The smart card system also reduces operating and maintenance cost

over the life cycle of the equipment (12 – 15 years) and significantly increases boarding speeds on buses.

Last Board Action

March 25, 2004 – Universal Fare System (UFS) New Regional Clearinghouse & TAP Service Center.

Board approved on consent calendar

- A. Approved life of project budget in the amount of \$16 million for the implementation of the Regional Transit Access Pass (TAP) Clearinghouse and Service Center.
- B. Authorized the Chief Executive Officer to execute contract modification with Booz- Allen Hamilton, contract PS-4610-1026, Amendment 3 in an amount not to exceed \$2,996,458 to provide technical design, program development, and implementation oversight of the Regional UFS Program, increasing the total contract value from \$4,705,185 to \$7,701,643.

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