

TSCC Business Profile

Chia Ling Wang

Introduction

Taipei Smart Card Corporation (TSCC) was officially established in March 2000 with a total capitalization of NT\$500 million (NT\$1 = US\$0.033). The main shareholders are Taipei City Government, Taipei Rapid Transit Corporation, 15 bus companies in Taipei City and Taipei County, Taipei Fubon Bank, Cathay United Bank, Taishin Bank, Chinatrust Commercial Bank, MiTAC Inc., MercuriesDataSystems, China Engineering Consultants, Inc., and Solomon Technology Corporation. Publicly held common stock accounts for 40% of the total.

TSCC established a milestone in use of contactless EasyCard IC cards with their introduction on 30 September 2002 for bus services in the greater Taipei area, for the Taipei Metro and for payment of parking fees at Taipei City Government car parks. To provide greater convenience to users, the scope of EasyCard's use is currently being extended to the Maokong Gondola service (connecting Makong Gondola station and Taipei Zoo station), for admission to Taipei Zoo, for use as a library card, for intercity bus services, and for ferry services. EasyCard has sold about 13 million cards, distinguishing itself as a market leader in Taiwan and the corporation is continuing to explore other

avenues to extend use to other systems, such as payment of government fees, admission to parks and scenic areas, and for small-value purchases. The ultimate goal is to allow people to travel Taiwan-wide using just one card.

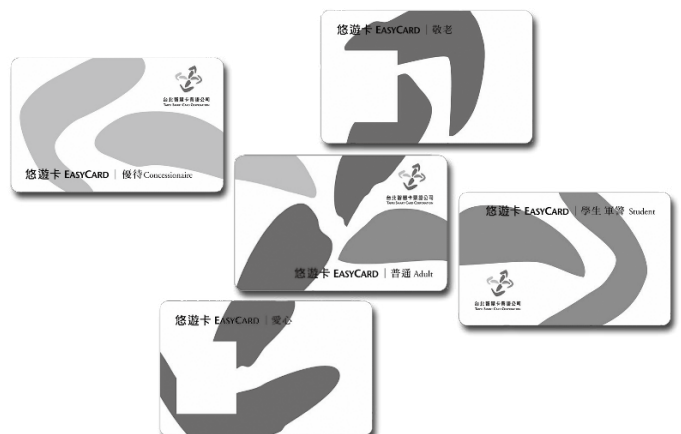
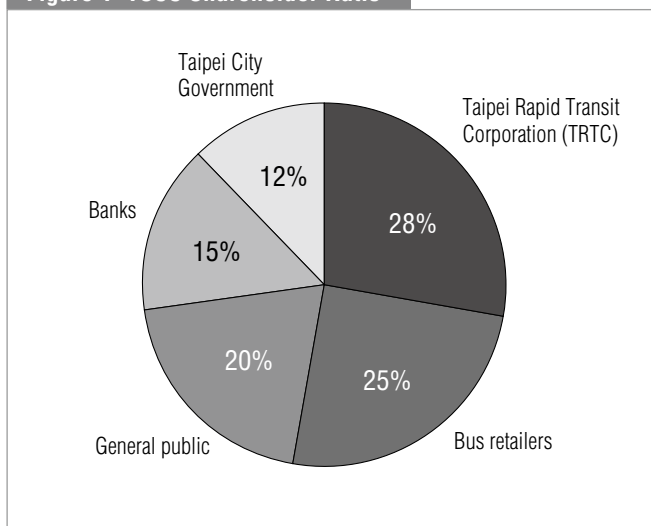
About EasyCard

Taiwan's most popular IC smart card

EasyCard is a so-called contactless IC smart card with embedded IC chip and sensor circuits, supporting financial transactions between the card and card-reader without direct contact. The card has a large memory (1 Kbyte), and is accurate, fast, safe, and robust. Not only are transactions completed quickly and conveniently, but the card lifespan is also measured in years. Card users are spared the inconvenience of carrying small change or of having to repeatedly buy a new card. When transferring between public transport modes, no ticket validation is required, encouraging more and easier use of Taipei's diverse transportation network.

At present, 13 million cards have been sold and are used for an average of 2.79 million transactions a day. In an unprecedented move to protect consumers' rights, TSCC placed 105% of all money paid to purchase a card into

Figure 1 TSCC Shareholder Ratio



Different types of EasyCard

escrow. EasyCard is currently the most widely used public transport ticketing system in Taiwan.

EasyCard Geographical Distribution

At present, EasyCard can be used anywhere in Taipei City, Taipei County, Keelung City, Ilan County, Taoyuan County (intercity bus service), Taichung City (intercity bus service), Lienjiang County (bus service, inter-island boat service, Taiwan-Matsu ferry), Tainan City (intercity bus service) and Kaohsiung City (intercity bus service).

Services

The public services accepting Easycard for payment are all lines of Taipei Metro, all bus services in greater Taipei City and Taipei County, government car parks in Taipei City, some privately-owned car parks, roadside parking meters, the Maokong Gondola, 'Blue Highway' ferry services, intercity bus services, Taipei Zoo, and Taipei City Library.

System Architecture

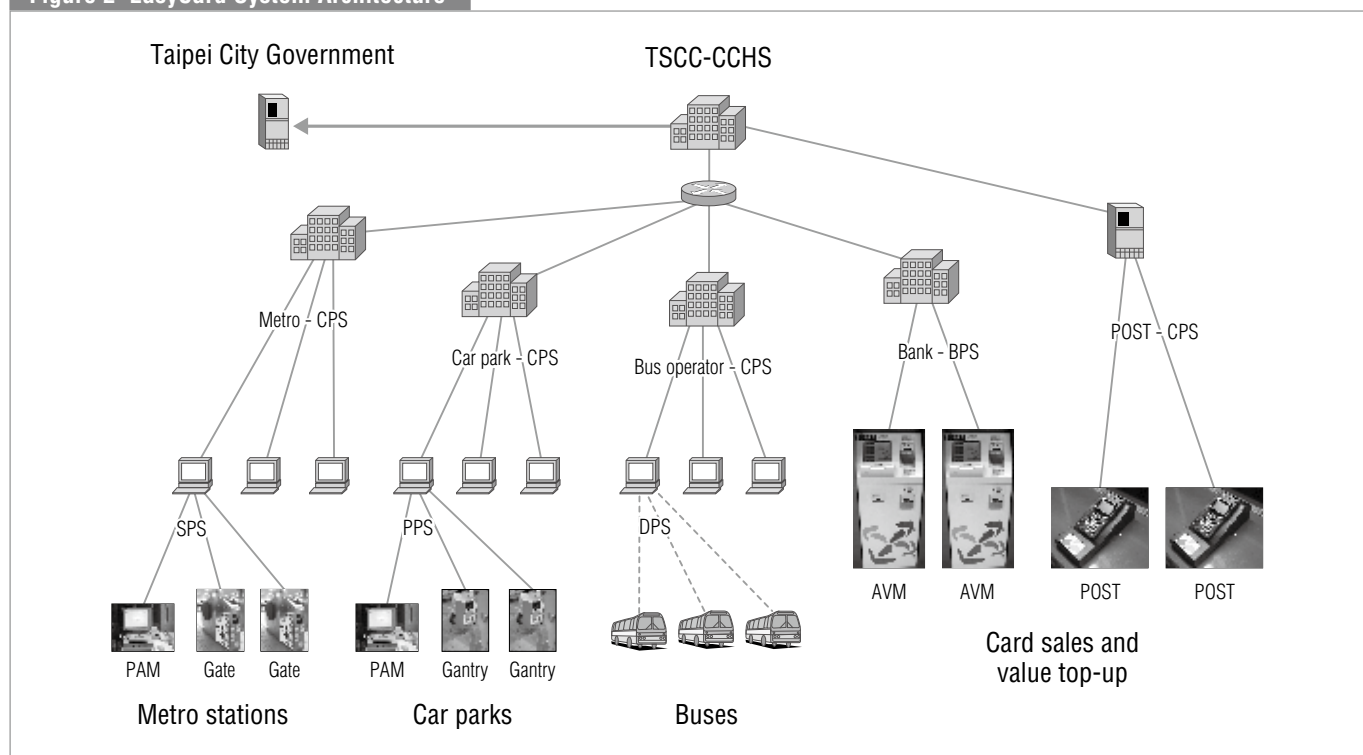
The figure below shows the architecture of the EasyCard system, which has been rolled-out according to the following timeline.

- 2002 Sep—EasyCard officially launched
- 2002 Dec—Issue exceeds 1 million cards



EasyCard in various services

Figure 2 EasyCard System Architecture





Co-branded cards

- 2004 Dec—Student ID integrated with EasyCard
- 2005 Sep—EasyCard wristwatch launched
- 2006 Jun—Use extended to parking meters
- 2006 Jul—Co-branded EasyCard launched
- 2006 Sep—Use extended to major intercity routes
- 2007 Mar—Issue exceeds 9 million cards
- 2007 Jul—Use extended to Taipei Zoo admission
- 2007 Aug—Issue exceeds 10 million cards
- 2007 Sep—Use extended to Taipei and Keelung transfers
- 2007 Dec—Use extended to river transport services
- 2008 Jan—Escrow system established for card purchase fees
- 2008 Mar—Matsu Islands integrated into EasyCard network

Co-Branding

The co-branded EasyCard issued by Cathay United Bank, China Trust, Taipei Fubon Bank and Taishin Bank in association with TSCC combines the functions of a credit card, EasyCard and EasyCash electronic wallet in one card. The most significant feature is the ability to top-up the card value automatically. When the value falls below NT\$100, or when the value is insufficient for payment of a parking fee, etc., value can be added automatically from a credit card in NT\$500 increments by a Taipei Metro ticket gate or car park ticket gate, or manually at a top-up value machine, making it easy to take the train or bus, or park a car without worrying about not having enough money.

The EasyCard co-branded card can also be used as an electronic wallet for small purchases at shops displaying the EasyCard electronic wallet logo. If the card has insufficient funds for the purchase, just passing the card over the electronic wallet sensor transfers NT\$500 automatically from the credit card to the electronic wallet, eliminating the need to worry about not having enough money for small purchases, the problems of carrying small change, and problems with counterfeit bills.

EasyCash

More than 3000 shops have already joined the EasyCash electronic wallet program, including convenience stores, coffee-shop and restaurant franchises, cinemas, DVD rental stores, petrol stations, photocopying and print shops, car parks, supermarkets and department stores. The number of businesses that accept EasyCash is growing by about 3400 each month.



Using various EasyCard brands (top) for small-value purchases (bottom)

EasyCard Benefits

Three groups benefit from EasyCard as follows:

For users

- Integrates many transport ticketing services; simplifies ticketing and increases passenger convenience
- Cuts costs; no need for repeated purchase
- Improves convenience; no need to carry small change or have correct fare
- Shortens ticket read time; better passenger flows
- Integrates fund transfer; avoids dangers of cash transactions

For government

- Improves efficiency of public transport systems; decreases reliance on private transport, reducing road congestion
- Enhances operational integration of transport systems; promotes use of public transport
- Increases operational transparency; provides basis for auditing ticket price and subsidies, and increases public trust in fairness of fare adjustments
- Creates database for public transport systems; serves as reference source for creating new transport systems or adjusting routes

For businesses

- Automates accounts; money from daily transactions can be transferred automatically to a designated bank the following day
- Provides accurate operational data such as revenue and transport volume, to help businesses improve their operations
- Centralizes computer processing to improve cooperative function between businesses in same sector; reduces operational and resource overlaps
- Speeds boarding and exit; improves transport efficiency with shorter headways
- Cuts cash handling and revenue auditing costs
- Reduces fare fraud and counterfeit bills

Future Developments

A 2007 poll by The Nielsen Company showed a 95% approval rating for EasyCard. In addition to its current functions, there are plans to extend use to taxis, more intercity bus services, admission to scenic areas, to trains operated by the Taiwan Railway Administration and the Taiwan High Speed Rail (THSR) services, allowing people to travel Taiwan-wide on just one card. ■



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