Greater convenience for commuters of China Railway with China Railway Expresspay

With the rapid economic growth in China and enhancement of infrastructure construction in the country, there has been a significant increase in passengers using trains as their main mode of transport. However, long queues of passengers waiting to purchase tickets is a deterrence for many especially during the peak holiday period. Furthermore, the tedious and slow processing of ticket purchase at the station is causing a major issue for these passengers. It is reported that in 2014, the total train ridership during the National Day Golden week reached a high of 91 million passengers during the period of September 28 to October 7. This was a 10.8% year-on-year increase of 8.89 million passengers thereby bringing the ridership to a record high.

Replacing tickets with stored value cards to reduce crowding at train stations

As the railway passenger flow volume increases year on year, the national railway department is constantly under pressure to undertake heavier responsibility to reduce crowding and increase efficiency at train stations. The need to create a more efficient system in train ticket issuance with minimal investment became the top priority for the authorities. In March 2011, with the objective of upgrading the railway passenger and freight transport electronic payment platform, Bank of China and China Unionpay came together to set up the China Railway Expresspay Co. Ltd. The main function was to develop and issue prepaid cards equipped with payment functions based on the existing railway electronic payment platform and fully utilizing the existing railway resources.

With this implementation, passengers are able to pay directly with their card and now have three channels to make their ticket purchases: over the counter, via the ticket vending machine or the internet. By creating these additional channels, it offers passengers’ alternative ways besides over the counter at the station. This way, it helps to reduce the crowd waiting and the railway staff will be able to better cope with the high traffic volume during the holiday season. At the same time this also means passengers will be able to enjoy a faster and more convenient process of purchasing tickets.

These transport cards developed by China Railway Expresspay Co. Ltd. rely on two different aspects, mainly the magnetic stripe which is used during the purchase of tickets and the electronic chip which is applied when passengers tap through the train station gates before entering the platform. The electronic chip stores the identification information, train-taking records of the card holder and the stored value which can be recharged repeatedly. This application was successfully launched on July 2012 and currently passengers are able to enjoy the convenience brought about by China Railway Expresspay through a total of 11 intercity railway networks.
Evolis solution stands out

During the process of research and development, China Railway Expresspay Co., Ltd. had consulted many card printer suppliers and selected “Pin He Jia Yi”, which is an official distributor of Evolis. With the strong confidence in Evolis, Pin He Jia Yi was convinced that the after-sales support was able to meet the requirements of the project and hence they recommended the use of Evolis printers for this project. As data of the account holder is stored in the magnetic stripe and prepared value is stored in the electronic chip, the two functions must be realized at the same time when the China Railway Expresspay card is printed. As such, Pin He Jia Yi recommended the solution of combining the Evolis Pebble4 and Zenius printer. The encoder of Evolis solution of combining the Evolis Pebble4 and Zenius printer met the requirement of China Railway Expresspay card. Evolis Pebble4 and Zenius card printers are capable of printing as many as 150 color cards per hour with photo-quality image thereby meeting the demands of the China Railway Expresspay card which requires the card holder’s photo and ID card number to be printed on the card. The easy integration and compatibility with the different operating systems also put Evolis at an advantageous position over its competitors and both printers passed through all stringent tests designed by China Railway Expresspay Co., Ltd and was proven to meet all requirements for the China Railway Expresspay project. With its compact size and low noise emission of only 46dB(A) during operation mode, the printers are suitable for use over the counter.

Mr Que - Manager, Beijing China Railway Expresspay Co., Ltd.

What are the specific needs and challenges faced prior to this project? And what did you hope to achieve through this collaboration with Evolis card printer?

We were looking for a solution to meet the demands of China Railway Expresspay of having the card holder personal details such as name, photograph and ID card number on the card. This card must also be to support the function that allows the card holder to make purchases of tickets from the various channels such as over the counter at the railway station, self-service ticket vending machine and through China Railway customer service center website.

Please briefly describe the printer solution developed and how it meets the requirements of the project.

Currently, we adopted Evolis Pebble4 and Zenius printer. We added some of the commonly used functions in our card issuance system of China Railway Expresspay through the printer software development kit (SDK) provided by the manufacturer to optimize our card issuance process and customized the driver according to our requirements through several consultation and research with the manufacturer.

Where is the solution implemented?

The solution will be implemented on all high speed rail running line in Chinese territory. Currently it has been successfully implemented in some cities, such as: Beijing South Station, Shanghai Station, Shanghai Hongqiao Station and line along Guangdong, Shenzhen and Hainan, etc.

To make the necessary modifications required for the project, Evolis provided the printer software development kit which allowed the project team to customize with commonly used functions. A specific driver was also customized for the printing demand of China Railway Expresspay to help facilitate the daily operations and reduce the workload of its users hence improving the efficiency of card issuance process.

Are you satisfied with the solution? What are the advantages provided by the solution developed?

Evolis Pebble4 and Zenius printer met our requirements for high definition photo printing quality and both models are capable of outstanding printing speed, which is much faster than other printers. To cater to our project, Evolis has provided an improved SDK driver for us, which allowed us to modify the software to help improve and reduce the workload of our users. Besides, the Zenius printer is small and light, suitable to be used on counter in office. In addition, both printers possess environmentally-friendly features. Its lower power consumption feature during standby mode helped satisfy the demand for energy conservation of the project, so it is a smart decision for us to choose Evolis.

More information: www.china-railway.com.cn

www.evolis.com

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