

Vienna's Transport Network Drives Innovation into Travel Cards

Customer

As one of the largest employers in Austria's capital city, Wiener Linien is Vienna's public transport operator carrying around 2.5 million passengers every day on their 161 underground, tram and bus lines. The company employs 8,700 employees who provide a 24/7 year-round service. In 2014, this amounted to transporting 931 million passengers covering 180,000 kilometres. Wiener Linien is the choice of transport for 39% of the city's travel trips.



Matica Technologies' partner

The project was a collaboration between MAKIDATA GmbH and exceet Card Austria GmbH having been selected by the primary supplier WienIT, an IT supplier specializing in the utilities and public services sector in Austria.

For almost 30 years, MAKIDATA has worked closely with international customers to provide service and customized systems for plastic cards and metal plates. Its comprehensive portfolio includes card mailing systems and complementary products for all-round card production and processing such as encoding and data management solutions – systems that finish plastic cards with versatile personalization technologies. <http://www.makidata.de/>

exceet Card Austria is a leading international technology group specializing in card-based security solutions such as RFID. The company also manufactures plastic cards at its high volume production facilities; cards range from magnetic strip to state-of-the-art smart cards. exceet provides tailor-made solutions in personalization, special packaging, lettershop and mailing. <http://www.exceet.ch/en/>

Challenge

WienIT was chosen by Wiener Linien to personalize and send out its new multi-functional annual pass (Jahreskarte). Although the printing house already processes millions of documents per year, handling plastic cards was a new field of business.

exceet and MAKIDATA won an EU-wide tender to provide WienIT with a complete solution for data preparation, personalization and mailing of these annual passes. While the partner exceet also won the part for delivering the cards, the consulting of MAKIDATA together with the service contract and its dedicated Service Level Agreement (SLA) became a complete solution for WienIT.



This multifunctional card had to be able to offer a number of services to the cardholder prompting different applications for today and the future:

- Public transport access
- Car parking authorization
- E-payment for taxi and car sharing
- Future additional services such as applications for senior citizens and extension of the use of the ticket for national rail connections

Owing to the choice of services, MAKIDATA needed to facilitate the card output production of several card layouts, which needed high performance technology in:

- Precise and advanced color printing
- High-speed printing
- Complex processing of photos with black and white text, chip and card data



Solution

Closer look at Matica's S7000 System with CardAttach:

- MD Data Preparation Software (MAKIDATA customized solution for SAP systems)
- S7000 Main controller with MaticardPro software
- ChipMan Mifare Desfire Encoding Software (MAKIDATA)
- Dual card feeder for different plastics (card layouts) to feed different card layouts in one mailing product
- RFID encoding with SAM module based on Mifare DESfire EV1
- Magnetic stripe encoder
- Seven printing modules for sequential photo colour printing, black and white text and overlay protection on environmental friendly PET-G cards
- CardAttach mailing unit
- Neopost DS100 card folding, attachment feeder and inserting unit

Innovating in business takes you to new places

As a forward-thinking company, which continues to expand its transport network to improve its accessibility to the public, Wiener Linien genuinely cares about its customer service and the environment. Given that Wiener Linien is the choice of transport for 39% of the city's travel trips the network proudly carries more people than cars do.

The annual pass, which was introduced through a central government initiative, will endeavour to support Vienna's citizens to manage transport-related responsibilities all from one multi-functional card. Currently, there are two types of cards available to its citizens: annual and premium.

CASE STUDY

Central Issuance / Transportation Market

MAKIDATA advised the company to deploy the environmentally friendly (bio-degradable) PET-G plastic cards, which provide a lifespan of three to five years. This supports Wiener Linien's ambitions to limit the vast quantities of paper they were consuming in paper-based tickets. In finding technology that could upload new personal data year-on-year without compromising the same plastic card, Wiener Linien could optimise their carbon footprint even further.

For this multi-functional card, MAKIDATA have provided seamless transition as and when the business requires additional applications.

The business challenge

- How can you collect sensitive personal data including a photograph that is sent by customers online, in kiosks or in person and integrate that data in one card to ensure high levels of security?
- Can one mailing fulfilment solution offer a dual card feeder for the differing card layouts and card thicknesses?
- What materials would meet the environmental objectives? Can a plastic card be an environmentally friendly solution?

For financial transactional processes - spending and topping-up, the card would need to ensure EMV-regulated technology as well.

MAKIDATA deployed seven S7000 printing modules for sequential photo colour printing and black and white text; the sequential colour printing was realized thanks to S1 high-speed printing modules. Further, the capacity to print a photo with black on the back and white on the front of the card with different print speed can be achieved with at least 1,000 cards per hour.

When high-speed issuance is required, reliability and flexibility are the keys to success.

- Matica's S7000 provides high-volume card issuance with a reliable central issuance platform, its modular approach allowed for the processing of high-quality colour printing and lamination while handling multiple card layouts.
- The challenge to process complex personalization in photos combined with black and white printing, chip and card data was achieved in conjunction with MAKIDATA's customized data preparation solution.

Transporting Vienna into the future

The project is a complex ambition to bring a smoother and more carbon-friendly travelling experience to Viennese citizens who currently use public transport with a smart card instead of a paper ticket and are able to pay for a taxi or parking with the same card.

It is thought that further applications are imminent and these may also include non-transport led services, which will see a fully utilized smart card for the city of Vienna. Additional transport applications may include the use of car sharing services or discounted travel for senior citizens or students.

Customers receive their ticket to ride

Matica Technologies is arguably regarded as the best in the business for modularity. It is a significant return on investment that the configuration of current solutions will not prevent it from adapting to future card applications and functionalities.

“Matica Technologies is the only company that could offer this configuration. Also, the modular approach to the S7000 platform provides investment security because you can change the system very easily,” says Michael Kienert, Managing Director, MAKIDATA.

“When you want to add other types of card layouts or applications, you don’t have to reassemble the machine, simply add a module. Plus, with the Matica system you can change things back if you change your mind whereas you can’t do that with any other system – Matica is really unique in this business,” adds Michael.

“We were aware we wanted to achieve a lot. And we have been rewarded with a comprehensive solution that allows us to offer customers the opportunity to upload their data online, to integrate complex personalized data internally and to then provide a multi-functional card, which can be kept for the years to come,” notes Andreas Birke, Head of Output Management Center, WienIT.

“Being one of the primary participants in such a well-received and innovative transportation system is a great privilege for Matica and we are delighted that MAKIDATA and exceet introduced us to Wiener Linien,” says Sandro Camilleri, CEO, Matica Technologies. “This has been an exceptionally engaging and rewarding project for Matica and we expect to support more national transportation programmes with secure ID issuance in the future.”

Sandro Camilleri, CEO of Matica Technologies

Key success factors

- Modularity of the S7000 (and handling seven printing modules)
- Sophisticated sequential photo printing
- Compatible with PET-G card material
- Open software architecture for encoding software interface
- Best price / performance ratio