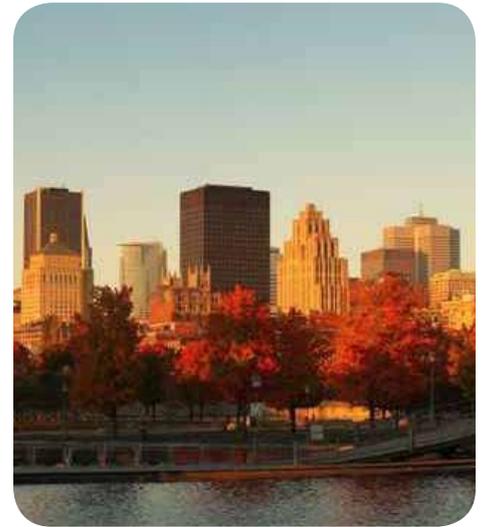Spearheaded by Société des Transports de Montréal, several public transit operators in Quebec were looking to create a unified transit area with the long-term goal of covering the entire province.

We deployed an open, interoperable ticketing system that has now been adopted by 18 networks and has already increased average ridership by 12%.

The Challenge

Société des Transports de Montréal (STM), the public transit operator in Canada's second-largest city, is a key player in the Quebec government's policy aimed at reducing greenhouse gas emissions. In 2007, it set some ambitious development goals: increase ridership by 8% by 2010 and 40% by 2020. To boost the appeal of public transit, it opted for interoperability. Joining forces with the Quebec City transport authority, Réseau de Transport de la Capitale (RTC), and with four other urban and intercity operators from Longueuil to Laval, it decided to create a vast multimodal transit area accessible using a single contactless pass: the Opus card. This entailed completely integrating the ticketing systems in use on the various networks, while leaving each operator free to set its own local fares. Last but not least, the system also had to be open, allowing other operators in the province to join in the future if they so wished.

The Solution

Based around the ATLAS® central system, which has a modular, interoperable structure, we built a combined (contactless and magnetic) ticketing solution and deployed it throughout the project area, covering the metro, buses, trains and intercity coaches. State-of-the-art devices – on-board validators, point-of-sale terminals, vending machines and service centers – were deployed across the networks, according to each operator's needs and specifications. The interoperable Opus card can hold up to four different travel passes, leaving riders free to choose between local season tickets, interoperable services spanning one or more zones, or tickets for occasional travel. Right from the start, a Xerox team was dispatched to Montreal to oversee deployment. Our technicians were initially responsible for support and software maintenance, but were also on hand to assist as the area covered by the Opus card was extended: between 2008 and 2012, no fewer than 12 new networks joined the original six operators. Each retains its freedom to set fares: the central system now handles a staggering 600 different passes and tickets while ensuring that revenue distribution is completely transparent.

The Result

By 2012, five years after the project was launched, five million Opus cards had been sold and more than 400 million contactless validations had been logged. Nearly 7000 remote devices are connected to the ATLAS® central system, which has maintained an annual availability rate of 99.9% since being commissioned. The increase in ridership across the networks has exceeded expectations – for STM, it amounted to 12% between 2008 and 2011. With 18 operators now participating, the Opus area covers a large proportion of Quebec province and is one of the largest interoperable transit areas in the world. Originating in a shared long-term vision, this exemplary project is proving to be a significant asset in boosting the popularity of eco-friendly transportation in Quebec, helping the provincial government to achieve its goal of a 20% cut in greenhouse gas emissions by 2020.

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Based around the ATLAS® central system, we deployed an interoperable ticketing solution that now encompasses 18 transport operators in Quebec; the Opus contactless card offers riders one of the biggest unified transit areas in the world.
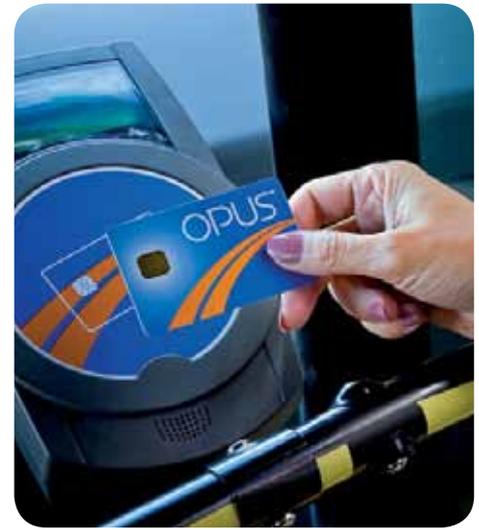
In a Nutshell

Spearheaded by the Montreal and Quebec public transit authorities, a group of operators in the province wished to boost their appeal by creating an interoperable, multimodal transit area. We helped them to achieve this by deploying and commissioning a complete combined (contactless and magnetic) ticketing solution. The system enables users to travel on all the member networks while leaving each operator completely free to set its own fares. In the five years since the project was launched, the interoperable area has continued to expand: today it encompasses 18 operators, i.e. nearly all the public transit networks in Quebec.

Sector: local government

Solution: ticketing

Clients: Société des Transports de Montréal (STM), Réseau de Transport de la Capitale (RTC, Quebec) and 16 other Quebec operators

Challenge: design and implement an interoperable solution, ensuring a high level of autonomy for each transit authority and open to the future addition of other operators

Key Figures

- 18 member operators
- A network of 6 train lines (end of 2014), plus the metro, buses and intercity coaches
- 7000 devices connected to the ATLAS® central system
- 5 million Opus cards sold in 5 years
- 400 million interoperable trips each year
- 600 different passes and tickets handled by the ATLAS® central system
- System availability higher than 99.9 % since 2008
- Ridership increase of 12 % (in 2011) for STM

International Transportation and Government at Xerox

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