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**Silvester Prakasam**

Head of the Fare Systems business unit

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**CASE STUDY THE DUBLIN INTEGRATED TICKETING SYSTEM**

For many years, the Dublin Rail Procurement Agency had been exploring various options to provide the city with an integrated ticketing system for its public transport network. And the government agency found itself under increasing pressure to deliver a working system.

Finally, to ensure that a working system would be delivered, the agency turned the task over to a joint venture team formed by the Fare Systems business unit from MSI and IBM.

The decision to award the contract to the team was made after an extensive evaluation process. “The client picked MSI for the project because it assessed that we have the most advanced ticketing system in the world,” recalls Silvester Prakasam, head of the business unit. “The Dublin Rail Procurement Agency determined this after going on a worldwide study of ticketing systems and comparing the Singapore system with that used in London, Hong Kong, Korea and the US.”

MSI was also picked for the project because of the track record of its parent company, LTA.

The client liked the fact that LTA had successfully tackled all issues that surfaced in the various fare systems previously deployed in the republic. It also values the way LTA works in close cooperation with other government agencies. “This high-level intergovernmental cooperation is rarely practiced elsewhere,” Mr Prakasam spells out, “And what this indicates is that as a vendor, we would be able to look beyond mere ticketing to address larger issues such as the national roadmap for e-payment.”

And so in August 2008, MSI headed to Dublin with a team of 20. The team’s task: To develop the software that would allow Dublin commuters to use just one card to access the services of all licensed public transport operators in the Dublin area, including the rail system, buses, coaches and Luas, the city’s tram system. The new system is part of Ireland’s Transport 21 project, the largest investment ever in the country’s transport system.

The integrated ticketing system will use

We've Grown

# In Global Outreach

## PROJECT

Dublin Integrated Ticketing System

## DATE

August 2008 to July 2010

## STATUS

Phase One completed with the pending launch of a "smart card" that can be used on all public transport systems in Dublin

## TEAM IN CHARGE

The Fare Systems business unit



IBM's proven technology platform running an Integrated Ticketing application software from MSI. The next generation automatic fare collection solution will have the capacity to process up to 2 million transactions a day and can be extended to include other value added services such as Internet top-ups and retail payments. It also makes for seamless travel and transfers across different operators and modes of transport and enables flexible fares and ticket products.

The back-office system developed by the Fare Systems team will provide ticket and smart card management, central reconciliation and settlement services to all public transport providers. MSI will also maintain the back-office system for five years, as part of the requirements of its S\$10 million contract.

In December 2009, the team delivered the software to the client ahead of schedule. Remarkably, the software had passed the user acceptance test without a single detected defect. This is a rare achievement in the field.

How did the team manage this? "Basically we accomplished this by devoting a great deal of attention to the development phases and ensuring that all user requirements were met," explains Mr Prakasam.

The project also testifies to the team's ability to customise its solutions to meet customer-specific requirements. The Dublin e-payment system is a variant of a next-generation e-payment system for public transit developed by LTA called Symphony for e-Payment (SeP).

Articulates Mr Prakasam, "This project demonstrated that we are able to develop a system that can be exported anywhere in the world and customised exactly to the client's needs."

Still, for Mr Prakasam, just being picked for the project was an achievement. "This is a First World country with access to very capable vendors. Dublin had its pick of the best-of-breed teams and it picked us."

"And," says Mr Prakasam simply, "we rose to the occasion".

# The Business Unit That Punches Above Its Weight

The Fare Systems business unit of MSI is unlike any other automated farecard solutions provider in the world.

## PROFILE THE FARE SYSTEMS BUSINESS UNIT

For a start, it is the first – and only – team in the world to successfully steer a mass migration from one smart card system to another.

“No one else has gotten there yet,” states Silvester Prakasam, head of the unit, with some pride.

In 2009, the unit successfully orchestrated a conversion exercise that saw 4.5 million commuters in Singapore swapping their contactless smart card (the EZ-Link card) for the new-generation smart card called CEPAS (or Contactless e-Purse Application). Despite the huge number of cards involved, the undertaking went off without a hitch.

“The fact that we replaced the entire smart card system in Singapore,” says Mr Prakasam, “made a lot of people view us with a certain degree of respect and garnered us recognition.”

System operators around the world find the undertaking daunting because it involves managing millions of commuters as well as the challenge of having to run two fare systems – both new and old – in parallel for a period.

Even before this achievement, MSI had earned sufficient recognition internationally to land 2 major contracts beyond Singapore shores.

The first contract, secured in 2006, involved replacing an existing magnetic card with a smart card for the 400,000 users of the Bangkok Skytrain. This was accomplished with no disruption to the collection of revenue.

The next contract was for the delivery of the Dublin Integrated Ticketing System, which would allow Dublin commuters to use just one card to access the services of all licensed public transport operators in the city.

Since the successful completion of these two projects, several other transit agencies have expressed interest in engaging the services of the Fare Systems business unit.

“We are now at the top of the automated farecard field in terms of the technology we use and our ability to deliver. In terms of performance level, we are rated very highly. We definitely see more opportunities coming our way in the next 5 years,” states Mr Prakasam.

### THE WORLD AWAITS

The Fare Systems business unit has changed considerably since it first began.

When it first started in 1987, it had a team of 20. Today it is 150 strong. Where in 1987, it ran a fare system used by 200,000 commuters daily, today it looks after a fare system that clocks 5 million trips a day.

Changes upon changes, however, one thing remains the same: The team’s passion for the work that it does.

“Ticketing technology is interesting because it is always evolving and, most important of all, because what we do touches the lives of almost everyone, from children to retirees. It is a part of the life of all segments of society. And that makes us very proud to be doing what we are doing,” confides Mr Prakasam.

“We are ever making life easier for commuters, making our products and services more cost effective for our clients and adding more value to our products on behalf of our biggest client, the government. We see a

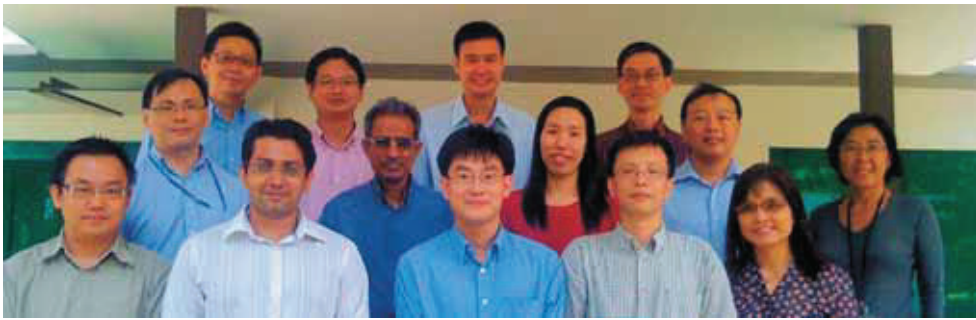
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Our global team

key part of our job to be that of providing citizens with the best in terms of more user-friendly devices.”

Mr Prakasam believes that this passion differentiates the team from all others. “Most of our competitors are fairly large. We are a comparatively small player. But in terms of what we are delivering, we are punching above our weight.”

Their enthusiasm and commitment is the reason why the team gets glowing references from its clients, he says. “To build a system for 5 million riders, you need a very strong and committed team, which we have. The fact that most of the team has been with us since day one shows the high level of commitment each member has to the job.”

Currently, the team’s biggest customer is the group of public transport operators of Singapore. For this group, the team undertakes the maintenance of the ticketing systems of all public transport on the island – a S\$28 million contract. This contract has been renewed since

2002, reflecting the level of satisfaction with the service provided, especially with the low failure rate the team has been achieving.

Now the team has committed itself to a new goal: To become a world-leading player and export the expertise it has developed to the world.

“Everyone on the team is very excited about this,” says Mr Prakasam.