

VocaLink:
Exporting payments
excellence



The Faster Payments Service (FPS) has been operating 24x7x365 in the UK for over 5 years, securely processing over 3 billion transactions. As well as offering a step-change improvement in processing efficiency, VocaLink's real-time solutions offer an excellent strategic platform for innovation. The benefits of real-time technology have attracted attention from around the world. VocaLink has helped the Singapore payments industry realise its bold ambition of implementing immediate bank transfers and debit requests as part of the FAST service.



Since 1968, VocaLink has provided the infrastructure that powers the UK payments industry, keeping it at the forefront of world payments innovation.

This technology enables banks to become more efficient and competitive and offers confidence to all who run payment schemes or use payment services. VocaLink's real-time expertise dates back over 25 years, through the Link ATM service and more recently, the FPS.

The FPS runs on the VocaLink real-time payments platform. The service enables interbank fund transfers to be made in near real time, typically initiated via the internet or phone. The FPS represents the biggest advancement in UK payments for several decades and this has drawn attention from around the world. VocaLink's Immediate Payments Software (IPS) is the new generation of real-time products that builds on the success of the FPS and includes new features, such as the ISO 20022 messaging standard and debit requests.

The Singapore challenge

Singapore is an advanced economy that employs a variety of clearing and settlement systems. It needed to transform its payments infrastructure to offer instant interbank transfers. The objective was to offer FAST (Fast And Secure Transactions) transfers via online and mobile channels. Prior to the introduction of FAST, instant fund transfers were only available for transactions between accounts held at the same bank. Interbank transfers could take up to three working days to complete.

There are two principal companies involved in processing Singapore's payments. BCS is the infrastructure company that runs the clearing services, owns the data centres and delivers the services to customer banks, and BCSIS, which provides application software and support. Both companies wished to develop a batch-based service and a real-time clearing service simultaneously. This was the inspired vision of the Monetary Authority of Singapore but it needed to be supported by bold decisions and new, creative ways of working. BCSIS was keen to tap into the practical experience and expertise of the UK industry.

The core technology

BCS sought a best-of-breed solution that could deliver interbank transactions and confirmations between the Singaporean banking community in real-time. VocaLink could deliver a practical solution, IPS, and also offer practical support during the implementation and beyond. BCS could embed IPS into its local operational systems to accelerate the delivery of the overall FAST solution.

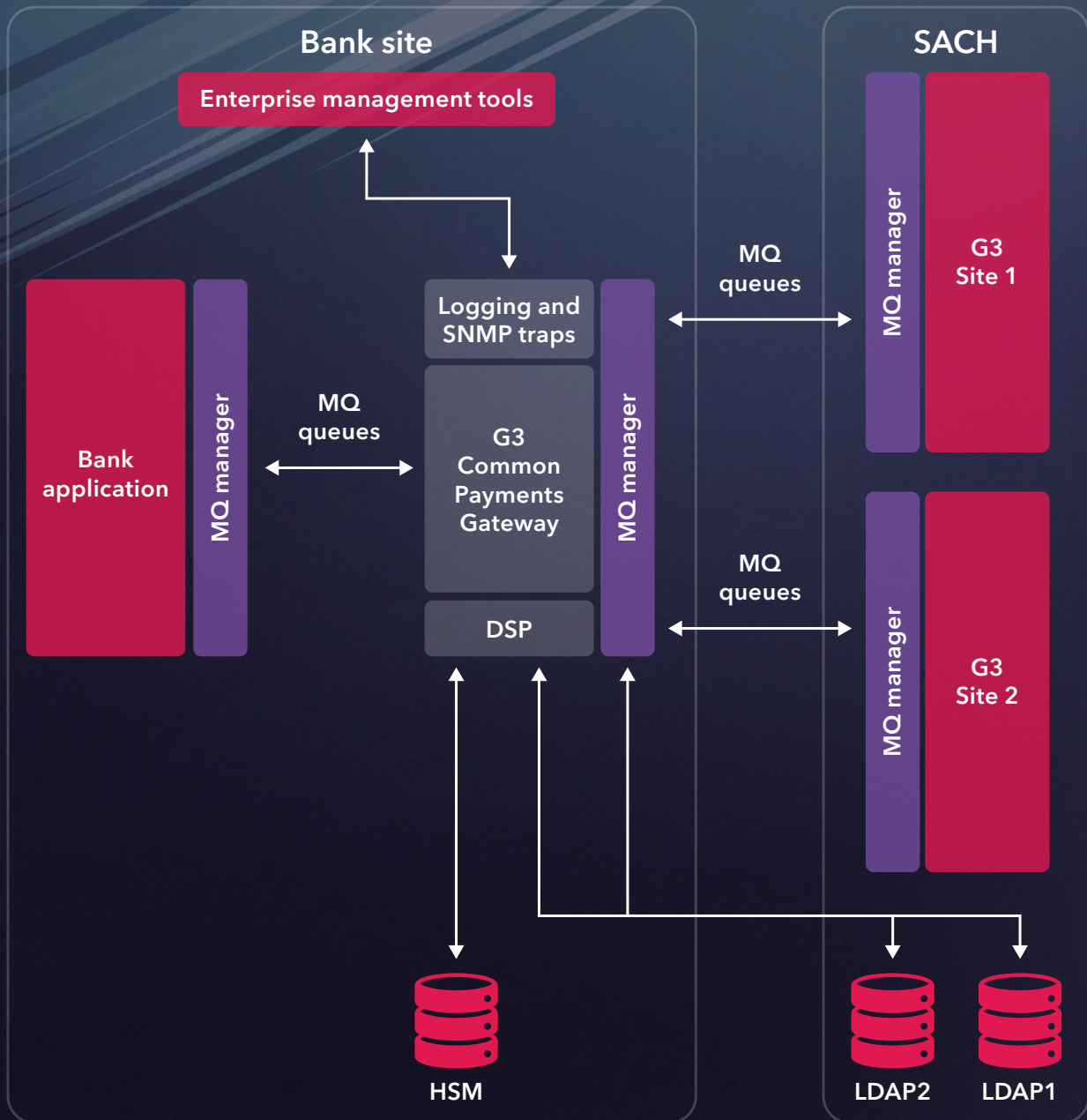
The IPS software implementation comprised two components: The Central Switch and the Back Office. It is designed to operate across multiple sites, offering full resilience with no single point of failure.

- **The Central Switch** delivers payment and confirmation messages between paying and beneficiary institutions. The messages are submitted using ISO20022 and are validated, routed and delivered in real-time. The system supports direct credit and debit request transactions and also maintains settlement risk positions for each bank in near real time
- **The Back Office** function provides reports and APIs to support enquiries and data interrogation through a bespoke user interface. The APIs also permit operator access to the system and the sending of messages using enterprise management tools. The back office provides the interface to the nominated settlement agent to manage liquidity and effect settlement.

In addition, bank integration is simplified by the **Common Payments Gateway**, which sends and receives messages to and from bank applications and IPS. Functionality includes validating payment messages, logging payment messages, generating and validating digital signatures,

'round-robin' routing of messages and load balancing. All banks adopted the Gateway in order to simplify access to the FAST service.

The following diagram shows the operation of the Gateway in the Singapore G3 implementation:



A consultative approach

At the outset of the project, VocaLink consulted with BCSIS to identify the key business requirements of a transformational payments platform and a specialist VocaLink team worked with the participating banks, facilitating workshops to build awareness and confidence. These workshops were designed to demonstrate the benefits of a real-time service from a bank perspective, based on the UK experience.

The workshops enabled VocaLink to collaborate with the Singaporean banks to deliver a bespoke solution, reflecting the configurability of the VocaLink solution.

After an initial discovery and consultative phase, it was decided that VocaLink could help accelerate delivery of the new infrastructure and could also de-risk the project. VocaLink augmented the IPS with:

- An application support framework
- An operational framework – practical expertise during the design, build and initial running of the new platform. In addition to people, expertise and experience, VocaLink could bring practical expertise and methods to the project.

The complexity of the project was substantial. Although Singapore is an advanced economy with a mature payments infrastructure, moving to real-time processing with 24x7x365 support was a considerable undertaking. Nearly all business processes had to be re-engineered from a 9am to 5pm operation to support the new platform.

A unique project

From the outset of the project, the VocaLink approach centred on comprehensive knowledge transfer. A dedicated, expert team was formed, including many people who had worked on the original FPS project.

VocaLink developed bespoke training programmes to ensure that first and second line support teams could support the services efficiently and effectively. Business processes were re-engineered to align with real-time requirements.

In parallel, a meticulous testing framework was developed, which ran from mid 2013 until June 2014, and involved 14 full-time participants.

System testing and knowledge transfer

A critical determiner of project success was the expertise of the people involved and their ability to work together. From the start of the project, VocaLink placed people on site, working closely with BCSIS staff. As well as facilitating knowledge transfer this built confidence during the testing period and prepared the support teams for live running.

The testing period was methodically managed, and included testing of low probability scenarios. This ensured service resilience and boosted confidence in the core IPS software. It also allowed business processes to be refined with policies and procedures for issue resolution.

“There is now enormous scope to grow digital services associated with the scheme, with a particular emphasis on mobile payments. Singapore is an early adopter of real-time payment capabilities and we expect other countries in the region to take up this innovative technology in the coming years.”

Ricky Lim, Managing Director, BCSIS

Sustainable benefits

The FAST project was launched in March 2014. The service enables customers of the 14 participating banks to perform interbank transfers of up to S\$10,000 per transaction, subject to withdrawal limits of the individual lenders. It can be accessed using a range of electronic devices such as tablets, smartphones or personal computers and has been available around the clock since launch.

The project heralds a new dawn in Singapore payments. Now people can pay who they want exact amounts, when they want, knowing they will be received in near real-time. End-to-end payments are effected in under 15 seconds and more than 33,000 transactions totalling S\$64 million in value were processed on the first two days of operation.

In addition to the capabilities provided by UK Faster Payments, the FAST service will also include the ability to raise debit requests as well as 'push credits'. This facility will underpin further innovation in Singapore payments.

This is the first national real-time payments infrastructure, outside of Europe, to utilise the ISO 20022 standard. By adopting the global standard, the new infrastructure provides the ideal strategic platform for innovation. On the back of the new, real-time service, OCBC Bank has added a new feature (or overlay service) to its mobile app that enables users to send money to friends via Facebook, e-mail and text messages without the need to disclose bank account details. Funds can be sent to anyone with a bank account at one of the 14 Singapore banks signed up to the national FAST system.

“Demand for the Faster Payments Service in the UK has grown every year since its launch in 2008 as more consumers and businesses appreciate the benefits of real-time payments. We now have ambitious plans for rolling out our Immediate Payments technology across the globe. The successful launch of FAST in Singapore in partnership with BCSIS is therefore a significant milestone in delivering this strategy and we expect to reach many other territories in the years ahead.”

David Yates, Chief Executive Officer, VocaLink

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