

CASE STUDY

KBC BANK

Fujitsu designed and developed a reliable solution, to allow two sensitive IT systems within KBC Bank, to communicate securely and effectively.



Customer's Challenge

KBC Bank (KBC) is the Irish subsidiary of the leading European financial services organisation, KBC Group.

KBC is a major player in the residential mortgages, corporate banking and investment market-places in Ireland and has established itself as a provider of first choice to many Irish business and personal customers.

KBC use a "SWIFT" system to make payments to trading counter parties and a "Murex" system for traders. Transactions from Murex needed to be transferred into Swift but due to the security concerns around the large monetary values involved these systems were not connected and this process was not automated. Instead, Murex transaction details were printed and then entered manually into SWIFT. Security procedures around this process required that two people were involved in the input of each transaction and that each transaction was entered in duplicate.

This was a labour intensive and time consuming exercise. KBC were reluctant to automate this process unless they were assured of the absolute security and reliability of the solution.

Fujitsu Solution

The Fujitsu solution comprised of the following components:

- Firewall including implementation of an Intrusion Prevention System
- Message Delivery
- Integration between application components and messaging system.

A secure firewall with IPS technology was installed between the SWIFT Alliance server, the Murex Servers and the rest of the KBC network, with firewall rules implemented to limit traffic across this interface to the absolute minimum. All data transactions between Murex and SWIFT Alliance systems were encrypted to provide additional security.

Message delivery was implemented using the IBM Websphere MQ product, which implements the Java Message Service (JMS) standard. This provides an asynchronous communication mechanism.

Messages are transferred securely across a Secure Socket Layer (SSL) tunnel. Websphere MQ is designed to persist messages at the source, should the destination server or network be unavailable, until the route to the destination is restored.

Organisation

KBC Bank.

Services delivered

Secure IT Architecture and Integration of KBC's Murex and Swift systems

Customer benefits

- The elimination of the manual task of entering Murex transactions on SWIFT system.
- A reduction in the time spent transferring Murex transaction data to SWIFT.
- A reduction in the risk of errors in the transfer of Murex transaction data to SWIFT.
- Removal of the need to re-key data input to SWIFT.
- Faster throughput of transactions providing a more scalable solution.

These mechanisms allow MQ Series to guarantee reliability (dependency on availability of network, network peripherals, and hosts) as well as one-time delivery of messages from source message queues to destination message queues.

As part of the solution, Fujitsu developed a number of bespoke agents to provide the integration between the various application components and Websphere MQ.

Benefits to our Customer

The key benefits for KBC are:

- The elimination of the manual task of entering Murex transactions on SWIFT system, which frees up staff to work on other tasks.
- A reduction in the time spent transferring Murex transaction data to SWIFT. Again this benefits KBC staff as they have more time to concentrate on the core business.
- A reduction in the risk of errors in the transfer of Murex transaction data to SWIFT.
- Removal of the need to re-key data input to SWIFT.
- Faster throughput of transactions providing a more scalable solution.

Our Approach

The Fujitsu implementation approach included the following:

Analysis and investigation: Fujitsu worked with KBC to determine detailed requirements for the solution including transaction format, validations, security and business rules to be applied. Detailed validation rules were required to ensure the integrity of the transaction files. In addition, the firewall rules were agreed and documented.

Design: Fujitsu designed the infrastructure and solution architectures and the specifications for the various bespoke components. The design and configuration of the Websphere MQ components were completed and various housekeeping and administration components were designed.

Installation: The hardware infrastructure including clustered firewalls were installed and configured in a test environment to establish the communication between the two systems. The various software components including Websphere MQ were installed and configured for failover.

Development and test: The various bespoke integration and housekeeping components were developed and tested rigorously. Sample files were created in Murex and transferred to Swift. Rigorous fail-over testing was performed to ensure that the system failed-over correctly and to ensure that all messages were transferred once and only once even when a fail-over occurred.

Implementation: Once the system had been tested to the satisfaction of KBC it was deployed to the production environment. During the implementation there was no disruption to service. The solution brought immediate benefits as the people responsible for keying in the Murex transactions were freed up to work on other tasks.

Our Expertise

Fujitsu has a proven track record in providing innovative and reliable IT services and solutions, incorporating the best and most appropriate technology that creates value for its customers by helping them to realise their business vision and deliver impeccable customer service.

Given the sensitive and critical nature of the transactions it was vital for KBC to employ a reliable partner to implement this solution. Fujitsu provided expertise in all the relevant areas including Solaris, Websphere, Java development, infrastructure and networking skills. In addition, Fujitsu were able to advise on best practise security standards and could provide expertise and experience in designing and developing a highly secure and reliable solution.