CASE STUDY

RE-ENGINEERED LEGACY MIDDLEWARE FOR ASYNCHRONOUS PAYMENT PROCESSING

Achieved high throughput enabling the payment gateway to process 3.2 million inputs/day

Client Background

Our client is a leading US financial institution providing settlement services to its members in the foreign exchange market. The client used a legacy middleware system with monolithic architecture to support payment processing. There was a need for an industry standard application built on new technology to support asynchronous payment processing for improved performance and throughput.

Xoriant Solution | Key Contributions

Xoriant's expert team thoroughly analyzed the client's payment processing system. With a proven experience working in BFSI domain and product engineering, Xoriant helped re-engineer and rearchitect the payment and message gateways to handle incoming & outgoing SWIFT, FED, SIC, ISO20022 and MT messages. The key contributions for the client included:

Payment Gateway

- Maintenance of audit tables to log both incoming and outgoing messages

- Creation of testing cycle with functional/regression/integration level testing and performance benchmarking

- Development of sub-components: Real Time Gross Settlement Manager, Payment Gateway, Pay-In Manager, Pay-Out Manager

- Re-architecture of application from C to Java and conversion of a single application to platform to support multiple behaviours

KEY BENEFITS

- Achieved rich functionality, more standards-based message exchange among various legacy and newer applications with the re-engineered code

- Improved maintainability of the code with simplified code base by focusing on business logic and separating recovery, reliability, and error handling functions

- Enhanced pay-in & pay-out throughput to 2700 and 9000 /minute respectively with an expected pay-in and pay-out load of 8000 /day

- Attained a throughput of 10000 messages/minute, enabling the gateway to process 3.2 million inputs/day

Messaging Gateway

- Reengineered and developed the messaging gateway application that validates incoming trade messages from the members and generates notifications for the trades back to the members

- Developed sub-components: Messaging Gateway Inbound, Messaging Gateway Outbound, Messaging Gateway Outbound Replay

- Provided Level 3 support for the application going LIVE as part of the settlement service

- Created 20000+ unit test cases for the robust testing of the application

- Created Perl-based component testing suite for executing regression testing of the message gateway

Client Testimonial

Xoriant's proficient engineering team helped us develop, re-engineer and test a robust messaging and payment gateway solution. The team diligently delivered this project within the assured timelines while ensuring error-free release

Technology Stack

JAVA 1.8 | MQ 9.0 | DB2 | Spring-Core 4.3.6 | Hibernate 4.2.8 | C++| Perl

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