



## Success Story.

# Forex Trading Platform Development For Brokerage Service Providers

### About the Client

The client is a next-generation Prime Broker that has collapsed the horizontal functions of custodial banking, real-time clearing & settlement, and an exchange into a vertically-integrated platform for OTC assets. The client specializes in Prime Broker, Prime Brokerage, Foreign Exchange, Financial Services, OTC Assets, Capital Markets, Electricity, Clearing & Settlements.

### Business Challenge

The client had a legacy, thick client application for registering & uploading the KYC details of their customers. The application lacked a good user experience for customers to complete the KYC process. The thick client architecture led to challenges like complexities in integration with the existing infrastructure, complex programming model, single channel support, high maintainability, and security issues. Moreover, the application was accessible to customers only through a VPN, which led to delays in customer onboarding. The customer was also looking at building a foreign exchange solution for real time clearance to FX spot markets.

The client needed techno-functional experts who understood the capital markets domain and had the technical expertise in helping them build the FX trade solution.

### Silicus Solution

Silicus developed a single web based application for the KYC and FX trading functionalities desired by the client.

Silicus developed the KYC web application using modern development technologies providing a great user experience. For the FX trade solution, Silicus developed a robust, high performance messaging bus, which is the core framework that acts as a middleware for the business application.

#### KYC Solution

The presentation layer of the KYC application was developed using Bootstrap and Angular JS. Web services were exposed to the presentation layer using Spring. On registration, a link is sent to customers to upload their KYC information along with supporting documents. An email notification is sent to customers on completion of the KYC process. Email reminders are sent periodically to customers reminding them to complete their KYC process. All the completed applications are imported to the legacy application through a scheduled batch process. KYC documents are stored in a secure storage solution provided by a content management vendor.

#### Forex Trade solution architecture

Silicus developed the enterprise gateway service that interacts with the trading platform through a messaging bus using ActiveMQ. The gateway processes the data received from brokerage firms in the form of a FIX (Financial Information Exchange) protocol.

The continuous stream of the real-time FIX data is parsed and sent to the trading platform through the gateway service. Since the gateway acts as an interface to all the clients' applications, performance and scalability were the key non-functional requirements. With an

efficient design of asynchronous and multithreaded processing, our experts succeeded in providing a solution with an optimal transaction throughput and a highly scalable service.

Silicus was also involved in enhancing the features of the trading platform. The features included share trading, negotiated trading, foreign exchange, fixed streams and generating reports like letter of credit and client monthly statements.

Technologies  
Used



LANGUAGES

Java, Python, HTML, CSS,  
JavaScript



FRAMEWORK(S)

Spring, AngularJS,  
KnockoutJS, Bootstrap,  
RESTful web services



IDE

Eclipse



DATABASE

MariaDB version 5.5.50



WEB FRAMEWORK

Tornado, Spring



VERSION CONTROL

Gitlab

Client  
Benefits

PROCESS EFFICIENCY

The KYC application helped to expedite the KYC process by providing a quick, simple and secure interface for institutional customers.

ENHANCED REAL-TIME PERFORMANCE

Market makers and natural liquidity providers meet in an efficient and transparent market through the FX solution that provides real time clearance and settlement to the FX spot markets.

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