Perfect Storm of New Acquisition and Continuously Moving Targets Tests Lab's Limits
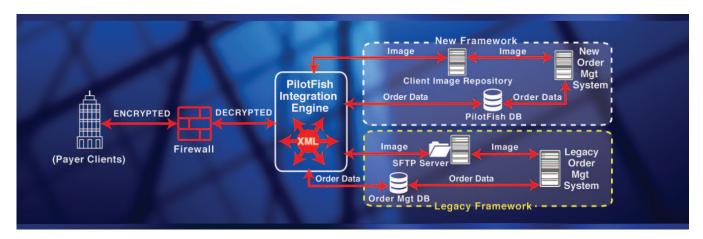
Real-time data integration and ensuring data integrity was critical to the success of a newly-acquired division of a clinical testing laboratory which performs hundreds of thousands of tests every day and deals with huge volumes of data from many disparate systems. Extremely tight timelines, new systems being developed in concert with the implementation of PilotFish and a lack of IT infrastructure from the acquired firm posed a unique set of challenges. The client relied on PilotFish as their preferred partner for the underlying technology along with their outsourced services team to implement the solution.

THE CLIENT

One of the nation's largest privately held clinical testing laboratories, with clients across the globe, provides risk assessment, drug abuse testing, wellness, molecular diagnostics and global clinical trials. In acquiring a leading provider of laboratory testing services, the client faced an influx of new business which included call center business operations. The acquisition came with little in the way of IT infrastructure and staff. What was transferred included legacy technologies. In rationalizing the new business, the client forged ahead to consolidate their own technology stack. Contractual drop-dead dates added to the inherent technical challenges. A solution needed to be delivered within a very tight timeframe. To meet these challenges, PilotFish was selected as the integration solution along with its team of consultants to ensure customer satisfaction and seamlessly meet contractual guarantees.

THE CHALLENGE

A perfect storm challenged the client and PilotFish. Simultaneously and with minimal disruption to customers' businesses, new customer-facing and back-end systems were being developed by the client while PilotFish was responsible for all messaging and integration for existing and new customers. Legacy systems, notably telephony, had to be integrated with until retired. Not unexpectedly, asynchronous processes and guaranteed delivery of data were added hurdles.

PilotFish had to deliver results that were highly variable by client. Each customer transmitted customized in-bound messages, notwithstanding their use of established standards. Similarly, each customer required customized out-

bound messages in the exact format previously used and according to their current delivery requirements (continuously throughout the day or at a specified time(s) each day). Message strings included large embedded images (BLOBs in TIFF, PDF or other formats).

In an evolving environment, PilotFish (on the integration side) and the client's IT team (on the development side) needed to communicate continuously and well. The new aPaaS application development approach being employed involved rapidly changing requirements and a plethora of change orders. In the meantime, customers continued business-as-usual ─ expecting a high-level of service and guaranteed transaction processing.

THE SOLUTION

The PilotFish solution was leveraged to develop the primary interface for non-interactive in-bound and out-bound transactions, primarily focused around industry standards, but with some flat-file work as needed for those customers requiring it. PilotFish's integration engine suite provides a complete integration solution that is both flexible enough to handle diverse connectivity, validation, data transformation, routing and delivery of information and scalable to handle a tremendous volume of data. With PilotFish, each customer is able to define the data formats, connectivity protocols, business rules and message flows that govern data flow. Using PilotFish's methodology and tools, the customers' customized in-bound and out-bound transactions proved (in general) to be a non-issue. In-bound customer data was normalized and then easily delivered in the customized formats that exactly mirrored each client's previous requirements and business rules.

Another requirement was that PilotFish needed to re-engineer the client-facing web services endpoints and the back-office automation to take advantage of the client's infrastructure, which was in the process of changing as that was being done. PilotFish accomplished this in parallel to building up a common set of internal interfaces used (by the client's web app and by PilotFish) for ordering, status, reporting, and fulfillment-tracking (recording keeping that a particular transaction has been delivered).

Creativity and agility, not to mention troubleshooting, was required of the PilotFish team to deliver on customer requirements and expectations in the face of constantly moving targets. An innovative solution that PilotFish utilized was an Oracle database to give integration visibility to both teams to the status of requirements and change orders.

Throughput issues in this changing environment were solved via PilotFish's advanced queuing that handles things in a transactional nature. PilotFish supports this by allowing as much concurrent throughput as is needed. PilotFish also allows throttling of the volume of data from each channel to match throughput to the system's capability to ingest the data. Monitoring and alerts were activated and troubleshooting done to trace order issues. PilotFish's queuing capabilities are reliable and easily configured ─ a tremendous advantage as the client's technology stack changed and evolved.

THE BENEFITS

The PilotFish solution was implemented with minimal disruption to the client's day-to-day business or that of its customers. By re-engineering the client-facing web service endpoints and the back-office automation, PilotFish was able

to take advantage of the client's existing investment in its infrastructure. PilotFish was able to do the development in parallel and build up a common set of internal interfaces used (by the client's web app and PilotFish) for ordering, status, reporting, and fulfillment-tracking. In doing so, it was able to provide a record that a particular case had been delivered, validating the transaction.

Through the innovative use of an Oracle database, internal integration was done between PilotFish and the client's IT development team providing better diagnostics and visibility in the situations where things did not go as expected so that these could be quickly remedied.

By utilizing PilotFish's suite of integration products and services team, the client was able to go live with eight major companies and meet all of its contractual deadlines. By leveraging PilotFish products, which are designed to make the configuration, management and maintenance of interfaces easier, the client can easily step in on an on-going basis support and maintain client-facing interfaces. PilotFish's architecture, which facilitates interface reuse, also played a role in the speed with which the solution could be rolled out with timelines adhered to and guaranteed deadlines met. Using PilotFish, each new implementation can be achieved by cloning earlier efforts and only making minor modifications in configuration saving great amounts of time.

THE FUTURE STATE

The client wants to continue to leverage PilotFish and its services team on an on-going basis to support and maintain client-facing interfaces (e.g. as new clients come on, as clients upgrade from one version of a standard to the next, etc.) In that the PilotFish services team of two delivered amazing creativity, agility and productivity affordably, their on-going use is a money-saving investment until the "perfect storm" calms down.

The client is also investigating utilizing the PilotFish eiDashboard application to monitor messaging streams and provide real-time visibility with the ability to configure trigger alerts at critical stages. It offers the same ease of use and visual simplicity that has become a hallmark of PilotFish products. Available anytime and anywhere, the eiDashboard is a browser-based application that you can use on any desktop or smart device with network access. Business users, developers and system administrators can get a consolidated view of system performance, overall interface health, operational statistics and throughput, error rates and much, much more.

Longer term, the client plans to bring the PilotFish solution totally in-house. The PilotFish integration solution, its exclusive "graphical automated interface assembly line" and other advances, have demonstrated that integrating with virtually anything and everything now and in the future is possible. Additionally, business analysts and other non-technical staff will be able to do 80%-90% of the data exchange work, saving expensive and scarce IT talent for projects to move the business forward.

The flexible and extensible architecture of the PilotFish platform will allow the client to rapidly setup connection methodologies that meet the needs of their existing legacy clients while also allowing them to leverage industry standards and upgrades, new advanced technologies and best practices with new trading partners. Overall, the PilotFish solution can be relied on to help drive the client's growth and profitability and expansion into new market segments, while helping to reduce costs.

Over the course of nearly 15 years and hundreds of implementations, PilotFish has developed and refined a methodology for the configuration, testing and deployment of interfaces and process orchestrations. We have an unblemished track record of success. Through years of Bake-Offs and Proof of Concepts (POCs) we have demonstrated the value of our integration engine solutions to future customers. Let us conduct a Free Use Case Evaluation for you to determine where PilotFish can provide the most value to your organization and solve your most complex integration challenges.

To schedule a Free Use Case Evaluation and to learn about what PilotFish Solutions can do for your organization please contact us at 860 632-9900 x 309 or Email us at info@pilotfishtechnology.com