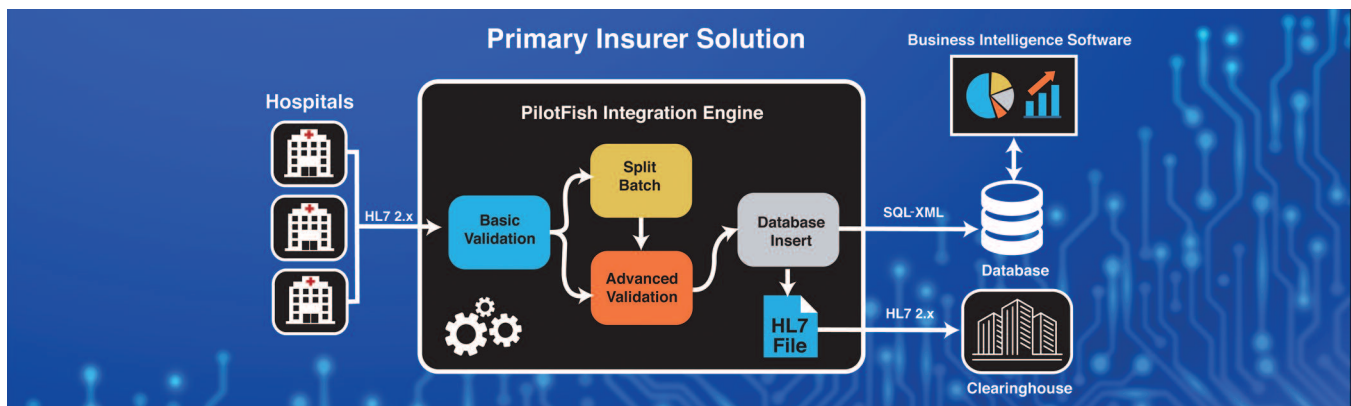


PilotFish Studies in Integration

Enhancing Healthcare Delivery: An HL7 Integration Success Story

In an era where healthcare technology plays a pivotal role in the delivery of patient care and operational efficiency, this organization has emerged as a key player in the healthcare information systems market. Specializing in solutions that streamline and enhance healthcare services, they faced the challenge of integrating complex data systems while ensuring compliance with stringent healthcare regulations. This case study delves into how their partnership with PilotFish, a leading provider of healthcare integration solutions, critically enhanced their data management capabilities and significantly improved their services delivery to healthcare providers, organizations and payers.



THE CLIENT

The client, well-established for over a decade, offers a suite of services ranging from sophisticated Electronic Medical Records (EMRs) and Practice Management Systems (PMS) to comprehensive data analytics solutions. Their mission is to provide innovative, secure and efficient healthcare information solutions. The client serves a diverse clientele, including healthcare providers, organizations and payers. The company's commitment to leveraging technology for better healthcare outcomes has made it a trusted leader in the industry. With over a decade of successes, the client has continually adapted to the ever-changing healthcare landscape, determined to meet demands from stakeholders across healthcare for improved data management, operational efficiency and patient care delivery.

THE CHALLENGE

Within their HIE ecosystem, the client had established and proven processes for data exchange with partners. However, core components were not fully electronic, resulting in unnecessary manual processes and costs. The pressing challenge leadership faced was to leave intact existing processes and connections while automating, augmenting and modernizing critical aspects.

The billing and claims processes, validations and analysis were among the first up for further automation. These critical client data exchanges with hospitals and payers supported X12 EDI and HL7 financial and clinical transactions. The client's IT development team initiated a search for a modern, robust integration solution highly performant within



PilotFish Studies in Integration (continued)

their existing HIE environment. When one of their most valued payer clients pressed for faster automation of complex HL7 exchanges, the IT development team turned to front-runner PilotFish and its modular assembly line approach to integrations.

THE SOLUTION

During the client's evaluation of healthcare integration solutions, PilotFish beat all competitors on performance, ease of use, effectiveness and cost. PilotFish expeditiously handled virtually any integration requirement, communication protocol and data issue encountered. Each benchmark and test of capabilities was met, including analytics and BI report generation.

Importantly, PilotFish's comprehensive graphical modular integration platform supports all healthcare standards, including HL7 v2.x and 3.x, FHIR, DICOM, CCD/CCDA, HIPAA X12 EDI, JSON, APIs and any XML-based standard.

For this initial project, the client leveraged the extensive set of tools and features for HL7 message processing, validation, mapping and transformation built into PilotFish.

HL7 interface development kicked off with the client's team participating in PilotFish's 40-hour training course, a building block in achieving self-sufficiency.

Simultaneously, the client began iterating business requirements for augmentation of their HIE processes and improvement of their HL7 integration solution.

The solution had to be interoperable with multiple hospital EHRs and payers and execute a multi-level, sophisticated validation of HL7 messages. The data specificity down to fields and sub-fields and applied business rules required complex customization.

Validated HL7 2.x messages were routed to an internal database for delivery to the clearinghouse for exchange with payers. Transformed HL7 2.x messages were additionally routed from the database to business intelligence software.

The HL7 data exchanges included receiving and transferring HL7 ADT, ORM-ORU and lab results. The project started with HL7 ADT (Admissions, Discharges, Transfers) as HL7 ADT triggers critical events in the payment process.

During this period, a PilotFish Senior Solutions Architect worked with the client's small team of experienced developers. Over several iterations of requirements, the team experienced how PilotFish's innovative integration architecture, built-in HL7 tools and flexibility made it radically easier to meet changes and requests from stakeholders.

Compared to other integration platforms with more rigid validation paradigms, PilotFish allows users to define custom validation rules and logic based on their specific requirements. PilotFish's more lenient parsing accommodates variations in message structure while also allowing the ability to build complex intelligence to determine message validity. This flexibility enables organizations to enforce additional business rules or constraints on HL7 messages beyond



PilotFish Studies in Integration (continued)

the standard validation checks. Complex content and structural validation is accomplished within the PilotFish Data Mapping component. There PilotFish generates XSLT transformations that transform any data format to any other. Developers can toggle to XSLT tools “under the hood” easily from the graphical view of the Data Mapper and vice versa.

With the expertise and mentorship of the PilotFish Senior Solutions Architect, a framework was developed capable of handling the connectivity, data manipulation and complex data validation required. Ongoing knowledge transfer ensured the self-sufficiency of the client’s IT team.

The resulting validated HL7 resided in the XSLT of the Data Mapper. Plus, the client found PilotFish architected for painless interface reusability.

THE BENEFITS

like the eiConsole IDE. That explicit support for healthcare standards and features makes working with these standards easier and faster for technical professionals.

In evaluating the partnership with PilotFish, the executive team declared it an unmitigated success achieving short time to value, lean use of resources, a solution custom-tuned to their business requirements and measurably increased provider and payer satisfaction.

Impressively, PilotFish converted a complex integration challenge into a streamlined, efficient process and robust solution:

- increasing data quality immediately
- minimizing manual processes and interventions
- progressing to fully electronic processes
- leaving existing systems and connections intact
- reducing administration costs and increasing operational efficiencies.

Going forward, many new implementations can be achieved with interface and component reuse saving enormous amounts of time and money.

The initial mentorship and support of the PilotFish Senior Solutions Architect for a short time empowered the internal staff to be able to maintain, design and implement solutions on their own.

Partnering with PilotFish proved that the right integration solution more than met the firm’s unique challenges. PilotFish enabled newfound agility, analytics and business intelligence capabilities as well. The bottom line was that PilotFish delivered everything expected and more.



PilotFish Studies in Integration (continued)

By leveraging the PilotFish integration solution, the firm could extend the longevity and return on existing technology solutions while reassessing the need to invest in new services and systems. While from a federal perspective, real-time response needs to be within 20 seconds, with PilotFish, real-time response was less than one second on average – a big gain.

With PilotFish, the company rapidly achieved benefits in the additional phases of the project to transform, modernize, and automate processes and workflows. Partnering with PilotFish helped the company achieve a lower total cost of ownership overall.

Since 2001, PilotFish's sophisticated architecture and innovations have radically simplified how healthcare integration gets done. Today PilotFish offers the most flexibility and broadest support for healthcare integration of any product on the market and is system, platform and database agnostic. PilotFish's healthcare integration suite includes support for all healthcare data formats (HL7 2.x, HL7 3.x, FHIR, CCD/CCDA, JSON, XML, X12 EDI, NCPDP, etc.) and communication protocols.

PilotFish is architected to be infinitely extensible with our Open API and flexible to meet any integration requirement. PilotFish distributes Product Licenses and delivers services directly to end users, solution providers and Value-Added Resellers. To learn more, visit our Case Studies or specific solutions like HL7 Integration or X12 EDI Integration.

PilotFish Healthcare Integration will reduce your upfront investment, deliver more value and generate a higher ROI. Give us a call at 813 864 8662.

