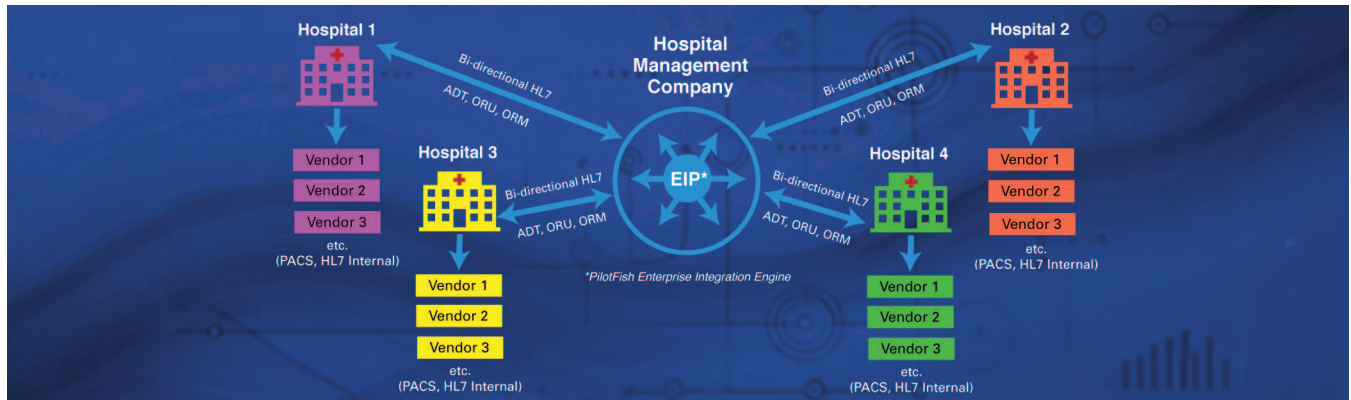


PilotFish Studies in Integration

Multi-Vendor HL7 Integration Challenge Solved with PilotFish Solution

In their mission to deliver the highest quality patient care, hospital management companies must navigate the changing complexities of healthcare data integration. Notably, more and more third-party vendors are providing essential services for smart hospitals, from staffing to advanced medical technologies. Multi-vendor HL7 standard data exchanges are well known for presenting ongoing challenges.

With a wide array of third-party vendors such as Omnicell and UniPOC, varying data standards, and legacy systems requiring modernization, PilotFish became the cornerstone of this Hospital Management Company's integration strategy, providing a streamlined, scalable and technically robust solution.



THE CLIENT

The client is a leading growth-oriented regional Hospital Management Company. The company provides comprehensive day-to-day management services to the group of community hospitals it serves. Its Hospital Management Services include lab, imaging, pharmacy, clinical services, medical staffing, human resources, accounting, financial planning and information technology.

The firm is strategically focused on sustainable growth and delivering high-quality patient care through a combination of hospital partner acquisitions, community engagement, quality improvement and technology adoption.

THE CHALLENGE

In introducing and running modern operational and clinical services, the firm faced the challenge of integrating multiple systems with numerous third-party vendors, medical devices and legacy systems while ensuring real-time clinical data integration. The firm had also migrated from Meditech to EPIC. The firm's growth triggered the need for change from the current in-house data integration solution.

Technology leadership began a search for an integration platform with robust capabilities in managing multi-vendor, multi-site integrations and simplifying complex workflows. This new centralized data integration solution had to



PilotFish Studies in Integration (continued)

seamlessly handle hundreds of interfaces, varying data standards (HL7, DICOM, etc.) and the technical complexity of connecting disparate systems.

The list of complex integration requirements included:

- ^a Integration with multiple third-party systems such as Meditech, Omnicell, UniPOC, PACS systems (e.g., Novarad and OpalRad) and diagnostic imaging devices. Various lab analyzers, radiology systems and pharmacy systems each presented unique data structures and protocols. Plus, the system would integrate other types of messages affecting clinical care and staffing, such as secure sign-on software Imprivata or workforce management solution Kronos.
- Seamless exchange of thousands of real-time HL7 message types (e.g., ADT, ORM, ORU), DICOM and flat file formats across multiple endpoints.
- Flexibility in deployment models—cloud, on-premises, or hybrid—to accommodate both centralized and distributed environments.
- Ensured scalability to serve each hospital in the group in line with its requirements while maintaining centralized management.

Additionally, the leanly resourced and staffed IT department needed to continue to perform at a high level.

THE SOLUTION

During the client's vendor selection process, PilotFish stood out for its simplicity, ease of use, efficiency and comprehensive approach to healthcare data integration and management. Through its 20+ year history and impressive list of clients, PilotFish successfully managed any integration requirement, third-party vendor workflow, data issue, or communication protocol encountered. Its 100% success rate is proof of that.

The client was impressed by the demonstrated power of PilotFish's graphical modular integration platform and support of all healthcare standards, including HL7 v2.x and 3.x, FHIR, DICOM, CCD/CCDA, HIPAA X12 EDI, JSON, APIs and any XML-based standard. In short, PilotFish offered a comprehensive integration platform that met the firm's unique needs.

Over several weeks of formal remote training, the client gained a solid understanding of the PilotFish Automated Assembly Line process for configuring, managing and maintaining interfaces. The client quickly mastered the extensive set of tools and features built into PilotFish for HL7 message processing, validation, mapping and transformation.

Streamlined Integrations with Omnicell, UniPOC and PAC Systems

Three major third-party vendor systems are examples of the seamless internal and external integrations realized across the hospital group. Advantageously, PilotFish's built-in ability to stage and test messages facilitated iterative testing without disrupting live environments.



PilotFish Studies in Integration (continued)

In hospitals, Omnicell HL7 integration allows automated medication dispensing cabinets to seamlessly communicate with electronic health records (EHRs) and other healthcare systems by using the HL7 messaging standard. It enables real-time data exchange about medication orders, patient information and drug inventory. Upon receipt of verified medication orders, Omnicell allows drugs to be dispensed. PilotFish integrated and managed HL7 data exchanges including HL7 ADT, ORM and ORU throughout the entire hospital Pharmacy Integration System end-to-end, supporting streamlined medication administration.

The UniPOC Data Management System connects and manages hospital ecosystems of point-of-care devices. It forwards patient results to the Laboratory and other Hospital Information Systems. PilotFish ensured seamless data capture and transmission, with PilotFish acting as the middleware for TCP/IP data exchange and delivery to internal systems.

PAC (Picture Archiving and Communication) software/hardware houses digital images, demographic information and digital imaging and communication (DICOM) data. Hospitals require PACs that are compatible with hospital information systems, electronic medical records and computer-aided detection, along with support of all relevant imaging modalities.

PilotFish's graphical data mapper reduced the client's PAC interface development time by minimizing coding. PilotFish's highly tuned testing cycles ensured quicker deployment with PAC interfaces going live ahead of schedule.

THE BENEFITS

Overall PilotFish enabled faster onboarding of devices and systems like Omnicell, UniPOC and PACS with minimal configuration. Enormous and measurable integration and operational efficiencies were expedited by adopting and implementing the PilotFish integration Platform for centralized managed IT services.

The client achieved enhanced interoperability across vendors. In short order, PilotFish successfully integrated with various third-party systems, from diagnostic imaging to pharmacy management, enabling real-time data exchange. Seamless HL7 message transformations facilitated smooth communication between disparate systems like Meditech, UniPOC and Omnicell.

Simplified Device Integration Workflows

PilotFish streamlined the connection of devices, converting data to HL7 and ensuring compatibility with modern systems.

Scalability for Multi-Site Operations

PilotFish supported the client's goal of consolidating interfaces into a central or cloud-based architecture, enabling centralized management of interfaces and interoperability across the hospital group it serves.



PilotFish Studies in Integration (continued)

Future Readiness

PilotFish positioned the company to meet evolving regulatory and operational demands. PilotFish's modular architecture allows the company to adapt quickly to changes, such as vendor updates or new government reporting requirements.

The PilotFish Integration Platform delivered a technically robust solution to the company's integration challenges, enabling seamless connectivity across diverse vendor systems, medical devices and hospital systems. Its ability to support multiple data standards, streamline device integration and simplify infrastructure made it the backbone of the company's interoperability strategy.

For healthcare organizations managing complex multi-vendor ecosystems, the PilotFish Integration Platform proved that it offers unmatched technical capabilities and benefits. Its versatility, scalability and ease of use empower organizations to unlock the full potential of interoperability while future-proofing their operations against emerging challenges.

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.

