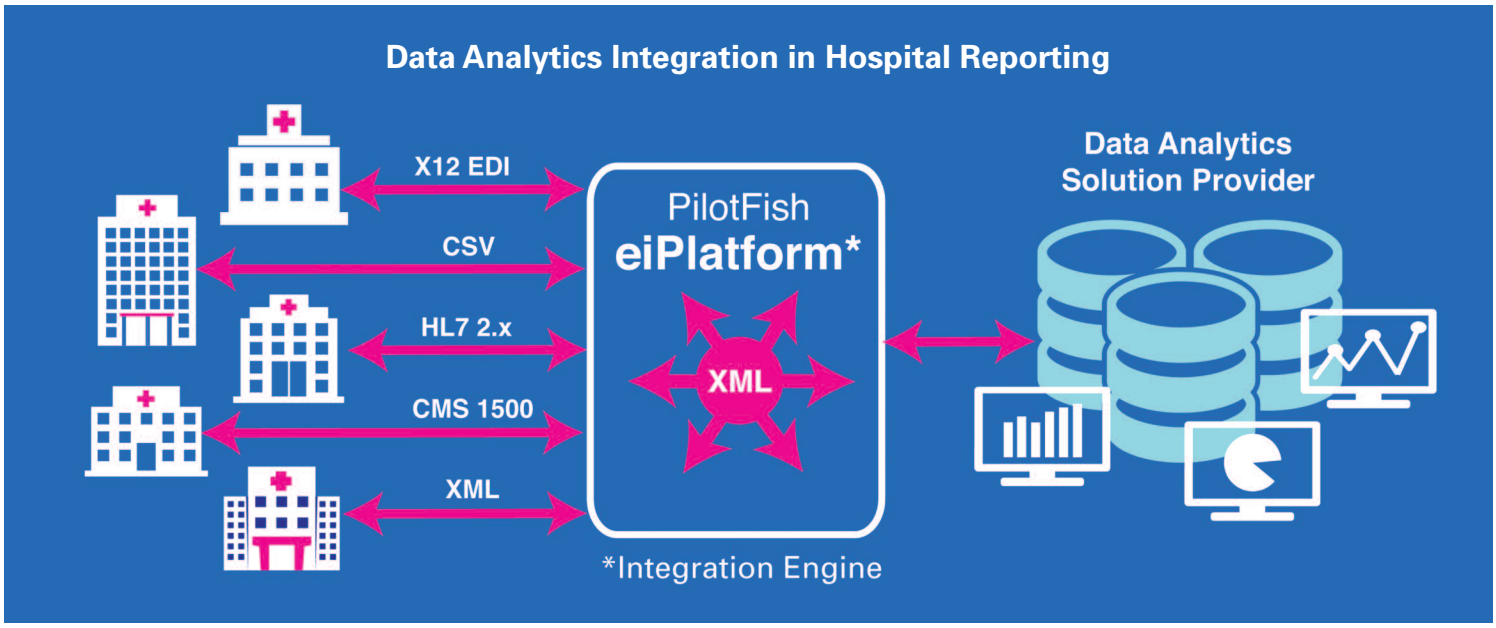
PilotFish Enterprise Integration Platform



Data analytics firm leverages PilotFish for its architectural flexibility to adapt to the diverse data flavors and format requirements of its healthcare provider members. PilotFish supports this with out-of-the-box parsers, finely tuned custom components and the ability to work with any data format.

The Healthcare Ecosystem - A Challenging Environment for Integration

The Healthcare industry is made up of a very diverse array of systems – both legacy and new. In order to do business most organizations have to contend with a multitude of operating systems and databases and accept data in whatever format their customers provide. From cloud solutions with modern APIs, to traditional HL7-based systems, to more closed custom and properietary systems – there are hundreds of systems, each posing their own challenges.

Legacy and New Systems Have to Coexist

In most cases, upgrading or replacing legacy systems to support new standards or technology simply isn't cost-effective or feasible. The reality is that organizations must be able to work around these constraints, supporting both the old and the new. An integration layer that sits alongside these systems allows you to develop, innovate and connect on the technology that is currently in place. The integration layer is what facilitates making these disparate, non-interoperable systems *interoperable*.

Connecting Non-Interoperable Systems

The PilotFish eiPlatform integration engine is the integraton layer. It enables an organization to "loosely couple" all of its systems, connecting offerings from various vendors and of different ages and technologies. The result is flexibility and adaptability that is impossible to achieve by hard-coding integrations directly into each application.

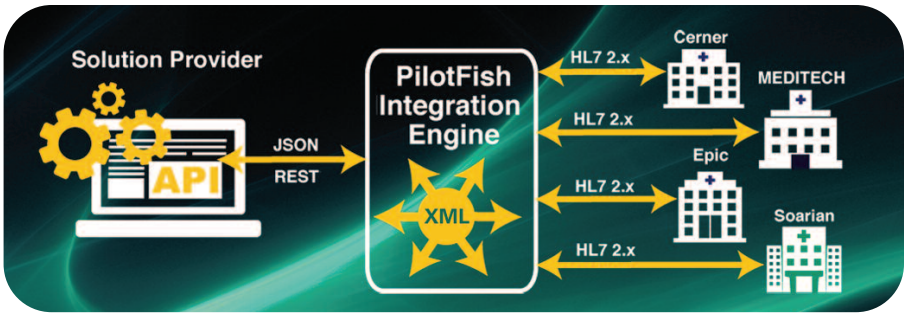
PilotFish eiPlatform - Connect Anything to Anything

PilotFish is being leveraged throughout the healthcare ecosystem – by payers, providers, equipment vendors, cloud services, exchanges and other entities who need to deliver "interop-capable" solutions. Using a simple, graphical interface "Assembly Line", implementers connect anything to anything – including legacy and new technology that may have been developed using different data models, designs or architecture. The eiPlatform is compatible with all major databases, operating systems, data formats and communication protocols. Additional benefits to be realized include:

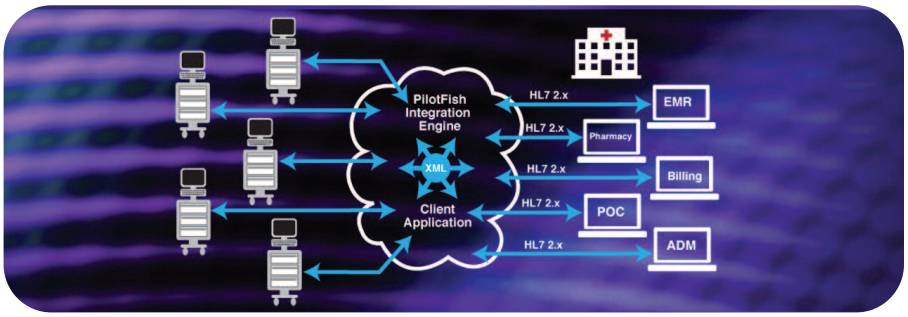
- Implementing a many-to-one and one-to-many (common model integration) allows users to dramatically lower the total number of interfaces required between internal and external business applications.
- Rationalizing the configuration, management and execution of integrations using a consistent "Assembly Line" process, (regardless of the data formats or connectivity protocols involved) – to reduce the number of tools and technologies that IT staff must master and maintain.
- Enabling the implementation of newer industry XML standards such as HL7 3.x , CCDA, CCD and FHIR immediately, while still supporting the older standards such as HL7 2.x, X12 EDI, CSV, XLS as well as proprietary formats.
- Leveraging PilotFish's support for Docker containerization for faster deployments and the ability to easily scale up or down.

Call us at 813 864-8662 x 309 for a Demo. See what PilotFish can do for you!

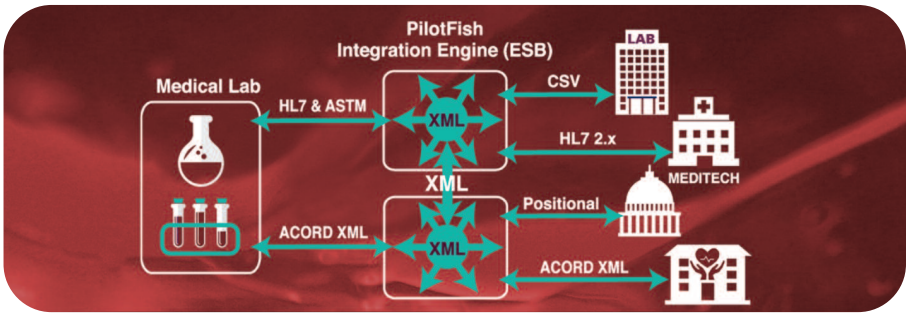
Healthcare Solution Provider – Message delivery is critical when impacting patients and serving thousands of meals daily in acute care settings across the United States. PilotFish provides real-time integration with HL7-based EMRs and admissions, discharges, transfers and order changes for a leading food services provider with a cloud-based food and nutrition management system.



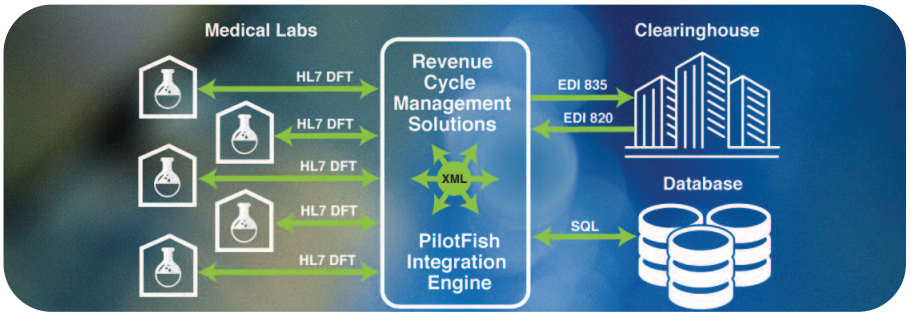
Medical Equipment Provider – This provider leverages PilotFish to support integration with their products, in any healthcare provider environment worldwide. PilotFish is lightweight enough for deployment alongside any piece of equipment and flexible enough to handle a wide range of data formats including any flavor of HL7, IHE profiles, DICOM, XML, relational databases and anything else that their implementation teams may encounter.



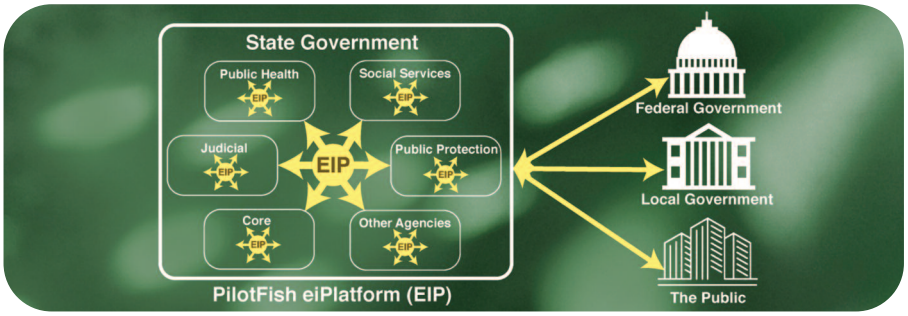
Medical Lab – Medical lab with integrations with LIS systems implemented PilotFish as the central enterprise service bus and data transformation framework to simplify its integration architecture. PilotFish supports the diverse data formats requirements of client customers which include other medical labs, hospital EMRs, healthcare providers, Government agencies and payers.



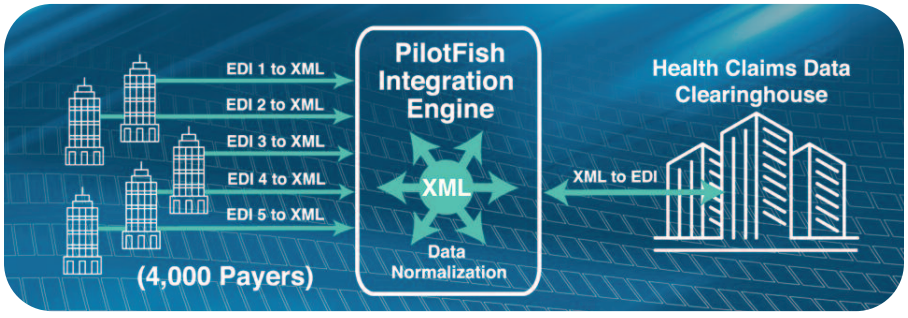
Revenue Cycle Managment – Clinical laboratory billing and collection company leveraged PilotFish to initiate automation. By decoupling interface logic from their core application, the client's conversion between claims processing systems became seamless. They configured interfaces to process binary image attachments that are embedded within HL7 messages as Base 64-encoded strings, eliminating the previous very manual effort.

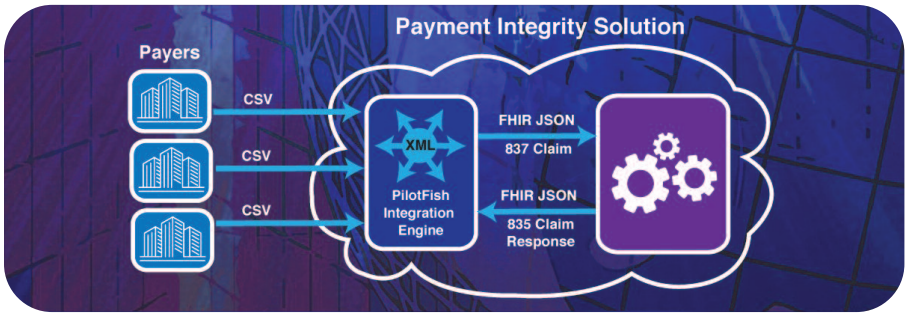


State Government – Equipped with an Entrprise License, State Government leveraged PilotFish to set up a Federated Model for inter- and intra-agency integration. Pockets of rapid implementation have taken root without introducing the governance and change control overhead that a more bureaucratic, centralized approach would carry. Maintainability has been dramatically increased – PilotFish-trained IT staff can readily support interfaces built by anyone, in any agency.

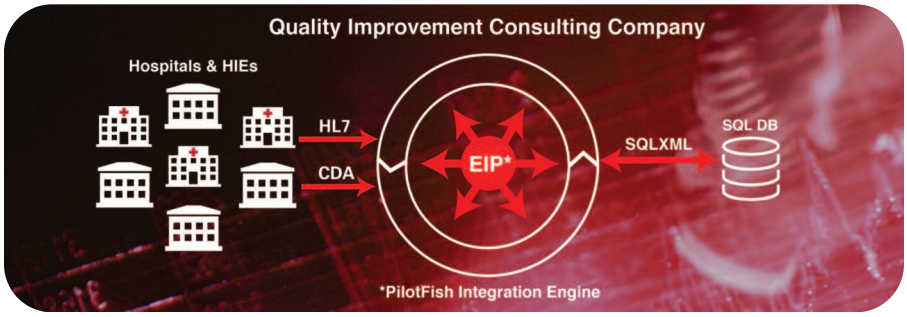


Health Information Exchange – Healthcare Claims Clearinghouse and HIE utilized PilotFish to re-engineer and transition its claims processing architecture. PilotFish was used to create a framework capable of handling the connectivity, data manipulation and data validation to effectively replace their legacy implementation. The effort included the implementation of several hundred unique data flows providing a secure gateway for the electronic exchange of data.

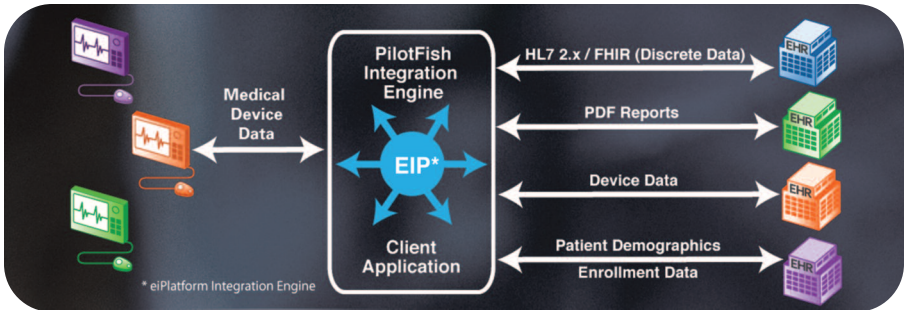




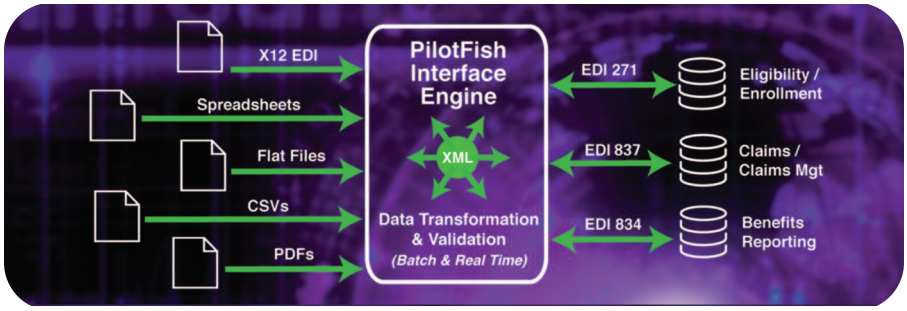
Healthcare Claims Accuracy Solution - Using PilotFish this firm leveraged deep technology and product expertise to build new, game-changing solutions from the ground up for payers. The client valued the accelerated market leadership it could achieve with the out-of-the-box interoperability brought by PilotFish's integration software. It entered the Claims Accuracy space delivering advanced FHIR capabilities as well as X12 EDI functionality.



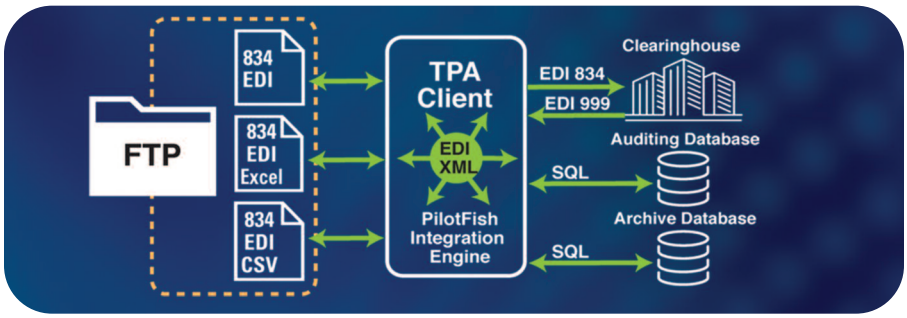
Quality Analytics Provider - A non-profit that promotes quality healthcare through contracts with government and private organizations receives data feeds from a wide variety of entities. Their IT team was challenged to build out HL7, FHIR and API integration capabilities quickly and easily. The PilotFish solution facilitated rapid interface development, so that the client could scale the solution on a demanding timeline to serve more and more hospitals.



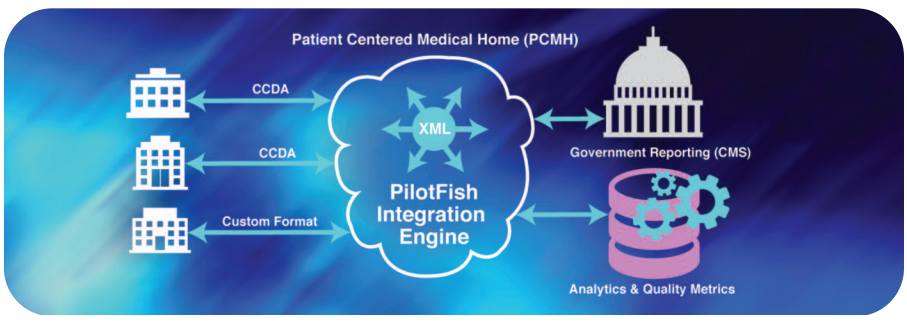
EHR HL7 Medical Device Integration - Mobile health solutions and remote cardiac monitoring services provider leveraged PilotFish to support its development of disruptive monitoring technologies. PilotFish offered built-in support for the required HL7 2.x and FHIR scenarios, facilitating sending device data results to EHRs in both HL7 discrete data and PDF report form. PilotFish quickly exceeded expectations and provided substantial productivity gains.



Specialty Healthcare Plans Payer - This leading plan provider was experiencing rapid growth. PilotFish's built-in support for all X12 EDI HIPAA transaction sets and superior capacity for validation of SNIP Levels 1 through 7 by utilizing a hyper-speed Validation Processor were key factors for its selection. Instant SNIP Level 5 validation against 37 External Code Sets comprised of millions of individual codes helped them quickly achieve their goals.



Third Party Administrator - Full-service TPA develops sustainable employee benefits plans that decrease healthcare costs for its members. PilotFish stripped away the technical complexity of parsing, validating, mapping and producing all HIPAA EDI files. It streamlined and automated the handling and processing of member EDI 834 Enrollment and Maintenance data at scale, while meeting the company's goals to inaugurate 100% consistency and error checking.



Patient Centered Medical Home - The organization offers technology and clinical services to various healthcare providers, who are transitioning to fully integrated, population-based practices to meet health reform mandates.The client was required to communicate in a standard, secure fashion dictated by the IHE Profiles for interoperability. With PilotFish the client was able to meet its healthcare interoperability challenges and pressing timelines.

PilotFish Product Specifications

SUPPORTED PLATFORMS
Windows
Linux / Unix / AIX / HP-UX
Mac OSX
SUPPORTED APPLICATION SERVERS
Windows Service
Apache Tomcat
JBoss / WildFly
WebSphere Application Server (WAS)
Glassfish
WebLogic
Any Other Java Container
SUPPORTED DATABASES
Any JDBC DB (MS SQL Server / Oracle / DB2 / Postgresql / MySQL / MariaDB / Java DB / Derby / H2)
MS Access
MongoDB
SUPPORTED FORMATS
HL7 2.x / 3.x / FHIR
CCD / CDA
EDI X12
Delimited and Fixed-Width Files (CSV/Positional/Custom)
Key / Value
XLS / XLSX
DICOM
XML
JSON
PDF
NCPDP
Binary (.wav / .jpg)
SUPPORTED PROTOCOLS
Database (JDBC)
Email (IMAP / POP3 / SMTP)
Local / Network File System
FTP / SFTP / FTPS
TCP / UDP Sockets
HL7 LLP
HTTP/S
OAuth2 (JWT / Token Introspection)
Messaging (JMS / MQ / MSMQ / RabbitMQ / Kafka)
EMR API Call
Web Services (SOAP / RESTful)
Command-Line Invocation (CLI)
Active Directory / LDAP
Custom Connectors
IoT (Serial / MQTT)
VistA RPC
AS2
Cloud Storage (S3 / Google / Azure)
ARCHITECTURE
Consistent "Assembly Line" Pattern
Configuration Over Code
Component Driven
Extensible Via Open APIs
Scripting Support (via GraalVM: JavaScript, Python, etc.)

HL7 FEATURES
HL7 Friendly Name Option
HL7 Lenient Parser
Ability to Read Any Version of HL7
Inline HL7 Documentation
Transaction Templates for HL7, FHIR and CDA
EDI X12 FEATURES
Parse any EDI X12 Transaction
EDI Friendly Name Option
SNIP Validation 1-3 Included, 4-7 Available
Inline Code Set Definitions
Transaction Templates for EDI
DATA TRANSFORMATIONS
Graphical, Drag & Drop Data Mapping
No Coding or Custom Scripting Required
Standards Compliant (W3C XSLT)
Computationally Complete
WORKFLOW PATTERNS SUPPORT
Sequencing
Splitting / Merging
Process Orchestration
Branching
Conditional Logic
Iteration
ERROR HANDLING
Easy, Hook-Based Customized Error Handling
Configurable Text-Based Logging
Flexible Proactive Notifications
Extensive Operational Visibility Framework
VALIDATION
Schema (XSD)
Structural Format Conformance (HL7, EDI, etc.)
Business Rules
External Lookups
TESTING
Instant (No Compilation or Deployment)
Graphical, Step-By-Step Debugging
End-to-End or Stage-by-Stage
IDE-Resident Server Emulation
ANALYTICS
Robust Real-Time REST API
Flexible Reporting
On-the-Fly Break-Fix
eiDashboard Multi-Instance Monitoring
Splunk Integration
DEPLOYMENT MODELS
On-Premises
AWS / GCE / Azure
Lightweight / Bundled
Docker / Containerization
LICENSING *(Includes an unlimited number of dev, test & cold back up)*
End-User Licenses
Product Bundling Licenses
Value Added Reseller Licenses
One-Time Licenses
Subscription – Flat Monthly or On-Demand Pricing

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