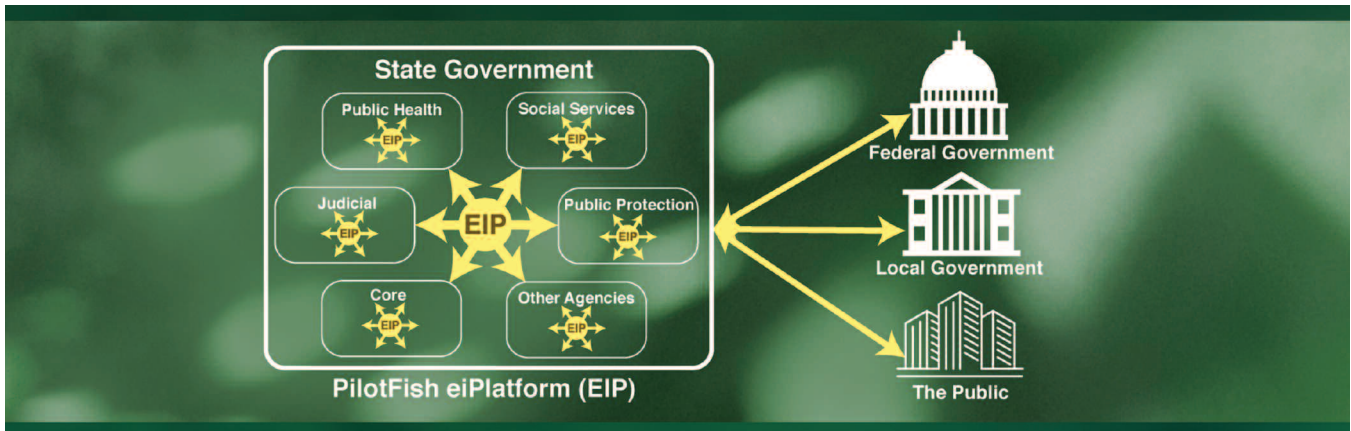


PilotFish Studies in Integration

State Secrets to Interfacing the Nation

Struggling to recover from an economic downturn and a political climate that required state governments to do more with less, one of the nation's 50 states found itself challenged to keep pace with the demands of its information infrastructure. In an example of what a successful public/private partnership looks like, the state collaborates with PilotFish to change the state's paradigm for integrating systems.



THE CLIENT

The State of Connecticut, like many other government entities, is made up of a large number of disparate agencies – each with their own technology requirements, IT staff, and infrastructure. Like any state government, they are bound by a duty not only to the taxpaying citizenry of the state, but to local and federal government entities.

THE CHALLENGE

The State found itself increasingly challenged to keep up with a growing information infrastructure in the face of reductions in staff and budget. The State had seen several multi-million dollar, cross-agency projects fail to deliver on-time or at all – at least in part due to the inability to successfully integrate the myriad of disparate systems and technologies.

From simple web sites to elaborate case management systems – from basic reports to complicated data warehouses, data is the lifeblood of state business and a significant state asset. The state's ability to easily and quickly move and share data throughout the enterprise was and remains critical to the success of many state initiatives. Indeed, the State's requirements to move and manipulate data come from all directions. Federal mandates such as healthcare's Meaningful Use, cross-agency data sharing, day-to-day operations and state sponsored projects add to the list of needs daily.

In prior years, each agency had managed their integration needs in a vacuum – with departmental resources responsible for selecting the appropriate tool for the job and setting out to deliver a tactical solution. Any new integration might introduce a new technology, its own unique maintenance and monitoring requirements and a learning curve for



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responsible staff. The cumulative effect of this proliferation of technologies was a mountain of technological and intellectual overhead that stood dauntingly in the path of future progress.

THE SOLUTION

The State of Connecticut acquired an enterprise license to the PilotFish suite of integration products, which allows them to employ a “federated” approach to achieving inter- and intra-agency integration. A “shared services” group (BEST) oversees, educates on and advocates for the standardized use of PilotFish software for building interfaces between systems. Each agency may have their own instance (or instances) of their software and they may or may not have internal staff trained on the software.

However, irrespective of the execution and deployment model, interfaces are developed with a consistent “assembly line” approach throughout the State which dramatically reduces implementation risk and maintenance costs.

Agencies are given three models for utilizing these solutions:

- Use the PilotFish eiPlatform solution through the bureau’s centralized enterprise implementation, hosted at the state data center.
- Implement PilotFish individually by an agency as a local, agency-centric implementation.
- Leverage a Federated model that relies on both the Enterprise and one or more local agency PilotFish platforms.

In order to roll out the solution across the state, internal champions for PilotFish conducted outreach to a number of agencies that were known to be struggling with near-term integration related initiatives. Representatives of these agencies were gathered – first, for an introduction to the technology and then over the course of several days, for a more formal training curriculum.

Following the formal training, interested agencies were invited to collaborate with PilotFish and BEST to conduct a series of “pilot” implementations. These projects both offered an opportunity to solve real problems and a chance to convince the independent (and often skeptical) agencies of the viability of the approach.

Agencies were quick to take advantage of the new found efficiencies made possible by the PilotFish software. In just a few months, agencies were able to implement a variety of solutions and staff rapidly became proficient enough to develop additional interfaces on their own. Below, we highlight just a sampling of these successes to date.

Department of Social Services

The Department of Social Services has completed an interface between the Federal government’s “QUICK” system and the State’s in-house case management platform. This accomplishment allows the State to commence participation in a nationwide clearinghouse used to track down “deadbeat dads” through consolidated access to case information.



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The agency has also completed several additional tactical interfaces using the PilotFish tools, and aggressively continues the use of the software for additional integration efforts. Most of the implementations within DSS are aimed at freeing data “trapped” in legacy environments (e.g., COBOL mainframe applications) by bridging the technology gap between legacy (flat files, etc.) and modern (XML, JSON) data transmission technologies.

The State's Judicial State Registry implemented an interface to import XML files from the Judicial Branch to the Department of Social Services. The data came from the Judicial Branch as XML files and by utilizing the PilotFish integration engine, the data was easily transformed into flat files, which was then routed via message queues and FTP to different Department of Social Services services based on the data values found within those files.

“ We are excited to partner with PilotFish for our Meaningful Use testing. Managing the attestation of our providers has posed a significant challenge. We have hundreds of hospitals and practices vying for our attention as they scramble to meet federally mandated deadlines. In these fiscally challenging times, our employees at DPH are overwhelmed with work. The eiPortal allows us to eliminate significant human intervention, while providing a higher level of service to our healthcare providers, than would otherwise have been possible. ”

Mark Raymond, CTO for the State of Connecticut.

Department of Public Health

The Department of Public Health utilizes PilotFish to meet the federal government's mandated reporting requirements for immunization and disease reporting. This mandate required that the Department of Public Health be capable of receiving data from the state's healthcare providers, which includes medical practices and centers, hospitals, clinics, nursing facilities and others.

Through an offering from the CDC, the Connecticut Department of Public Health was previously given the “Rhapsody” HL7 integration platform and had used this software to develop HL7 interfaces for syndrome surveillance data. After the acquisition of PilotFish, the department conducted an in-depth ROI analysis, electing to replace the HL7-specific engine with PilotFish.

The department has since completed development of a replacement for the HL7 influenza reporting interface, as well as several ELR (electronic lab reporting) interfaces. These efforts facilitate communication between the State's laboratory information system (LIS) and the CDC using HL7. The department is continuing the rollout with the development of a statewide electronic interface to the immunization registry. This interface accepts HL7 2.3.1 and 2.5 immunization records from thousands of healthcare providers statewide.

DPH is also responsible for certifying healthcare providers on their adherence to the “Meaningful Use” standards set forth by ONC. This certification requires rigorous validation and conformance testing of standardized messages trans-



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mitted by healthcare providers and their vendors to the State – an extremely time-consuming and resource-intensive task for an agency with limited manpower. Through the implementation of the PilotFish eiPortal software, a provider-facing portal was implemented to automate the process, dramatically increasing the agency's ability to administer the certification process. The department has completed their work for Stage 1 of meaningful use and has begun planning enhancements to support the evolving MU2 mandate.

The Department of Emergency Services and Public Protection

The Department of Emergency Services and Public Protection (DESPP) has prototyped a web portal to electronically process requests for criminal history. This solution requests data, including credit card information collected via an online form. Payments are electronically processed through a centralized payment service and the collected information is securely transmitted to the state's highly secure criminal justice information systems environment. The new effort was initiated in order to streamline the current process for state residents and to improve the user's experience, eliminate errors, delays and backlogs.

PilotFish plays a key role in coordinating the transmission of data to the systems critical end points. The prior systems required citizens to download, print out, complete and mail a signed copy of the completed document to the DESPP headquarters. Additionally, the sender had to remit the required payment along with the signed request form. Once the paperwork was received by DESPP, members of the background check unit were required to enter this information into a database and manually process the payment. If the information received by the requestor was incomplete, the request was returned with a note describing the error.

This workflow was error-prone and inefficient which resulted in significant delays in processing requests. Through the implementation of this more automated portal, both processing times and error rates will be dramatically reduced.

Core State Processes

Over the past years, the CoreCT team has developed over 300 individual file movement interfaces used to transmit data between the core state systems (including SAP) and other internal and external entities, including financial institutions such as Webster Bank and Bank of America. In order to promote consistency, maintainability, and visibility into these critical processes, CoreCT has begun to migrate these interfaces to the PilotFish eiPlatform.

As is done in the previously deployed "File Mover", scheduling software is used to initiate the new process. When initiated, a PilotFish-hosted interface will query an existing database table to acquire the list of file transmissions required. The interface will then execute these transmissions based on the information contained in the query results. File transmissions are typically either simple network-based file moves or FTP/FTPS/SFTP connections to external servers. Data may or may not require interface-specific XML schema driven data validation, PGP encryption/decryption or other unique handling. The initial development effort to replace the functionality of all 300+ file transmissions clocked in at less than 6 person-weeks of effort.



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THE BENEFITS

All of the agencies that have participated in full implementations or pilot projects have reported overwhelming success. The Judicial branch completed a production-ready interface in hours. The Department of Social Services' interface between federal government's Office of Child Support Enforcement's "QUICK" system and the department's in-house case management platform was finished in approximately 50% of their in-house estimate. The Department of Public Health staff has had certain aspects of HL7 interface development work reduced from weeks to mere seconds due solely to a switch to the PilotFish tools. DESPP and Core CT each replaced cumbersome, resource-intensive processes with PilotFish interfaces in a matter of weeks.

The use of a "federated model", wherein each agency may host its own implementation of the PilotFish eiPlatform software, has allowed these agencies to implement PilotFish at their own pace. 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. Since every interface is constructed using the same "interface assembly line", PilotFish-trained IT staff can readily support interfaces built by anyone, in any agency, with very little additional training.

The State's implementation of the PilotFish suite of integration products across agencies has delivered consistency where there was once chaos. As opposed to fostering the proliferation of one-off projects and technologies, the State has given each agency access to a common set of tools capable of addressing any integration challenge. They can now do more with less – which should mean a more efficient government and a lesser burden on taxpayers.

THE FUTURE STATE

The State plans to continue to evangelize the use within its agencies. A core team of PilotFish experts has been formed to oversee and consult on new implementations throughout the enterprise. The team has already held several statewide "PilotFish User Groups" to bring together agency implementation teams and other interested parties to share knowledge, ideas and questions. Over time, legacy interfaces will continue to be replaced with this common technology and methodology. Small pockets of extremely specific, non-transferrable knowledge will be slowly replaced by a growing pool of talent all of whom are capable of developing, managing or maintaining PilotFish interfaces. The federated deployment model will continue to promote agency agility, allowing the staff to rapidly construct on ramps and off ramps to the information infrastructure so critical to stewardship of one of the State's core assets – data.

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 learn about what PilotFish Solutions can do for your organization please contact us at 860 632-9900 x 309 or Email us at info@pilotfishtechology.com

