2017 NASCIO State IT Recognition Award Nomination

Project:	Idaho Retirement Information System (IRIS)
Category:	Digital Government – Government to Citizen
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Executive Summary

The Public Employee Retirement System of Idaho (PERSI) administers retirement benefits for over 144,000 members on behalf of over 750 employers across the state of Idaho. Like many retirement systems, PERSI maintains a lifelong relationship with its members—from their first paycheck contributions to their final retirement payments—a feat that would not be possible without a reliable line-of-business system.

Though PERSI's legacy system met the agency's needs for almost a decade after the platform was installed, it had inherent technological and interactive boundaries that hampered access for staff members outside the main office and limited the services PERSI could offer the members, employers, and insurance vendors it serves. In addition, the system relied on extensive manual intervention for all internal processing, data validation, and documentation tasks, and offered no quality control or recordkeeping capabilities.

Despite a dedicated program of support and upgrades throughout its lifetime, the legacy system eventually started showing stability and resource management issues as well. These issues, coupled with a withdrawal of key software support, led PERSI to start looking for a new solution. Rather than upgrading the old system, PERSI decided to implement a completely new commercial, off-the-shelf solution to provide improvements on all enterprise levels.

The new solution was budgeted with a fixed cost of $13.5 million, a highly competitive value when compared to similar projects in other states, and developed over the course of six years without deviating from that budget. In 2016, PERSI unveiled the new and complete Idaho Retirement Information System (IRIS).

IRIS was designed and implemented as a multi-tiered solution with a lightweight, web-based interface for PERSI users in all working locations and purpose-tailored portals offering secure access and new functionality to PERSI members, employers, and insurance vendors alike. Improvements in member self-service capabilities and employer/insurance vendor reporting have increased data integrity and reduced PERSI's operational burden.

In addition, IRIS streamlined or replaced manual processes with automation throughout the agency, imparting a new level of powerful, reliable support to PERSI staff and improving quality, consistency, and efficiency across the enterprise. These enhancements, when coupled with new reporting, document management, and customer interaction capabilities, have enabled PERSI to offer an improved, more-rounded experience to everyone PERSI serves.

Since launch, IRIS has proven to be a stable, adaptable, cost-effective system that runs quickly and well. With ongoing support from a dedicated development team, a high level of future upgradeability, and proven risk management capabilities, the solution only increases in value as operations continue.

Concept

The Public Employee Retirement System of Idaho's legacy line-of-business (LOB) system, Galena, was developed beginning in 1997 and installed in 2000 using a classic, three-tier client/server architecture (data, application, and presentation) powered by an application server running proprietary software for which PERSI had purchased the source code.

Though Galena was highly customizable within the limits of its architecture, it was the product of a time when the influence of the World Wide Web and advanced networking technologies were not fully understood. As a result, the system supplied limited web access, security, and self-service capabilities to members, employers, insurance vendors, and business partners, and slow/non-interactive connections to PERSI staff operating from remote locations.

Galena had integration and reporting limits as well. Despite PERSI enhancing the solution over 1,600 times between 2000 and 2008, including incorporation of technologies such as voice-over-internet protocol and document imaging, PERSI staff still relied on dozens of manual steps and workarounds to perform their duties without the benefits of workflow or content management. All data validation, recordkeeping, and note-taking tasks relied on manual processes, while metrics, workflow monitoring, and other assessments of quality and efficiency were either basic or unavailable.

PERSI also found that the sheer quantity of improvements and changes took a toll on system stability—each upgrade was more likely to have unintended effects than the last. Even with a regimen of off-hours maintenance and stability enhancements, unscheduled reboots were frequently required and larger automated processes, such as retiree payroll, needed several days of IT testing and oversight, and up to two days of processing time, whenever they were performed.

To complicate matters further, the core software supplier withdrew support from Galena in 2008, rendering further technology and stability enhancements impossible.

In 2009, PERSI engaged a consulting firm to conduct a technology assessment and evaluate options for continuing operations into the future. As a result of that assessment, PERSI undertook two major initiatives.

The first initiative was a data cleansing project to prepare for a new LOB system and to remove errors stemming from technical issues and extensive manual entry practices. This project was started in 2010 and completed in 2011.

The second initiative was a project to find and implement a new commercial, off-the-shelf LOB solution to meet PERSI's needs. Although requirements gathering for the project began in 2010, the formal request for vendor proposals was postponed until 2011 due to a delay in legislative funding. After selecting a vendor, PERSI began development and implementation of the Idaho Retirement Information System (IRIS) in early 2012 with a fixed-price contract of $13.5 million and a projected release of April of 2016.

IRIS was conceived as an integrated, whole-enterprise solution that would completely eliminate dependency on legacy technology, platforms, and manual processes and leverage new technology using the expertise of a team of dedicated developers with experience designing retirement solutions. To accomplish this goal, PERSI assembled a team of expert users, quality analysts, testers, and training specialists to collaborate with the software developers and analysts from the development vendor.

PERSI used agile development methodology (based on the Scrum approach) to iterate, release, and re-iterate functioning, usable modules for continual improvement as the project progressed. To facilitate interaction, PERSI and the vendor employed a document sharing site, conventional and remote meeting and co-authoring technologies, and an online help desk for ticketing and action item tracking. These methods and technologies were paired with jointly-designed communication, problem management, and escalation plans to provide rapid risk management capabilities.

The project began with planning, technical infrastructure setup, and data conversion, completed in 2012, to establish the system framework and refine methods early in the project lifecycle. Since employer reporting provides the bulk of PERSI's data, that reporting module was developed and then released in 2013. After the employer reporting module, the vendor reporting and pension administration modules were developed and then released in early 2016. Finally, the new member portal module was released to PERSI members in 2016 as part of the final IRIS release.

PERSI released news on general project status to members, employers, vendors, and PERSI staff on a monthly basis, while targeted communications regarding the reporting, pension administration, and member portal stages of the project were distributed throughout the development of those modules. After release of the employer reporting module in 2013, PERSI embarked on a two-year campaign to train and certify over 760 PERSI employers to use the new system. The same process occurred in 2016 to train and certify PERSI's 44 insurance vendors. As the new pension administration system released, training specialists ensured that PERSI staff were trained and fully-versed in using it.

Architecturally, IRIS employs a multi-tiered platform with a web-based interface to provide PERSI staff with a lightweight solution that functions in a variety of situations and locations. At the same time, the system provides purpose-tailored portals to give members account access and employers and insurance vendors online reporting capabilities. All inputs, whether internal or external, are monitored by new, comprehensive internal controls, validations, and reporting to protect data integrity and provide complete auditing and oversight capabilities.

Although the project generally progressed as expected, it was not without challenges. In April 2016, the project team determined that more time was needed to finalize and test the release. Since PERSI's busy period occurs between April and September each year, the final go-live date was pushed to September 2016 to ensure the increased workload did not impact IRIS. Despite this change, the cost of the project remained at $13.5 million. IRIS was fully released in September of 2016.

Significance

As a state agency, PERSI is expected by the people it serves to keep pace with advancing technology while maintaining fiscal responsibility. IRIS is noteworthy in that it provides a full legacy system replacement and a rich array of improvements across all levels of the enterprise while adhering to the constraints of a fixed budget.

Idaho allocated $13.5 million for IRIS from inception to launch. Within this budget, PERSI also employed a third-party project oversight contractor who stayed with the project from requirements gathering through the post-launch period to verify that the proposal requirements were being addressed within acceptable quality standards—a measure well in advance of the corresponding purchasing and quality control requirements recently implemented by Idaho's legislature.

As a fixed contract, the budget amount remained constant throughout the project and represents an excellent cost control value over the course of the six-year development cycle. In contrast, another public employee retirement system in the Pacific Northwest recently upgraded their legacy system through a similar project costing $45 million over seven years.

IRIS has empowered over 144,000 PERSI members with increased control over their own information and the ability to access that information worldwide. At the same time, members using the system receive improved, multi-layer security and in-system validations to ensure the integrity of the data they submit, including tax and direct deposit information. They can also kick off more advanced processes as automated workflows to be received and processed by PERSI staff.

PERSI's 770-plus employers and 44 vendors now submit their data through IRIS in secure, purpose-built portals that use in-system validation to test the data and provide instant feedback at the point of submission. For employers, these validations track employee eligibility across the entire employer payroll and warn of issues that might lead to fiscal liability or threaten a member's retirement.

PERSI staff have seen system-wide improvements contributing to ease of use, accessibility, and user accuracy. Automation has replaced manual calculations and verifications, enabled a full workflow management system, and streamlined communications. An optimized interface with integrated content management gives detailed access to member, employer, and vendor records, including the pertinent documents, and the ability to image new documents to those records as needed. System stability and connectivity is no longer an issue, even at remote locations.

For PERSI leadership, IRIS provides a new level of integrated metrics and reporting that was previously unavailable. Managers can now establish baselines, monitor area performance, evaluate assumptions and anticipated outcomes, and adjust processes as needed to meet objectives. In addition, the system automatically logs all changes to provide a complete record to be used as needed by auditors and leadership.

For all of the users above, IRIS offers a new system and method for centralized, consolidated information and statewide cooperation. Members can speak to PERSI staff about information that both parties can see in real time. Employers and insurance vendors can ask about specific errors or issues without waiting for manual validation from PERSI. It is a more open system that still provides security, accuracy, and oversight. With continuing support from the original team of expert developers, the new system contains an element of possibility that was absent under the old system. Even seven months after release, the potential of this new method is still being understood.

Impact

The Idaho Retirement Information System (IRIS) was fully deployed in September of 2016 as a complete and successful replacement for Galena, PERSI's legacy system. Due to the phased approach PERSI adopted during development and implementation—and the incorporation of training and certification at crucial points, PERSI staff, employers, and vendors were already well-versed in using IRIS by its final release, and members received full support from PERSI staff in transitioning to the new system.

Among the many benefits IRIS brought to PERSI was its inclusion of metrics and reporting. Where Galena's metrics were labor-intensive to obtain or simply nonexistent, IRIS provides rapid, granular statistics and reports on topics such as members, employers, vendors, payroll, and auditors. As a result, though it can be difficult to find data to compare IRIS to Galena, monitoring and improving agency operations is not an issue since go-live.

One of the most immediate and powerful changes IRIS provides is a secure set of collection points with built-in data validation for employer and vendor reporting. Galena did not offer direct security for these processes, instead relying on cumbersome manual encryption, emailing, and decryption procedures. Nor did Galena validate the data received, instead relying on manual intervention down the line—such as when a member requested a benefit estimate or submitted a retirement application. Errors would often be discovered much later, if at all. During PERSI's data cleansing initiative, completed in 2011, the agency purged over 400,000 of these errors.

In contrast, IRIS provides a streamlined, secure process in the form of portals that validate employer and vendor data when it is submitted and return a color-coded error report for corrections prior to actual transmittal. Furthermore, employers are required to conform to the "full reporting" standard, which allows IRIS to track employee eligibility across an employer's entire payroll and report issues that might lead to fiscal liability or threaten a member's retirement. Since employers provide the majority of PERSI's incoming data, with 72,173 employer transmittals since the module first came online in 2013, these practices have improved PERSI's incoming data integrity and contributed to a 17-percent decrease in calls and a 14-percent decrease in emails related to employer reporting.

For PERSI members, the new member portal provides powerful, multi-layer security and data validation, but one of the most noteworthy aspects of the new portal is that it allows online transactions that were not possible in the old system. Since IRIS launched,

PERSI members have submitted 13,024 online benefit estimate calculations and 2,309 online data updates, such as tax or beneficiary changes. For Galena, these items were manually submitted and processed—with turnaround times of approximately 7.5 days for calculations and 17.5 days for data updates. IRIS provides the same services to members in a matter of minutes without the need to travel or mail a form, and PERSI staff can see those changes immediately—a significant savings in time and resources for both parties.

PERSI's relationship with its members has been further enhanced by new, advanced communication and sharing capabilities. PERSI staff can now send estimates and statements directly to a member's online portal and receive member requests for advanced processes, like pre-retirement audits, as a workflow through the same system. Physical correspondence, which is still a necessity for many transactions, has been redesigned as a series of automated system outputs that automatically scan to the member's record as they are printed for mailing. PERSI members who also maintain a 401(k) account through PERSI's 401(k) plan administration partner benefit from a secure, automated data exchange that provides daily balance updates and regular tracking for outstanding loans against their 401(k) accounts.

In the last seven months, PERSI has completed almost 30,000 workflows on behalf of its members, approximately 4,000 workflows per month. Where Galena had no workflow capability, IRIS provides automated workflows that benefit from standardized calculations, data checking, and guided intervention from PERSI staff with complete access to member information and documents. In addition, 625 of those workflows were recalculations for members whose retirement benefits were altered by a final employer transmittal—a data correction process unheard of in Galena—which provides complete benefit accuracy for those accounts in line with the industry standard.

PERSI has seen significant increases in system efficiency and stability under the new architecture. Unscheduled reboots are rare, rather than occurring multiple times per month. Automated processes require drastically less time and no longer lock up system resources—for example the retiree payroll, PERSI's largest monthly process, no longer requires days of testing and oversight, runs in one hour rather than one or two days, and allows name and financial record changes during processing. In terms of cost, PERSI's annual system maintenance expense has been reduced from approximately $470,000 to $357,000, a savings of 24 percent.

With ongoing support from the external IRIS development team, PERSI's agile development methodology has continued proving its value through continual enhancements and rapid risk management capabilities. So far, the most extreme test of these capabilities occurred in 2017 when another Idaho agency suffered a data breach that threatened PERSI members' online security. With prompt support from the development team, PERSI was able to neutralize this threat by scaling security on the member portal to require PIN verification.

In the short time since it launched, IRIS has met or exceeded PERSI's expectations at every level. As more data becomes available, and further enhancements come online, PERSI expects IRIS to demonstrate increasing value well into the future.