

Develop a Data Strategy that Delivers Faster Access to Better Information



ISF has a long history of data integration and developing systems and processes that enable data-driven decisions, improve service and financial accountability, drive performance outcomes, and facilitate data management and data sharing across the enterprise. Aligning your business strategy with enabling technology and internal processes can provide visibility to management, provide actionable information to end users, and drive measurable improvements in agency performance.

Over our 40-year history, ISF has completed over 1,500 projects, each requiring knowledge of interactions and interfaces among systems. In addition to systems with manual integration, we have developed APIs and direct interfaces that connect complex systems across departments and agencies. In fact, ISF has been developing APIs for as long as this method of system integration has existed. ISF also has extensive experience implementing best-of-breed solutions such as Tableau to integrate and visualize data from a variety of sources.

Meeting the Challenges of Data Management

Leveraging more than 40 years of experience in state government and industry-leading best practices, ISF has extensive experience helping agencies leverage data to achieve improvements in performance, productivity, and quality. Our team-based, collaborative, and transparent approach focuses on adding value in areas with clearly defined ROI, providing clients with:

- ✓ Technology assessments and capacity evaluations
- ✓ Identification of efficiencies across systems, technologies, and personnel
- ✓ Improved workflows and business processes to integrate across the enterprise
- ✓ Streamlined business rules for new processes, systems, and technologies
- ✓ Development and integration of the technology that best fits your needs

Our approach to data strategy begins with a clear understanding of the metrics that drive performance in your agency, then maximizes the value of your data resources by ensuring your internal systems and processes are able to make high-quality and actionable data quickly available and easily consumable by end users at all levels of the organization.

Common Challenges

- Different systems with limited integration "hide" data or make it inaccessible
- Lack of data governance makes it difficult to report consistently across the agency
- Databases are established in organizational siloes, limiting the ability to mine data
- Spreadsheets, text files, data cubes, and other database tools become too large and complex to update or restructure

Understand the Needs

Define Business Drivers

Articulate Strategic Value of Data for Drivers

Focus on the Data

Tie Business Drivers to Data Collection, Consolidation, and Use

Define Responsibility for Data Collection, Storage, and Access

Build the Organization

Assign Data Ownership and Stewardship

Build Skills to Execute Data Strategy

Develop Enabling Technology

Data Architecture, Flows, and Reporting

Data Quality and Control

Data Reporting and Analytics Tools

Experience and Knowledge to Help Fulfill Your Mission

ISF has extensive experience building, enhancing, and supporting technology allowing databases to interface with one another and with external systems (including federal) in highly complex relationships involving critical and sensitive data. A few highlights of our relevant experience are summarized below:

Railroad Commission of Texas, Enterprise Inspection Business Process Mapping

ISF leveraged our detailed understanding of state agency systems to assist the commission in defining its systems, data models, data dictionaries, and interfaces supporting inspections processes across the enterprise with the overall goal of standardizing and refining the processes into a single workflow. The new workflow is being used to define requirements for potential technology solutions. Our approach included a series of work sessions and interviews, onsite research and information gathering, and assessment of the mapped workflow. In addition to business process analysis, ISF also conducted a technical systems review, which included careful examination of commission applications and systems, data integration, and interfaces between the systems.

Florida Department of Health, Merlin System

The Florida Department of Health, Bureau of Epidemiology is responsible for statewide investigation, intervention, monitoring, and coordinated reporting of communicable diseases, collecting and analyzing data for surveillance of 60+ reportable diseases. ISF developed the Merlin system to support the reporting of infectious diseases, providing real-time data for timely prevention, intervention, and containment. Through iterative development efforts, Merlin has expanded to include an outbreak module for local investigations, a high-threat tracking module for monitoring extremely contagious diseases, and background surveillance of laboratory results to identify potential outbreaks that may otherwise remain undetected. The data processed in the Merlin system is vital for monitoring morbidity and intervening in disease transmission, particularly in outbreaks and potential biowarfare attacks. Data in the Merlin system is integrated with several systems, including:

- Electronic Lab Reports (ELR) –With ELR, lab data from medical labs is provided to the system in a complex HL7 format
- EPICOM –A forum for health officials in Florida, uses Azure API
- Accumail –This provides an address validation and standardization service
- FLShots –An immunization database in which users can enter and access information about immunization records in Florida
- Health Information Exchange (HIE) –This acts as a broker for sharing health information
- ArcGIS –This is used for geospatial queries and visualization of data

Florida Department of Health, Public Health Dental Program Database Business Analysis

The Department of Health, Public Health Dental Program (PHDP) collects data from several sources and in several formats. The data was stored and accessed from large Excel spreadsheets as well as PDF file formats, and processing of the data was performed manually. The original scope of this project was to document the requirements to create an online system for accessing, entering, and updating multiple years of Public Health Dental Program data. To meet the program's goal of modernizing key program areas, this project included analysis to determine requirements to create an online system for accessing, entering and updating multiple years of PHDP data. Based on this business analysis engagement, ISF planned modernization of the Florida Linked Oral Status System (FLOSS). ISF continues to provide database and development support to FLOSS and PHDP.

Florida Department of Health Division of Community Health Promotion, Florida Birth Defects Registry

ISF worked with the Florida Birth Defects Registry (FBDR) to implement data integration with the Merlin reportable disease system including application design, enhancement, and maintenance of the FBDR data and abstraction data system. ISF provided a more cohesive interface for system users, as well as integration with the advanced processing logic available in the Merlin platform.

FDOH, Division of Disease Control and Health Protection, Bureau of Epidemiology, ESSENCE-FL

ISF assisted Johns Hopkins University with the implementation of the Electronic Surveillance System (ESSENCE-FL), an application used for early notification of community-based epidemics, and currently provides hosting and support. ESSENCE-FL is a bio surveillance system that collects emergency department chief complaint data from participating hospitals and urgent care centers in Florida, call data from the Florida Poison Information Center Network, reportable disease data from the Merlin database, and mortality data from the Florida Office of Vital Statistics. The system gives state and local epidemiologists access to data, analytic tools and data visualizations that enhance their ability to detect outbreaks, and provides the ability to conduct routine descriptive epidemiologic analysis, and monitor morbidity and mortality trends across multiple data sources. These data are made available for ad hoc queries, allowing users to observe unusual changes in disease activity and assist in timely identification of infectious disease outbreaks.

Key features of ESSENCE-FL:

- Includes seven data sets; Acute care visits from hospital emergency departments and urgent care centers, Merlin reportable disease data, Florida Poison Information Center Network data, Florida Office of Vital Statistics mortality data, PRISM STD reportable disease data, National Weather and Air Quality data, and Assistant Secretary for Preparedness and Response (ASPR) mission data
- Offers diverse data visualizations and dashboards to help characterize current syndromic and disease trends
- Results in information that can be used for outbreak detection, situational awareness and surveillance of post event health issues such as hurricanes
- Allows the ability to export graphics and summary statistic tables to include in county reports to stakeholders

NCCER, Registry System Data Recommendations and Conversion

ISF has partnered with NCCER, an international construction credentialing nonprofit, to modernize and improve a comprehensive registry system that supports several key business functions, such as:

- Credentialing and certification to track individuals who have successfully completed any standardized training program
- Detailed records of all training, assessments, and certifications
- Information related to the certification and accreditation of its sponsor organizations and their representatives

The registry system is made of two components: a database maintained by NCCER and used by its internal staff; and a web version, which provides electronic submission and tracking of training, managing of instructor lists, and confirmation of training units and records.

The internal processes and staff as well as the registry system itself became increasingly problematic and unmanageable.

NCCER sought a partner to improve in two areas:

- Processes and staff of the Operations and Registry departments
- The underlying Registry system application and database

ISF worked with NCCER to develop recommendations regarding software/database platform and development methodologies. While the initial recommendations focused on the Operations and Registry departments, ISF ensured a key component of the new system would be its expandability into future areas. Technical recommendations were included as part of our design specification document. As part of our work for NCCER, ISF converted registry system data from the legacy File Maker Pro database into a modern Microsoft technology architecture. The data consisted of 10-15 years of construction credentialing records including international data. The scope included approximately 70 File Maker Pro Tables to 160+ NGR Tables and nearly 22 million records.

The National Guard, ARRO (Activate, Respond, Recover, Operate) System

ISF developed the ARRO System to assist state National Guards in emergency deployments. ARRO consolidates mission-critical data from several sources in order to:

- Track, calculate, and retain in a central database payroll data from all military components
 - Calculate payroll using the most accurate personnel data drawn from the official Army, State Guard, or Air Guard personnel databases
 - Trigger the comptroller's office to pay Service Members via Electronic Funds Transfer (EFT)
 - Tie operation costs to mission numbers and geographic location in order to facilitate FEMA reporting
 - Track injuries and illnesses from the unit level in a central database
 - Produce accurate operation cost estimates based on the most recent pay grades
-

Florida Department of Revenue, SUNTAX System

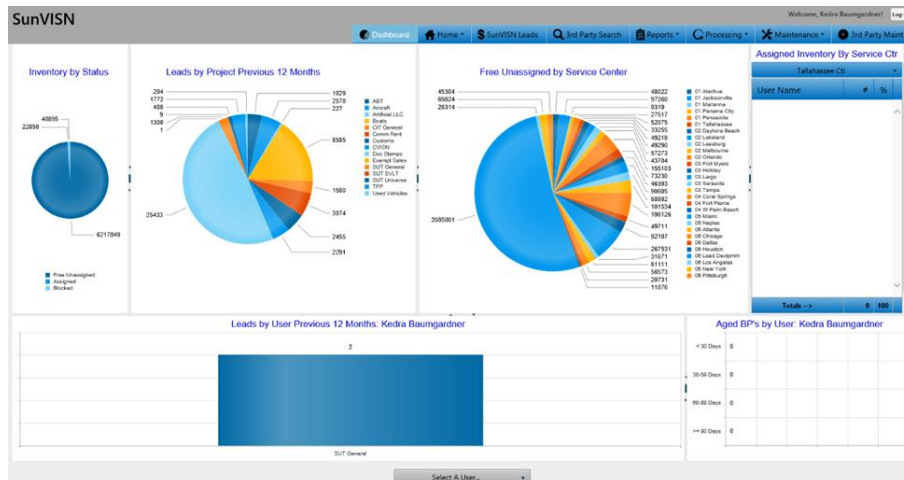
ISF worked with existing constraints to develop a way to share SUNTAX information with related systems through data uploads in a variety of formats. For example, the extraction of data from a copy of the database using SQL provides the information to related systems in a usable format. ISF is well versed in developing creative solutions for system integration no matter what the existing limitations might be, and ensuring security protocols are met.

Florida Department of Revenue, Performance Accountability Measures (PAM) Dashboard Project

The Performance Accountability Measures (PAM) Dashboard Project developed an executive dashboard for the department's performance measures. The Department's Resource Management Process, Planning and Performance Unit is responsible for coordinating the collection and reporting of the Program's Long Range Program Plan (LRPP) which includes trends and conditions (results), strategies and Performance Accountability Measures (PAMs). The Dashboard highlights the reporting of goals, strategies and PAMs which form the basis of the documentation used for the monthly Executive Briefings. The PAM Dashboard application is built in Tableau Server and SAP's Business Warehouse. SAP data for each measure is used to build data cubes to support the dashboard reporting. Use of the PAM Dashboard has resulted in reductions in delivering monthly performance data by automating the data collection and provided executive leadership with monthly performance data along with the supporting data. It also supports audits by providing system generated performance management data in a common data repository.

Florida Department of Revenue, SunVISN Executive Dashboard

As part of development of the SunVISN lead development system for the Florida Department of Revenue, ISF created an executive dashboard to facilitate greater data accessibility and analysis. In addition to the dashboard, this system also includes home screens for each lead type, third party data search capability, reporting, role-based security, and automated scheduled imports from several third-party vendors including Department of Business and Professional Regulation data for alcohol, beverages, and tobacco, shipping data, customs, tangible personal property, commercial rentals, used cars, aircraft, and coast guard. Taxes currently supported include sales and reemployment taxes.



ISF is an approved vendor under the Department of Information Resources (DIR) Deliverables Based Information Technology Services (DBITS), Contract No. TSO-3836 for services including IT Assessments and Planning, IT Project Management, Technology Migration/Upgrade, and IT Procurement Assistance, the Florida State Term Contract for Management Consulting (Contract No. 80101500-20-1) and the General Services Administration (GSA) Multiple Award Schedule (MAS).