

Keane's State Human Services Enterprise Data Warehouse Solutions

**Human services data warehouse (HSDW) development,
Integration, Management, and Modernization**



Application and Infrastructure Solutions

Challenges ... Alternatives ... Keane Solutions

Human Services Challenges

The unfavorable economic environment has resulted in a decrease in tax revenue at the state and Federal levels reducing the budgets available for assisting needy constituents. In order to trim costs and improve efficiencies states are looking at information technology as one approach to achieve their goal. Even though they service one population, state agencies are soloed organizations that provide some unique and some overlapping services. As a result, it is often difficult for State Executive Management to get a holistic view of the services offered by the state to a

single constituent or to tabulate the total costs associated with that service. The increased demand for needed services combined with tighter budgets have driven governments to seek ways to become more efficient in order serve their constituents. One of the most significant approaches to achieving this goal is by optimizing information technology to reduce costs and increase services by sharing data across the enterprise.

Human Services Solution

Keane recognizes that the primary benefit of a Human Services Data Warehouse (HSDW) is the production of actionable business intelligence. However, producing business intelligence is not a one-time event or project, but rather an ongoing process of assimilating data and providing new decision support mechanisms. As a result, an effective HSDW must adjust and evolve to changing conditions, the most recent information, and new and expanded usage. Such alterations often make it exceptionally difficult to control the scope and costs associated with HSDW projects. Keane's Business Intelligence/Data Warehouse framework provides a project approach that emphasizes the delivery of incremental deliverables and measurable business value within each release. Equally important, the framework institutes specific goals and objectives, while establishing architecture which can easily adapt and respond to evolutionary change.

Legacy modernization and use of the latest tools are other important techniques that Keane uses to economically evolve systems toward an enterprise architectural environment. This approach involves extending the value of applications based on obsolete or misaligned technologies and then migrating functionality to newer, flexible, and more cost-effective technologies. Additionally, Keane can wrap existing, valuable applications as a service with a Service Oriented Architectural (SOA) environment so that the application functionality can be reused. This extends the life of existing applications while reducing the cost associated with the development of new functionality.

Keane HSDW Development and Evolution Solution

Within state agencies there are many IT systems that support an array of programs offered to constituents. Each system has a unique way of identifying its consumers that is not integrated with other systems. So while it is generally known that many people take advantage of more than one program, the challenge is to effectively identify the same person in different programs and/or systems. The objective of the unique Enterprise Client Index (ECI) process is to create a common identifier across multiple systems and programs that will enable states to integrate data. This is the first step in developing an effective HSDW.

A data warehouse is the organization and use of disparate data to assist organizations in making informed business decisions. It extracts, transforms, processes, and optimizes transactional source system data into structured detail and summarized data using customizable business rules while providing secure access and answers to end-user queries. This results in business intelligence that leads to the best use of limited funds while enhancing services.

Flexible, Scalable, and Secure

Keane's human services data warehouse (HSDW) is scalable and can accommodate numerous divisions of social services, as well as other departments such as child development, mental health, public health, aging and adult services. It can also connect to external sources. Divisions can be added one at a time as needed to provide rapid realization of benefits while limiting negative impact to capital budgets. Most importantly, the HSDW can easily change and evolve as your state modernizes its systems.

Organizational Benefits

Keane's HSDW provides countless benefits for your human services organization and constituents at a cost far lower than expensive, custom built applications. Administrative time is dramatically reduced as

individuals no longer have to manually collect, transform, and integrate data. It also enables your organization to more efficiently fulfill state and Federal reporting obligations and adapt to changing requirements. This provides more time for the human side of human services and optimizes and accelerates the delivery of services to constituents.

By affording a more holistic view of integrated information, the HSDW facilitates the creation of valuable information and business intelligence, which in turn supports better policy decisions, fraud investigations, and inter-agency integration inquiries. This allows the best use of limited funds while enhancing services and lowering costs. Some examples of how Keane's HSDW can assist your organization include:

- » Lessening Temporary Assistance for Needy Families costs by comparing data with program information to assist child support enforcement
- » Matching the population against the National New Hire Database to increase employment potential
- » Exploring constituents state health/drug programs and comparing this population against Medicaid eligibility for spend down opportunities
- » Investigating mental health assistance eligibility, treatment, and outcomes to verify efficacy
- » Assessing repeat child maltreatment in various living situations (home, foster care, etc.)
- » Sharing data across statewide programs to help improve service delivery (Food and Nutrition Services match with Public Instruction to determine eligibility for free and reduced lunches)
- » Reducing Medicaid costs by evaluating an individual's eligibility for multiple programs and selecting the lower cost Medicaid program



Key Functions and Features

Keane's HSDW can acquire, transform, and integrate data from all of the systems associated with your division of social services including TANF, Food Stamps, Energy Assistance, Crisis Intervention, Child Support enforcement, Child Welfare and Employment Services. It can also integrate data from your other human services systems and external programs as required such as the employment security commission, child daycare programs, mental health programs, and public health including national child immunization registry data, aging, and developmental disability data.

Keane's HSDW solution has the following critical business functions:

- » Program evaluation and analysis
- » Medicaid spend down analysis
- » Evaluation of client use patterns
- » Supports fraud initiatives
- » Optimizes Federal and state reporting initiatives

- » Drives Program Effectiveness measurements
- » Budgeting and forecasting
- » Increased access to information

System Access and Management and Support

Utilizing SAP's market-leading software Business Objects, a business intelligence tool, authorized end users have immediate access to information within the HSDW. The Business Objects server in turn accesses an MS SQL server which contains security and other information. The HSDW itself employs a Sybase IQ database, and a client query triggers a Sybase query domain to extract the required records for presentation through the business objects web portal.

Of great importance, when you invest in Keane's HSDW solution you acquire more than a functional data warehouse and its associated business intelligence. You gain an easy-to-work-with, IT partner.



Keane Application Management and Modernization Solution

Keane supports, maintains, and enhances HSDW's by leveraging its human services best practices, proven methodologies and frameworks, and expertise in enterprise architecture and tools.

The IT Partner Agile Engagement Model

Keane supports your business intelligence needs, grant initiatives, and the expansion of decision support capabilities using best practices gained from working within numerous human services environments. The step-by-step integration of sources as additional business needs are identified enables the incremental achievement of business value. Significantly, the implementation of modern architecture and leading-edge tools optimizes the value you get from information technology while moving your organization toward an enterprise vision.

Keane provides you with the advantage of a consistent, experienced, and knowledgeable professional team which can adjust and adapt to changing budgets and workload demands. This is achieved through an agile engagement model that structures staffing and categorizes work and effort into: (1) fixed base charges for ongoing maintenance, enhancement, and support of in-scope systems; (2) adjustable discretionary expenditures for noncore projects and new development; and (3) special projects – major initiatives beyond the scope of base services that are too large to be completed by core and discretionary budget resources.

“Keane's continuous process and improvement approaches have significantly increased productivity and availability resulting in greater visibility by the client into their data.”


Sheila Jackson
Sr. Project Manager
Indiana Family and Social Services Administration
Division of Technology Services

Application Management Methodology


Project management and a proven Application Management Methodology (AMM) are the foundation of Keane's ability to deliver superior application management services for HSDWs. AMM is Keane's framework for effectively managing people, processes, and technology to gain predictable, repeatable results, and continuous improvement. By carefully managing these factors, the Keane team significantly lowers the time and effort associated with maintenance and enhancements. The hours saved can be re-allocated toward noncore projects and new development.

Organizational Benefits

Keane has a demonstrated track record of delivering measurable organizational benefits to the human services organizations of many states through the



development and management of data warehouses. Some examples of such benefits, synergies, and accomplishments, which were achieved in return for minimal investments, include the following:

- » State executives, managers and staff are provided with dramatically improved data
 - » Less time will be spent gathering data from disparate systems, and more time will be available to analyze and act
 - » Reduction in paper reporting and administration
 - » Clients get quicker, more accurate answers to questions
 - » Easier to do general financial analysis for the organization
 - » Less time spent on reconciliation and problem resolution
 - » Multi-dimensional analysis can be conducted on the data at different levels by different users
 - » Inquiries that require information spanning several sources are possible
 - » The exchange of business information between different enterprises is possible
 - » A single view of the customer is possible
 - » New data sources can be quickly integrated into the data warehouse
 - » Ability to perform complex analysis without impacting the transactional system
 - » Architecture can be ported to other platforms and DBMS
 - » IT Costs are controlled due to minimization of tool sets across the agency for reporting
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Keane HSDW Solution Case Studies

Keane Assists North Carolina to Obtain \$400M in Federal Funds

North Carolina's Department of Health and Human Services (DHHS) was the first in the nation to electronically transmit TANF reports to the Federal government thanks to Keane's HSDW. As an early adopter, the state was also able to obtain over \$400 million in Federal funds. Since its inception, Keane's HSDW has continuously expanded until it now comprises over 35 applications and sub applications and eight human services divisions.

The data warehouse affords access to needed information and provides business intelligence to over 6,000 end users. As a result, the department has been able to spend less time fulfilling its state and Federal reporting mandates, and more time improving its services; maximizing its use of funds; rooting out fraud, and rationalizing programs. For example, child support calculations are now completed 60% faster.

Keane developed North Carolina's HSDW in 1997 and has been managing and modernizing it since that time. This has allowed the DHHS to continue to expand and evolve its data warehouse, while taking advantage of Keane's cost-effective application management.

Keane was retained in 2001 to support, maintain, and enhance the Temporary Assistance for Needy Families data warehouse for the Indiana Family and Social.

Keane Increases Business Value and Modernizes Indiana HSDW

Services Administration (FSSA). The major challenges were to overcome funding issues and data quality problems in order to increase the use of the HSDW as a resource for the agency and expand it to include additional health and human services programs. At the same time, the state wanted to evolve and modernize the data warehouse architecture and tools and move towards its enterprise vision.

Using Keane's Application Management Methodology and project management expertise, the Keane team in conjunction with the FSSA achieved cost savings and avoidances totaling \$80M. Keane has also dramatically increased use of the data warehouse and its decision support capability through the use of reports, cubes, and user-friendly dashboards. Most importantly, using Keane's legacy modernization and business intelligence data warehouse framework, Keane has assisted the state in implementing state-of-the-art architecture and premier data warehousing tools. Functions within the data warehouse are now offered as a service (SOA). In summary, Keane has lowered costs; optimized information technology; improved decision making via business intelligence, and is supporting FSSA as it moves towards its enterprise vision.



The Keane Advantage

Keane optimizes your information technology and value from your data warehouse by bringing deep vertical expertise; first-hand experience working with a variety of human services divisions, agencies, and departments; and extensive experience in the management and modernization of applications. Keane becomes your collaborative partner and a valuable extension of your IT organization. Consequently, your HSDW will continue to support your human services processes and constituents even as technology and regulations and requirements change.

Keane's State & Local Government Practice offers public sector customers proven IT applications and infrastructure solutions

to solve their most difficult challenges. In fact, government is one of Keane's largest vertical sectors representing over 25% of company revenues. Keane makes use of its proven project management methodology, highly agile delivery options, and hands-on approach to reduce discretionary spending, and to manage the integration of processes, data, and applications. Keane's major state and local government solutions include: human services, health, education, natural resources, transformation, criminal justice, business licensing, tax and finance, and payment processing.

About Keane

Keane, an NTT DATA Company, is an IT services firm headquartered in the US with more than 12,500 professionals worldwide. For 45 years, Keane has been an Application Services specialist with distinguished project management credentials. Today, we offer a flagship suite of Application Services, as well as Infrastructure and Business Process Outsourcing solutions delivered through onsite, nearshore, and offshore resources.

Visit www.keane.com to learn how our projects, managed services, and outsourcing engagements deliver value for a range of businesses and government agencies.

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