

Taking Cancer Care and Research into a New Dimension with Informatica

Timely access to quality data helps leading cancer care institute strengthen cancer research capability and improve cost control.

“Managing the integration of multiple source systems required a sophisticated and flexible data integration platform. The Informatica Platform provides this, and it can be expanded to address our future integration challenges.”

— Rob Sutfin, data warehouse program manager, Dana-Farber Cancer Institute

FAST FACTS

CUSTOMER

Dana-Farber Cancer Institute

BUSINESS INITIATIVES

- Improve budget oversight and cost controls
- Increase operational efficiency while ensuring compliance with regulatory standards

TECHNOLOGY STRATEGY

Implemented the Informatica Platform, in this instance consisting of Informatica PowerCenter®, Informatica PowerExchange® for PeopleSoft, and Informatica Data Explorer™ to provide timely access to quality data. This next-generation integration platform is changing how the Institute manages patient care, conducts cancer research, and handles its daily operations.

Picture the Dana-Farber Cancer Institute Dilemma

Like other academic medical centers that have a joint mission of providing clinical care and conducting research, Dana-Farber Cancer Institute experienced challenges in quickly tracking how many patients were in its waiting rooms; how many patients were typically treated in a day by each physician; and its research funding budget expenditures. Because data resided in disparate departmental systems, managers and decision makers experienced challenges in analyzing their budgets and expenditures over a period of time.

By standardizing on the Informatica® Platform, Dana-Farber now can integrate vast volumes of different types of clinical and financial data into a format that's more valuable for end users. The open, scalable, and flexible integration platform assists in the way Dana-Farber manages patient care, conducts cancer research, and oversees its day-to-day operations. Managers now have daily operating expense reports in support of their day-to-day financial decision making, which is greatly improving Dana-Farber's budget process. Informatica has already reduced the time required to prepare operating expense reports from 6 hrs for 1 FTE. This is expected to lead to a reduction in the volume of support calls. In the longer term, Informatica will also support an integrated clinical care platform, which will transform clinical operations and patient management.

BENEFITS

- Provided managers with access to daily operating expense reports in support of their day-to-day financial decision making
- Will reduce the volume of support calls for finance
- Will improve the Institute's budget management process
- Introduced one common platform for enterprise reporting and analytic purposes
- Reduced the time required to prepare research funding reports from six days to one and a half days
- Will ultimately transform clinical operations and patient management
- Will eventually help clinical teams quickly identify trends in patient care

NUTS AND BOLTS

- Solution: Data warehousing
- Product: Informatica PowerCenter, Informatica PowerExchange for PeopleSoft, and Informatica Data Explorer
- Informatica Partner: LoganBritton
- Sources: PeopleSoft on Oracle, SQL Server, and flat file reports. Future data sources may include medical record transactions in HL7 format, relational databases, flat file extracts and XML
- Target: Enterprise data warehouse

Compassionate Care for Children and Adults with Cancer

When a young cancer patient named "Jimmy" talked about his condition in a radio broadcast in 1948, he didn't realize he was making history. In the intervening years, through thousands of events and the generosity of millions of people, the Jimmy Fund has helped save countless lives by furthering cancer research and care at Dana-Farber. Today, the Boston-based Dana-Farber provides expert, compassionate care to children and adults with cancer nationwide, while it advances the understanding, diagnosis, treatment, cure, and prevention of cancer and related diseases.

Dana-Farber recently faced two distinct challenges—one general and one specific. The general or broader challenge was the effective integration of operational data—whether it was financial or clinical data—and its delivery on a common platform for reporting and analytic purposes. The more specific need came from the Dana-Farber Finance team, which wanted managers to track their actual operating expenses against their budgets. An existing system provided them with a piecemeal budget versus expense data on a monthly basis at an aggregate level. However, the process to obtain detailed expense information was time consuming and did not contain the corresponding budget information. Without effective control over budget expenditures, Dana-Farber could not be certain its funding was being spent in the most effective way.

Rob Sutfin, data warehouse program manager at Dana-Farber, knew firsthand about the challenges to track and analyze operating expenses and budgets. "Finance's back-office staff was greatly challenged by the many requests from the business to identify which invoices had hit the budget and what value was left over. Dana-Farber department

managers had no means to find out what had been spent in their budget. Instead, a large amount of time was absorbed by doing data queries, with the resultant errors creeping in."

Support for Financial and Clinical Subject Areas

The outcome was a decision to deploy an enterprise data warehouse (EDW). "Dana-Farber was looking for a flexible, scalable, and integrated EDW solution that would support our financial and clinical subject areas," says Sutfin. The data integration platform was an overriding consideration for this new EDW, named the Dana-Farber Analytic Reporting Tool (DART). The database platform is Oracle 10g, and MicroStrategy was chosen as the corporate standard for business intelligence. Selecting the data integration platform required more consideration. The long-term data integration challenges require handling a diverse set of heterogeneous data sources. The first project for operating expenses sourced data from PeopleSoft on Oracle, budget data on SQL Server, and a flat file report from PeopleSoft, which is used to balance and verify the daily loads back to PeopleSoft. Looking ahead Dana-Farber's team envisages that future data sources will include medical record transactions in HL7 format, other relational databases, flat file extracts, and potentially XML.

"The data integration platform needed to manage a diverse set of data sources; it also needed to cope with a high volume of sources—particularly clinical systems," explains Sutfin. "Patient data and transactions are captured in numerous systems from multiple vendors. Managing the integration of a patient master table will require a sophisticated and flexible data integration platform. Informatica Platform provides this, and it can be expanded to address our future integration challenges.

Informatica provides timely, high-quality data and a comprehensive, flexible, and scalable data integration platform in support of Dana-Farber's enterprise business intelligence needs. Additionally, the solution provides a project framework that focuses on the reusability of common objects that are augmented and supplemented to satisfy the specific needs of each individual project. The result? A continuous improvement in data quality and availability, as well as faster integration of available enterprise data that is easier to maintain.

Daily Operating Expense Reports Support Financial Decisions

LoganBritton, a recognized leader in the data warehousing and data integration community, has been instrumental in the development of the initial operating expenses project as well as subsequent projects. As part of this first project, the reusable Informatica data integration and business intelligence platform is used to integrate financial data from PeopleSoft and MPC financial performance management software that is standardized daily in the EDW. Thereafter, budget and expense information is published in the enterprise data mart for managers and executives. As a result, managers now receive daily updates of detailed operating expense data, which supports them in their day-to-day financial decisions.

According to Sutfin, "More time is now able to be spent on the analysis of data, and decision makers now know what their expenses are. We are confident that the solution will substantially reduce the volume of support calls for finance and greatly improve the

value of the enterprise budget process." The user community also is pleased: The director of Clinical Business Development recently commented, "DART means the difference between not having information and having information. Now we can effectively manage our expenses to our budgets."

Dana-Farber is now setting its sights on two new business intelligence projects: Research Finance and Clinical Operations. The first of these — Research Finance — is well advanced. The Institute receives \$250 million in government grants and private/corporate donations for use in cancer research.

Researchers are keen to understand what the balance is on these grants, so they know when to apply for new grants or to apply to renew existing ones. Previously, the back-office team spent so much time trying to collect the data that there was little time to analyze it. The Informatica Platform overcomes the data analysis problem, integrating previously silo-based operational data and unifying it on one common platform for reporting and analysis.

Instead of a team taking six days to produce a particular report every month, it now takes an average of one and a half days. For example, if a research team wants to know what the salary expenses are on a project, they would previously have run multiple queries in PeopleSoft and then validated the data—all of which took time and was prone to error. Now, however, team members simply log into MicroStrategy, identify the appropriate research project, and can then see everybody who has charged a salary to that research project.

Analyzing the Continuum of Care for Inpatient and Outpatient Services

Despite having achieved so much so quickly, Sutfin and his team are not standing still. Their next project — the Clinical Operations project — may only be at an embryonic stage, but it is set to transform clinical operations and patient management. The vision is to introduce patient data into DART, including details on which patients are under the control of Dana-Farber, what their primary diagnosis is, what services those patients receive, and what the results are of those services. DART will also incorporate data from other organizations, such as the Brigham & Women's Hospital, its partner in treating adult cancer patients, to help analyze the continuum of care for inpatient and outpatient services.

"When it eventually goes live, the Clinical Operations project will enable Dana-Farber managers to predict the space that is needed, the staff that are required, and the supplies that are necessary to be able to meet the demand. By analyzing patient throughput, their condition, and recovery, our clinical teams will also be able to quickly identify trends in patient care. That's an important step in putting the appropriate cancer treatment resources where they're most needed," Sutfin says.

This open, scalable, and flexible Informatica data integration platform is making a real difference to how Dana-Farber manages patient care, conducts cancer research, and manages its day-to-day operations. In due course, it will also help manage patient care.

Learn More

Learn more about the Informatica Platform. Visit us at www.informatica.com or call +1 650-385-5000 (1-800-653-3871 in the U.S.).

About Informatica

Informatica Corporation (NASDAQ: INFA) is the world's number one independent leader in data integration software. The Informatica Platform provides organizations with a comprehensive, unified, open, and economical approach to lower IT costs and gain competitive advantage from their information assets. More than 3,700 enterprises worldwide rely on Informatica to access, integrate, and trust their information assets held in the traditional enterprise and in the Internet cloud.



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