



# George Washington University Reduces Data Warehouse Development Costs Using Informatica

“Informatica has proven to be a key factor in our data warehouse success. The product’s ease of use, scalability, and flexibility in managing complex transformations and metadata reduced our development costs significantly.”

— Peter Barton, Manager, Data Administration, George Washington University

## CHALLENGE

Building a student data warehouse by consolidating all student information across all campuses

## INFORMATICA SOLUTION

- Informatica PowerCenter®

## BENEFITS

- Direct access to key measures of academic performance
- Improved data quality standards and procedures
- Ability to reuse reports, leading to cost savings

## NUTS AND BOLTS

- Date Integration: Informatica PowerCenter
- Sources: Oracle, SCT Banner System, flat files
- Target: Oracle
- Platform: Sun Solaris

The George Washington University, independent academic institution, was chartered by the Congress of the United States in 1821. Today, the University’s enrollment totals more than 19,000 undergraduate and graduate students in nine schools.

## The Challenge

Like most higher education institutions, The George Washington University (GW) is facing a new set of challenges that are more complex than ever. Overcoming fierce competition for the best students, meeting diverse student needs, finding adequate funds to meet constantly shifting demands, and increased accountability from internal and external constituents affects all aspects of GW’s business process, from student recruitment to financial management. The complexity of these challenges requires continual improvements in operational strategies based on accurate, timely, and consistent information.

Confronting these challenges, GW turned its attention to data warehousing technology to create a robust and flexible reporting infrastructure capable of providing key academic performance indicators and metrics to end users—on demand, and at their desktops. And during the planning phases of building a data warehouse, GW identified a number of key technology issues that needed to be addressed.

For example, GW’s historical data was buried in disparate data sources that supported transactional, day-to-day business processes. This data proved to be very difficult to extract and even more difficult to integrate into a single format due to inconsistencies inherent in distributed data storage systems and the ownership issues surrounding them. Moreover, GW’s transaction applications did not store data in models that supported on-demand and ad-hoc aggregations.

As a result of these integration challenges, programmers or specialized reporting analysts in various GW departments were often asked to create reports using proprietary programs or highly technical applications—an imprecise and time-consuming task that often produced compromised results due to the inconsistent application of business rules or an incomplete understanding of the relationships in the data.

By integrating data into a clean repository and disseminating information over their Intranet, the Student Data Mart gives users direct access to key academic metrics. Based on these metrics, users are able to make decisions in a timely manner, and with more precision than before.

## The Solution

In 2000 The George Washington University selected Informatica because of its market leadership position, robust metadata reporting capabilities, and ease of use. And by using Informatica PowerCenter, GW is taking an incremental approach to building an enterprise data warehouse to address the increasing demands placed on its reporting analysts.

The first phase of GW's data warehouse implementation is called the Student Data Mart (SDM). The SDM is used to integrate raw data into a unified data model to support a set of key academic metrics, and create a user friendly reporting environment for ad-hoc reporting. Information is then delivered to end users on demand and through the GW Intranet in commonly used formats such as Adobe Acrobat PDF, text files, and Excel spreadsheets.

The SDM contains ten years of recruitment, admissions, enrolment, registration, and GPA information for all students across all campuses. It supports a wide-range of academic metrics, including per campus and unduplicated enrollment counts, admissions selectivity, course enrollment data, student achievement and individual program metrics.

In addition, these metrics are directly and systematically aligned with the academic goals of each department and with GW's overall goals.

SDM data is stored in dimensional models to support high volume, high performance queries on a Oracle relational database. And since its implementation, the SDM GW user community has expanded significantly and currently extends across a number of GW branches, including the university's Institution Research, the Registrar's Office, Graduate Admissions, and individual colleges.

## The Results

### Direct access to key measures of academic performance

By integrating data into a clean repository and disseminating information over their Intranet, the SDM gives users direct access to key academic metrics. Based on these metrics, users are able to make decisions in a timely manner, and with more precision than before.

In 2000 The George Washington University selected the Informatica data integration platform because of its market leadership position, robust metadata reporting capabilities, and ease of use.

## Improved data quality standards and procedures

The university's data integration process has exposed many data quality issues that are the natural outcome of distributed data ownership. Without the university's data warehouse, it would be difficult to investigate the nature and extent of data quality issues that are quickly detected using Informatica. As a result, the university has improved data quality standards and procedures.

## Ability to reuse reports, leading to cost savings opportunities

The SDM promotes the concept of reusable reports, which allow users to share and leverage useful reports without precious IT resources and technical intervention. For example, if a business user perceives that a newly created report can benefit others, the report is disseminated for public use. Reusable reports also enable GW to shift its focus away from creating "one-off" reports, which are costly to maintain in a costeffective publish and subscribe paradigm.



Worldwide Headquarters, 100 Cardinal Way, Redwood City, CA 94063, USA  
phone: 650.385.5000 fax: 650.385.5500 toll-free in the US: 1.800.653.3871 [www.informatica.com](http://www.informatica.com)

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