Informatica

Success Story

Chinese university uses Informatica PowerCenter to build a new database and usher in a new era of data sharing.

"Informatica PowerCenter has helped us build a standard data processing flow and benefit from automatic extraction and transformation of various types of structured data," Naijia says. "We've been able to reduce management, operations, and maintenance costs while establishing a roadmap and solid plan for the future."

– Liu Naijia, Data Center Director, Tsinghua University

Continuing a Tradition of Excellence

Located in the beautiful Tsinghua Park in a northwest suburb of Beijing, Tsinghua University is renowned for cultivating high-level professional talents and an emphasis on research accomplishments. Founded in 1911, the school today comprises 19 schools and 55 departments spanning disciplines such as science, engineering, philosophy, economics, law, education, and medicine.

Already recognized as an academic and research leader, the university is also an innovator and early adopter of digitizing campus information systems. As many as 10 years ago, the university recognized the need to integrate and share data across all its departments and initiated a formal program to bring the vision to fruition.

The university set out to create a crossdepartment data sharing platform that integrates a number of different applications and systems to provide faculty and students with better, full-scale information services. To accomplish the goal, the school knew it needed uniform collection, extraction, and data cleansing processes across all its systems and turned to Informatica data integration tools to establish the framework to turn plans into reality.

Building a University for the Digital Age

A digital campus is a cyber space built to mirror a traditional campus, but one that extends the reach of the physical campus and enhances the educational experience for faculty and students alike. It's a digitized version of the entire campus environment, resources, and even activities such as class instruction, university operations administration, and office work.

Building this kind of hybrid campus requires seamless information exchange among essential information systems. For Tsinghua University, digitizing student information meant

清華大學 TSINGHUA UNIVERSITY

Business Needs:

- Consolidate data from silos to enable easier data sharing among application systems of different departments.
- Accelerate development of a "digital campus" to improve service quality and enhance the academic experience.

Challenges:

- Develop a scalable, sustainable roadmap for integrating various data sources and legacy information systems.
- Enable seamless connection among disparate systems to accelerate the collection, cleansing, and storage of data in a central repository.
- Provide easy, reliable access to important information for university administrators, faculty, and students and create more collaborative learning environment.

Product & Solution:

- Tsinghua University is using Informatica PowerCenter to align an array of information systems, enable unobstructed flow of accurate and consistent data, and develop a fully digital campus information infrastructure.

compiling essential information about virtually every aspect of a student's campus experience—enrollment, new student welcome, financial affairs, online learning options, and all pre- and postgraduation concerns.

University administrators recognized that building an integrated, digital information environment would be a gradual process, but a fruitful one.

However, given the lack of top-level and uniform information standards, the school realized that data couldn't be easily shared across systems and departments, resulting in data silos and disparate, isolated applications.

In particular, the university needed a way to easily move raw data from applications housing new student and graduation information to a single data warehouse. Over the years, Tsinghua University accumulated large volumes of data from a variety of sources and needed a way to streamline the data processing flow among applications and backend databases.

The original extraction transform load (ETL) tool Tsinghua used for data extraction, transformation, and cleansing couldn't meet the school's development and scalability requirements. Instead, the university needed stable and more reliable ETL tools to optimize data management processes required for providing faculty and students with enhanced, more personalized services.

Intuitive, Efficient, and Scalable Data Integration

Tsinghua University compared and tested a number of ETL platforms. After some consideration, the university selected Informatica PowerCenter to drive its data integration strategy because of its mature, well-developed architecture and its ability to integrate a number of systems simultaneously. In addition, PowerCenter is well-regarded in the industry for its ability to rapidly and reliably transmit data and for its outstanding usability, data processing efficiency and scalability.

Integrating a vast data environment can be quite a complex and challenging undertaking. While many solutions struggle with interoperability and sytem compatability, Informatica solutions seamlessly connect with each of the university's enterprise applications to enable timely, accurate, and efficient data exchange and maximum network availability.

With PowerCenter, Tsinghua University can quickly collect data from a variety of sources and leverage the software's data governance and validation capabilities to standardize information into high-quality uniform data. The intuitive interface and development features make it easier for university developers to determine business requirements, perform data integration tasks, analyze data relationships, and build new workflows more efficiently.

One of the biggest advantages of choosing Informatica over competing options is the company's training and implementation professional services. The university's Data Center Director, Liu Naijia says that the hands-on approach Informatica takes with its customers bring is essential for properly planning the implementation and giving operations managers peace of mind that everything will work according to plan.

Benefits:

- Established an initial university database and a foundation for future integration of university information systems.
- Reduced management, operating, and maintenance costs by simplifying the data management environement for faster processing, more reliable information, and fewer hardware components to manage.

A Foundation for the Future

Tsinghua University's Phase-I development with Informatica PowerCenter resulted in a new database and data-sharing platform that unites information previously stored in data silos. With the new platform, all kinds of data have come to life and are easily accessible by faculty and student through easy-to-use web-enabled portals.

Now, university personnel have full access to accurate, consistent data around important operations such as faculty portal information, residence registrations, dormitory management, student records, and campus access cards. With original boundaries among systems and the traditional service modes gone by the wayside, university leaders have everything they need to provide faculty and students with a more convenient, safer, and individualized work and study environment.

With the university's network applications and number of users expanding in the future, Tsinghua University is planning to integrate more applications and Informatica will play a prominent role. The scalable Informatica solution doesn't require overhauls of existing infrastructure as operations expand, meaning that the university can avoid costly hardware swaps while decreasing costs and the risks of data downtime.

Since deploying PowerCenter, Tsinghua University has been able to assert greater control over its data, thanks largely to a centralized management structure. "Informatica PowerCenter has helped us build a standard data processing flow and benefit from automatic extraction and transformation of various types of structured data," Naijia says. "We've been able to reduce management, operations, and maintenance costs while establishing a roadmap and solid plan for the future."

Digital transformation is changing our world. As the leader in enterprise cloud data management, we're prepared to help you intelligently lead the way. To provide you with the foresight to become more agile, realize new growth opportunities or even invent new things. We invite you to explore all that Informatica has to offer—and unleash the power of data to drive your next intelligent disruption. Not just once, but again and again.

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