



CASE STUDY: TransCanada Gas Transmission Northwest Customer Information Systems Modernization Program



TransCanada is a leader in the responsible development and reliable operation of North American energy infrastructure. Its network of more than 59,000 kilometres (36,500 miles) of pipeline taps into virtually all major gas supply basins in North America. TransCanada is one of the continent's largest providers of gas storage and related services with approximately 360 billion cubic feet of storage capacity. A growing independent power producer, TransCanada also owns, or has interests in, approximately 7,700 megawatts of power generation.

Gas Transmission Northwest (GTN), a wholly-owned subsidiary of TransCanada headquartered in Portland, Oregon, pumps nearly 3 billion cubic feet of gas per day through more than 610 miles of pipeline running from Canada to California. GTN provides gas transportation services to more than 100 customers, including gas producers, marketers, and electric and gas utilities.

THE OPPORTUNITY

Customer relationship management functions at TransCanada GTN are performed with a suite of custom-developed information system tools referred to as E-Trans. These applications are used by the Customer Support, Transportation Services, Rates & Regulatory, and Marketing & Business Analysis groups to manage customer information, schedule transportation on the pipeline, generate customer invoices, and manage discounts according to Federal Regulatory Energy Commission (FERC) regulations and North American Energy Standards Board (NAESB) mandates.

OVERVIEW

Challenge

Customer relationship management functions were supported by a suite of legacy applications built with disparate technologies. These applications were no longer meeting new and changing business requirements and were difficult and costly to modify. TransCanada GTN needed a Customer Information System (CIS) that would allow new and changing business requirements to be met in a timely and cost effective manner. The GTN CIS Modernization Program was established, consisting of several projects to be executed in phases, each focused on a distinct area of business functionality.

Solution

The Online and TransCanada team executed the first phase of the Modernization Program by successfully developing and deploying the Customer Accounting & Reporting (CAR) application. This application supports the functionality and workflow required for customers to submit transactional information via a web-based interface. The application supports future changes in business direction, and minimizes total cost of ownership by reducing the effort required for ongoing maintenance and support. Built on the Microsoft .NET platform and based on the principles of service oriented architecture, the solution will be used by follow-on projects.

Benefits

The solution enables TransCanada to:

- Perform customer management functions more efficiently and effectively.
- Deliver the highest levels of customer service.
- Address changes in regulatory requirements easily and maintain regulatory compliance.
- Accommodate business growth more easily.
- Accommodate future business changes at reasonable time and cost.
- Minimize business risk associated with non-scalable, aging information systems.

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The E-Trans applications were implemented over a ten-year period and were built using disparate technologies that had become outdated and unsupported by the original software vendors. In addition, new business requirements were not being met and implementing changes in a timely manner had become difficult and costly due to the number of technologies involved and the corresponding knowledge base required.

THE APPROACH

The GTN Customer Information Systems (CIS) Modernization Program

In the second half of 2005, TransCanada initiated the GTN Customer Information Systems (CIS) Modernization Program. The program consists of several projects to be executed in phases, each focused on distinct areas of business functionality. The new suite of applications being developed—called Pacific Express—will replace the legacy E-Trans applications and will be aligned with the Corporate IS 5-Year Plan. The new technology standards are based on the Microsoft .NET platform.

Partnering with an Industry Recognized Solution Provider

In Q4 of 2005, TransCanada evaluated several IT professional services organizations to manage and execute projects under the GTN CIS Modernization Program and selected Online Business Systems.

Online provided a Project Manager (PMP) who reported to the TransCanada Program Manager, and consultants for the Business Analysis, Quality Analysis, Technical Architecture and Application Development work required on the project. The Online team worked in close collaboration with the TransCanada team members at GTN's headquarters in downtown Portland.

THE SOLUTION

Early in 2006, the joint TransCanada and Online team successfully completed an eight-week discovery project to gather business requirements, establish technical direction, and develop project management artifacts, including a Project Charter and a supporting execution plan for the subsequent implementation project.

In March 2006, the team began working on the Customer Administration & Reporting (CAR) application, the first Pacific Express application to be developed. The system was designed to support the functionality and workflow required for customers to submit transactional information via a web-based interface, as mandated by the FERC and NAESB. In order to meet business deadlines it was necessary for the system to be implemented by the end of 2006.

The following Business issues exist with the information systems:

- Business changes and growth, including regulatory changes, new service offerings, and evolving business practices cannot be accommodated in a timely way.
- The levels of manual effort required and the resulting potential for errors and inconsistencies are unnecessarily high due to limited automation.
- Loss of revenue and customer dissatisfaction have been caused by system failures and inadequacies.

The following IS issues exist with the information systems:

- High risk of operational failure based on expected future requirements due to end-of-life status.
- Inability to integrate customer relationship management functions for acquired pipeline assets.
- Inability to provide support or add functionality to the nomination/scheduling system due to lack of knowledge.

"Online Business Systems played an integral role in delivering the Pacific Express CAR product within schedule and budget constraints. Based on performance, Online has been awarded the opportunity to continue partnering with TransCanada on subsequent phases of the program. Online has demonstrated the ability to understand our business problems and provide high quality talent in a variety of roles that work well together in delivering first class solutions."

Jim Clark, Program Manager
GTN Customer Information Systems
IS Project Management Office
TransCanada Gas Transmission NW

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The project met its established milestones through to successful completion on December 9, 2006, and delivered the required functionality within the original timeline and under budget. CAR replaced the legacy ITMS system and provides functionality related to customer contracting, capacity release, nominations and related reporting functionality.

The solution was developed using a Service Oriented Architecture (SOA) on the Microsoft .NET platform and the C# programming language. The architecture would be used by the follow-on projects, support future changes in business direction, and minimize total cost of ownership by reducing the effort required for ongoing maintenance and support.

CONCLUSION

At a high level, the project delivered the first phase of a program of work to modernize GTN's Customer Information Systems in accordance with TransCanada's IS 5-Year Plan in a way that:

- Made efficient use of TransCanada's business and IS resources.
- Delivered systems and services in a timely manner.
- Aligned with TransCanada's vision, strategies and business goals.

The high level of quality of the application and the ease with which it can be supported and enhanced to meet changing business requirements has been acknowledged by the TransCanada team that has assumed ongoing support activities.

In June 2007, this project was awarded top place in the Project Management Institute (PMI), Portland Chapter, "2007 Project Management Award of Excellence" program. TransCanada has expressed the highest levels of customer satisfaction with the services provided by Online and has retained Online for the remaining phases of the CIS program.

ABOUT ONLINE BUSINESS SYSTEMS

For more than 20 years, Online has been increasing productivity and innovation for our clients through planning, transforming, and managing their IT environments. We achieve this through our people who not only have their finger on the pulse of technology, but also have an astute understanding of how business works. It is the combination of our people, our methodologies, and our culture that enables us to deliver results – without compromise – to clients across the Public and Private sectors. As a result we are trusted advisors, guiding clients in the Health Care, Financial Services, Energy, and Justice & Public Safety industries.

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