

Customer Case Study

Illinois Tollway

The Illinois Tollway Uses Proliance® Software to Lower Operating Costs and Increase Efficiency on \$6.3B Congestion-Relief Program

The Illinois Tollway maintains and operates 274 miles of interstate tollways in 12 counties in Northern Illinois, including the Reagan Memorial Tollway (I-88), the Veterans Memorial Tollway (I-355), the Jane Addams Memorial Tollway (I-90) and the Tri-State Tollway (I-94, I-294, I-80/I-294). In 2005, construction began on the Tollway's \$6.3B Congestion-Relief Program (CRP), which will reduce travel times for its 1.3M daily drivers by rebuilding/restoring nearly all of the system, adding many miles of new lanes, converting 20 mainline toll plazas to Open Road Tolling and building the I-355 South Extension from I-55 to I-80.

The Tollway has received numerous awards and accolades, including achieving ISO 9001:2000 certification for its well-formulated and aggressively implemented quality management system. Recent recognitions include #1 North American Road Project for 2006 by Roads & Bridges magazine and, for the fourth consecutive year, the Government Finance Officers Association's 2006 Distinguished Budget Presentation Award. In addition, Tollway Chief Engineer, Jeff Dailey, was recognized as the 2006 Government Civil Engineer of the Year by the Illinois Chapter of the American Society of Civil Engineers (ASCE), and a national award as the Person of the Year by the Construction Managers Association of America for his leadership in the execution of one of the nation's most robust capital programs.

When the \$6.3B Congestion-Relief Program (CRP) was approved by the Tollway's Board of Directors, stakeholders immediately sought to establish program controls for scheduling, cost estimating, value engineering, change order management, exception reporting and project management.

A significant priority was the selection and implementation of a Web-based project management system that would result in greater individual and team accountability and provide efficiency in business processes. To speed the selection and implementation of new software, the Tollway hired HNTB, one of the most prominent engineering, architecture and planning firms in the nation. HNTB was experienced at providing Web-based project management program services and knowledgeable in the toll road industry.

After an extensive evaluation process, the Tollway chose Proliance On Demand, a Web-based solution from Meridian Systems that delivers complete Infrastructure Lifecycle Management (ILM) capabilities. Proliance software offers the unique combination of project portfolio management, facility management, business process management and business intelligence to manage the entire plan, build and operate lifecycle in a single system of record.

Proliance software was selected by the Tollway for its scalability, data storage capacity via a universal filing system and its ability to deliver the "Three A's" necessary



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*Edward Wilmes, General Manager
Illinois Tollway*

for building projects on time and on budget: Access, Accountability and Audit. According to Tollway Chief Engineer Jeff Dailey, “With its Proliance solution, Meridian provided a product that was best able to facilitate our business processes and accommodate the incorporation of new departments as requests developed.”

A 90-Day Fast-Track Implementation

With CRP construction already underway, the Tollway needed to expedite the implementation of its Proliance software. “We wanted our Proliance system to be live and running within 90 days,” explains Edward Wilmes, Tollway General Manager. To meet this aggressive goal, the Tollway added a second outside firm to its implementation team: Kristine Fallon Associates (KFA), information technology consultants with in-depth knowledge and experience in the design, manufacturing, project management and facility management industries.

Functionality that needed to be operational within this fast-track timeframe included Submittals, RFIs, Issues, Correspondence, Non-Conformance Reports, Daily Activity Reports, Resident Engineer Daily Diaries, File Management, Punch Lists, Drawings, Review Process Management and Meeting Minutes.

The flexibility of the Proliance system made it easy to develop business processes that conformed to the Tollway’s specifications. The Field Management module, for example, became the Daily Activity Report and Resident Engineering Daily Diary.

As the software was configured for each workflow process and customized with the Tollway’s nomenclature, user acceptance testing was performed. This quality control measure verified that configuration

programming was complete and that each process met the Tollway’s utilization requirements and ISO procedures.

Hands-on, role-based training in the Tollway’s training lab quickly allowed user groups to learn how to use the software for their tasks and to also see how other people within the group would use the program. Even the Tollway executives, including the Inspector General, had a class on how to use Proliance as an oversight tool, learning how to run reports, search for data and find specific RFIs based on key words.

On April 10, 2006, the Tollway went live on Proliance software with approximately 200 trained users, meeting its 90-day implementation goal. This feat was accomplished through a truly collaborative effort between the Tollway executives and field staff along with HNTB and KFA.

Faster Response Times Eliminate Costly Delays

Now, a year and half later, the Tollway has more than 750 Proliance software users and has realized significant benefits while reaching major CRP project milestones. “The Tollway covers 274 miles and has many remote field offices,” says Wilmes. “Our Web-based Proliance system allows everyone to operate in a fast-paced construction environment while accessing the same information in real-time. That is a huge benefit.”

Dailey concurs. “Before Proliance,” he says, “our response times were slow and it was difficult to track whose court the ball was in. RFIs and Issues had a 30-day average response rate and Submittals could take as long as 45 days to be resolved. Today, we average a seven day turn-around on RFIs and Issues and Submittals are typically resolved within 10 days – sometimes faster.



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The ability to answer an RFI or Issue rapidly has tremendous value. Every day that a project is delayed, it costs the Tollway \$60K. With Proliance, we are able to keep delays to a minimum.”

This ability was particularly beneficial as the Tollway tackled one of the first CRP projects: the conversion of its entire toll system to Open Road Tolling (ORT). Using Proliance software to expedite decision making, decrease communication time and reduce errors and rework, the Tollway converted 20 toll plazas to ORT in just 22 months.

Sharif Abou-Sabh, HNTB Senior Vice President and Tollway Program Manager, anticipates a similar result as another CRP project – the I-355 South Extension – nears completion. “We’re slated to finish the I-355 job by the end of this year,” he explains. “If not completed on time, the Tollway stands to lose \$150K a day in toll revenue. Proliance facilitates staying on schedule so we can complete this project on time and on budget.”

Proliance Reporting Provides Oversight, Accountability

The reporting within Proliance software has played a significant role in reducing communication failures, enforcing standardized procedures and providing an audit trail. Using Proliance Analytics to provide business intelligence capabilities, as well as the standard Proliance program reporting capabilities, the Tollway has gained the oversight needed to establish accountability at all levels.

KFA Vice President Greg Bush shares this example of Proliance reporting in action: “Every Friday morning we e-mail the construction managers, project managers and consultants a Past Due report. This dashboard report goes through Proliance and finds the business processes that are

past due based on the Tollway’s criteria. We also create a Comparison report for Jeff Dailey that outlines the percentage of improvement for every project compared to the previous week. Doing this has really made everyone aware that they are accountable for their work.”

Dailey agrees. “Proliance enables us to track performance, identify where the bottleneck is in our process and work with those individuals to improve performance.”

With more than 100 active projects at any given time – and approximately 300 completed each year – the ability to pinpoint potential problems is critical to success. Prioritizing issues helps Dailey focus on the most important tasks at hand. “The Tollway has implemented a priority level of ‘Super Urgent’ for submitted Issues that need immediate attention,” he explains. “This gives end users the ability to notify me of Issues that may substantially affect the critical path of projects. We run reports three times a week to check for ‘Super Urgent’ Issues on a program-wide level.”

Lower Operating Costs, Increased Productivity

Because it is a state agency, the Tollway measures its Proliance software ROI in terms of how well the program improves efficiencies to manage operating costs and complete funded projects as scheduled.

According to Abou-Sabh, lower operating costs should be seen as a result of using Proliance software. “Over the course of many design and construction projects, it’s not unusual to budget \$25K-\$30K per job just to physically transport documents such as contracts and drawings from one location to the next. Having the ability to transfer these documents electronically via Proliance On Demand has the potential to save the Tollway millions of dollars.”

Dailey adds: "As projects close out, Proliance will become the project archive, which will eliminate the costs associated with archiving paper documents in storage facilities."

And when it comes to increased efficiencies, Wilmes is already reporting Proliance-related benefits. "The Tollway employee project management staffing level is the same as it was before work began on the CRP in 2005. We are running the projects in the Program with an employee count that is much lower than the national standard, adding Consultants for the short-term to provide assistance," he says. "Proliance has allowed an integrated management team of Tollway employees and Consultants to easily be formed, which leverages Tollway employee knowledge by ensuring that a consistent business process is established and followed – it is not doing a million

things properly, it is doing one thing properly a million times."

Achieving the "Three A's"

Although the Tollway's Proliance system continues to mature (the user count is expected to reach 1,000 by year's end), the software has delivered much-needed program controls. "Proliance provides visibility and access to all project records as well as accountability on the individual level that we did not have before," concludes Dailey. "Our ability to collaborate from any location increases productivity by decreasing the amount of time required to execute actions and identify problems. Without question, Proliance has given us Access, Accountability and Audit, which greatly assists us in delivering projects on time and on budget."



Rebuild & Widen

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