

Industry:
Government

Organization:
Georgia Technology
Authority (GTA)

Description:
The Georgia Technology Authority ensures the effective use of IT resources in Georgia state government and works to expand online access to government information and services. It provides government agencies with technical assistance and is responsible for leveraging Georgia's consolidated purchasing power to make the best IT investments.

Business Problem:
The GTA needed to launch Georgia's e-government portal and online driver's license renewal application by an unmovable deadline promised by the Governor and the commissioner of the newly created Department of Motor Vehicle Safety.

Solution:
Rational RequisitePro, Rational Unified Process, Rational Services, Rational Business Alliance Program, Rational Suite DevelopmentStudio

Key Benefits:
Launched portal project on time and on budget.
Accelerated project ramp-up with just-in-time training and ongoing mentoring provided by Rational and its partners.
Controlled project scope more effectively by tracing development tasks back to requirements and following RUP best practices.
Executed testing quicker by providing testers access to requirements and use cases and mapping all development components to the RUP.

Rational software

Georgia Technology Authority Brings Driver's License Renewal Service to the Web with Rational Software

When the various agencies in Georgia state government — many with their own IT groups, tools and methodologies — make decisions about technology without collaborating, it's easy to see how the systems meant for providing government services could seem so confusing. That's a major reason why Governor Roy Barnes supported the establishment of the Georgia Technology Authority (GTA): To help fulfill his campaign promise to improve the delivery of state services to Georgia citizens. With a vision of making Georgia the leader in e-government, the Georgia General Assembly established a twofold mission for the GTA, which was formed on July 1, 2000. This included: 1) Making accessing government services via the Web as convenient as online banking or shopping and 2) saving costs by setting standards to guide government technology investment decisions and leveraging state government's consolidated purchasing power.

To accomplish this mission, the GTA has invested in several big-budget initiatives to improve the state's information technology infrastructure. These include its telecommunications network and e-government services. Brian Copeland, e-development director for GTA's GeorgiaNet division says, "In order to communicate information properly, you need a technology infrastructure that allows you to do that."

Georgia Net is responsible for developing and maintaining the state of Georgia's Web presence. Thanks to the dedicated work of GeorgiaNet Director Gina Tiedemann, Copeland and his e-development team, a major component of Georgia's information technology infrastructure is now in place — a Web portal designed to become the one-stop source for government service. As testament to the state of Georgia's commitment to make e-government a reality, about \$15 million has

been invested in hardware, software and integration services for the Georgia Enterprise Portal, which launched on July 1, 2002. Accessible at www.georgia.gov, the portal and the full menu of services will provide the promise to eliminate the confusion Georgia citizens often experience when dealing with state government.

Tiedemann illustrates the problem and how the portal will solve it: "To get services out of the state government today, constituents need to know how it is organized," she said. "For example, if a parent wants a copy of a child's birth certificate, she would not only need to know to go to the Department of Vital Records, she would also need to know that it falls under the Department of Human Resources. The portal simplifies things by enabling constituents to get the information they want without having to know how state government is organized."

In its young life, the Georgia Enterprise Portal has already saved significant time and hassle for almost 10,000 Georgia drivers with its highly visible online driver's license renewal application. The first portal application to launch, the license renewal service was defined and developed in eight short months with the support of Rational, its partner Applied Information Sciences (AIS), Rational Unified Process® and Rational® RequisitePro®, a key component of Rational Suite® DevelopmentStudio.

Statewide Problem Drives Choice of Pilot Development Project

The GTA's choice of the online license renewal application as the portal's pilot project resulted from a statewide problem that affected hundreds of thousands of Georgians. Lines at driver's license renewal offices throughout Georgia had become so long, people often waited for hours. The situation was so dire, the



Department of Motor Vehicle Safety (DMVS) promised that after July 1, 2002, if anyone waited more than one half-hour at a DMVS office to renew his or her driver's license, the renewal fee would be waived. The online driver's license renewal service would save time in two ways: 1) By providing a faster, online alternative to renewing at a DMVS office and 2) Speeding the renewal process for Georgians who cannot renew through the Internet by pulling people out of line at DMVS offices. DMVS also opened additional license renewal offices in metropolitan Atlanta.

What started as a promise evolved into an unmovable deadline and one of many challenges confronting Copeland when he joined the GTA on July 1, 2001 – just one year after its inception.

Requirements and Common Process Key to Meeting Starting-Line Challenges

A number of factors compounded the challenge of meeting a strict and widely publicized deadline, which the governor imposed about three months after Copeland took charge of the GTA's e-development team. The day Copeland came on board the GTA, the organization merged with part of Georgia's Department of Administrative Services (DOAS), tripling its size. Not only did Copeland inherit management of 30 GTA developers, he also assumed responsibility for the 25 developers that had been working for the DOAS. The merger brought under Copeland's control two diverse development groups without a unified process model. It also brought him a complex web of disparate systems, including over 200 legacy applications developed under the GNA and another couple hundred developed by the DOAS, many of them mainframe.

In addition, Copeland was charged with staffing two new groups to support the portal, including an application services group to develop enterprise-level software and a portal services group for ongoing maintenance. What's more, the July 1, 2002 deadline had been chosen for the Georgia Enterprise Portal and online license renewal application, independent of the fact that no portal infrastructure existed. Copeland summarizes the challenges: "We were merging two very

disparate development groups, both with their own legacy backgrounds. Plus, we were building two new groups to support the portal, which we had yet to complete the procurement of. We had this huge RFP to pick our portal infrastructure, but it was still outstanding. So we didn't know if we were going to be a .Net shop, a J2EE shop, or something else."

Just nine months before July 1, 2002, this was the situation facing Copeland. A seasoned professional with over 12 years' industry experience in product development and consulting, he knew that the key to getting the portal and DMVS application done right and on time was to adhere to a proven process. Copeland also knew that one of the most important steps in the process was to gather requirements in a standard format.

Rational and Partner Help Accelerate Project Ramp Up

Shortly after joining the GTA, Copeland received some good news. Rational had just won a contract to be the GTA's methodology and tool of choice – a welcome surprise for Copeland who had benefited from working with Rational in the past. Along with a number of licenses of Rational Unified Process, Rational Suite DevelopmentStudio and Rational RequisitePro (contained in DevelopmentStudio) the contract included consulting and training from Rational and its partner, Applied Information Sciences (AIS). Shortly thereafter, Sun Microsystems won a major portion of the portal bid, which required them to choose a development services partner to build the license renewal application. So with only eight short months left to go until launch, decisions about the development services firm remained outstanding.

Nevertheless, "we needed to get started," explains Copeland. "And what better thing to do than start gathering requirements for the application. Because regardless of the technology used to implement the application, requirements would need to be gathered in a standard format the development services firm that eventually came on board could run with. That's when we, along with Rational and AIS, set out to collect these requirements with Rational RequisitePro."

"With Rational methodology and tools, we have been able to bridge the chasm that previously existed between agencies that develop government technology solutions. Rational provides a forthright way for business people to communicate effectively with technologists, ensuring that the latter are able to deliver the technology that will improve how Georgians access state services."

—Larry Singer, CIO,
State of Georgia;
Executive Director,
Georgia Technology
Authority

Copeland, along with colleagues that had RUP experience in their backgrounds, pushed hard for the gathering of requirements in the form of use case before starting development. This was a difficult sell for others in the group who thought it risky to implement a new methodology that most at the GTA and DMVS had never used. Copeland overcame these objections, convincing the others involved with the project that not gathering requirements in a standard format was an even riskier option.

This is where the support of Rational and AIS in the areas of training and consulting proved most valuable. Copeland explains, "While we prepared for a huge training push in RUP, Rational moved RequisitePro training up front, delivering just-in-time requirements management instruction for our business analysts. So we were able to begin our requirements management sessions, while RUP® training progressed simultaneously."

During the requirements gathering sessions, GeorgiaNet found the expertise of AIS invaluable. "They brought in business analysts who had been through this process many times before," says Copeland. "And they came in, and really coached and mentored, and in some cases, even facilitated the sessions."

With the backing of Rational and AIS, GeorgiaNet's business analysts, along with representatives from the DMVS, spent the next two months using Rational RequisitePro to capture requirements and assign corresponding use cases. By the time Sun's development partner, EZGov, arrived on the scene in early February 2002, the GeorgiaNet team was able to turn the use cases over to EZGov in a format that was easy to understand, enabling them to get a fast start on development. (Visit <http://programs.rational.com/success/> to learn more about how EZGov uses Rational tools and processes in its business.)

"If we hadn't done that," Copeland points out, "there's no way we could have made the July deadline. There's absolutely no way we could have been successful if we hadn't gathered requirements beforehand."

Use Cases and RUP Best Practices Jump Start Development

Armed with requirements and guided by RUP best practices, the GTA team began the development phase of the DMVS application just six months before deadline. The team numbered close to 50 - including developers from EZGov, Sun and Copeland's e-development group - as well as project managers and quality assurance and systems professionals from GeorgiaNet.

Todd Weiss, GTA project manager for the driver's license renewal application, describes how the use of Rational tools enabled the team to get a head start on development. "With Rational tools - especially Rational RequisitePro - and the common framework provided by RUP, we were able to ramp up the project before the systems integrator [EZGov] came on board," he states. "When they [EZGov] did come on board, they were able to get up and running within days."

In addition to accelerating ramp up time, Rational RequisitePro and RUP benefited development by providing damage control and traceability. Weiss found these advantages invaluable, explaining, "Our project schedule was built around different iterations. Because RUP provides practical guidelines on how to apply iterative development, we were able to complete each task more thoroughly. And because we had use cases formatted in Rational RequisitePro, everything was documented, and we knew where we needed to be at any point in the development process." Continues Weiss, "Having requirements in use case format was a life saver for me, because I was able to control scope on the project more effectively."

Rational RequisitePro and RUP also played a key role improving the efficiency of the testing process. Copeland describes how the GTA team was able to get a head start on testing by developing test cases from the use cases housed in RequisitePro, with the expert assistance of AIS. For Weiss, having use cases and a common methodology made testing easier, because "whatever we developed mapped back to a process. Very few modifications needed to be made," he explains.

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Brian Copeland,
e-Development Director,
Georgia Technology Authority

Success Drives Future Direction of GTA Development

According to schedule, the DMVS driver's license renewal application went live with the Georgia Enterprise Portal on July 1, 2002. Copeland attributes much of the GTA's success to its use of Rational tools, particularly RUP. He states, "If we had been required to create a development case without having been through the process, I can't imagine how the DMVS project would have progressed. We wouldn't have had any opinions on what we needed or didn't need from the Rational Unified Process."

If fact, Copeland and his team found the common methodology provided by RUP so valuable, GTA quality assurance professionals have been working with Rational to create the group's own software development methodology, based on RUP best practices. To implement this methodology, the GTA is tailoring RUP's out-of-the-box, software development process template. Called the GeorgiaNet Unified Process, or GUP, the methodology will be applied to future GTA projects.

From a strategic perspective, Rational has been instrumental in helping the GTA fulfill one of the most difficult aspects of its mission: Defining its relationship with the state agencies it supports in technology research and development. States Larry Singer, Georgia's first CIO and executive director of the GTA, "With Rational methodology and tools, we have

been able to bridge the chasm that previously existed between agencies developing government technology solutions. Rational provides a forthright way for business people to communicate effectively with technologists, ensuring that the latter are able to deliver the technology that will improve how Georgians access state services."

As for helping to fulfill Governor Barnes' promise, the DMVS application is doing its part. In the first nine days following the launch of the portal, 746 Georgians renewed their driver's licenses online. Today, one-third fewer people renew their licenses at Georgia DMVS offices, thanks in large part to the availability of this Georgia application, along with the state's mail and telephone renewal alternatives. The stamp of success: The state of Georgia has yet to waive even one license renewal fee.

About Rational

Rational provides a software development platform that improves the speed, quality, and predictability of software projects. This integrated, full life-cycle solution combines software engineering best practices, market-leading tools, and professional services. Ninety-six of the Fortune 100 rely on Rational tools and services to build better software, faster. This open platform is extended by partners who provide more than 500 complementary products and services.

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