ACT case study
(for internal use only)
New registration system improves service to students and ensures high-volume transaction processing

Industry: Education Services

Challenge: ACT needed to replace an aging, custom-built system that managed registrations for its ACT test. Goals for the new system included bringing ownership of student data in-house, providing self-service capabilities for students, enabling real-time test center seat assignments, and ensuring performance for peak registration periods.

Solution: Rolta TUSC implemented a high-volume registration system utilizing Oracle iStore and CRM and Supply Chain E-Business Suite modules. Rolta TUSC leveraged Oracle interfaces and APIs to meet the company's business process requirements, which included more than 1,000 customizations and interfaces. An underlying Oracle Database 10g and RAC architecture was implemented concurrently.

Results: With the new Oracle-based registration application in place, ACT serves as the central exchange for all student data and is able to handle a complex registration process that can easily spawn more than a million transactions per minute during peak periods. Students now have extensive self-service options and receive real-time test center seat assignments. With integration to Oracle Financials, the company also has a true representation of its ACT test program's transactions.

The Challenge

ACT is an independent, not-for-profit organization that provides more than a hundred assessment, research, information, and program management services in the broad areas of education and workforce development. Of the ACT's many programs, perhaps the most recognized is the ACT test itself, America's most widely accepted college entrance exam.

Built more than 15 years ago on now-obsolete technology, the ACT registration application was managed by a third-party vendor and was not flexible enough to handle the growing business' needs. The Web registration, in particular, was outdated and didn't provide the flexibility, versatility or range of services that the organization wished to offer its students. ACT decided to re-build its ACT program registration engine, with the hopes of improving its competitive positioning. Key goals included:

- **Replacing third-party systems and bringing ownership of student data in-house**—With a third-party company managing the registration system, making changes was a lengthy and costly process.

- **Providing more flexible registration options for students**—The existing Web component did not provide self-service options for students wishing to change their test center location or date.

- **Providing real-time test center seat assignments**—Because the existing system processed online registrations in batch each night, students did not find out whether they had received their test center location of choice until days – or even a full week – later.

- **Enabling international expansion**—Previously, paper registration was the only method for international students to register for the test, creating lengthy delays in service.

- **Ensuring availability and performance for Web registrants**—ACT needed the new application to scale to handle complex registrations during peak registration periods.

After a five-year attempt to develop the application in-house with little progress and significant expense, leaders decided to pursue a custom off-the-shelf (COTS) strategy.

The Approach

After selecting Oracle as the core application technology, ACT began seeking an implementation partner. "It was clear that [Rolta] TUSC knew how to manage a project of this size and complexity," said Ann York, vice president of operations for ACT. "We all recognized that this implementation was going to be lengthy, and we felt that [Rolta] TUSC would be more of a partner than some of the other vendors we considered."

Once engaged, Rolta TUSC kicked off a critical requirements gathering phase, mapping ACT's business processes and needs to Oracle standard functionality. Over an 18-month period, Rolta TUSC then implemented more than 10 key Oracle CRM and Supply Chain modules, with Oracle iStore serving as the application foundation. The solution was integrated with existing Oracle Financial modules as well.

"Rolta TUSC did an excellent job of understanding our business requirements, our processes and our potential security risks," said Tom Goedken, chief financial officer for ACT. "We have some unique processes in place that have been developed over a number of years that made development plans more complex and challenging."

To address those business-specific processes, Rolta TUSC completed significant customizations, including the addition of custom screens, creation of scripts and workflows for customer service agent-related processes, the inclusion of data integrity checks during the registration process, and more. Developing external interfaces to existing tools, including ACT's seat availability database and paper registration folder database, was also critical. Oracle interfaces and APIs were leveraged wherever possible to ensure that the more than 1,000 customizations and extensions would not negatively impact future upgrades.

In tandem with the development effort, Rolta TUSC implemented Oracle Database 10g, Oracle RAC and grid control technology on IBM hardware to achieve the company's performance requirements. The final application implementation, including conversion of 1.2 million student records, was completed on time and on budget.

The Results

With the Oracle-based application in place for nearly a year, ACT met or exceeded all of its original objectives, including:

- **Taking ownership of student data in-house**—Previously housed completely in third-party systems, ACT is now the central exchange for student registration data.

- **Providing more flexible registration options for students**—Comprehensive self-service options for students now include the ability to change test center dates and locations, make payments and update their profiles online.

- **Improving communication with students**—Integrated with the ACT's seat availability database, the new system provides real-time test center seat assignments, immediately informing students whether or not they have been accepted at their chosen test center location. In addition, because student records are managed within the Oracle customer database, ACT is able to push e-mail information to students on a real-time basis regarding scores, payments, ordering additional score reports and more.

- **Supporting international growth**—International registration is now integrated into the online system, expediting the registration process. ACT has also seen a nine-percent increase in the number of international registrants.

- **Ensuring optimal performance**—Through a combination of application tuning and Oracle RAC technology, the new registration system can easily process more than a million transactions per minute during peak periods. The underlying RAC architecture will also ensure the architecture continues to scale easily.

  "In terms of services and the ease with which students can access them, I think we've taken a quantum leap forward with the new Oracle-based system," said York. In addition, ACT has realized business benefits including:

- **Increased use of Web registration**—The number of students registering via the website has risen from approximately 55-60 percent before the implementation to 78 percent today. The overall number of students registering for the test has also increased seven percent.

- **Better financial visibility**—For the first time ever, ACT has a true representation of the ACT test program's financial transactions. Previously, the legacy system provided a monthly extract with a lump-sum figure covering the entire registration period. With integration into Oracle General Ledger, ACT now has a customer-by-customer financial transaction record.

- **Improved process control**—With the new agent scripting components in place, training for customer service agents has been significantly reduced and the complex business rules are enforced systematically.

- **Reduced postage and printing costs**—ACT no longer has to print and mail student admission tickets nor mail supervisors class rosters, resulting in a savings of more than $500,000 in postage and printing the first year.

"Rolta TUSC's project management, resource management and scope control were all top-notch," concluded Janet Godwin, assistant vice president of contract operations for ACT. "The combination of these factors helped us stay on target throughout the implementation and allowed us to achieve significant results. It's important to remember that we were implementing hardware, software and a network upgrade all at the same time, which was no small feat."

About US

TUSC has been known as the Oracle Experts for more than 20 years, but Rolta TUSC is so much more than that now! Through the merger of Rolta's IT Consulting Division with the acquisitions of TUSC, WhittmanHart Consulting, and Piocon Technologies, we have gained some of the world's most knowledgeable technology and business experts in enterprise performance management, business intelligence, and CA infrastructure management solutions.

While we have added exciting new capabilities, we remain committed to maintaining our expertise and industry leadership in Oracle E-Business Suite and Oracle Technology. Now more than ever, Rolta TUSC has the expertise and solutions your organization will need to be competitive in our new economy.