Management of
Assessment and Information Platform,
for a Leading Educational Assessment Company in US

CUSTOMER

The client is a pioneer and a leading innovator in the education and assessment domain in North America, with global presence in education, business information, and consumer publishing. They operate in over 70 countries, employ around 50,000 people, and are one of the largest providers of education related assessment products, services and solutions.

BACKGROUND

Educational Assessment companies worldwide are reinventing themselves, in order to adapt to the requirements of online assessments. The applications are increasingly required to:

- Move from paper based to online assessments
- Migrate or transform legacy software to the open platform
- Convert from paper to online reporting
- Improve test coverage to ensure scoring accuracy for high-stakes assessments
- Increase the usage of test automation
- Enhance reusability of software across end customer test administrations
- Address variations in workload due to the seasonal nature of business
- Maintain high data security standards

BUSINESS SOLUTION

Integrate paper and online modes to deliver assessments

- Create high-quality assessment instruments with item and test authoring capabilities
- Score assessments using machine, professional, and automated scoring capabilities
- Report assessment results through print, Portable Document Format (PDF), on-demand (Web) reports and online analytical analysis tools
- Transform legacy applications into Web oriented, Java-based framework, which supports online test registration and administration, material tracking, and reports delivery
- Migrate reporting applications from IBM mainframe Advanced Function Presentation (AFP) technology to HP Extreme Dialogue output management tool
- Replace mainframe-based data massaging programs with Pervasive, an Extract, Transform, Load (ETL) product
- Deploy CAWA (Computer Associates Workload Automation) scheduler for automating processes across Mainframe and Linux platforms
- Use File-Aid Client Server (CS) and Visual Basic (VB) tools used for automatic test data generation

FUNCTIONAL MAP

	Enrollment	Test Management	Material Logistics	Scanning, Scoring & Aggregation	Reporting
FUNCTION	• Bulk-enrollment upload • Student demographic info-update	• Student registration • Assign subject/test • Online test setup	• Quantity and shipment for labels answer docs, labels etc • Packaging list etc	• Scan data capture formatting and validation • Response processing • Statistical processing • Aggregation	• Individual reports • Summary reports - State, School, Class etc
TECHNOLOGY	• Web based • XML/FILE interface	• Online	• COBOL/AFP • PERL • HP EXSTREAM • BARCODE	• Proprietary products	• COBOL/AFP • HP EXSTREAM

CHALLENGES	SOLUTION
Adding online test administration and reports delivery capabilities to mainframe based applications	• Migrate COBOL & JCL source to Java, Perl & Pervasive ETL • Migrate AFP reports to HP Exstream • Setup cross-platform workflow using CAWA
Salvaging and leveraging test automation suite for transformed application portfolio	• Create custom test automation framework using a combination of Java routines, MS Excel macros & HP QTP • Setup consolidated test case set in HP QC • Generate automated test data using File Aid – CS and custom VB tools
Addressing seasonal workload variations and data security needs	• Deskill repetitive work • Setup Core-Flexi resource pool. Flexi-team varies as-per-seasonal requirements. Segregate production data access tasks and assign it to the offshore flexi team • Facilitate quick onboarding by providing for training & knowledge management
Scaling-up application architecture to support mobile and hand-held devices	• Enable usage at locations lacking adequate network coverage by ensuring application accessibility via hand-held and tablet in both online and offline modes • Facilitate widespread usage through iOS and Android compatibility
Optimizing material usage to reduce paper and stationary wastage	• Incorporate automated checks and reconciliation based on barcode • Implement a new automated process, which is more accurate and fast than the existing manual verification process

BENEFITS ACHIEVED

- Reduced 5+ person years of effort by minimizing technical complexity and diversity of the portfolio
- Saved 10+ person years of effort by leveraging the test automation suite for transformed application portfolio
- Minimized cost of operations and saved 6+ person years of effort by implementing Core-Flexi demand management solution for seasonal projects activity variation
- Scaled-up application availability through mobile and hand-held devices
- Optimized material usage and saved 1+ person years of manual reconciliation effort by automating the process
- Improved team utilization through continuous functional and technical multi-skilling