



Catapult Guides Application Redesign for Texas Association of School Boards

TASB benefits from Catapult application design assessment, mentoring and best practices

School board policy manuals are extremely complex documents that must follow very specific state educational legislation and legal guidelines. In 1996, the Texas Association of School Boards (TASB) created an Online Policy Update System (OPUS) to help local school boards meet these stringent criteria while still having the freedom to customize local sections of the documents.

OPUS was originally built using a combination of Interleaf publishing software, an Oracle database, C, PERL and LISP code, with a UNIX operating system.

It had become extremely difficult to maintain, resulting in a system that did not allow TASB to easily add additional users or documents, or provide new options and services requested by their users. Most critically, there was a risk of the system failing and not being able to recover.

As a primary business application it was used by every TASB member and impacted the administration of all Texas public schools, so it was imperative that they replace the system with something that could be better supported while maintaining user satisfaction at the existing level or better. TASB was converting its infrastructure to Microsoft .NET, and had produced a creative highlevel design for the new OPUS application.

Based on industry recommendations and its status as a Microsoft Gold Partner, Catapult was selected to provide a skills assessment of TASB's development staff and to create a training plan and Web development infrastructure for .NET.

During this assessment, Catapult suggested that TASB use an expert to assess the viability of the planned OPUS architecture, its first major .NET implementation.

How Catapult Helped

Catapult suggested that OPUS would benefit from a Microsoft Application Design Session. TASB's proposed OPUS architecture was based on Microsoft .NET, used Smart Client technology to allow Microsoft Word 2003 functionality as an interface and used a custom application for document management and routing.

Microsoft and Catapult assessed TASB's design and suggested leveraging SharePoint Portal Server for workflow and document management instead of using custom development. They could then demonstrate that SharePoint would handle the document management needs and provide other needed features such as role-based security.

The updated architecture employed SharePoint Portal Server, commonly used for portal development, to provide workflow, document management and version control.

“As a mission-critical application, we didn't want to be second guessing ourselves. Catapult's architectural review and proof-of-concept was key to getting this strategic project onto solid ground. Their rapid access to resources at the Microsoft Technology Center helped us jumpstart the project.”

*Eric Hungate
CIO, TASBs*

Microsoft's new Smart Client functionality in Word 2003 provided an interface to OPUS. A forms-based interface was also implemented to provide people monitoring the workflow with a sophisticated view of the documents, with secure access. "The OPUS project was very unique because it applied proven technologies in a cutting-edge way to create a robust and extensible application," said Terry SoRelle, Catapult's lead consultant on the OPUS project.

TASB asked Catapult to remain on the project as a technical advisor to provide a reservoir of experience, knowledge and best known practices in Service Oriented Architecture, Design Patterns and Software Modeling to help TASB reduce its development time and improve the overall skill-set of its internal development team. Catapult also assisted TASB in creating a unified programming methodology and code library using some of Catapult's field-tested code.

Results

- Reduced project development costs and accelerated the time-to-market for the new OPUS application by:
- Reducing custom development by leveraging Microsoft SharePoint
- Improving TASB's internal development team through Microsoft .NET & SharePoint knowledge transfer
- Improving Q/A process by creating a unified programming methodology & code library
- Creating role-based security by implementing SharePoint security model
- Improving cost effectiveness and maintainability by using pre-build modules within a development framework