CASE STUDY
StudentGPS™ Dashboards Solution

Texas Education Agency
Austin, TX

2013 - 2015

Public schools generate, manage and report student data, but as state and federal requirements and expectations have increased, so has the amount of data. TEA has one of the largest education databases in the world.

Customer Profile: The Texas Education Agency (TEA) oversees 1,247 public school districts, open enrollment charter schools, juvenile justice districts, Texas School for the Blind and Visually Impaired, and Texas School for the Deaf. More than 5 million students are currently enrolled in Texas schools.

> **"Transforming education through teacher access to meaningful data is more powerful than one can imagine."**

CHALLENGE: Every school district, school, and classroom teacher in every state faces similar challenges when it comes to maintaining, accessing and reporting data. Education produces a tremendous amount of data, including, but not limited to, identity data, financial data, system-wide data (i.e., grades, attendance, disciplinary records), content data, assessment data, inferred student data (concepts students know and at what proficiency level), just to mention a few data types. The focus of this case study is on student data. Prior to this project, Texas teachers did not have access to meaningful real-time student data.

VISION: Texas Education Agency needed to find a solution that would reduce the data collection burden on Texas school districts and charter schools, while putting real-time performance oriented dashboards in the hands of educators to improve student achievement. Just as important to TEA, was to improve education data collection and technical support.

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SOLUTION: Partnership was, and is, the *foundation* for this solution. The **Texas Education Agency** partnered with the **Michael and Susan Dell Foundation** (MSDF), **Double Line Partners** (DLP), and **iSphere** (a Texas-based IT consulting and IT staffing services company, well known and respected in the education industry), to design, deploy and support a student data dashboard system - **studentGPS™ Dashboards**.

What are studentGPS™ Dashboards? They are an easy-to-use collection of reports and metrics, designed by Double Line Partners, that provide educators with access to historic, real-time, and predictive information on their students, helping them to monitor vital student information and assess student performance - saving teachers time, school districts money, and most important, improving student outcomes and achievement.

The studentGPS™ Dashboards are an optional user interface to the voluntary data that is stored in the TEA Dashboard Data Mart (DDM).

The Texas Student Data System (TSDS) Education Data Warehouse (EDW) provides a single data repository that feeds all data collections, including studentGPS™ Dashboards. The data includes required data that districts must upload to TEA's Public Education Information Management System (PEIMS), as well as other standardized test scores that districts may choose to load. Each Texas school district may opt to use the studentGPS™ Dashboards based on the needs of their educators. Data that is accessible to a district's educators is uploaded by the district from its local systems into the Operational Data Store (ODS) and stored in the EDW's Dashboard Data Mart. The data is then aggregated and calculated to display actionable reports in the dashboards. .
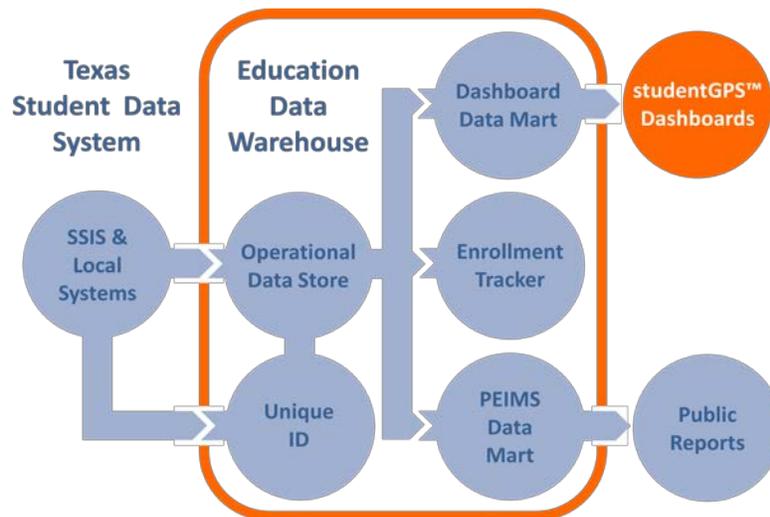
IMPLEMENTATION SUPPORT

Technical Support System

The success of any information technology solution requires a system of support and knowledge sharing. TEA also implemented the Texas Student Data System (TSDS) Incident Management System (TIMS), which is a web-based system that allow end users and technical support staff to submit incidents when they encounter problems or have questions about TSDS applications, including the studentGPS™ Dashboards. This system also enables users to query knowledge-base articles and request software enhancements.

Technical Support Staff

Anyone who has implemented a technology project knows that there is a critical need for the "human element" of technical support. This project, which includes additional data system deployments, uses a multi-tier approach to technical support. If the support staff at the next level cannot resolve an incident, it can be escalated to the next level using the TSDS Incident Management System (TIMS).

Level 1 - Local Educational Agency (LEA) Data Stewards are the fist point of contact for end users. This person or persons, located at the district, upload data to TEA, complete quality assurance tasks, train district personnel and approve the access of district level studentGPS™ Dashboard users. When a Level 1 Data Steward is unable to resolve an incident, it is escalated to Level 2.

Level 2 - Educational Service Center (ESC) Technical Champions are the first point of contact for Level 1 technical support staff, when they encounter an incident that they are unable to resolve. When Level 2 technical support staff are unable to resolve an incident, they reach out to **iSphere's Technical Coaches** or may escalate to Level 3.

Level 3 - TEA Technical Support Staff are the first (and in some cases the second) point of contact for Level 2 technical support staff, when they encounter an incident that they are unable to resolve. When an incident is determined to be a product issue (i.e., code fix, system issue or application maintenance issue) the incident is escalated to the appropriate Level 4 technical component owner.

Level 4 - Certified or TEA Vendors are the product experts who will work to resolve an incident when it is determined to be a product issue.

iSPHERE'S ROLE

The Michael and Susan Dell Foundation engaged iSphere on this project, because iSphere is a respected industry expert in data warehousing, IT program & project management, technical strategies and implementation.

When a state or local educational agency designs and implements a performance management platform, it must also recognize the need for an effective technical support structure and well-trained technical support staff. Because this was the first time that Texas Education Agency provided technical support to end users it looked to MSDF and iSphere to help create and deploy such a structure.
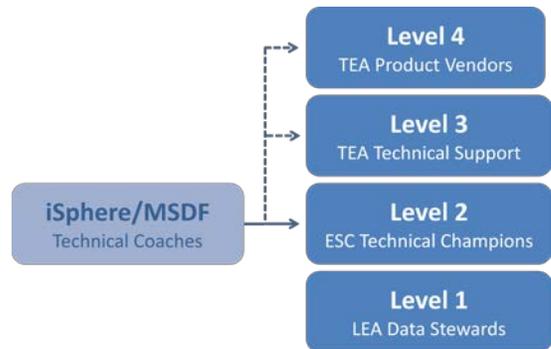
iSphere provided the experts to lead and guide TEA in designing and deploying its technical support model for the implementation of the studentGPS™ Dashboards. This model is now the primary support model for other Texas data systems. iSphere established a Technical Coaching Center and staffed it with highly skilled Technical Coaches. In the Texas model, these coaches are parallel to the Level 2 Technical Champions, who work for each of the twenty educational service centers located throughout Texas. Technical Coaches are trained and certified alongside Level 3 technical support staff in order to provide real-time coaching and technical support to Level 2 Technical Champions. These Technical Coaches help Level 2 Technical Champions to develop their expertise and help to reduce the number of escalated incidents and unnecessary delays. They work hand-in-hand with TEA's Level 3 technical support staff in resolving system and data issues encountered by end users and Level 2 Technical Champions. iSphere's Technical Coaches also assisted Level 4 vendors with development needs.

iSphere's Technical Coaches bring to the table the ability to:

- Perform data analysis, data integration, auditing, troubleshooting, and validation of complex data
- Formulate strategies to oversee and accomplish complex project deliverables
- Critically evaluate the information gathered from multiple sources, reconciling conflicts, decomposing high-level information and generalizing low-level information
- Negotiate and facilitate collaboration, leading problem-solving and consensus-building

The duties of iSphere's Technical Coaches include, but are not limited to:

- Developing and maintaining an in-depth working knowledge of Texas Education Data Standards (XML and data standards)

- Serving as the training and technical resource for Level 2 Technical Champions, while remaining FERPA and HIPPA compliant

- Providing technical support to the Level 2 Technical Champions and vendors, with the data element mapping from the vendor application to the XML format

- Effectively evaluating technical issues and articulating their business and organizational impact to peers and stakeholders

- Assisting with validation of vendor-delivered data submissions

- Coordinating root cause analysis and resolution with Level 2 Technical Champions and Level 4 vendors, reporting status and problems to TEA and participating in negotiations and support to resolve issues

- Training and mentoring Level 2 Technical Champions to assume future Texas Student Data System (TSDS) training and support responsibilities

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DEPLOYMENT: Because the Texas Student Data System (TSDS) is a large, multi-functional system, with a state-wide user base, TEA began the rollout to Texas school districts and charter schools in stages.

Prelaunch Stage

This stage consisted of six volunteering school districts (144,381 students), approved by TEA to participate in the Limited Production Releases (LPRs) of the studentGPS™ Dashboards prototypes in the 2012-2013 school year. These districts participated in user acceptance testing and led the way for the successful implementation of the studentGPS™ Dashboards for other Texas school districts.

Early Adoption Stage

The Early Adoption Stage consisted of 64 volunteering school districts (427,638 students) who followed the LPR districts in implementing the studentGPS™ Dashboards in the 2013-2014 school year. These districts implemented the studentGPS™ Dashboards in two phases - Spring Early Adopters and Fall Early Adopters.

Stage 1

This stage consisted of 64 school additional school districts (161,824 students) who followed the Early Adopter districts and were in the process of implementing the studentGPS™ Dashboards in the 2014-2015 school year.

Stage 2

The remaining Texas school districts opting to implement the studentGPS™ will do so during the 2015-2016 and 2016-2017 school years.

Contact iSphere today to learn how we can assist you with your data warehousing, IT program & project management, technical strategies and implementation needs.

Contact

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