The State of North Dakota

North Dakota eTranscript System

Category: Open Government and Data, Information and Knowledge Management

Project Initiation: June 2011

Project Completion: February 2014

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Executive Summary

North Dakota (ND) high school districts were burdened with generating and transmitting paper transcripts. The registrars and counselors were manually printing, stuffing, and mailing copies of transcripts to post-secondary colleges and universities, as well as other high school districts. It was an inefficient process, the transcripts were inconsistent and did not provide transcript level data for research to improve the outcomes of ND students.

This has been a national problem and in today's world of information needs and limited funding for education, communication of transcript level data exchanges are a high priority. Innovative solutions are a necessity.

Although North Dakota schools were using PowerSchool, a statewide student information system, it was installed separately for each school and they lacked the ability to exchange common transcript information. Another major problem with exchanging information was inconsistent code sets. For example, a basic English course at one institution may have a different class number, title, and description than the equivalent course at another institution. This required school and post-secondary counselors and registrars to manually compare courses when evaluating transfer credit or post-secondary admission requirements.

The schools required an efficient solution to exchange consistent, transcript level data with post-secondary institutions and other ND schools to improve communication and to ultimately better serve students.

In December 2009 an electronic transcript (eTranscript) Committee, consisting of representatives of local and state education entities, was formed. The eTranscript Committee was part of a larger initiative, the ND statewide longitudinal data system (SLDS) program, housed within the State Information Technology Department (ITD). The ND SLDS program spans a period of several years and contains multiple projects, one of which became the eTranscript project. In February 2014, the eTranscript project was completed.

Adding electronic transcript capabilities has enabled school districts to exchange student information as students transfer, facilitating higher data quality and continuation of key student services, especially for mobile student populations.

The system has improved the efficiency for school districts and the data provided is a rich resource for college and career readiness studies. With the standardized state course codes, the transfer of courses/credits to other high schools was also finally possible.

Business Problem and Solution

Problem

Before this project, North Dakota high schools (schools) and post-secondary institutions were burdened with generating and transmitting paper transcripts. The manual process of printing, stuffing, and mailing copies of transcripts to post-secondary institutions and other schools was time and resource heavy. Additionally, it was fraught with potential errors due to inconsistent transcripts, processes, and dated tools. To compound the problem, staff had to send a transcript multiple times during the process of a student applying to a post-secondary institution. Furthermore, the paper transcripts did not provide transcript level data invaluable for use in research to improve student outcomes and programs.

Additional background: 148 schools were using the statewide student information system, PowerSchool, but it was installed separately for each school and lacked the ability to communicate common transcript information. Additionally, inconsistent code sets required counselors and registrars to manually compare codes when evaluating transfer credit or admission requirements. The schools were sending many different paper transcript formats with varying types of attachments (copies of assessments, scores, etc.) creating inconsistencies for the receiving post-secondary institutions or other schools.

The schools required an efficient solution to exchange consistent, transcript level data with post-secondary institutions and other ND schools to improve communication and to ultimately better serve students.

Solution

In December 2009, the electronic transcript (eTranscript) Committee, consisting of representatives from local and state education entities, formed and defined requirements for an eTranscript system.

After evaluating third party transcript services, the committee found the implementation and maintenance prices to be cost-prohibitive given the student population, and the service too limited in functionality. It was decided that ND would develop its own system. The Project Charter was approved in April 2011 and resources were assigned.

Through the collaborative efforts of multiple state agencies, education associations, schools, and post-secondary institutions, the eTranscript system was developed and implemented. It was rolled out to schools and institutions in January 2014 and had fully met its objectives by June 2014, as set in the Project Charter.

Architecture and key functions: The eTranscript system is a web-based application with robust features. It has an intuitive user interface and single sign-on (SSO) with PowerSchool, so end users have a seamless transition between applications. It is interoperable, with the ability to transfer/communicate data in many formats. It pulls

transcript level data daily (grades, class rank, etc.) from PowerSchool through the ND Statewide Longitudinal Data System (SLDS) data warehouse.

Counselors and registrars are able to verify and submit official transcripts to post-secondary institutions in a fraction of the time they once required with the manual process. It also serves as an archive for schools of their graduated students' transcripts and is a portal for students and parents. It functions as a future foundation for the State Scholarship Application module and ND post-secondary application process.

Credit Totals

NDUS Core Course ♻				High School Course					
ENGLA	**Math**	**Sci**	**SocSt**	**9th**	**10th**	**11th**	**12th**	**Total Earned**	**Total Attempted**
4.000	4.000	4.000	4.000	8.500		15.000	7.000	30.500	30.500

Course Details

Subject Area	Course Name	Grade	Type	Credit	Semester 1	Semester 2	Summer 1	Summer 2
ENGLA								
Century High School	AP English 12 - 05581 ♻	12	AP	1.000	A	B		
Century High School	AP English 11 - 05580 ♻	11	AP	1.000	B	B		
Century High School	English 10 - 05072 ♻	11		1.000			A	A
Horizon Middle School	English 9 - 05071 ♻	9		1.000			A	A
Math								
Century High School	Probability & Stats (Dual Credit) - 11150 ♻	12	DC	0.500		A		
Century High School	Pre-Calculus - 11181 ♻	11		0.500	B			
Century High School	Algebra II - 11032 ♻	11		1.000	B	A		
Horizon Middle School	Geometry - 11120 ♻	9		1.000	A	A-		
Horizon Middle School	Algebra I - 11031 ♻	9		1.000	A-	B		
Sci								
Century High School	Anatomy/Physiology - 13021 ♻	12		1.000	B	B		
Century High School	Chemistry - 13031 ♻	11		1.000	A	A		
Century High School	Biology - 13020 ♻	11		1.000	A	A		
Horizon Middle School	Physical Science - 13030 ♻	9		1.000	B+	B		
SocSt								
Century High School	AP Psychology - 15588 ♻	12	AP	1.000	A	A		
Century High School	Economics - 15060 ♻	12		0.500	A			
Century High School	Government - 15111 ♻	12		0.500	A			

> The image above is a view of an online transcript that shows the courses taken by a student that map to North Dakota University System Core Courses (green triangle symbol). This is a significant time savings and data quality check for post-secondary end users.

Project Management and Communication Plan

The project followed the Project Management Institute's standards, in addition to project management and procurement standards established by the state. The team was small, consisting of a full-time developer, full-time business analyst, part-time program manager, and part-time certified project management professional. Project oversight

was performed by the State large project oversight process, with regular reporting to the SLDS K12 Executive Steering Committee. An iterative development approach was used and worked very well, beginning with a successful pilot phase.

The communication approach for the project was identified in the Project Plan and focused on bringing stakeholders together. The eTranscript Committee met regularly and a smaller eTranscript Format Workgroup met at various intervals. With this collaborative approach the team ensured the various stakeholders' needs were met. During the initial rollout to schools and post-secondary institutions, the team held regular communications and set up one-on-one training sessions.

Significance

ND is the only known state that has *internally* developed and implemented such a feature-rich transcript data exchange system at a fraction of the cost of other solutions.

Innovative and Powerful Functionality:

- eTranscripts is unlike third party transcript services that essentially generate a PDF transcript. It is a web-based application with a database containing transcript level data and the ability to exchange data in many formats.
- The system is a substantial innovation for all beneficiaries: schools, post-secondary institutions, state agencies, students, and parents. School registrars/counselors are able to process transcripts in a fraction of the time, state agencies have improved data for research and improved outcomes, and students and parents have improved access to transcripts.

Interoperability and Improved Communication:

- State course codes and grade point average (GPA) calculations were standardized across the entire state. This was a significant effort with major rewards.
- Schools and post-secondary institutions now have a common transcript versus 148 possible different school transcripts.
- The common transcript and common course numbering allows for the transfer of courses and credits. This in turn allows for consistent college admission criteria and dual credit classes with ND post-secondary institutions.
- The transcript can be sent directly to the imaging system used by post-secondary institutions.

Collaboration:

- This project was made possible by collaboration of the project team, multiple state agencies, education entities, schools, and colleges and universities.
- Two quotes captured on a project closeout survey illustrate the level of collaboration.
  - "It was a great collaboration. Staff from many different areas, institutions, organizations worked well together."

o "It was remarkable that so many stakeholders were able to agree upon how the final product will look and function."

Benefit of the Project

The eTranscript system has become an indispensable tool for state schools and post-secondary institutions. It has empowered schools, post-secondary institutions, state agencies, students, and parents with transcript level data that can be quickly communicated and used.

Benefits include:

Transcript level data:

- Schools can finally communicate transcript information with other districts and with post-secondary institutions, ultimately benefiting students and parents.
- The transcript provided is not a copied PDF, like other solutions provide. It is actual transcript level data in a database. End users can generate PDFs or any other data extract required by a college.
- Using this data, schools and state agencies can calculate state graduation rates, scholarship eligibility, and monitor determination of state graduation requirements among other uses.

Reduced administrative burden:

- School registrars and counselors were overloaded and burdened with printing, stuffing, mailing and responding to questions about transcript receipt. A transcript can now be sent to multiple institutions with the click of a button. Before this system, the manual process to print and mail a transcript took 4 minutes 28 second. With eTranscripts, staff can view, recertify, and submit a transcript in 1 minute 9 seconds, yield a time savings of 3 minutes 19 seconds per transcript.
- Single sign-on from PowerSchool to eTranscripts allows for seamless transition.
- Core course credits can now be electronically calculated, saving large amounts of time for college administrative staff who had to manually search and review each transcript and count to see if a student had enough credits.
- One school counselor stated, "As great as the fiscal savings are to the district, it is the time that I can spend doing other things that I'm most grateful to have back."

Research and evaluation:

- North Dakota Governor Jack Dalrymple, in his 2013-2015 Executive Budget Address, stated that "educating and training our citizens is the key to lasting prosperity for everyone." The eTranscripts project advances this thought by providing data that facilitates research that previously could not be performed at a state level. The state has already used this data to develop student risk indicators of college readiness.

Foundation for Growth:

- eTranscripts was created for future enhancements to allow for State scholarship applications and the initiation of the application process to post-secondary institutions. It also sets the foundation for national electronic course exchanges.
- The system is an education portal for schools, parents, and students that goes beyond eTranscripts; it has the capability of expanding communication and information exchange with students and parents.

Cost avoidance:

- When this project started, the typical cost of a third party solution was over one million dollars. The project implementation cost for ND to internally develop its own system was only $615,295.
- There are no license costs and only minimal maintenance costs for internal staff. Third party products would have had expensive recurring licensing costs.

Benefits for students and parents:

- Transcripts are available online so students can access them outside of business hours, provided the district allows the students to use the eTranscript system.
- For future engagement of students and parents, the state scholarship and college application processes can be integrated with the eTranscript system.