Common Student Information System
Alliance Management Office Report
May, 2008

1. Initiative Overview

The Common Student Information System (known as BCeSIS) is a shared application that has replaced many of the existing student information systems that are growing increasingly obsolete and unable to keep pace with school and School District management needs. The systems replaced include student registration, enrolment, scheduling, recording of marks and outcomes, special education, and reporting. The new common application provides the underlying systems infrastructure needed by school authorities (i.e. Boards of Education, Independent School authorities and First Nations School authorities) to improve education management and ultimately drive student achievement.

In March 2004, the Ministry of Education purchased student information system software, following a competitive process, from Administrative Assistants Ltd. (AAL) of Burlington, Ontario. On June 30, 2005, the Ministry of Education entered into a contract with Fujitsu Consulting (Canada) Inc. to deliver central application hosting and integrated support services to meet the initial and future needs of schools, school authorities, and the Ministry. Fujitsu was originally contracted to provide the following: a secure facility and the servers to operate the shared service; level-two application support and help desk services; training logistics, data loading and conversion, security and privacy, and service delivery management services. In April 2006 the contract was changed and Fujitsu's services were expanded to include the following implementation services roles: BCeSIS training, data conversion support, and application management services.

Fujitsu Consulting is a provider of management and technology consulting to business and government, It is the North American consulting services arm of the US $44.5 - billion Fujitsu group. Fujitsu Consulting integrates the core expertise of the Fujitsu companies and its partners to deliver complete business solutions in the areas of Information Technology governance, information management, legacy systems modernization and application outsourcing.

As an established force in the consulting industry, Fujitsu Consulting has been a leading provider of consulting services and technology-based business solutions for more than 30 years. Within North America, Fujitsu Consulting acts as an integrator and delivers Managed Services, Enterprise Value Management, Information Management and Legacy Migration solutions. In Canada, Fujitsu Consulting (Canada) Inc. employs approximately 2,000 professionals with over 430 of these in Western Canadian offices in Victoria, Vancouver, Edmonton and Calgary.

All sixty school districts, 120 independent schools and three First Nations schools have committed to implementing BCeSIS. Responsibility and funding for the project is shared between the school authorities and the Ministry of Education. School authorities are responsible for implementing and supporting the use of the system in their schools. The Ministry of Education is responsible for contracting the centrally-hosted system and delivery of support services to schools. The Ministry provides one-time implementation grants and school authorities pay a portion of the annual system operating cost to the Ministry.

The advantages of a common student information system include:
- Improved management of student achievement by schools and school districts, providing them with timely and accurate access to student performance data that enables evidence-based planning;
- Improved economies of scale, especially for smaller School Districts;
- Increased control and access to information for more effective management of schools, and improved quality and standardization of data for accurate reporting;
- Shared responsibility between the Ministry and school authorities for the systems that support changes to education policy; and
- Improved benefits and reduced costs of system customization, operation, and maintenance.

2. **Status Update** (as of May 12, 2008)

BCeSIS is in the third year of a five-year implementation program. BCeSIS has been implemented in 1137 of the province's 1634 public schools and in 46 of the 120 independent schools that signed agreements to participate. In addition BCeSIS is being deployed in the first three First Nations Schools. More than 341,000 active student records are contained in BCeSIS. In 2007/08 there were 582,691 students in provincial public schools and 68,934 students in independent schools.

Participating school authorities have, through the Service Management Council, approved a plan for 2008/09 that focuses on the following high-level priorities:

1. *addressing ministry and legislated reporting requirements*
2. *addressing district and school operational needs*
3. *continuously improving data quality*
4. *creating sustainable end-user support capacity within schools and districts*
5. *supporting student achievement*

Implementing a system of this scale and complexity has been challenging for many users in the schools and School Districts. Some of the issues encountered and their mitigating strategies include:

Local infrastructure and connectivity	The BCeSIS team has worked with schools, vendors and the Provincial Learning Network to address network and workstation issues.
User training	A train-the-trainer program was developed for districts to use during initial implementation. This is gradually being replaced by a just-in-time training strategy that is tied to the business cycle.
Communications between the BCeSIS team and participating districts/schools	A comprehensive stakeholder engagement strategy has been developed that includes newsletters, frequent communications with district contacts, weekly technical conference calls, an annual users' conference, and web sites designed for support personnel and end users. In addition formal procedures for reporting incidents and escalating and resolving issues have been established.
Standardizing business practices	Working groups and formal processes have been set up to develop and get agreement regarding standard business practices. An active network of users has grown up in the districts to provide mutual support and share best practices.
Implementation planning	An implementation roadmap and templates for planning documents have been developed by the BCeSIS team for use by districts. The team works very closely with districts that are doing their first implementation to ensure that they have done adequate preparation and planning. Conversion tools and lessons learned by early adopters are shared widely.

The uptake of the system has been steady, and there are indications that users in the schools are working more closely together and adapting to the new software and processes.

3. Contract Objectives

The original contract with Fujitsu Consulting identified the following high-level objectives that would be realized once BCeSIS has been implemented in all participating schools and districts.

1. Allow Schools to use the same software and, through centrally hosted application services, reduce the number of systems deployed to provide service;

2. Allow School Districts to share administrative services and focus more resources on the delivery of education;

3. Provide permanent student records, reduce administrative burden on Schools, enable flexibility and choice for students and parents, and create an integrated network to manage student records;

4. Provide school principals, school planning councils, School Districts, and educational leaders with the tools to capture student performance information, report on student results, and make appropriate strategic decisions; and

5. Improve current systems and enable all Schools to operate as part of an integrated, flexible, education system.

Implementation schedules are determined by the school authorities themselves, and it is anticipated that all schools will have BCeSIS in place by 2010. Significant progress has been made on the first two objectives, and the others will be fully realized when the use of the system matures and becomes more widespread.

Detailed reporting on contract objectives can be found in Appendix 1.

4. Service Commitments

The clients of BCeSIS are primarily educators and staff working in schools and School Districts. They include teachers, counselors, clerical staff, school-level administrators and district-level administrators. Districts will also eventually have the option of providing parents and students with direct access to information in BCeSIS.

School authorities are responsible for local infrastructure and for determining how the service is to be provided to their stakeholders. Service commitments are not defined at an enterprise/provincial level.

Appendix A – Contract Objectives: Reporting on Results

Objective 1

Allow Schools to use the same software and, through centrally hosted application services, reduce the number of systems deployed to provide service.

Activities (undertaken to achieve objective)	Results (Year-To-Date)
Work with School Districts to deploy BCeSIS in schools	As of May 2008, BCeSIS was being used to store records for more than 341,000 students in 1137 schools. BCeSIS has been implemented in at least one school in 49 of the 60 districts, and in 46 independent schools. BCeSIS has replaced the legacy systems of over 845 schools. Several districts have replaced old student record systems in all of their schools.
Develop reusable procedures and tools for converting student records from legacy systems	Standard processes have been developed for converting, cleaning and loading data from legacy systems. Reusable conversion tools have been developed for the most common legacy systems (TurboSchool, Windsor, NCS SASI).
Establish a shared application hosting environment.	Application hosting environment has been established and kept current.

Objective 2

Allow School Districts to share administrative services and focus more resources on the delivery of education.

Activities (undertaken to achieve objective)	Results (Year-To-Date)
Establish a shared application hosting service.	An application hosting environment was established in December 2005. As of May 2008, up to 3500 users were using the system concurrently.
Deploy Level 2 services and tools required by districts to support their users.	Level 2 Service Desk has been set up by the service provider. Procedures for reporting incidents and escalating issues have been established and communicated to School Districts.

	Procedures are based upon ITIL standards and implemented for incident, problem, change and configuration management.
	Integrated Services Website has been established to provide support for Level 1 staff in School Districts.
Ensure that application hosting service can address user demand.	'Capacity and availability' planning procedures based upon ITIL standards have been implemented.
	System availability and performance measures have exceeded service level agreements.
	Hardware has been regularly upgraded to address anticipated demand.

Objective 3

Provide permanent student records, reduce administrative burden on Schools, enable flexibility and choice for students and parents, and create an integrated network to manage student records.

Activities (undertaken to achieve objective)	Results (Year-To-Date)
Facilitate the sharing of student information.	With the shared solution, there is only one electronic copy of the student record which can be made available to new schools as students transfer between schools and School Districts. This has eliminated the need to exchange paper records which can take up to several months, and has provided timely information needed to improve initial student placements.
Implement student cross-enrolment.	By sharing a single record, students can now take courses from different schools simultaneously, which increases student flexibility and choice.

Objective 4

Provide School principals, School planning councils, School Districts, and educational leaders with the tools to capture student performance information, report on student results, and make appropriate strategic decisions.

Activities (undertaken to achieve objective)	Results (Year-To-Date)
Improve data quality and availability.	Due to standardization of data and practices, there has been a significant improvement in the quality of data reported to the Ministry.

	Automated procedures have been developed for assigning PEN numbers, and exchanging exam, TRAX, and funding information between BCeSIS and Ministry systems. This improves the information available to both school and School District administrators and Ministry program managers. Further work is being undertaken to harmonize BCeSIS and provincial reporting processes.
Provide data to support new program initiatives.	Procedures have been put in place for collecting distributed learning achievement data and class size information. BCeSIS is used as the primary data collection tool for Strong Start programs.
Focus on student achievement.	Requirement to develop standard report cards and grading has led to a re-examination of assessment practices in some School Districts. A project has been initiated to investigate the potential for new reporting tools to improve individual student achievement and school planning processes.

Objective 5

Improve current systems and enable all Schools to operate as part of an integrated, flexible, education system.

Activities (undertaken to achieve objective)	Results (Year-To-Date)
Facilitate the sharing of data and the access to student records by multiple schools.	Each student has a single student record that can, with appropriate security controls, be accessed by multiple schools. The electronic records in BCeSIS are recognized as the students' "official" record – schools no longer need to maintain paper documents for this purpose.
Implement the Student Services (Special Education) module.	Individual Education Plans (IEP) are integrated into the student record. This facilitates a team approach in which teachers, counsellors and special education practitioners can readily share information and focus upon the specific needs of individual students.