Common Student Information System
Alliance Management Office Report
May, 2011

1. Initiative Overview

The Common Student Information System (known as BCeSIS) is a shared School District application that has replaced many of the existing standalone student information systems that have become increasingly obsolete and unable to keep pace with growing school and School District management needs. The systems replaced include student registration, enrolment, scheduling, recording of marks and outcomes, special education, and reporting. The 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 improvement in student achievement.

In March 2004, the Ministry of Education completed a competitive process and purchased student information system software 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 amended and Fujitsu's services were expanded to include the following implementation services roles: BCeSIS training, data conversion support, and application management services.

All 60 school districts, 130 independent schools, 23 First Nations schools and the Yukon Territories 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 provided 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 more accurate reporting;
- Shared responsibility between the Ministry and school authorities for the systems that support changes to education practices and policy; and
- Improved benefits and reduced costs of system customization, operation, and maintenance.

2. Status Update (as of April 30, 2011)

In June 2010, the Ministry and Fujitsu completed negotiations to renew the contract for a second term. The contract now runs to August 31, 2015. The renewed contract represents a substantial savings to government over the first term and is fixed price. This reflects the increased knowledge both Fujitsu and the Ministry have about the cost drivers, the efficiencies Fujitsu has been able to put in place over the first term, and the fact that the system is now fully implemented and operations have reached a steady state.

BCeSIS implementation is considered to be complete, although four school districts have chosen not to participate. BCeSIS has been implemented in 1455 of the province's close to 1,600 public schools and in 103 of the 130 independent schools that signed agreements to participate. In addition BCeSIS has been deployed in 29 First Nations Schools more than 300 StrongStart BC Centres. More than 627,000 active student records are

currently contained in BCeSIS. In 2009/10 there were 580,486 students in provincial public schools and 69,466 students in independent schools.

September 2010 was the first school startup with the entire school system using the system. During this time BCeSIS experienced a number of performance issues due to the application software and the underlying operating system (Oracle). The Ministry, Fujitsu, aal and Oracle Corporation worked hard to restore system stability.

In November 2010, Pearson Canada Inc. purchased Administrative Assistants Ltd.(aal) Support for the aal software has been taken over by Pearson School Systems, which announced it will cease support for eSIS effective July 2012. The Ministry is currently working with school districts, with the help of an external consultant (Gartner Canada Co.), to develop a long term strategy for a common student information system.

Participating school authorities have, through the Service Management Council, approved a plan for 2010/11 that focuses on the following high-level priorities:

1. *Expand BCeSIS usage to new business processes;*
2. *Redefine scope of services;*
3. *Revise usage fee structure;*
4. *Review/revise governance structure;*
5. *Increase school and district capacity; and*
6. *Provide a platform for reporting solutions that support school improvement and 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 ensure network and workstation issues are minimized.
User training	A train-the-trainer program was developed for districts to use during initial implementation. The service provider has gradually instituted a just-in-time training strategy that is tied to the business cycle. Efforts are being made to develop collective training capacity within districts.
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. A *BCeSIS Standards Manual* contains all business practices approved by school authorities through the Service Management Council. An active network of users has been maturing in the districts to provide mutual support and share best practices.
Implementation planning	An implementation roadmap and templates for planning documents were developed by the BCeSIS team for use by districts. The team worked very closely with districts that were doing their first implementation to ensure that there was adequate preparation and planning. Conversion tools and lessons learned by early adopters were shared widely.
	The Ministry provided one-time implementation grants until

	March 31, 2010 to encourage early adoption of the system.

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

In light of the continuing economic restraint, Fujitsu and the Ministry agreed on the following objectives to guide the contract renegotiation:

1. Improved governance structure

2. Clear definition of base services and simplified pricing structure

3. Reduced carbon footprint and more cost effective infrastructure

4. Improved service levels

   As well, problems encountered during school start-up in September 2010 identified a need for more work to be done to enhance performance and ensure system stability.

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. A fully realized vision for BCeSIS includes 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

Improved governance structure

Activities (undertaken to achieve objective)	Results (Year-To-Date)
During contract negotiation, both parties reviewed the existing governance structure to ensure all groups were effective.	Reviewed membership of both the Joint Executive Committee (JEC) and the Joint Operations Committee (JOC). Membership of the JOC was amended to balance membership, adding an additional member from Fujitsu and changing Ministry membership so the committee includes the appropriate roles to deal with operational matters. The Service Delivery Management Team was disbanded as it had dealt mainly with implementation and project issues and both parties felt it was redundant now the system is in steady state.

Objective 2

Clear definition of base services and simplified pricing structure.

Activities (undertaken to achieve objective)	Results (Year-To-Date)
Review and redefine existing base services.	Reviewed the schedule of services to determine which services are necessary to support core operations (repeatable, ongoing and fixed) and which services should be accessed as and when required. As well, almost all training and implementation services have been removed from the base contract. This has resulted in a reduced, fixed fee contract.
Provide a clear definition of services that can be accessed by school districts and communicate those services. Finalize a service catalogue and streamline processes for school districts to access those services.	The Ministry and Fujitsu worked together to identify services that were commonly requested by school districts. These services included training and implementation services, as well as services the school districts could perform themselves (self-sustainability). A service catalogue was developed which identifies the services and rates. School districts can order these services directly from Fujitsu, using their existing procurement processes and documents. The service catalogue will be reviewed and updated annually. To date, there have been very few requests for these services.

Objective 3

Reduced footprint and more cost-effective infrastructure.

Activities (undertaken to achieve objective)	Results (Year-To-Date)
Review of existing infrastructure, and replacement of aging equipment.	Over the course of the past 12 months Fujitsu has been working on replacement of the BCeSIS information technology infrastructure. This initiative consists of the replacement of the entire hosted environment (servers, disk array etc.) with far more energy efficient equipment. This has enabled energy consumption to be reduced by 46.49%, thereby significantly reducing the impact on the environment. Examples of gains include EPA compliant power supply units running at 92% efficiency and a disk array that turns off any unused drives during off peak hours producing less heat and reducing energy consumption. Rationalization of BCeSIS infrastructure (reduction of servers and server cores) has also resulted in an approximately 25% decrease in Oracle licence requirements.

Objective 4

Improved service levels

Activities (undertaken to achieve objective)	Results (Year-To-Date)
Review of service levels as part of contract negotiations	Service levels were reviewed and compared to industry standards. In general, existing service levels were acceptable and in many cases higher than the standard. Service levels have been extended to the School Districts' test database, which was previously exempt, for no additional cost.

Objective 5

Enhanced performance and system stability

Activities (undertaken to achieve objective)	Results (Year-To-Date)
Establish mitigation strategies to reduce load on the system • Reduced timeout period	System has been stable since September

• Implemented single login (previously users could have more than one session open at a time) • Worked directly with individual districts to identify district/school specific issues • Augmented school districts' ability to request session termination	
Work with Oracle to assess and improve infrastructure configuration parameters	Oracle report indicated infrastructure configuration was good. Minor changes have been made.
Request aal to make application code changes to heavily used functions to improve response time and user record locking	Changes have been made to a number of areas. Response time has improved
Install and run tools to test the BCeSIS software under high volumes for key business events.	Fujitsu has acquired and installed commercial load testing tools and developed scripts to simulate key business events. The first test has been run – for mark entry and report cards – at higher load levels than are expected. No problems were identified. Plans are in place to complete school start up testing over the summer