



## School District 68 – Nanaimo Ladysmith Background Information

Wednesday, June 29, 2011

### **Review Sets Out Roadmap for Educational Technology in SD68**

A review of School District 68's technology infrastructure has made a number of recommendations designed to provide the tools and resources to empower teachers to help students improve their academic achievement and to streamline administrative tasks across the district.

The review, which was conducted by IBM K-12 consultants this spring, lays out a road map for the district to consider as it moves forward strategically in the area of technology. The consultants met with a number of district employees and partner group representatives to gather perspectives on where the district should be heading with the use of technology, as well as reviewing the current situation with technology in the district. The resulting report was presented to the Board of Education by the consultants on Wednesday evening.

The review is wide-ranging and contains recommendations on everything from technology for students and teachers to the complex configurations of the district's central server systems. Because of the large scope of the review's recommendations and the potential costs involved, the Board of Education has asked staff to provide operational recommendations no later than October 31.

Superintendent Michael Munro said that the review provides the district with a valuable resource as it plans for the future use of technology. "It is too early to say whether we will be able to implement some or all of the recommendations, and whether it will take us five years or more to get to where we would like to be with technology, but this report sets us out on a process to move forward in some very exciting ways."

In addition, he said, the Ministry of Education is currently going through a province-wide technology infrastructure assessment review and the process of creating this strategic roadmap for SD68 will be accentuated and supported by the results of the provincial assessment.

### **Guiding Principles**

The review sets out a number of guiding principles on which the recommendations for a 3-5 year strategic plan are based:

- Empower teachers with the necessary tools and resources needed to improve students' academic achievement.
- Increase teachers' technological competency.
- Increase availability and accessibility to electronic resources and knowledge base resources for students and teachers and staff members.
- Empower the Information Systems staff to accomplish necessary tasks with proper tools, education and direction.

- Consolidate and streamline the enterprise information technology infrastructure.
- Increase network security, business continuity and disaster recovery preparedness.
- Streamline administrative tasks.
- Enhance the client support coverage structure.
- Reduce the total cost of ownership and increase the return on investment through standardization initiatives in all areas of information technology infrastructure (servers, workstations, operating systems, software, and professional development).

## **Recommendations**

The review's recommendations are organized under 10 priority areas.

- Priority #1 is to centralize control of information technology decision-making.
  - The review recommends the establishment of a single planning committee, an Educational Technology Advisory Group, which the consultants say is critical in creating a unified voice for the direction of technology within SD68. One of the responsibilities of this group would be to advise on a Strategic Educational Technology Roadmap which aligns with the District Achievement Contract.
  - Another recommendation is to establish an equitable baseline of technology in all schools over the next two years. This would include wireless coverage of instructional, planning and common areas, secure wireless access via personal devices and a standard software list for all schools.
  - There are also recommendations about the technology that would be placed in classrooms and provided to teachers and principals.
  - The review says that in order to ensure an educational focus for the district's technology efforts, a position of District Principal of Educational Technology should be established.
  - It is recommended that district move to a model of centralized purchasing for technology, with all technology purchases made through the IS Manager, and aligned with the newly developed Strategic Educational Technology Roadmap.
  - It is recommended that the various departments in the district work collaboratively to establish annual budget requirements based on curricular needs and the technology roadmap.
  - It is recommended that the Strategic Educational Technology Roadmap address the issue of teacher technology skill levels and what level teachers are at with respect to effectively integrating technology into instruction and learning, in order to plan targeted professional development and in-service.
- Priority #2 is standardization of both the information systems management structure and of resources
  - It is recommended that the Information Systems Department's organizational structure be realigned to clarify the reporting structure and increase efficiency.
  - Another recommendation for standardization is that the district adopt a single standardized operating environment configuration throughout the district for both administrative and curricular networks.

- Several other recommendations deal with the evaluation and standardization of an enterprise workstation image management and deployment tool; an enterprise printing management suite and the evaluation of centrally-approved software titles for educational benefits, network security, and ease of deployment.
  - It is recommended that the district develop an online reference library containing training documentation on key processes and approved software titles.
- Priority #3 is to realign and monitor the information technology support coverage provided to district users of technology.
  - It is recommended that the district realign the Information Systems Department's organizational structure to clarify the reporting structure and increase efficiency.
  - Another recommendation is that the district's existing help desk tool be replaced with a best practices solution that will better meet the needs of the district.
- Priority #4 is the redesign of the district's central directory infrastructure to a more effective and simplified structure.
- Priority #5 is for the district to continue to upgrade its wide area networks.
- Priority #6 is for the district to adopt a pervasive access strategy to provide enhanced access and mobility of technology in schools. This would support Universal Design for Learning concepts by providing seamless access to technology resources for all staff and students throughout each school.
- Priority #7 is the server consolidation, in order to reduce operating costs, to enhance disaster recovery capabilities, reduce energy consumption and enhance reliability and availability of information technology to the district.
- Priority #8 is for the district to draw up plans for disaster recovery.
  - It is recommended that the district either dedicates an information technology resource to work on a plan or hire an information technology consulting firm to create, test and validate a proper Business Continuity and Disaster Recovery Plan. This is in line with the auditor's recommendation in 2009-10.
  - The Disaster Recovery Plan will identify mission critical systems, data retention and backups, acceptable down time, and recovery procedures.
- Priority #9 is to improve district communications and collaboration through technology.
  - It is recommended that a set of standards and guidelines for school websites continue to be developed to assure organizational branding and content consistency.
  - It is also recommended that the district continue to work on its long-term goal of integrating a portal tool (SharePoint) as the main tool of communication between teachers, administration staff, students, and parents. Such a system must tie into the district's central directory system to simplify management and security.
- Priority # 10 is for the district to continue to evaluate newer technologies for their ability to tie into the current infrastructure and their educational value. This will ensure students continue to have access to the newest technologies and could result in further cost savings.

## **Potential Costs**

Full implementation of the recommendations could cost as much as \$5.8 million over five years.

The most costly option would include:

- Backend and school server upgrades
- Wireless throughout the district
- Teachers laptops + document camera + Data projector + Smartboard
- Classroom computers
- Student mobile access: Elementary Schools = 1 cart of 16 laptops, Secondary 2 carts of 32 laptops

A less costly option, which is the one recommended by the consultants would cost \$3.6 million over 5 years and would include:

- Backend and school server upgrades
- Wireless throughout the district
- Teachers using existing workstations + Data projector
- Classroom computers
- Student mobile access: Elementary Schools = 1 cart of 16 laptops, Secondary 2 carts of 32 laptops

## **Acknowledgements**

The consultants said that by undertaking the review, the school district has taken the first step towards an information technology infrastructure revitalization initiative.

The consultants commended the district's Information Systems Department which, they said, has been doing a very good job and has achieved a number of significant successes.

“It has to also be noted that all the staff that participated in this study have been very cooperative and open minded about the process,” the consultants said. “It is critical that SD68 keeps the momentum that has been generated through this study and capitalize on the high expectations the staff have developed through this process to produce tangible actions and results in a short time frame.”

The full report is available on the school district's website, [www.sd68.bc.ca](http://www.sd68.bc.ca).