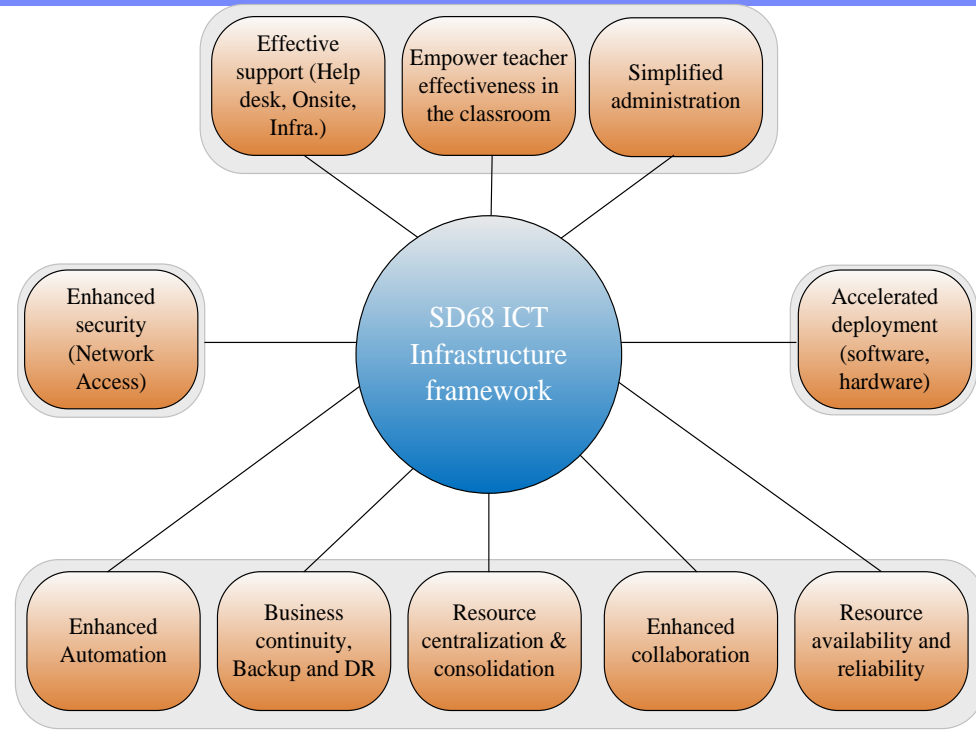


Building a Strong and Optimized IT Foundation for the 21st Century

Part 3: IT Strategic Plan

Executive Summary



Amit Berger
Senior IT Architect

Chris King
IT Architect

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Educational Consultant

Executive Summary

IBM commends the Nanaimo-Ladysmith School District 68 for having the foresight and courage to embark on this IT Effectiveness Review. IBM recognizes that assessments such as these place IS staff in an uncomfortable situation, as outsiders examine the details of their operations.

We also need to acknowledge that reviews of this type are generally more focused on identifying gaps in best practices, and areas where improvements can be made, rather than on areas of strength, and could therefore lead one to believe that the IS Department is not going a good job.

The IBM consultants would like to be very clear that the SD68 IS team has been doing a very good job and has achieved a number of significant successes which include but are not limited to:

- ✓ Data Centre server room configurations
- ✓ Standardized workstation operating systems
- ✓ District-wide standard anti-virus software
- ✓ Help desk support
- ✓ The move to wireless environments

Overall, we found that the district's IT operations are in good technical shape thanks to sound leadership. The above mentioned initiatives have been implemented to the best of their abilities, given existing levels of resources.

All of this and more is being carried out by an IS Department staff who are very committed to the overall success of the district, and at the centre of that success is student achievement.

Executive Summary

During the time IBM consultants spent at the Nanaimo-Ladysmith School District 68, we have found the district to be a progressive board that is determined to achieve its goals. This progressive attitude will be a critical component as SD68 continues along its technology journey.

As stated earlier, while the IS Department has definite areas of strength, achieved many successes, and has leadership that is dedicated to supporting the needs of the students and staff of SD68, this review process has identified areas where gaps exist between current practices and best practices.

The gaps identified in the engagement reports are mainly a result of the IS Department spending the majority of their time in reactive mode due to:

- the current levels of funding within the IS Department, and
- the lack of a district, centralized technology plan.

With no intent of being disrespectful to any individual or group within the SD68 IS Department or throughout the district, we respectfully submit our findings.

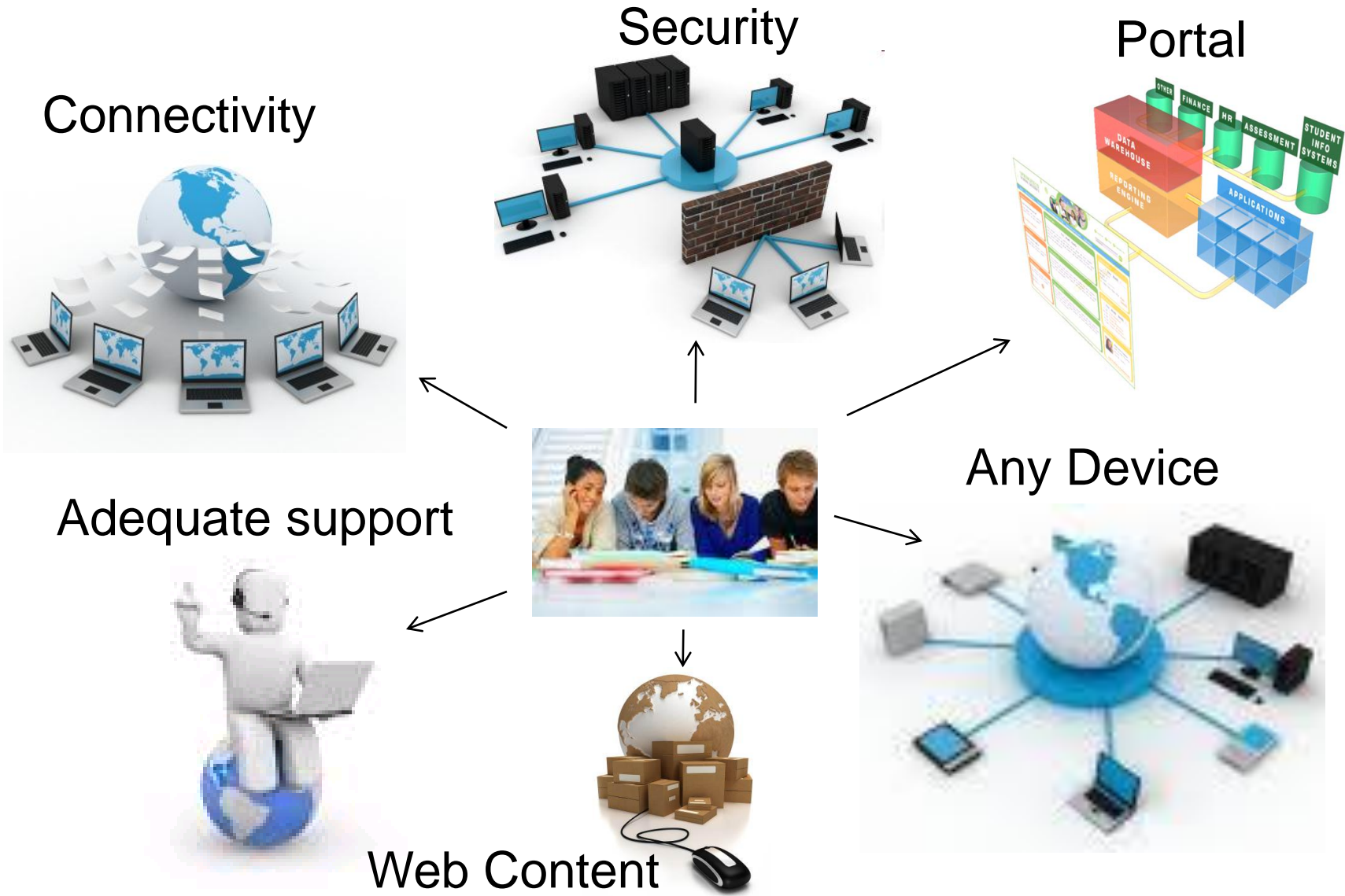


Guiding Principles for a Strategic Plan

The guiding principles for a 3 to 5 years Strategic Plan:

- I. Empower teachers with the necessary tools and resources needed to improve students' academic achievement.
- II. Increase teachers technological competency.
- III. Increase availability and accessibility to electronic resources and knowledge base resources for students and teachers and staff members.
- IV. Empower the IT Staff to accomplish necessary tasks with proper tools, education and direction.
- V. Consolidate and streamline your enterprise IT Infrastructure (Servers, Storage, as well as the Admin and Curricular Networks).
- VI. Increase network security, business continuity and disaster recovery preparedness.
- VII. Streamline administrative tasks (Account Management, Client Infrastructure Management, Web Presence and Administration).
- VIII. Enhance the client support coverage structure.
- IX. Reduce the total cost of ownerships (TCO) and increase Return On Investment (ROI) through standardization initiatives in all areas of IT infrastructure (Servers, Workstations, Operating Systems, Software, and Professional Development).

SD68 Roadmap Goals



1st Information Communication Technology (ICT) Priority: Centralize Control of IT Decision Making

Recommendations:

- A. It is recommended that SD68 implement a centralized model for IT planning and equipment purchasing. The district is a large enterprise and needs to be run as one enterprise rather than many smaller entities working together.



Planning

Observations

- A common thread identified through the onsite interviews with SD68 staff members, is the desire for detailed planning at the district level for the strategic implementation of technology.
- In the online survey of staff, 64% of staff said they were not sure if the district has a technology plan. 66% of teachers said their school did not have a technology plan or did not know if their school had a technology plan.
- The IS Department is in many cases leading the way with introducing initiatives related to technology within the district. Although IS Department initiative is positive, better outcomes will be achieved with a joint effort between Educational Programs and the IS Department.
- Inclusive and comprehensive stakeholder input into the planning process is essential in order to drive change
 - Assisted by the ETAG (Educational Technology Advisory Group)



Planning: District Technology Roadmap

Recommendations

1. The establishment of a single planning committee, the **Educational Technology Advisory Group** is critical in creating a unified voice for the direction of technology within SD68.
 - a. A vital component of ETAG, is having it chaired by either a newly established position of **District Principal of Educational Technology**, or by the **Assistant Superintendent who has Program and Technology** in their portfolio.
 - b. ETAG is not a decision making group, but rather a working group responsible for ensuring stakeholder input into technology planning. ETAG will make recommendations to develop draft versions of the Strategic Educational Technology Roadmap, and to review and renew the roadmap on an annual basis.
 - c. Membership of ETAG should be re-visited to ensure representation from the following areas, with the goal of being as inclusive as possible:
 - Secretary Treasurer
 - Assistant Superintendents
 - District Principals
 - IS Manager
 - Financial/HR Representative
 - Trustee
 - Special Education Representative
 - School Principal Representative
 - Teacher Representative
 - Facilities Representative
 - Director of Communication
 - Support Staff Representative



Planning: District Technology Roadmap

Recommendations (cont.)

2. It is recommended that the new District Principal of Educational Technology or Assistant Superintendent of Program, along with support from ETAG, ensures that the Strategic Educational Technology Roadmap developed through this engagement with IBM includes:
 - Aligning the roadmap with the District Achievement Contract 2010-2011/ 2011-2012
 - Program led focused integration of technology into the teaching and learning process in general, and more specifically to impact on the Achievement Contract goal of literacy and numeracy
 - Equity of access
 - Clearly articulated implementation strategies and processes
 - Hardware access models including any school based purchases
 - Software acquisition processes
 - Specific timelines and milestone dates for the achievement of specific initiatives
 - Detailed professional development plans
 - Building on the current solid foundation of staff engagement in the planning process
 - A sustainable funding model
 - Technical support model
 - Celebration of successes

Planning: Equity of Access

Observations

- As the acquisition of technology is currently largely school-based, equity of access has also become an issue.
- The deployment of computers is not standardized from school to school, as some schools have computers in classrooms, while other schools only have computers in labs.
- This has resulted in have and have not schools

Recommendation

1. The implementation of the Strategic Educational Technology Roadmap which will address the following:
 - Establishing an equitable baseline of technology in all schools.
 - Improving the quality of the hardware and software.
 - The need for a district plan for technology.
 - The move to establish a wireless networking environment in all schools which will allow staff and students to bring their own devices to schools.

Planning: Equity of Access

Recommendation: Equitable Baseline Access in all Schools Over the Next 2 Years

1. School Access:

- a. Wireless coverage of instructional, planning and common areas
- b. Secure wireless access via personal devices
- c. Standard software list for all schools

2. Principal/Vice Principal Access:

- a. 1:1 laptop

3. Teacher Access:

- a. 1:1 Teacher laptop or netbook
- b. Classroom data projectors and speakers
- c. Classroom document camera
- d. Classroom Smartboards (by request over 3 to 4 years)

4. Student Access Elementary Schools:

- a. 4 desktop computers per classroom (existing computers)
- b. 1 mobile cart of 16 laptops/netbooks per school

5. Student Access Secondary Schools:

- a. 2 desktop computers per classroom (existing computers)
- b. 3 to 4 labs of 34 desktops – 2 are high end labs (depending on scheduled tech class blocks)
- c. 2 mobile carts of 32 laptops/netbooks per school
- d. 32 desktops in Library

Planning: Accountability

Observations

- SD68 is moving to increased accountability.
- Although there is district level direction for the purchase of computers through Computers for Schools, given the schools are primarily responsible for the purchase of the majority of their technology, district level accountability for purchases of technology is a significant challenge.
- It appears that a significant portion of technology related budgets are based on maintaining the status quo from previous years, and are department independent, as opposed to budgeting based on a long term plan, and having the various departments such as Technology, Program, Aboriginal Education, Student Support Services and so on, work collaboratively to establish annual budget requirements based on a long term plan.
- There is a need to understand teacher technology skill levels, and where teachers are with respect to effectively integrating technology into instruction and learning, in order to plan targeted professional development and in-service.

Planning: Accountability

Recommendations

1. It is recommended that SD68 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.
2. It is recommended that the various departments of Technology, Educational Programs, Aboriginal Education, Student Support Services and so on, work collaboratively to establish annual budget requirements based on curricular needs and the technology roadmap.
3. It is recommended that the Strategic Educational Technology Roadmap specifically address the issue of tracking 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.

1st ICT Priority: Centralize Control of IT Decision Making

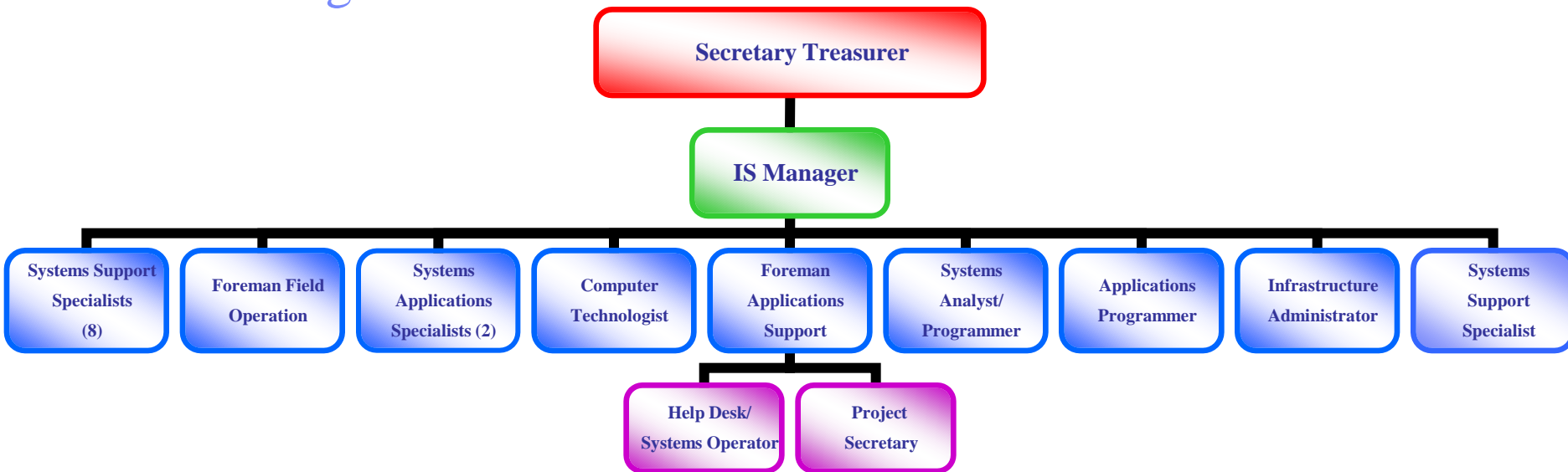
Expected benefits:

- ✓ This will eliminate the inequities between schools currently found today.
- ✓ Provide a more consistent technological environment for teachers and students.
- ✓ Reduce duplication of effort for teachers by enabling and promoting collaboration between departments and schools.
- ✓ Provide a more consistent technological environment for IT staff to support.
- ✓ Lower the cost of technology as it will leverage the purchasing power of the school district and will minimize money wasted on technology.
- ✓ Create an environment that is easy to monitor and make adjustments for future needs.
- ✓ Make new initiatives more effective as they take advantage of all of the current infrastructure.



2nd ICT Priority: Management and Resource Standardization

Current IS Organizational Structure



Current Organizational Structure issues:

- 1. The IS Manager has 15 direct reports, although the 9 Systems Support Specialists informally report to either the Acting Foreman of Field Operations or the Infrastructure Administrator which generally works, but creates unnecessary staff management issues when staff go to one person for some things and another for other issues.**
- 2. This is a very flat structure with too many staff reporting to the IS Manager, limited role redundancy and limited opportunities for advancement within the department.**
- 3. There is no clear Network Administrator to manage the Local Area Networks and Wide Area Network.**

2nd ICT Priority: Management and Resource Standardization

Recommendations:

- A. Realign the IS Department organizational structure to clarify the reporting structure and increase efficiency (reflected in future charts).
- B. Adopt a single standardized operating environment configuration throughout the district for both admin and curricular networks (classroom, mobile labs, general studies & engineering labs, staff rooms, etc..) .
- C. Evaluate and purchase a District license for an Enterprise workstation image management and deployment tool.
- D. Evaluate and purchase an enterprise printing management suite.
- E. Evaluate each centrally-approved software title for pedagogical benefits, network security, and ease of deployment.
- F. The District Principal of Educational Technology or the Assistant Superintendent undertake the development of an online reference Library containing training documentation on key processes and approved software titles.



Management: Organization and Governance

Observations

- Within districts of this size it is important to divide the **technology responsibilities among various functional groups**, as has been done in SD68. It is however, equally important that there be a **clear chain of command** with strong leadership that is responsible for maintaining synergy among the various technology related departments as well as non-technology specific departments who require the use of technology.
- The organizational structure of the IS Department has been very flat, with many staff formally reporting to the IS Manager, and informally report to someone else. While this has generally been working, primarily due to the good nature of the IS staff, it creates unnecessary staff management issues when staff go to one person for some things and another for other issues, and can have a limiting effect on accountability.
- The IS Manager currently has 15 staff members directly reporting to him. This is a very high number and difficult to manage given all the other tasks in his role.

Management: Organization and Governance



Recommendations

1. Although a best practice is to have the IS Manager report directly to an Assistant Superintendent to establish a direct connection between curriculum and technology, given ETAG is to be chaired by either a newly established position of **District Principal of Educational Technology**, or the **Assistant Superintendent**, it is recommended that the **IS Manager continue to report to the Secretary Treasurer**.
2. In order to address the situation whereby in effect 15 positions formally and informally report to the IS Manager, as well as workload challenges and governance issues that result, it is recommended that the two current Foreman positions be elevated to **General Foreman of Field Operations and General Foreman of Applications Support**, which will also bring the IS Department in line with other SD68 departments who have General Foreman positions.
3. It is recommended that the position of **General Foreman of Network Administration** be established to address the need for a Network Administrator. This may be achieved by adding an additional staff member or realigning existing staff .

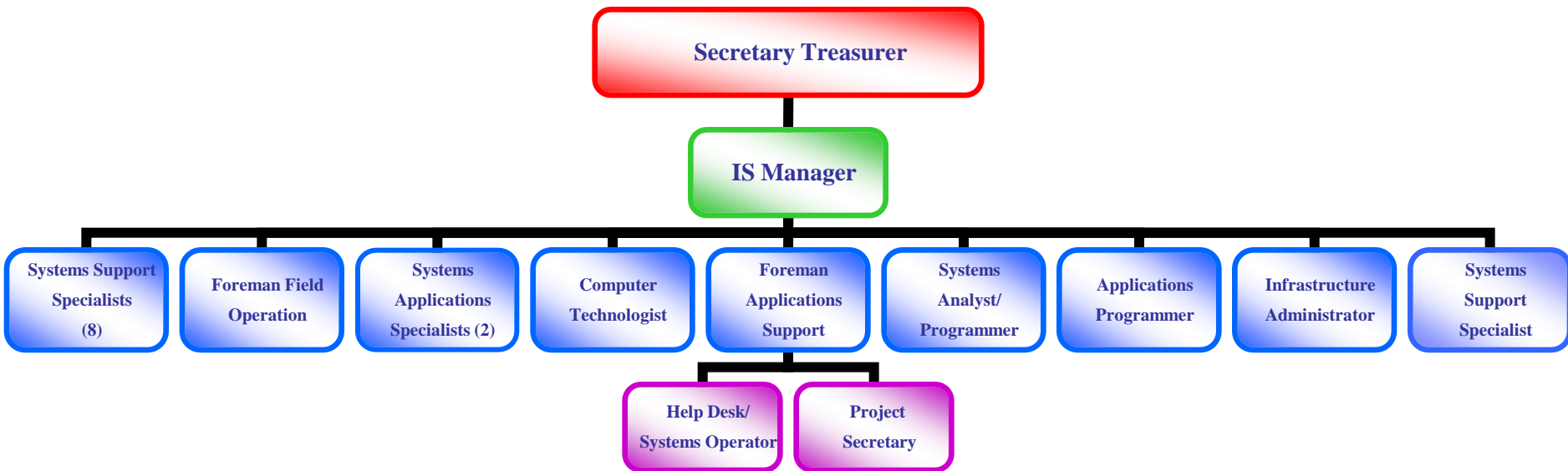
Management: Organization and Governance



Recommendations

4. It is recommended the **additional support be added to the Help Desk**, which may be achieved by **realigning existing support staff**.
5. It is recommended that the **Help Desk staff report to the General Foreman of Field Operations**, which will more closely connect the entire help desk process, from initial call to resolution notification of all help desk requests, resulting in greater accountability for the support team and the end users.

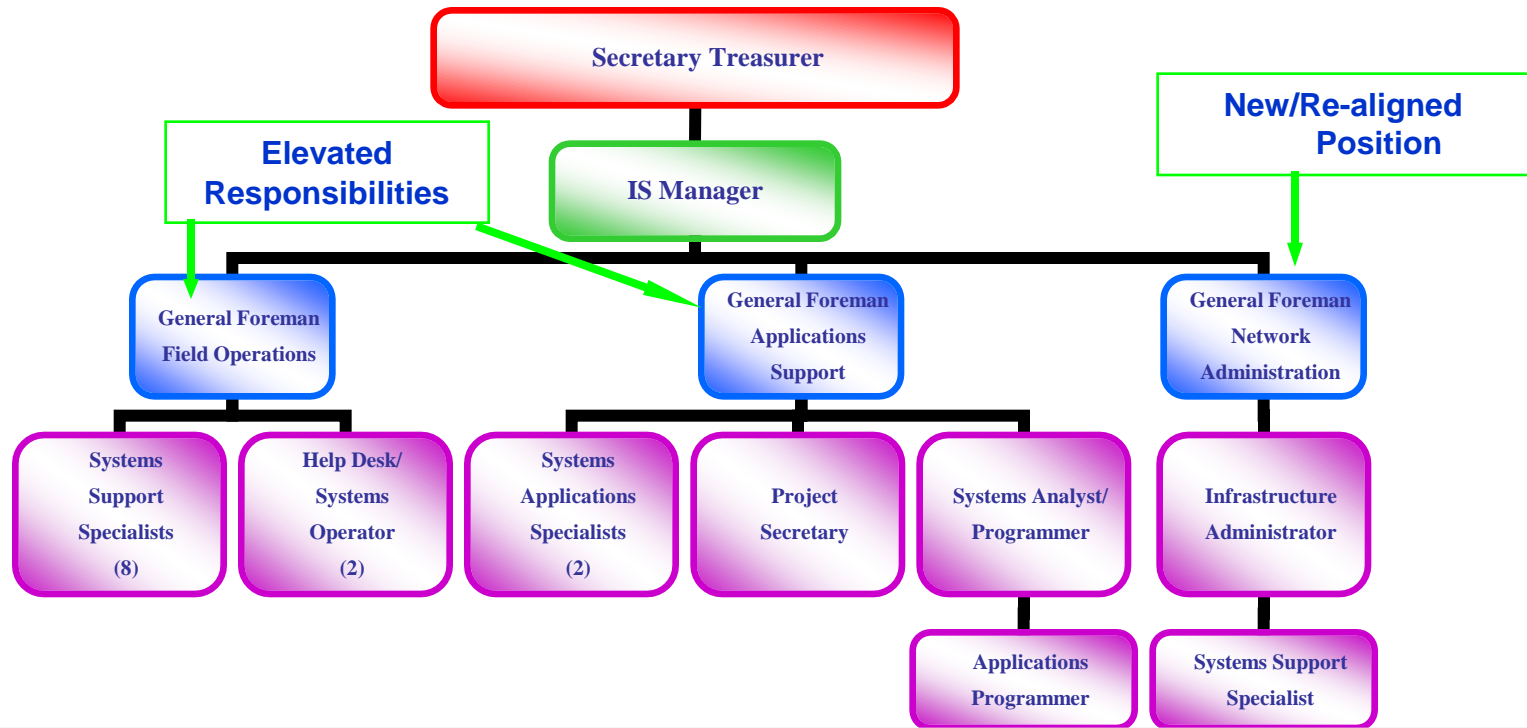
Current IS Organizational Structure



Current Organizational Structure issues:

- 1. The IS Manager has 15 direct reports, although the 9 Systems Support Specialists informally report to either the Acting Foreman of Field Operations or the Infrastructure Administrator which generally works, but creates unnecessary staff management issues when staff go to one person for some things and another for other issues.**
- 2. This is a very flat structure with too many staff reporting to the IS Manager, limited role redundancy and limited opportunities for advancement within the department.**
- 3. There is no clear Network Administrator to manage the Local Area Networks and Wide Area Network.**

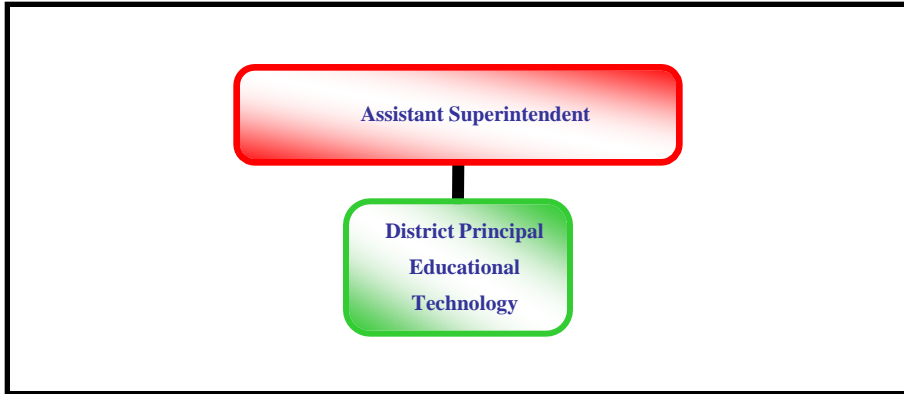
Recommended IS Organizational Structure



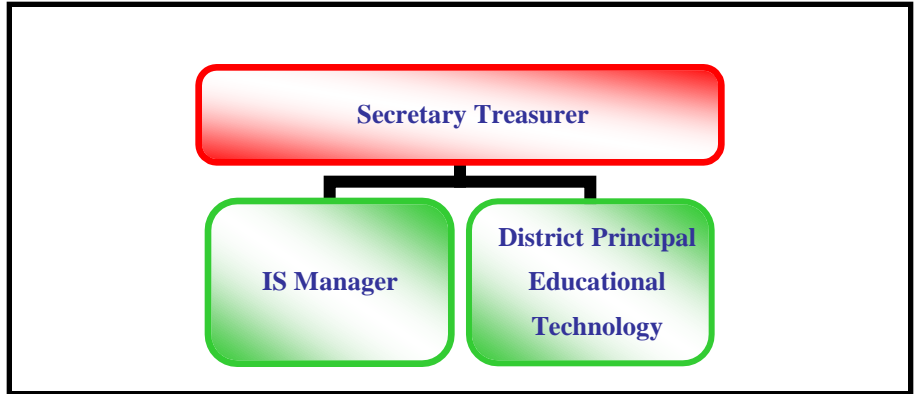
1. This model reduces the number of formal and informal direct reports to the IS Manager from 15 to 3 formal reports.
2. The IS Manager continues to report to the Secretary Treasurer given the Assistant Superintendent of Program will chair the Educational Technology Advisory Group.
3. The two previous Foreman positions have been elevated to General Foreman to be aligned with other SD68 departments.
4. The new/re-aligned position of General Foreman Network Administration is created to address the need for a Network Administrator and be aligned with the current Infrastructure Administrator and Systems Support Specialist.
5. The Help Desk/Systems Operator has been increased from one FTE to two and moved under the General Foreman of Field Operations to more tightly align the Help Desk with the field work of the Systems Support Specialists.

Recommended District Principal of Educational Technology

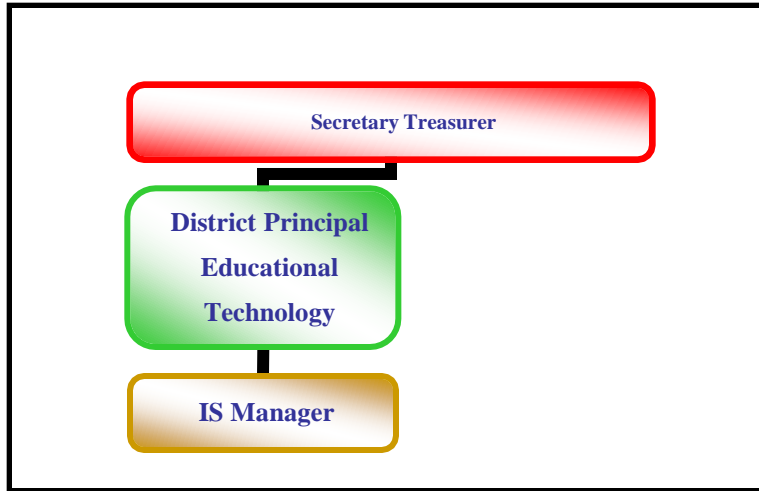
Option 1



Option 2



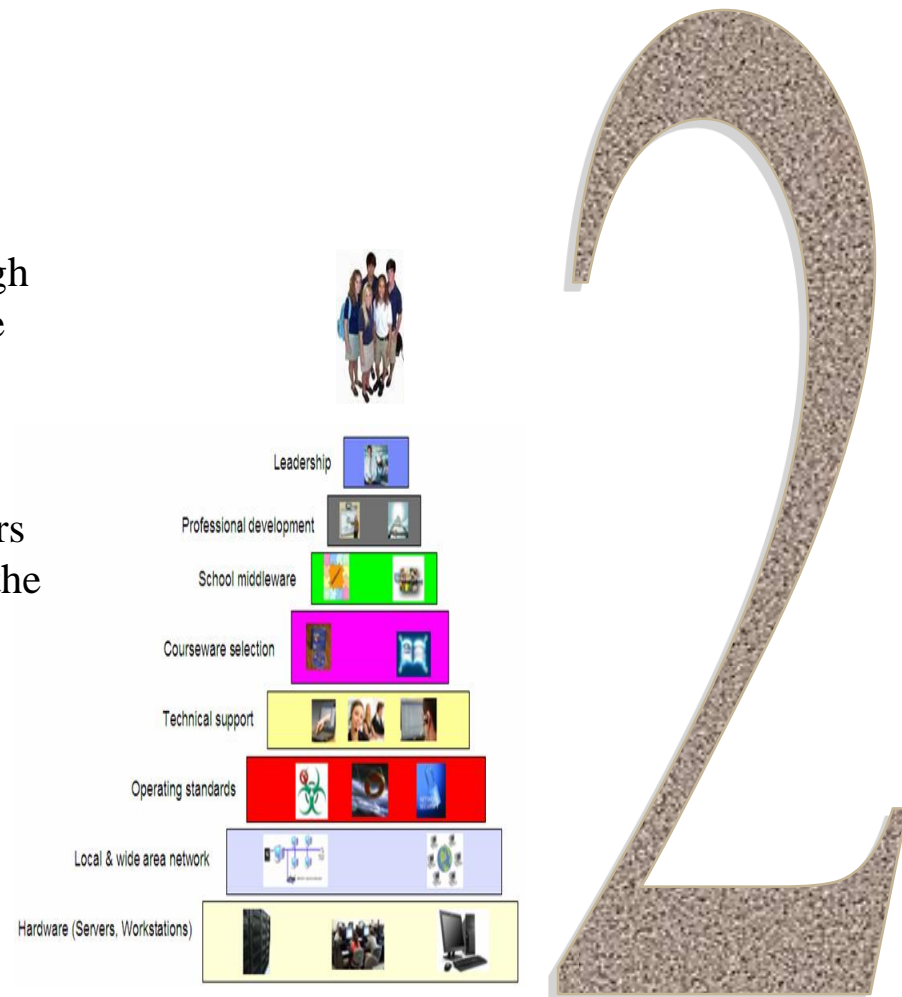
Option 3



2nd ICT Priority: Resource Standardization & Management

Expected benefits:

- ✓ Increase IS Department efficiency
- ✓ Reduce technician's workload related to software troubleshooting. Reactive to proactive.
- ✓ Increase teachers technological proficiency through a Pro-D plan that is relevant to the activities in the classroom.
- ✓ Increase students and teacher satisfaction levels.
- ✓ Provide equal opportunity for students and teachers to use the same technology resources throughout the district.
- ✓ Reduce printing costs
- ✓ Reduce the district's exposure in the area of software licensing.
- ✓ Lower the Total Cost of Ownership through bulk purchases of standard hardware and software.



3rd ICT Priority: Realign and Monitor IT Support Coverage

Recommendations:

- A. Replace your existing help desk tool with a best practices solution that will better meet the needs of the district.
- B. Focus all Help desk requests through one interface (i.e. call to the help desk or entry to the on-line help desk system).
- C. Realign IT support coverage (Help desk and technicians) to effectively manage a consolidated and centralized infrastructure deployment.
- D. Evaluate ways of securely providing “remote control” capabilities to the Help desk team, into the academic network, to assist with teacher issues.
- E. Communicate to schools any planned changes in IT support structure and highlight the expected benefits to the students and teachers.
- F. Monitor help desk statistics on a regular basis and readjust support responsibilities as necessary.
- G. Cross train the IT Staff so that there will always be a backup if personnel are away.



3rd ICT Priority: Realign and Monitor IT Support Coverage

Expected benefits:

- ✓ Provide a higher level as well as predictable support level to schools and teachers through more efficient use of remote and help desk resources and capabilities.
- ✓ Provide more focus on the efforts related to standardizing, and regularly updating the core IT infrastructure components.
- ✓ Allow for a proactive approach to server, network and application maintenance monitoring and maintenance.
- ✓ Minimized inequities between schools regarding support.
- ✓ Increased satisfaction from users due to better communication and more reliable computer resources.
- ✓ Increased effectiveness of IT staff's work due to standardization.



4th ICT Priority: New Central Directory Infrastructure

Recommendations:

- A. Engage in a district wide central directory redesign/deployment to collapse your existing domains to a more effective and simplified design.

Expected benefits:

- ✓ Increase teacher/support staff accessibility and mobility between different schools
- ✓ Increase security and user account manageability
- ✓ Streamline administration support tasks
- ✓ Simplify and provide for more tight integration with the messaging and collaboration infrastructures (E-mail, Portal, etc.)
- ✓ Essential step for the Disaster Recovery Planning
- ✓ Provide simplification through the consolidation and centralization of as many network services as possible
- ✓ Increased integration with network services and peripherals (e.g: VPN, WiFi, NAC)
- ✓ Reduce TCO by eliminating redundant server hardware, environmental control software licenses



5th ICT Priority: Wide Area Network Upgrade

Recommendations:

- A. Continue to upgrade the district's Wide Area Network connections.
- B. Introduce firewall software/appliances at every school.
- C. Replace all unmanaged switches to managed throughout the district.
- D. Deploy standard enterprise-class wireless access points throughout the district.

Expected benefits:

- ✓ Significant ROI through the consolidation and centralization of essential services:
- ✓ Consolidation of schools' academic servers centrally.
- ✓ Consolidated firewall and network traffic shaping equipment.
- ✓ Centralized network management and preventive maintenance tasks.
- ✓ Increased use of remote support tools.
- ✓ Consolidated phone systems with the future use of VOIP district wide.
- ✓ Increase mobility and accessibility throughout the district both internally and externally (access through district network, or externally from home)
- ✓ Secure access to managed and unmanaged roaming equipment connecting to the network, for example: teachers and students' personal laptops, or WiFi enabled technology.



6th ICT Priority: Embrace a Pervasive Access Strategy

Recommendations:

- A. Expand the existing wireless network infrastructure in the schools through the architecture of a “blanket coverage” model and the installation of Wireless Access Points (WAPs) to achieve that goal.
- B. Control the access through the WAPs to allow users, who will connect wirelessly through their own devices, to gain access to internet resources only at this stage.
- C. Ensure Wireless Management tools are in place to provide statistics on number of devices connecting wirelessly, as well as bandwidth usage trends.
- D. Create/Up date an Acceptable Use Policy (AUP) for staff and students around the use of their own devices in schools, the intended benefits, and the respective expectations of how this expanded access should be used.



6th ICT Priority: Embrace a Pervasive Access Strategy

Expected benefits:

- ✓ Network security, flexibility, reliability, and high availability
- ✓ Enhanced accessibility, mobility within schools
- ✓ At point of instruction capabilities
- ✓ Supports Universal Design for Learning concepts by:
 - providing seamless access to technology resources for all staff and students throughout the school.
 - Allows students to gain expanded access to internet resources that are relevant and useful to their learning activities
- ✓ Improve student engagement
- ✓ Prepares students for the technology landscape in higher education institutions, and may pave the way for 1:1 environments on the long range
- ✓ Reduce the financial burden on the district of replacing large numbers of workstations



7th ICT Priority: Server Consolidation/Virtualization

Recommendations:

- A. Reduce the number of servers where possible.
- B. Further invest in a Server Virtualization infrastructure (e.g. VMWare) to consolidate and virtualizes selected backend servers.
- C. Migrate end of life servers onto new server infrastructure.
- D. Consolidate all storage systems onto a single robust Storage Area Network

Expected benefits:

- ✓ Reduces operating costs by increasing the utilization of the server hardware
- ✓ Data protection and high availability.
- ✓ Enhanced Disaster Recovery capabilities.
- ✓ Significant reduction in heating and air conditioning requirements.
- ✓ Significant reduction in power consumption.
- ✓ Enhanced reliability, availability and serviceability capabilities.



8th ICT Priority: Disaster Recovery Planning & Deployment

Recommendations:

- A. It is recommended that the district either dedicates an IT resource to work on a plan or hire an IT 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.
- B. The Disaster Recovery Plan will identify mission critical systems, data retention and backups, acceptable down time, and recovery procedures.

Expected benefits:

- ✓ Increase district operations resiliency against any potential risks (e.g.: fire/explosion, earthquake, flood, theft, electronic cyber attack).
- ✓ Ensure business operations continuity is safeguarded against:
 - Interruption to administrators, schools and staff work.
 - Interruption of transportation, planning, and district support staff operations.
 - Loss of public goodwill and confidence.
- ✓ Avoid missing reporting deadlines and other commitments to the Ministry of Education.



9th ICT Priority: Communication and Collaboration

Recommendations:

- A. We recommend that a set of standards and guidelines for school websites continue to be developed to assure organizational branding and content consistency such as: School name, address, contact information, newsletters, school calendar, site map, and link to the district's homepage
- B. We recommend that the district continue to develop a long-term goal of integrating a portal tool (SharePoint) as the main tool of communication between teachers, administration staff, students, and parents.
- C. The solution must tie into your central directory system to simplify management and security.

Expected benefits:

- ✓ Improve the district's public image.
- ✓ Increase communication and collaboration between students and teachers as well as district admin staff and the community.
- ✓ Allow for greater accessibility and mobility where staff members and teachers could access information securely both during and after hours, on and off the district's network.
- ✓ Provide the ability for students and teachers to securely access online courseware titles whenever, wherever, and whatever they choose as a device.



10th ICT Priority: Cloud Computing/Emerging Technologies

Recommendations:

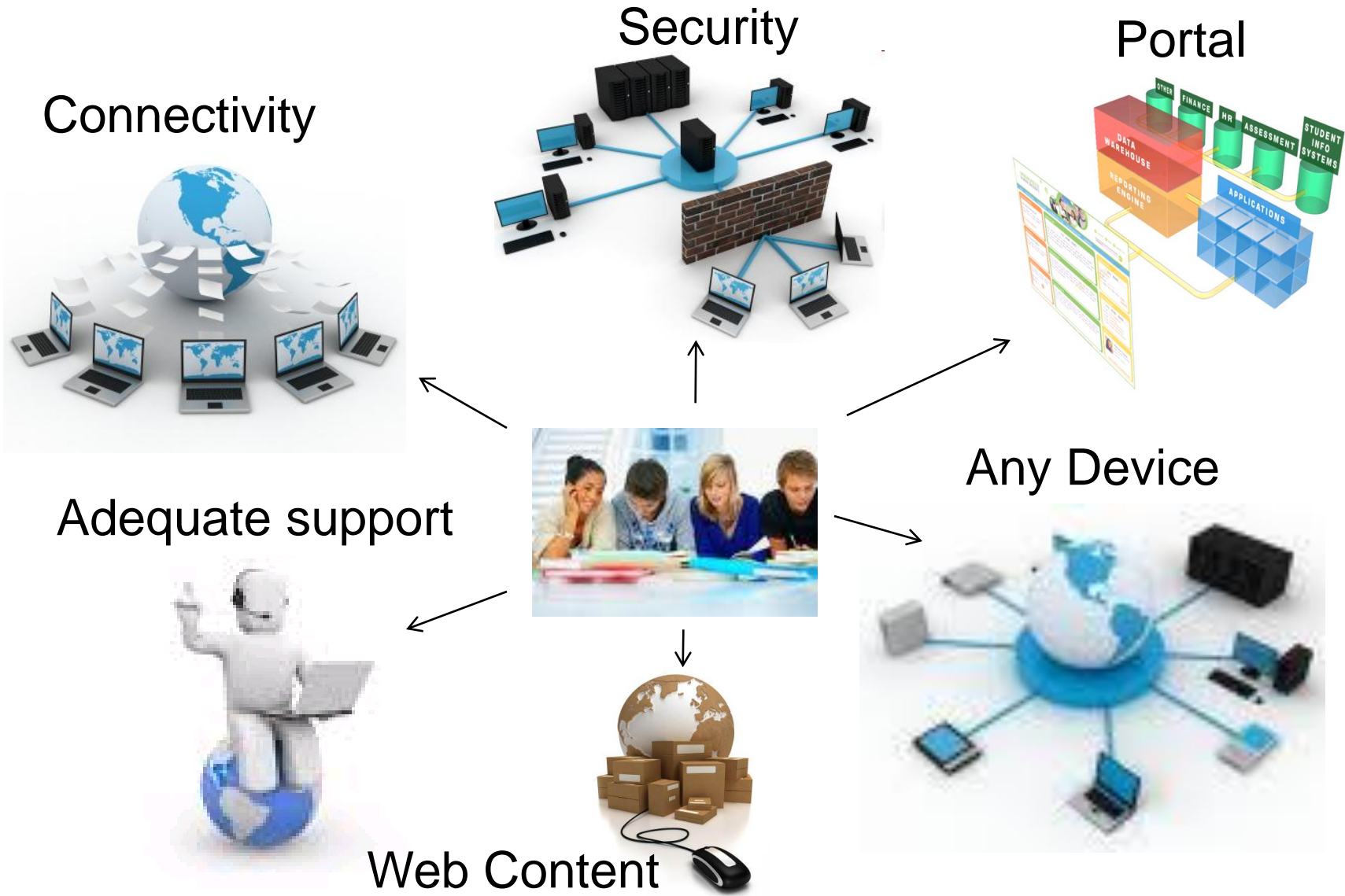
- A. Once the IT infrastructure has been standardized, evaluate cloud computing tools to virtualize applications or complete desktops.
- B. Evaluate newer technologies as to their value and their ability to tie into the current infrastructure and educational value.
 - This must be done by a team with representatives of whom will be affected by any changes with this new technology.

Expected benefits:

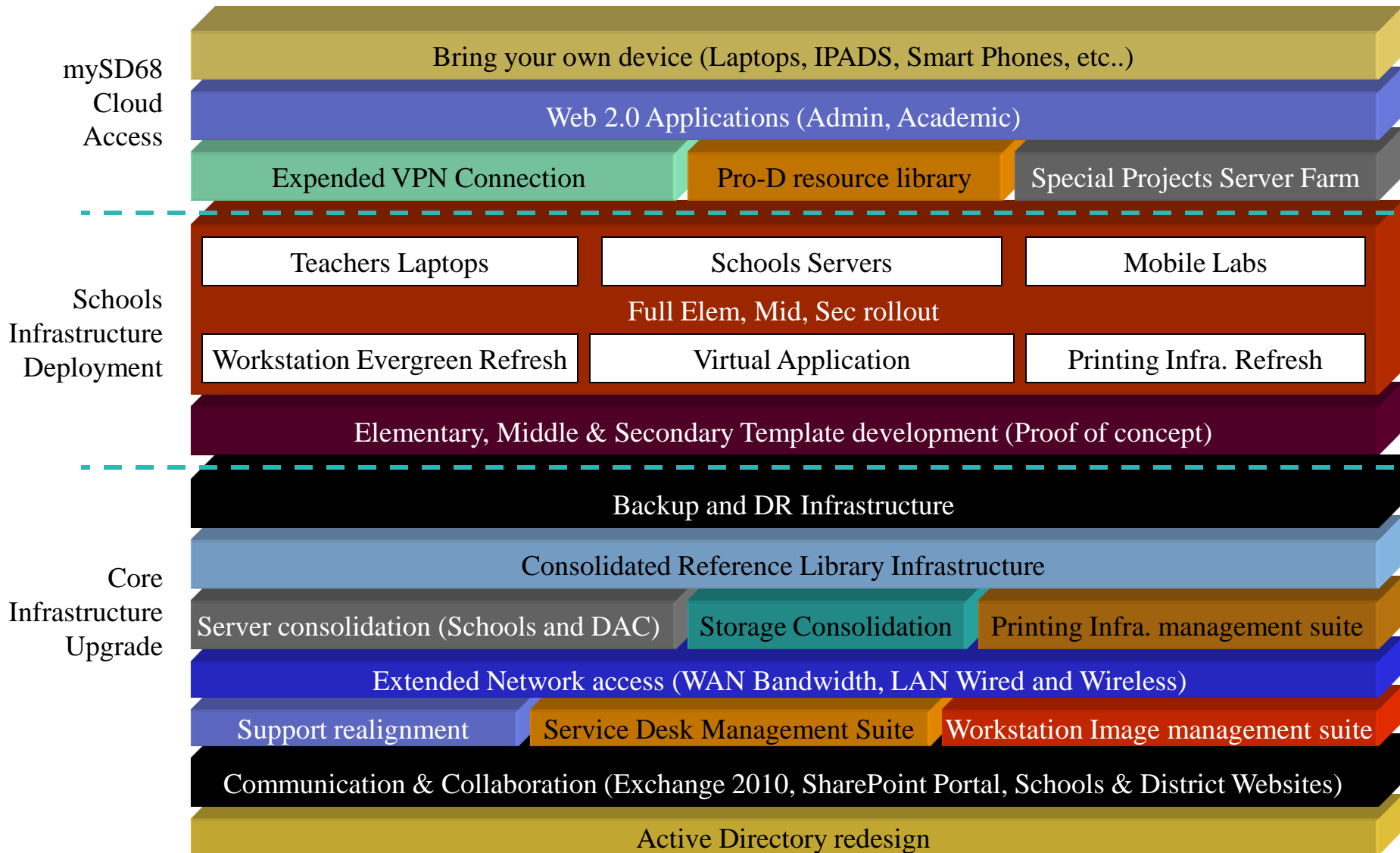
- ✓ Continue to engage students using the newest technologies.
- ✓ Further cost savings.
- ✓ Continue to develop the district's public image.



SD68 Roadmap Goals



The Roadmap to the 21st Century Technology Infrastructure



Note: Scope does not represent timelines. Some projects should take priorities over others based on site (or component) logical state.

Recommended Design Scenario 1

Roadmap to the 21st Century Technology Infrastructure

Scenario 1: Full Solution Deployment

Backend and school server upgrades

Wireless throughout the district

Teachers laptops + document camera + Data projector + Smartboard

Student mobile access: Elementary Schools = 1 cart of 16 laptops, Secondary 2 carts of 32 laptops

	Total Cost	Hardware	Software	Services
Project 1 – New Core Components Deployment	\$ 632,060	\$ 179,947	\$ 208,813	\$ 243,300
Project 2 - Elementary, middle & secondary schools template development proof of concept	\$ 872,952	\$ 768,702	\$ 6,250	\$ 98,000
Project 3 - Elementary schools deployment	\$ 1,923,863	\$ 1,858,113	\$ 33,750	\$ 32,000
Project 4: Secondary Middle and Other schools deployment	\$ 1,681,102	\$ 1,627,227	\$ 21,875	\$ 32,000
Project 5 – SBO/Admin Offices Deployment	\$ 160,946	\$ 127,696	\$ 1,250	\$ 32,000
Project 6 – Disaster recovery / remote backup **	\$ 181,964	\$ 75,798	\$ 28,166	\$ 78,000
Project 7: SD68Cloude Access	\$ 385,413	\$ 127,967	\$ 7,446	\$ 250,000
	Total Cost	Hardware	Software	Services
Totals:	\$ 5,838,300	\$ 4,765,450	\$ 307,550	\$ 765,300

Estimated Lease Costs

\$5.8 M over 5 years = \$1.16M per year

(Excluding carrying charges and taxes)

Recommended Design Scenario 2

Scenario 2: Full Solution Deployment, excluding teacher laptops, document cameras and Smartboards

Backend and school server upgrades

Wireless throughout the district

Teachers using existing workstations + Data projector

Student mobile access: Elementary Schools = 1 cart of 16 laptops, Secondary 2 carts of 32 laptops

	Total Cost	Hardware	Software	Services
Project 1 – New Core Components Deployment	\$ 632,060	\$ 179,947	\$208,813.00	\$243,300.00
Project 2 - Elementary, middle & secondary schools template development proof of concept	\$ 504,452	\$ 400,202	\$ 6,250.00	\$ 98,000.00
Project 3 - Elementary schools deployment	\$ 830,363	\$ 764,613	\$ 33,750.00	\$ 32,000.00
Project 4: Secondary Middle and Other schools deployment	\$ 933,852	\$ 879,977	\$ 21,875.00	\$ 32,000.00
Project 5 – SBO/Admin Offices Deployment	\$ 160,946	\$ 127,696	\$ 1,250.00	\$ 32,000.00
Project 6 – Disaster recovery / remote backup **	\$ 181,964	\$ 75,798	\$ 28,166.10	\$ 78,000.00
Project 7: SD68Cloude Access	\$ 385,413	\$ 127,967	\$ 7,446.00	\$250,000.00
	Total Cost	Hardware	Software	Services
Totals:	\$ 3,629,050	\$ 2,556,200	\$ 307,550	\$ 765,300

Estimated Lease Costs

\$3.6 M over 5 years = \$720 K per year

(Excluding carrying charges and taxes)

The Reasons Initiatives Fail

- A. Lack of strategy/vision
- B. A powerful enough guiding coalition was not created
- C. Under-communication of the strategy/vision
- D. Obstacles to the new strategy/vision were not removed
- E. Staff preparation, training and support were inadequate
- F. Changes were not anchored to district goals



Conclusion – General Comments

- A. The Nanaimo-Ladysmith School District #68 has taken the first step towards an IT infrastructure revitalization initiative. This is a major step and the leadership team is commended for taking that step.
- B. The District's IT leadership team demonstrates strong dedication, innovation and commitment to the success of the organization. Their cooperation throughout this study demonstrates a sincere desire to improve the operation of their team wherever possible.
- C. 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.
- D. 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.
- E. Once the next steps are defined and agreed to, based on the recommendations in this report, communication is critical to inform staff of impending actions and their projected impacts.

Conclusion – Recommended Priorities / Next Steps

- A. Establish a centralized model for IT acquisitions and support is critical for any of the following steps to succeed.
- B. Adopting the proposed 5 Year Long Term IT Strategic Plan will establish standards, and provide schools and staff with a support framework necessary for the effective use of technology.
- C. Establish a new central directory.
- D. Server consolidation and virtualization will yield cost savings, better performance, and a manageable support environment.
- E. Establish a consistent backup infrastructure and disaster recovery plan.



ACKNOWLEDGEMENTS

- **The IBM Consultants would like to extend their sincere appreciation to the Leadership team (Mr. Michael Munro, Mr. Phil Turin, and Ms. Francine Frisson) for their unwavering support and help throughout this study.**
- **Sincere thanks are due to Mr. Steve Sproston for his support throughout this study. His helpful attitude has reflected on the excellent cooperation we received from the IS Department's staff.**
- **We would also like to extend our gratitude to the IS team in general for gathering the information we requested and then spending additional time with us while continuing to perform their regular duties.**
- **Sincere thanks are due to the Principals, Vice Principals, Teachers, Clerical staff, Central administrative staff, and IS Department staff whom we have had the pleasure of meeting with during this study for the time they have taken out of their busy schedules and for their valuable input and cooperation.**

