



Information Technology

MULTI-YEAR OPERATIONAL PLAN

2019 - 2021

Table of Contents

IT Operational Plan: Overview	2
IT Operational Plan: Vision and Mission	2
IT Operational Plan: Principles and Assumptions.....	3
Collaboration and Accountability in a federated system.....	3
Efficiency and effectiveness in the user experience	4
Summary of Goals and Objectives	5
1. Support Education and Learning.....	6
2. Provide Resilient Information Systems	7
3. Drive IT Infrastructure Renewal	9
4. Actively Manage Cyber Security and IT Risk	10
5. Build “Best in Class” IT Team and Competencies.....	11

IT Operational Plan: Overview

This multi-year operational plan will support the School District 62 Strategy by preparing the district to achieve the maximum benefit from information technology innovations, increasing digital capability, enhancing teaching and learning, and delivering efficiencies in support of administrative functions. It will play an important role in supporting our core strategic objectives of Learning, Engagement, and Growth and delivering a world-class learning experience for students, teachers, support and administrative staff.

The plan puts in place infrastructure to allow all staff and students to communicate effectively, share information securely, and collaborate locally and globally. Collaboration and teamwork are central to the strategy. This will enable the development of a strong IT organization that supports end-to-end service delivery and is able to respond effectively to the evolving technology landscape. Given the distributed nature of the current funding and support model, collaboration and transparency between the schools and the IT Department is key to increasing engagement with staff and students to ensure that services meet their needs; and to partner with third parties in the delivery of services.

By emphasizing IT service excellence, the IT operational plan establishes a framework to drive improved project and service delivery. The recent past has seen a significant growth in the integration of IT into the learning experience and the next three to five years focuses on getting the best value we can from those systems, ensuring currency of systems and devices, better security of our data and increasing benefits through improving information quality and accessibility, which will enable better decision making.

IT Operational Plan: Vision and Mission

The IT Department determined the following key statements for our collective vision and mission in service of the district:

- IT will promote critical thinking, equity, ethics, morality, and safety in the use of technology.
- We will provide “Best in Class” IT service.
- Technology should empower our users and not hinder them.
- We will empower users through technology.
- We will be your first stop for IT solutions.

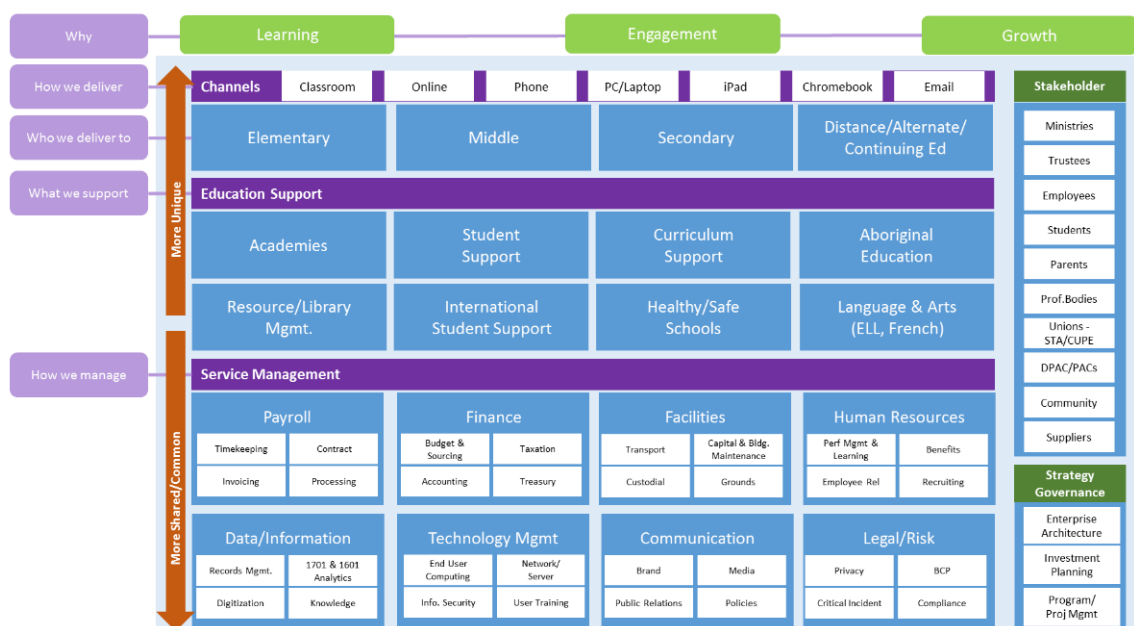
IT Operational Plan: Principles and Assumptions

Learning, Engagement and Growth are the strategic pillars of the District strategy and are respected within this IT Operational Plan. The federated nature of the school District offers advantages and strengths, and at the same time can introduce complexity and inefficiencies. In order to implement an IT Operational Plan for the school district, a set of principles is required that can support the right balance across the local needs and promote a common direction and alignment. The following principles establish a shared approach to providing IT services to the District.

Collaboration and Accountability in a federated system

- School and District administrators work in partnership to ensure that IT works as a strategic enabler for the District. This can only be achieved through a deep understanding of the District functions that might benefit from information and technology, and therefore it requires the close collaboration of staff and students, subject matter experts and IT specialists.
- District IT works in collaboration with school-based Principals, Vice-Principals, Teacher and Library Technology leaders to take shared responsibility to budget, plan and deliver IT services.
- The IT Operational Plan aligns with and supports the need to allow the adoption of digital technologies in teaching and improving the efficiency of administrative functions.
- The IT department partners with many other departments within the District to deliver a seamless and end to end experience. The departments include: Student Support Services, DRC, Facilities, Communications, HR and Labor Relations to name a few.
- Partnership in IT goes beyond the boundaries of the School District and includes Ministry services, external vendors and local authorities.
- The Enterprise Digital Capability Map below shows the overall landscape that is supported by IT via digital methods and technologies:

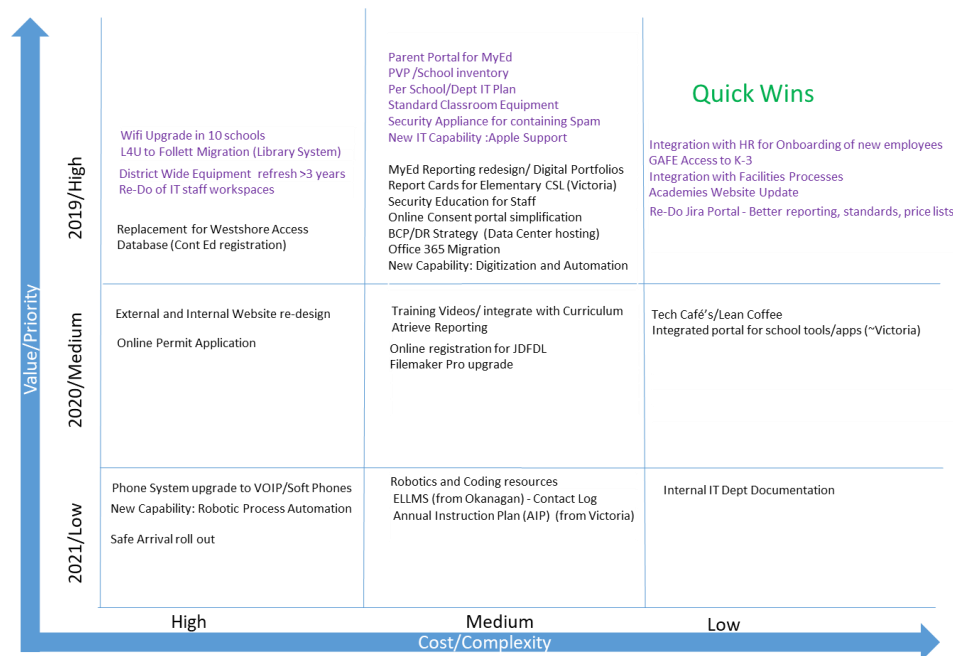
Sooke SD62 Enterprise Digital Capability/Process Map



Efficiency and effectiveness in the user experience

- Benefits and savings of centrally supported infrastructure and services are made transparent to encourage adoption and value for money across the school District.
- IT services are delivered in a way that maximizes value to the District whether Third-party or internally developed solutions, considering the total cost of ownership, fit within the current IT architecture, and benefits that can be realized.
- District information and data are treated as assets and governed appropriately.
- Information security and governance are not the sole function of any one group but instead requires a cohesive and collaborative approach.
- The District has clarity on process ownership and where possible, adopts agreed and shared processes that can be supported by IT systems.
- There is a premium on the cost of many IT systems due to the complexity and availability of applications and systems and the way in which we do things. Where possible, rationalization of applications, processes, and IT solutions will be promoted.
- The Value/Cost matrix below shows the results of a prioritization exercise conducted by the Leadership team. The matrix ranks IT projects by value to the district against the cost and effort of implementation. IT will continue to monitor the list below by reporting on progress and will periodically refresh the list by engaging with the executive and the broader leadership team.

Committed Projects in **2019** SD62 IT Project Value / Cost Matrix
Prioritization Discussion – Result Summary



Summary of Goals and Objectives

Goal	Key Objectives	Measures and Metrics
Support for Education and Learning	<ol style="list-style-type: none"> To promote critical thinking, equity, ethics, morality, and safety in the use of technology Develop and enact a plan per school or department to engage with teachers, students, and other stakeholder groups in order to base services on their practice and needs. Through improved consultation channels engage with District leadership to review the service catalog and IT project priorities ensure it is aligned with present and future needs 	<ol style="list-style-type: none"> Number of School and Departments with annual plans in place Number of educational software formally linked to the curriculum Develop a Pathway for Digital Citizenship
Provide Resilient Information Systems	<ol style="list-style-type: none"> Provide secure, effective information systems that support efficient, streamlined and consistent business processes and provide high-quality information. Increase the business value of administrative systems through improved usability, integration of independent information streams and reporting tools Prioritize solutions that scale and fit the entire district over local school or department needs Foster cross-departmental relationships and collaboration in the delivery of IT services Build systems with a user-centric focus; understand users' needs; support diverse skills 	<ol style="list-style-type: none"> Mission Critical applications have Risk Assessment and BCP/DR plan in place Ensure mission-critical systems have offsite or cloud-based failover in place Central data store built for reporting and analytics – treat data as a district asset Number of solutions to automate manual processes and forms Design and implement dashboards that inform decisions at the Executive and Principal level
Drive IT Infrastructure Renewal	<ol style="list-style-type: none"> Provide resilient end-to-end, high-performing network infrastructure and to create an efficient, shared and consolidated IT infrastructure Through an IT-led consultative initiative, develop a coherent technology architecture and roadmap for the District, in order to inform strategic activities and pro-active system refresh and renewal Increase equity of access to technology for all learners 	<ol style="list-style-type: none"> Baseline Inventory of all IT equipment in place All District IT equipment for teaching staff is current Target ratios for student devices established
Actively Manage Cyber Security and IT Risk	<ol style="list-style-type: none"> Provide easy to use IT security services to allow increased user cyber awareness and secure sharing of information across the District. Keep a risk lens on all IT projects and services in adherence to the District Risk Management plan Ensure adherence to Federal and Provincial privacy and information protection legislation with regard to the safeguarding of personally identifiable information 	<ol style="list-style-type: none"> Develop a Cybersecurity and BCP/DR plan Security and Privacy assessment on new software is routinely conducted Awareness and training on cybersecurity is rolled out to the district
Build “Best in Class” IT Team and Competencies	<ol style="list-style-type: none"> Build an IT organization fit to deliver IT service excellence Foster a culture in IT that is professional and friendly, recognizes merit, cultivates collaboration, fosters continuous learning and promotes innovation Embrace and promote our diversity in thought and backgrounds Continue to develop new IT competencies and skills Promote cross-training and collaboration with school-based technology leaders 	<ol style="list-style-type: none"> High Customer Satisfaction rates Strong employee engagement scores Diversity in team composition and skill Increase district’s analytics competencies through training and process documentation Recognize the need for a data management team

1. Support for Education and Learning

Technology to support teaching and learning is now well embedded in the K-12 education landscape. Within Sooke District 62, digital technologies play an important role in the planning and communication of teaching materials, in supporting learning activities (for example, through simulations) and in promoting collaboration and communications.

IT plays an important role throughout a student's interaction with the learning experience. This starts with their initial contact, which might be through registration and media created at the District, and develops through the provision of learning materials, use of the internet and communications facilities, management of tests/examinations and right through to graduation. Improving the student experience relies on every element of IT provisioning, from infrastructure through student-facing administration systems, including support for the student's own digital literacy.

There is also a cohort of remote students who are not based in the schools, including life-long or distance learners, for whom IT can be important in their administration and learning experience.

Key Objectives:

1. To promote critical thinking, equity, ethics, morality, and safety in the use of technology
2. Develop and enact a plan per school or department to engage with teachers, students, and other stakeholder groups in order to base services on their practice and needs.
3. Through improved consultation channels engage with District leadership to review the service catalog and IT project priorities ensure it is aligned with present and future needs

Key Activities

1. Underpinned by a central service desk, develop user-facing service descriptions and reporting to increase visibility and clarity of information for staff and students about IT service delivery.
2. Increase dialogue about IT development across the district and encourage schools and departments to engage with the central development roadmap and initiate ideas about future IT programs.
3. Put in place clear prioritization and funding allocation mechanisms for projects and services to ensure appropriate levels of service support.
4. Provide equitable access, up to date multi-media programs in our labs, and support for computational thinking and coding.
5. Provide documented guidance and support to teachers and staff by providing facilitated learning (e.g. via Lunch and Learn, Tech Cafés or short media clips on the district intranet).
6. Improve existing services and develop new ones that support the administrative functions through the full student lifecycle, where possible simplifying existing processes.
7. Coordinate engagement with Curriculum and Student Service departments to improve the digital learning experience and ensure adherence to provincial learning objectives and privacy regulations
8. Systematically increase the ability for students and families to access assignments and work over digital mediums – e.g. portfolio approaches, student grades, and report cards online, etc.
9. Provide a comprehensive map of IT support for students (applications, tools, resources)
10. Provide assistive technology solutions that support inclusive learning.

2. Provide Resilient Information Systems

The District administrative enterprise information systems provide a technology platform that enables wide-ranging administrative support for the functions of the District – be its library resources, staffing, ministry reporting, support of students and staff, human resources and labor relations, fundraising, communications to parents and families, payroll and financial administration.

Effective information systems can increase operational efficiency and cost savings through automation. Enterprise applications allow information to be shared across functional levels and provide the capability to use that information to support management decisions. However, information systems are only as good as the business processes they support. Complex, diverse, ill-defined processes result in inefficient and difficult-to-support systems and sub-optimal user experience.

Within the District, we have a number of information systems that support finance, payroll, HR, student administration, and school and District staffing. To improve the quality of information available to administrators, heads of departments and others there needs to be an integrated and trusted view of the data from each system. This can be achieved through a shared data architecture, clear data governance and streamlined administrative processes and rationalization of systems.

Key Objectives:

1. Provide secure, effective information systems that support efficient, streamlined and consistent business processes and provide high-quality information.
2. Increase the business value of administrative systems through improved usability, integration of independent information streams and reporting tools.
3. Prioritize solutions that scale and fit the entire district over local school or department needs.
4. Foster cross-departmental relationships and collaboration in the delivery of IT services.
5. Build systems with a user-centric focus; understand users' needs; support diverse skills.

Key Activities:

1. Provide a standard governance framework for IT project delivery and service management in order to ensure reliability, consistency, and effectiveness.
2. Build maturity in our processes, in our department and in the District as a whole in how to use IT (e.g. SDLC processes and Project Management, Requirements and Change Management, etc.)
3. Ensure that IT systems are designed to optimize the operational efficiency of school district processes, and where possible, creating measurable cost savings.
4. Develop a data architecture and governance framework to enable the integration of information systems and to provide high-quality information in support of decision-making.
5. Upgrade enterprise systems as part of the renewal roadmap to ensure full support and enable improvements in functionality.
6. Review business information requirements as well as business intelligence and reporting tools in order to provide high-quality management information.

7. Develop protocols for the resilience, business continuity and disaster recovery of central services and provide guidance for their local implementation.
8. Foster cross-departmental relationships and collaboration in the delivery of IT services
 - Collaborate with Facilities team to provide a standard technology package – ensure each learning space has a projector, document camera, computing device (i.e. laptop/tablet/desktop computer).
 - Collaborate with Facilities to improve *wifi* provisioning to support the student experience
 - Work with our Communications lead to improve Communication experience for District and School websites.
 - Develop and implement a district-wide intranet solution to enable effective sharing of information and communications across internal staff.
 - Work with Finance to develop mechanisms to allow a periodic refresh and renewal of IT equipment.
 - Facilitate transparency and equity across schools and departments in the access to funding of equipment.

3. Drive IT Infrastructure Renewal

To ensure that IT services are resilient and secure requires up to date IT infrastructure. Communications networks need to be high-bandwidth to allow the high levels of traffic generated by the district and sufficiently resilient to enable services to run at peak loads during the day. The district has a central data center to ensure resilient services that support both the hosting of systems and virtual services for departmental use. In the past few years, the district has continued to acquire IT equipment including Laptops, Desktops, Chromebooks, iPads, etc. Much of this acquisition has been done through one-time grants and school generated sources such as PAC funding. A significant number of these devices are now obsolete and require refresh and renewal.

Key Objectives:

1. Provide resilient end-to-end, high-performing network infrastructure and to create an efficient, shared and consolidated IT infrastructure.
2. Through an IT-led consultative initiative, develop a coherent technology architecture and roadmap for the district, in order to inform strategic activities and pro-active system refresh and renewal.
3. Increase equity of access to technology for all learners.

Key Activities:

1. Deliver a modern, high-performance network for the District, leveraging ministry delivered services including the upgrade from NGN to ECS backbone, improved wireless connectivity, and a managed network.
2. Ensure a comprehensive inventory of all IT equipment is maintained to ensure the security of staff and student information at all times with an established refresh plan.
3. Deliver an integrated communications service, replacing the existing telecommunications service with a platform that integrates VOIP services to include email, messaging, video and voice data
4. Develop a clear “cloud services” framework and decision tree.
5. Identify mission-critical applications and services and ensure appropriate support procedures are in place at all times.
6. Implement a multi-tiered backup, active storage, and long-term preservation services, utilizing a combination of on-premise and “cloud” or other hosted services.
7. Evaluate the current data center location and hosting to ensure Business Continuity Planning and recovery of critical services in the event of power outages and natural disasters.
8. Develop a standards framework to use in negotiation with suppliers for the procurement of interoperable systems and services.
9. Enable mobile devices to be managed effectively using the appropriate infrastructure and tools
10. Ensure that IT services delivered to the District are secure, resilient and reliable.

4. *Actively Manage Cyber Security and IT Risk*

Cybersecurity in this context refers to policies and practices relating to the protection of information, data, systems, and networks from attacks and unauthorized access. Cyber-attacks and intrusions have increased dramatically. These have the potential to expose sensitive personal information, to disrupt the operations of the district and to lead to reputational or other damage. In order to reduce the threat of cyber-attacks, IT services must operate securely, and underpinning infrastructure must be secure, resilient and reliable.

The provision of secure services requires resilient infrastructure and the embedding of information security throughout the service lifecycle. Appropriately secure information can only be achieved through recognition of the potential risks associated with particular data assets, and by increasing the security awareness of individuals accessing and using them.

Key Objectives:

1. Provide easy to use IT security services to allow increased user cyber awareness and secure sharing of information across the District.
2. Keep a risk lens on all IT projects and services in adherence to the District Risk Management plan.
3. Ensure adherence to Federal and Provincial privacy and information protection legislation with regard to the safeguarding of personally identifiable information.

Key Activities

1. Support the District in managing the risks related to information technology through increased user awareness, appropriate security practice and the implementation of the District Information Security Policy, Internet and Communications Technology Policy and related procedures for the use of mobile computing devices (i.e. phones, laptops, tablets).
2. Promote and support local implementation of District Information Security and IT usage policies, identification of sensitive information assets, mitigation of associated risks and easy to use methods and tools.
3. Improve information security awareness across the District with a focus on training applied to role-based usage scenarios.
4. Provide tools and protocols to allow the sharing of information securely within and outside the District on any device.
5. Implement role-based access controls in conformance to HR and Risk Management policies.
6. Implement consistent identity and access management, including single sign-on, across the portfolio of District systems.
7. Improve detection, response, and reporting of information security incidents across the District – especially phishing, spoofing, spamming, ransomware and other common cyber-attacks.
8. Implement a Spam portal that allows each user greater control in determining appropriate email messages and senders.

5. Build “Best in Class” IT Team and Competencies

IT services and support are as good as the people providing them. The district is competing with the private and public sectors for skilled IT staff. We need to ensure that we have strong managerial and technical career development paths for staff, appropriate mechanisms for recruitment, development, succession, retention, and growth of competency and capability.

Key Objectives:

1. Build an IT organization fit to deliver IT service excellence.
2. Foster a culture in IT that is professional and friendly, recognizes merit, cultivates collaboration, fosters continuous learning and promotes innovation.
3. Embrace and promote our diversity in thought and backgrounds.
4. Continue to develop new IT competencies and skills.
5. Promote cross-training and collaboration with school-based technology leaders.

Key Activities

1. Build out a Data Integration and Analytics function within IT.
2. Build out a Digitization and Automation function within IT.
3. Ensure IT services keep up with District growth and service expectations and stay on par with other BC school districts.
4. Continue to focus on development, cross-training, and retention of staff.
5. Implement individual development plans for each staff member.
6. Create career pathways and opportunities for growth.
7. Build and develop new competencies within IT through mentoring and stretch assignments.
8. Develop staff to enhance their effectiveness and contribution to District goals by ensuring they understand the District strategy, purpose, structures and culture.
9. Take a proactive approach to IT staff development to enhance skills including IT leadership, IT service management, project management, system integration, and software skills.
10. Provide support for a virtual team of school-based technology leaders through collaboration, release time and training opportunities.