
One I.S. Strategic Plan
2017–2018

ONE I.S.



SIMON FRASER
UNIVERSITY
ENGAGING THE WORLD

INTRODUCTION

“If you don’t know where you are going, any road will get you there.”
– Lewis Carroll

With IT tightly woven into the fabric of everything we do at SFU, we are obliged to plan our information systems journey. By developing a coherent and integrated long term strategy we maximize the value of our current and future investments in information systems, ensuring that SFU information systems and services are aligned with SFU’s vision and strategic priorities. The purpose of this document is to outline SFU’s strategic plan for realizing our One I.S.Vision. The plan’s timeframe is 7 years and will be reviewed, assessed, and updated annually.

The structure of the document starts with a summarization of the One I.S. vision, which sets the context for the planning exercise which began in the fall of 2016. Our first step was a client satisfaction survey distributed across SFU. Using the survey results, an extensive

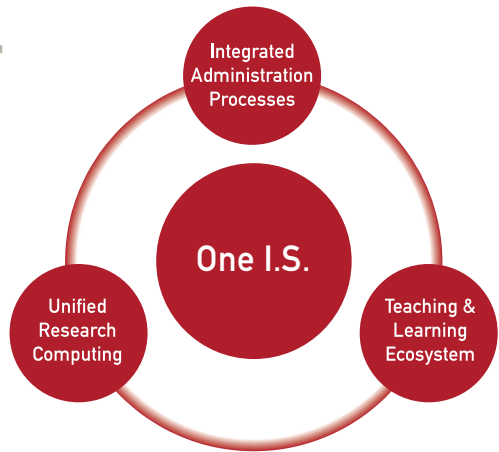
consultation process was conducted with several hundred participants. This process was concluded with a consultation summary document.

The consultation output became the foundation of a strategic planning exercise that developed the content for the Strategies section of this document. These strategies start with the three pillars of SFU’s engagement strategy: research, students, and community. To support this engagement strategy, three additional information system specific pillars are needed: administration, digitalization, and people.

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ONE I.S. VISION



Our shared future for all IT at SFU requires unification of the vast and diverse array of people, processes, data, and technologies together into a seamless system. We refer to this vision for all Information Systems (I.S.) at the University as One I.S. Creating One I.S. requires integration of our core administrative systems, development of a single integrated teaching & learning ecosystem, and implementation of a unified research computing environment.

Integrating our administrative systems requires development of interfaces linking our independent PeopleSoft system silos and developing tools to ensure they work together as a single system. It means creating a shared database capability to ensure the University makes decisions based on a single source of the data truth.

We will integrate our various teaching and learning tools onto a set of consistent platforms that are tightly integrated. By

using a consistent information system architecture, we will provide the best support possible to the University's teaching and learning mission.

Improving service to our researchers starts with unifying our research computing environment into an understandable collection of services that are consistent, easy to find, and well supported. Our strategic emphasis to be the preeminent leader in Canadian research computing demands exceptional effort from IT Services.

To achieve this vision, close cooperation and collaboration across all information systems providers throughout the University is required. This vision of unified information systems also requires significant internal improvements within the IT Services organization. The core values defined in the next section are the principles that will drive these improvements.

CORE VALUES

The One I.S. Strategic Plan is based on the following core values. These values were derived from a University-wide consultation about the future of information systems at SFU.

Client Service

We will foster a culture of service first and engage proactively and directly with our clients to understand and support all of their information systems requirements.

Information Security

We will promote a culture of security throughout the University and do our utmost to ensure the online safety and security of SFU. Protection and mitigation from cyber security risk and continually improving information security is a matter of survival.

Collaborative Partnerships

We will be engaged in all decisions about information systems at the University, focus on technology outcomes by leveraging information systems to augment human interaction to make it more valuable and productive, and actively employ a socialization process for all information systems changes, projects, and innovations.

Seamless Integration

Business requirements will drive software-based systems, enterprise and local information systems will work together seamlessly, and we will deliver and maintain a single integrated source of data for decision-making to enable people at all campuses to seamlessly work, teach, learn, and research together.

Organizational Agility

We will continuously improve and evolve our processes, adapt to digital disruption, balance the demand for information systems with financial sustainability through prioritization and university-wide stewardship, and invest in our people to sustain demands for increasing value from information systems.

See *Appendix 1: Consultation Themes* for the list of themes from which the core principles were derived.

STRATEGIES

Using the core values as a guide, we have developed a strategic framework and supporting plans for six distinct areas of focus to support SFU in realizing the One I.S. Vision.



Research

Accelerate the pace of research and innovation, cultivate interdisciplinary and inter-university collaboration, and drive economic development.



Education

Extend our academic reputation for education excellence through the advancement of our digital teaching and learning information systems ecosystem.



Community

Provide tools, methods, and resources to enable collaboration, communication, and engagement with SFU's broad span of internal and external communities.



Administration

Create a more engaged university by delivering a consistent client experience while minimizing the administrative burden of our mission related work.



Digitalization

Provide integrated, secure, and sustainable information systems as a foundation for enhancing SFU's engagement goals.



People

Nurture a university-wide information systems community delivering services as a unified team that continuously improves people, processes, and data to provide the best client service in the higher education community.



RESTRON

Certificate That

JOHN YANG

SYSTEM PROGRAMMING

Studinate
Certification
This certificate is awarded to
John Yang
For successfully completing
Basic Certification Level 2

STU
Operational Learning



Research

Accelerate the pace of research and innovation, cultivate inter-disciplinary and inter-university collaboration, and drive economic development.

1. Lead the country in providing advanced research computing by:

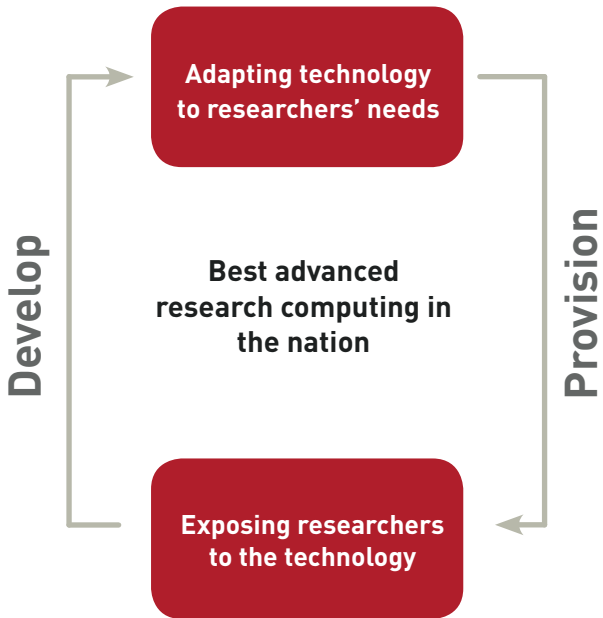
- a. Applying for funding opportunities as they arise
- b. Seeking additional resources to fill the funding gap and support further services
- c. Providing innovative services such as state-of-the-art cloud services, software defined networks, virtual storage, and virtual architecture
- d. Providing a highly adaptable environment that welcomes innovative possibilities for partnership with research, teaching, and industry

2. Adapt technology to meet researchers' needs by:

- a. Helping research support staff to understand researchers' needs
- b. Making systems more convenient to use
- c. Removing barriers preventing researchers from using technology
- d. Developing architecture for research requiring quickly deployable virtual isolation for privacy and security

3. Engage researchers in leveraging the technology by:

- a. Educating the research community about the services available
- b. Helping researchers to use the technology
- c. Showcasing capabilities of technology to enable new research
- d. Encouraging researchers to go beyond their current use of technology
- e. Engaging subject matter experts one-on-one with research groups



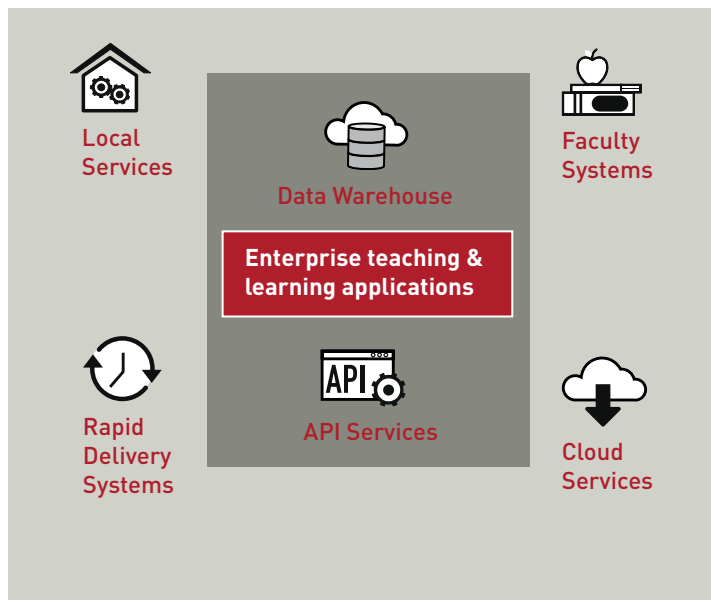


Education

Extend our academic reputation for educational excellence through the advancement of our digital teaching and learning information systems ecosystem.

1. Create a flexible digital ecosystem of teaching and learning spaces, services, and systems by:

- a. Re-inventing learning spaces to meet evolving faculty, student, and researcher needs
- b. Delivering intuitive, consistent client interface experiences and standardized classroom technologies
- c. Applying information systems to deliver on the promise of a seamless multi-campus environment
- d. Building a sustainable economic model for renewal of classroom and learning technologies
- e. Pushing the convergence of audio-visual and computer technology
- f. Ensuring media storage and delivery mechanisms are available and accessible
- g. Building consistent support models across all three campuses
- h. Creating a consistent classroom experience for faculty and students



2. Accelerate implementation of information systems that drive pedagogical improvements by:

- a. Implementing a unified digital asset management service
- b. Establishing agile information systems to enable quick integration of new and innovative systems
- c. Developing processes for integrating new external systems and services
- d. Enabling greater student interaction with faculty in both the physical and virtual classrooms
- e. Ensuring our technology infrastructure can deliver the service requirements of new pedagogical demands
- f. Creating and supporting learning analytics to improve student experience and learning outcomes
- g. Creating the ability to record and replay teaching experiences in all teaching spaces in a consistent manner throughout SFU
- h. Implementing active learning classrooms that are student-centered, appropriately technology-rich learning environments
- i. Continuing to incorporate our mobile strategy into teaching and learning
- j. Offering alternatives to popular external services that do not meet legislative compliance constraints

3. Develop partnerships with the academic community by

- a. Ensuring support for educational technology is approachable, transparent, and available
- b. Co-developing innovations with faculty, researchers, and students by hosting virtual and physical prototype environments for new teaching and learning technology
- c. Collaborating with faculty and researchers to partner on educational technology research projects that improve learning outcomes and advance pedagogy
- d. Extending partnerships with educational and academic technology groups at other Universities, provincial organizations, and national consortia



Community

Provide tools, methods, and resources to enable collaboration, communication, and engagement with SFU's broad span of internal and external communities.

1. Foster an open and transparent information systems culture by:

- a. Ensuring our clients are respected
- b. Creating processes that are accessible
- c. Actively engaging internal and external entities

2. Enhance community collaboration by:

- a. Delivering meeting collaboration technology that transcends physical boundaries and creates a seamless experience throughout all of SFU
- b. Scanning the environment for successful community-built systems and transforming them into enterprise-level services
- c. Broadening the usage of externally available services while preserving and serving the privacy needs of all stakeholders
- d. Delivering information systems designed to engage alumni and donors

3. Extend the unique information systems capabilities of the university to provide services to the external community by:

- a. Broadening access to regional and national networks
- b. Providing learning tools to the educational community beyond the University's traditional boundaries
- c. Sharing appropriate data openly with the community to enable new forms and applications of data analytics



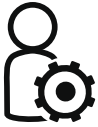
4. Partner with external organizations to expand SFU's community engagement by:

- a. Participating in governance of provincial and national higher education information systems organizations
- b. Contributing resources and efforts to provincial, federal, and international information systems communities
- c. Developing mutuality of interest relationships with vendors to foster strategic alliances







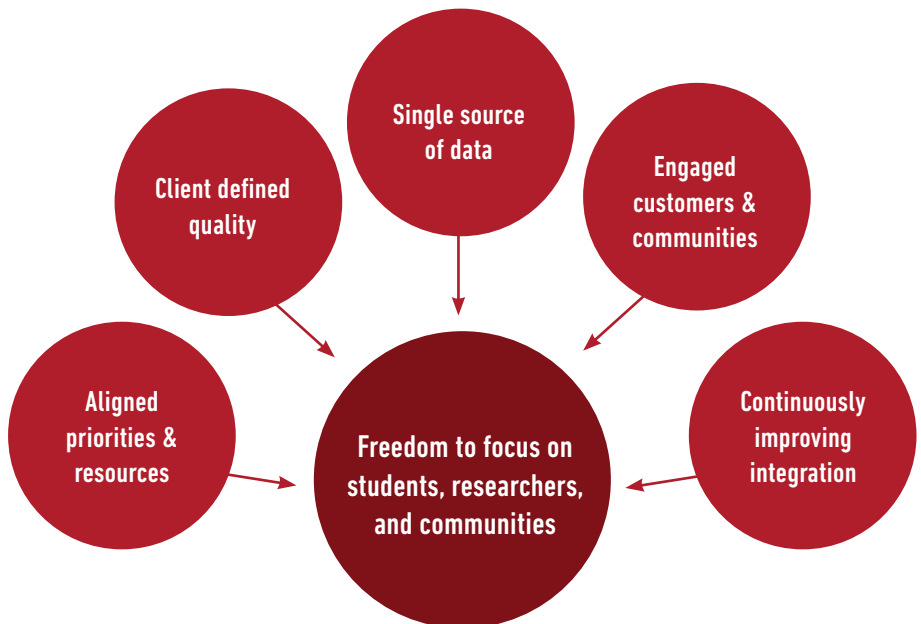


Administration

Create a more engaged university by delivering a consistent client experience while minimizing the administrative burden of our mission related work.

1. Align strategic direction, resource allocation, and work prioritization with University decisions by:

- a. Ensuring our stewardship, planning, project management, change advisory, and other management processes facilitate well-informed client decisions
- b. Building collaborative relationships with clients to ensure positive dialogue and information flow
- c. Prioritizing a client centric account management process to implement and support information systems
- d. Embedding a client-first spirit into all information systems support and development processes



2. Continuously improve the quality of all of our systems to meet the evolving expectations and needs of our clients by:

- a. Delivering intuitive digital experiences that don't require our clients to re-learn systems every time they use them
- b. Escaping major overhauls of administrative systems by implementing incremental upgrade services
- c. Maintaining current vendor release levels in core administrative systems technology
- d. Replacing monolithic systems with agile systems that can be easily adopted to meet shifting institutional needs and new innovations in technology
- e. Ensuring tighter integration between systems, services, and workflows designed to improve administration, teaching and learning, and community engagement processes
- f. Adhering to better practices for application integration

3. Provide a common data access service and single source of data that the entire university can use for administration, learning, research, and decision-making by:

- a. Implementing all systems using only dependable and authoritative data sources
- b. Applying University data governance and data access principles and policies to protect the usage, integrity, and quality of data in the system of record
- c. Building a data warehouse that creates a single authoritative source of data
- d. Providing the appropriate tools for the vast array of analytical and decision-making needs at SFU
- e. Defining an enterprise data model that enables the new adaptive service model

4. Accelerate community engagement by:

- a. Strategically implementing application programming interfaces (APIs) to facilitate multi-channel and external community development activity
- b. Expanding our mobile strategy to engage with our students and other clients by delivering services via technology mediums they want to use
- c. Optimizing client processes as part of any systems implementation
- d. Investing time and effort in planning to ensure our information systems investments accurately address client needs

5. Improve and introduce integration technologies required to operate an organization of the scope and depth of SFU by:

- a. Enhancing our identity management services to facilitate employee on-boarding, change-boarding, and off-boarding processes
- b. Delivering collaboration tools to facilitate internal communication and cooperation





Digitalization

Provide integrated, secure, and sustainable information systems as a foundation for enhancing SFU's engagement goals.

1. Modernize our technology infrastructure by:

- a. Continually upgrading wireless services across all campuses to support a highly mobile community
- b. Rationalizing data centres into the most advanced facilities available
- c. Concurrently consuming and providing cloud services
- d. Upgrading our network infrastructure to enable advanced technologies

2. Secure our information systems, ensure compliance, and support the ethical data needs of our clients by:

- a. Implementing one highly secure single sign-on service authentication process for all systems
- b. Implementing disaster recovery services across physically separate campuses
- c. Preventing criminal and malicious activity from compromising our information systems, data, performance, and availability
- d. Ensuring information systems support privacy, freedom of information, and compliance legislation

3. Manage the financial aspects of our services from a value perspective by:

- a. Creating budget model based on a service catalog where performance is assessed by the value delivered to our clients



- b. Building and continuously updating a 6 year financial forecast
- c. Negotiating enterprise licenses wherever beneficial and practical
- d. Assessing new information systems as investments that are being mindful of long-term University needs

4. Plan for the future while managing the present by:

- a. Identifying new technologies with high potential to enhance SFU's mission
- b. Consulting with clients and updating the One I.S. Strategic Plan annually
- c. Developing regularly reviewed annual plans to execute the One I.S. Strategic Plan
- d. Managing and mitigating all information systems risks
- e. Developing performance metrics that are meaningful to our clients
- f. Implementing an Enterprise Architecture for information systems planning, organizing, and integrating



People

Nurture a university-wide information systems community delivering services as a unified team that continuously improves people, processes, and data to provide the best client service in the higher education community.

1. Ensure excellent client service permeates and drives everything we do by:

- a. Leveraging industry better practices to continuously improve our processes
- b. Re-examining organization structure continuously to improve our services
- c. Providing a seamless single point of contact for our clients

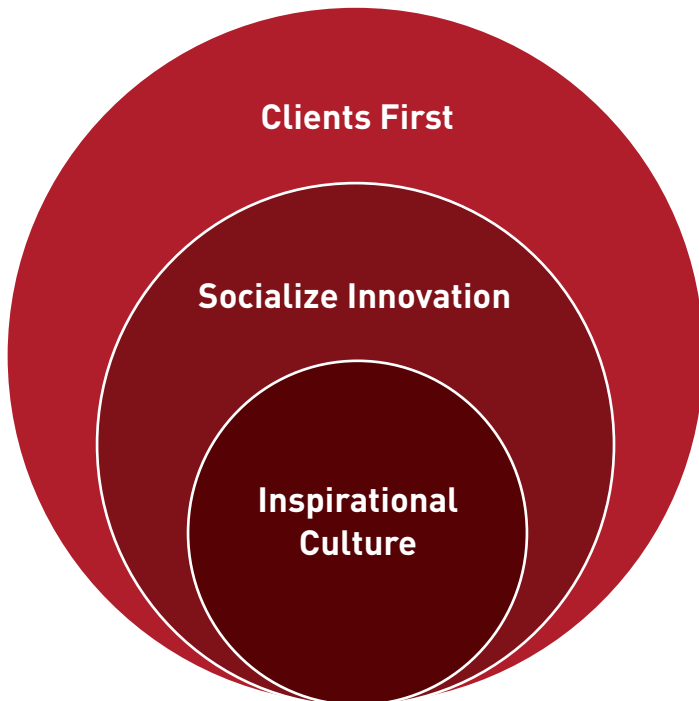
2. Socialize our information systems to maximize the value of our services to our clients by:

- a. Building strong partnerships throughout SFU to improve trust and understanding
- b. Developing an SFU information systems service catalogue and actively promoting the services
- c. Developing and measuring service level agreements for each service in the catalog

3. Foster a culture that inspires and motivates staff by:

- a. Improving leadership and managerial practices throughout all information systems organizations
- b. Developing consistent, university-wide IT role core competencies and career laddering
- c. Investing in the continuous growth of staff from recruitment to retirement
- d. Investing and developing future generations of leaders by promoting from within wherever possible

- e. Seeking input and engaging employees on issues that impact their work
- f. Providing timely, accurate, proactive communication to employees
- g. Developing individual performance development plans for staff based on the annual information systems plan



Engaging the SFU Vision

The SFU vision for engaging students, research, and communities drives the Education, Research, and Community pillars of our strategy. The Administration, Digitalization, and People pillars are necessary to support this engagement. Ultimate success of the plan is determined the realization of our One I.S. vision.



THE ENGAGED UNIVERSITY

Engaging Students. Engaging Research.
Engaging Communities.



Research

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APPENDIX 1: CONSULTATION THEMES

This list is a result of a University-wide consultation about the future of information systems at SFU. These consultations engaged several hundred people from across SFU in over 50 sessions. Several consistent and common themes emerged:

1. Service first

Client service needs to permeate everything we do. We need to create trust, and trust comes from delivering on what we promised to do. We will engage proactively and directly with our clients to understand and support all of their information systems requirements.

2. Security now

Protection and mitigation from cyber security risk and continually improving information security is a matter of survival. We will do our utmost to ensure the online safety and security of SFU.

3. Three campuses; One SFU

Information systems are central to creating seamless integration across all SFU campuses. These systems will enable people at all campuses to seamlessly work, teach, learn, and research together.

4. Integrate Enterprise & Local Information Systems

All information systems staff throughout SFU will work together. We recognise our institution-wide enterprise information systems needs and departmental local information systems needs are mutually dependent. For SFU to succeed we need enterprise and local information systems to work together seamlessly.

5. Focus on Technology Outcomes

Our clients are interested in the outcomes and benefits of information systems; they are not interested in technology. We will leverage information systems to augment human interaction to make it more valuable and productive.

6. Socialize innovations

We will use socialization processes for all information systems changes, projects, and innovations. We will help clients realize the full value of information systems by ensuring they understand and use of all features of their investment.

7. One size fits none

Our desired behaviours should dictate how information systems function. We will ensure business requirements drive software-based processes rather than the other way round.

8. Data are a service

Data, properly managed, are a strategic asset and to support this asset we will deliver and maintain a single integrated source of data for decision-making. A finite set of shared software tools will support the analytical processes for all clients of this data.

9. Adapt to Digital disruption

External change will outpace SFU's ability to adapt unless our information systems become more agile. We must continuously keep up with innovations in information systems to stay current with changes in the outside world and with the ever-expanding aspirations of our stakeholders.

10. Sustainability is Mandatory

We must balance the demand for information systems with financial sustainability through prioritization and university-wide stewardship. Similarly, we must invest in our people to sustain demands for increasing value from information systems.

11. Change is Enduring

Every process is simply the prologue to the next better process, and we will continuously improve and evolve our processes.

12. Nothing about Information Systems without IT Services

IT Services needs to be engaged in all information systems decisions.



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