An Information Technology Strategy for the University

Building the Foundation
2013 - 2016

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A Message from the
Information Systems Executive Committee (ISEC)

Information Technology (IT) plays an increasingly important role in our ability to collaborate, to innovate in our learning & research environments, and to educate.

The Carleton IT Strategy has been informed by the contributions of over 70 faculty members, students and professional services staff who graciously participated in interviews with Carleton’s consultant, Gartner. The development of the strategy also benefited from best practices in IT, the University’s strategic plans, and by the support of Carleton’s IT service providers: our Library, Teaching & Learning Services, our Faculty IT units, and Computing & Communication Services (CCS).

Entitled Building the Foundation, the Carleton IT Strategy provides a vision, structured around three themes:

- Enhancing our IT governance
- Simplifying access to our services
- Understanding our IT spend

By focusing on these themes, we will ensure the alignment and effectiveness of our IT services to meet the growing demand for information technology in teaching & learning, research, and administration.

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1.0 PREAMBLE

The IT Strategy provides a vision for Carleton University’s IT services, and a structured set of recommendations.

This IT Strategy is based on a variety of inputs, including:

- Contributions generously provided by approximately 70 Carleton stakeholders (individuals and groups) who participated in almost 30 interviews and workshops.
- Carleton University’s Strategic, Academic and Research plans.
- IT and higher education research, trends and best practices.

The implementation of the IT Strategy will require the execution of a number of distinct initiatives. The initiatives recommended for the first 3 years are described in Section 4.0, and are expected to change and evolve over time.

2.0 DRIVERS AND CONTEXT FOR THE IT STRATEGY

Carleton’s institutional strategy, the Strategic Integrated Plan (SIP), identifies four key themes that have shaped the IT Strategy:

- Carleton’s research and teaching respond to the needs of society today and anticipate the needs of tomorrow.
- Carleton promotes research excellence and connectedness.
- Carleton is student-centred.
- Carleton nurtures leadership, encourages innovation and recognizes achievement.

The demand for IT Services has dramatically expanded, as information technology has become an increasingly integral part of our society – and an increasingly important element of delivering education. To meet this demand, Carleton’s IT capabilities have grown across multiple service organizations. A corresponding review of our IT governance, processes and organizational structure is appropriate, to ensure enterprise alignment of these IT capabilities with the University’s goals.
3.0 IT STRATEGY

3.1 MISSION
Carleton will increase the alignment and effectiveness of IT services for teaching & learning, research, and administration by:

- Formalizing our federated operating IT model, with its diversity of IT providers: the Library, Teaching & Learning Services, the Faculty IT units, and CCS.
- Establishing a campus-wide perspective on IT.
- Enhancing IT governance.
- Simplifying access to services.
- Understanding our IT spend.

3.2 VISION
The vision of Carleton’s IT Strategy is to:

- Shift the perspective from "here is what IT can provide" to "here are the University’s IT requirements".
- Enhance trust among all stakeholders.
- Implement entities and processes that enable Carleton to identify its IT needs on an ongoing basis, prioritize those needs, and efficiently and effectively deliver services to meet those needs.

This vision establishes a foundation to ensure alignment of Information Technology with the goals and objectives of the University. Building on this foundation, future iterations of the IT Strategy can focus on specific requirements.
3.3  **Focus**

This IT Strategy is intentionally focused on the elements of IT governance (Figure 1):

- **Principles** – provide the basis for governance decision-making.
- **Governance** – enables disciplined, transparent decision-making.
- **IT Financial Management** – provides a clear understanding of the IT spend on different services, enabling prioritization of services and efficient delivery.
- **IT Service Definition** – clarifies the services provided, who receives them, and how they are provided.

Alignment of disciplined Governance and IT Financial Management with a clear definition of services is a foundational step that will enable Carleton’s IT service provider organizations to most effectively and efficiently meet the demands of their stakeholders.

**Figure 1.  IT Strategy Framework**

The concentration on the "control" elements, rather than on “supply” elements such as specific technologies, ensures that the Carleton IT strategy addresses:

- The continually growing and changing IT needs of the University.
- Meeting the needs of the University’s many stakeholders in a consistent, equitable and effective manner.
- Improving communication and trust among all stakeholders – including amongst our multiple IT service providers.

3.4  **Principles**

IT governance, service delivery and financial management will be guided by these principles:

- Demonstrate the value of IT services in meeting the University’s teaching & learning, research and administrative objectives.
- Clients’ needs drive IT service delivery.
- Maintain an enterprise perspective.
- Provide transparent governance.
3.5 Governance

Carleton’s current federated operating model – some centralized IT and some decentralized – is appropriate and will continue to be evolved to meet the University’s needs.

Separate governance committees will be defined with specific responsibilities for defining IT needs (i.e. “demand”), and for managing and directing IT delivery capabilities (i.e. “supply” and “control”). Similarly, separate governance committees will be defined with responsibilities related to enterprise IT services and faculty / departmental specific IT services.

Current governance and management entities will be leveraged and restructured as much as possible to provide Carleton’s new IT governance framework.

All governance committees will be clearly and explicitly defined, including their responsibilities and relationships to each other (see Figure 2 for a summary). Similarly, all governance processes and decisions will be transparent, and proactively communicated to all key stakeholders. To align with the existing Academic and Research computing committees, an Administrative Computing Committee will be established. Other governance enhancements will be considered later, as identified in Figure 2.

Figure 2. Conceptual Governance Framework

LEGEND

ISEC: Information Systems Executive Committee
- Provide executive level guidance to ISSC.
- Resolves escalated issues.

ISSC: Information Systems Steering Committee
- Composed of senior University leaders
- Oversees and guides the supply of IT services and resources.
- Responsible for prioritizing, approving and ensuring funding for University IT initiatives and services.

Enterprise IT:
- The various Enterprise-focused IT delivery organizations within the University

CC: Computing Committees
- Represent the Carleton stakeholder groups.
- Identify and prioritize IT demand (services and initiatives) on behalf of their represented stakeholders.

For later consideration:

BRM: Business Resource Managers
- Individuals with the role of supporting the governance process and the specific business unit they are assigned to / part of.

Faculty/Dept IS Committees
- Small committees representing the specific faculty / departmental groups.
- Identify and prioritize faculty / department specific IT needs and direct Departmental IT in addressing those needs.
- Escalate enterprise IT needs to ISSC or to appropriate CC as the finalized governance model specifies.

ISAG: Information Systems Advisory Group
- A group of subject matter experts from across the University with the role of advising the ISSC.

Faculty IT Units:
- Faculty / departmental specific IT delivery organizations that provide faculty / department specific IT services.
- Guided by the Faculty / Department IS Committee.
3.6 Services

Carleton University will develop and maintain a clear and comprehensive IT Service Portfolio and Catalogue, that defines all IT services provided by the various University IT organizations.

All IT services will be clearly defined in language that the consumers of the service can understand. More important, the services provided will be driven by the needs and demands of the IT service consumers – i.e. the Carleton community.

Figure 3 depicts a conceptual reference model that will be used to differentiate services provided to the broader University community (blue) vs. those provided to meet specific faculty and department needs. The definition and delivery of these services will be aligned with the new IT governance model and the underlying funding of the services.

Finally, the IT organization(s) provisioning various IT services will be opaque to the consumers of the service. All of Carleton’s IT organizations will work together to focus on the most efficient and effective approaches for delivering IT services.

![Figure 3](image.png)

3.7 IT Spend

IT financial management will be structured to align with the IT governance framework and IT Service Portfolio and Catalogue. In particular:

- The spend on IT services will be clearly and consistently documented.
- IT spend will be linked to Service Catalogue entries to inform the ISSC.
- The basis for IT budgeting and spending will gradually evolve to a budget based on the value delivered by each service.
4.0 IT STRATEGY IMPLEMENTATION OVERVIEW

The implementation of Carleton’s IT Strategy is envisioned to be carried out by a series of initiatives over three years as listed below and illustrated in Figure 4.

- **Governance**: Enhancing IT Governance, to ensure transparent decision-making.
- **Services**: Simplifying access to IT services, in our federated IT model with its diversity of IT providers.
- **Financial Management**: Understanding our IT spend, to ensure ongoing alignment with University goals.

**Figure 4. IT Strategy Themes**

A set of initiatives and sequencing to support the above themes is envisioned as:

- **Year 1: Core Initiatives**
  
  Establish an Administrative Computing Committee, to align with the existing model of computing committees for the Research and Academic communities.
  
  Create an enterprise-wide IT Service Catalogue website to simplify access to IT services, irrespective of IT service provider.
  
  Establish budget framework: consistently capture our total IT expenditure inclusive of human and physical resources.
- **Year 2: Refinement Initiatives**
  Define the relationship to the ISSC of the Research, Academic, and Administrative Computing Committees. (See Figure 2)
  Investigate synergies in simplifying Service Delivery through the unified, enterprise-wide Service Catalogue.
  Link IT expenditures to Service Catalogue and report to ISSC to ensure IT spend is aligned with University priorities.

- **Year 3: Sustainability Initiatives**
  Determine any on-going human and physical resource requirements for sustainability.
  Renew IT Strategy.

### 5.0 Evolution of the IT Strategy

To address the University’s longer-term need for periodically refreshing and updating the IT Strategy, we will integrate the annual IT planning processes with those of the University’s Strategic Integrated Plan:

- Plan and fund enterprise level IT initiatives on an annual basis.
- Update IT Strategy initiatives on an annual basis to address evolving needs and align delivery with stakeholder defined priorities and IT capabilities.
- Update the IT Strategy as required.
Appendix: Supporting Documents

There are a number of documents that informed the development of the Carleton IT Strategy:

- Carleton University IT Strategy slide set
  - Provides a structured set of longer-term (3 – 5 year) recommendations as well as a vision for Carleton University’s IT services and an approach to delivering those services.

- Carleton University IT Strategy Detailed slide set
  - Proposes details for delivering the IT Strategy

- Carleton University IT Plan slide set
  - Provides a set of recommendations to be implemented in the first 3 years.

- IT Strategic Planning Framework
  - Describes a flexible framework to guide the ongoing evolution of, and investment in, technology and information resources at Carleton University.

- Summary of Interview Findings
  - Summarizes the current state of IT at Carleton, based on interviews with approximately 70 stakeholders.

- Research and Analysis to Support Carleton’s IT Strategy
  - Provides excerpts from Gartner’s research.

- IT Trends in Higher Education
  - Summarizes social / demographic and information technology trends.