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Shared Services Canada's
IT Transformation Plan Consultations



Building the Government of Canada's Digital Platform

A consultation to update Shared Services
Canada's Information Technology
Transformation Plan

Service / Innovation / Value

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INTRODUCTION



Building the Government of Canada's Digital Platform provides an overview of [Shared Services Canada's](#) (SSC) plan for continuing the modernization of the Government of Canada's information technology (IT) infrastructure. This includes the email, data centres, telecommunications, network and IT security services that underpin federal operations and support the delivery of government services to Canadians.

This document provides an overview of the IT transformation agenda and poses questions on what an updated agenda should include and what it should deliver. We are seeking your feedback.

SSC's IT Transformation Plan is the infrastructure component of the [IT priorities](#) for the Government of Canada aligned with the [IT Strategic Plan](#). Government IT priorities, including departmental IT plans, the [Cloud Adoption Strategy](#), and the consultations leading to an updated [Cyber Security Strategy](#), all fit together.

What is the IT transformation agenda?

SSC's IT transformation agenda is the roadmap to modernize the Government of Canada's IT infrastructure and delivery of IT services. SSC delivers email, data centres, network, 24/7/365 cyber-security protection, and workplace technology device services to departments and agencies in a consolidated and standardized manner to support the delivery of Government of Canada programs and services. With a whole-of-government approach to IT infrastructure services, SSC is generating economies of scale to deliver more efficient, reliable and secure IT infrastructure services.

We are seeking your views

SSC's IT Transformation agenda was first established in 2013, and SSC has since made progress in realizing its ambitious vision. The government context and the technology landscape have evolved substantially since 2013 as information technology systems and processes require continual refresh and evolution. While the benefits of an enterprise approach remain clear, SSC must update its agenda to ensure success in meeting near- and long-term government priorities.

SSC is seeking feedback on its IT service delivery and transformation goals and updated implementation plans by reaching out to:

- SSC employees
- Employees in customer organizations
- Industry, especially companies in the information and communications technology field
- Canadians with an interest in IT and large modernization projects

How to participate

There are different ways you can provide your views:

- Visit ittransformationconsultation.ca and provide your feedback through the interactive consultation workbook.
- Provide your feedback before October 31, 2016 by email to: consultations@ipsos.com

SSC will review all input. A variety of perspectives will assist the Department in its efforts to renew the transformation agenda. SSC will post online a summary of the feedback received in a “What We Heard” document in November 2016.

The consultation report will also be provided to the [Independent Review Panel](#). This panel is reviewing SSC’s IT Transformation Plan to ensure IT consolidation initiatives are managed in a way that allows departments and agencies to deliver programs and services to Canadians effectively, efficiently and securely.

SHARED SERVICES CANADA'S INFORMATION TECHNOLOGY TRANSFORMATION PLAN

Building the Government of Canada's Digital Platform

In its 2015 [Speech from the Throne](#) and in [Budget 2016](#), the Government of Canada presented its vision for pursuing real and meaningful change for the country. This includes a commitment to openness and transparency in all federal operations, to ensuring Canadians' security, and to stimulating economic growth through sustainable investments in the nation's infrastructure. This is fully aligned with the public service's [Blueprint 2020 call to action](#) to establish the digital, high-performing workforce of the future, making smart use of technology.

[Shared Services Canada](#) (SSC) is critical to realizing this collective vision, given its mandate to deliver the Government's foundational [data centre](#), [network](#), [email](#), [workplace technology](#) and [cyber and IT security](#) services. These services represent the IT backbone underpinning federal service delivery to Canadians. Every time Canadians cross the border; every time they apply for Employment Insurance; every time they look to government action in the wake of emergencies like the [Fort McMurray wildfires](#); even every time they check tomorrow's weather forecast—SSC is there, connecting Canadians to their government and ensuring federal services are delivered securely when they are needed, where they are needed, and without delay. In short, SSC's success is vital to all government operations by providing the technological infrastructure to respond to Canadians' needs.

SSC is mandated to deliver reliable IT infrastructure services so government can deliver programs and services to Canadians. Maintaining daily operations has thus been paramount from day one. This imperative was all the more pressing given the aging and highly fragmented IT infrastructure SSC inherited, a reality best underscored in the Auditor General's [2010 Spring Report](#). As the report noted, this environment was at high risk of service failure and exposure to cyber-attacks, particularly as key pieces of equipment were no longer manufactured or supported by the manufacturers.

Government of Canada IT environment prior to 2011

SSC's IT transformation outcomes – Transform how the Government of Canada manages its IT infrastructure

- Lack of a common vision for Government of Canada IT infrastructure

- A shared Government of Canada vision for a digital government and IT infrastructure that supports it

- Systems and equipment becoming obsolete and little investments toward renewal
- Limited connectivity due to different platforms and systems
 - 63 different email systems with no common standard for platforms or addresses
 - 543 inefficient and vulnerable data centre sites
 - 50 outdated and silo-built wide area telecommunications networks

- Improved reliability and connectivity brought about through common systems
 - Deploying a single government-wide email system with a common @canada.ca naming convention
 - Establishing fewer data centres that are secure, state-of-the-art and designed to meet high security and reliability standards
 - Modernizing the Government's telecommunications services, including establishing a common, reliable, more secure and high-speed wide area network

- Residual risks for government data integrity and increased risks to citizens' data.
- Risk of system failure and increased cyber-security exposure

- Security of systems, data and resistance to cyber attacks
 - Establishing a strengthened enterprise IT cyber-security platform that protects government information assets and ensures secure information flows, including between Canadians and government services

- Decentralized procurement of common workplace technology software and hardware

- Strong buying/purchasing power that will lead to economies of scale and better value for Canadians
 - Consolidating workplace technology hardware and software purchases across government, thereby translating the Government's buying power into the highest possible value for the Canadian taxpayer

The scale, scope and complexity of this plan are ambitious, and have few parallels in Canada or abroad, demanding unprecedented government-wide orchestration, innovation and synchronization.

SSC is making progress in achieving its objectives:

- More secure and effective data centres have been established.
- Contracts to consolidate the Government of Canada's wide area network have been awarded.
- The transition to one email system across government is underway.

Achievements to Date*

Some Highlights

- Closed a total of 62 data centres
- Installed 97,718 desktop phones with Voice-over Internet Protocol (VoIP) technology
- Provided Wi-Fi service to 30,729 public servants
- Enterprise videoconferencing now available to all 43 departments
- Established Security Operations Centre, instituted security-by-design and implemented Supply Chain Integrity

**As of March 31, 2016*

SSC is putting increased emphasis on client service, sound financial management and ensuring accountability through a revised business model focused on people, service, financial and project management and integrated cyber-security protection.

Managing the IT environment – A shared responsibility

There are several departments responsible for governing the IT environment throughout the Government of Canada, each with varying responsibilities:

The Treasury Board of Canada Secretariat (TBS), supported by the Chief Information Officer Branch, develops strategy and sets government-wide policy and mandatory requirements for IT and cyber security, and provides guidance on implementing the direction. TBS sets government-wide strategic direction for IT, with input from deputy ministers, chief information officers and other stakeholders. The responsibility for delivering IT services is shared between government organizations and central IT service providers, such as SSC and Public Services and Procurement Canada (PSPC).

Departments and agencies are responsible for managing their department-specific applications, as well as for developing information management policy instruments in alignment with Treasury Board direction.

Public Services and Procurement Canada provides IT supporting services, such as human-resource management systems, pay and pension, enterprise records and document management, and financial systems and services. SSC and PSPC jointly support federal organizations in procuring IT goods and services.

Shared Services Canada has the mandate to provide data centres, networks and email services to the largest government departments. Smaller government organizations receive these services on an optional basis. SSC, the Communications Security Establishment and Public Safety Canada have a shared responsibility for cyber and IT security, with oversight provided by TBS. In addition, SSC is responsible for procuring hardware and software, including security software for workplace technology devices—the authorized physical devices and related software used in government office work.

Getting the Foundation Right – SSC’s evolved Integrated Business Model

The benefits of a government-wide approach to delivering and modernizing IT infrastructure services remain clear. Likewise, SSC’s vision for establishing a modern, secure, efficient and reliable IT infrastructure remains sound.

However, the scale and scope of SSC’s transformation agenda is ambitious and depends on a host of external and internal factors for success. This includes:

- industry’s ability to supply the required solutions;
- SSC’s capacity to deliver services and its customers’ readiness to transition while also delivering on their own mandates and departmental priorities;
- stabilizing older IT equipment and systems, which is taking longer than expected; and
- managing the rising demand for SSC services year-over-year.

Collectively, these challenges underscore the need for fundamental organizational and strategic change to ensure SSC’s success going forward. This includes an increased focus on service-management rigour and financial sustainability, alongside the pursuit of more realistic transformation timelines in full alignment with customer and industry capabilities and capacity.

SSC is also evolving its business model to better support an organization-wide focus on service delivery excellence and financial and project management throughout operations. Five organizational management disciplines guide the Department’s path forward:

- 1) **People Management:** Building the skilled human capacity SSC needs to achieve its IT service delivery and modernization goals, both now and in the future. Workforce planning, recruitment, ongoing learning and development and employee enablement are some of the measures that will be undertaken.

- 2) **Financial Management:** Establishing a clear and transparent costing and pricing strategy that fully accounts for new and ongoing service demand and supports a formal capital replacement program to address the challenges with end-of-life, end-of-service IT equipment.
- 3) **Project Management:** Upgrading the project-management regime to ensure effective governance, integrated planning, and timely organizational capacity, enabling SSC to optimize the value delivered by its projects, embrace new technologies, and ultimately meet rising demand for ever-faster, capable and more secure digital services.
- 4) **Service Management:** Adopting a more holistic, customer-centric approach to providing daily services and delivering on transformation activities, supported by a revamped Service Management Strategy, enterprise tools and processes, and a dedicated program, all designed to improve service delivery going forward.
- 5) **Security Management:** Adopting a security-by-design approach throughout operations, alongside delivering the trusted, protective and resilient enterprise-level security services needed to achieve the Government's federal IT security vision and outcomes, ensures trusted delivery of federal programs, and protects Canadians' privacy and their data.

Questions: Implementation of management strategies:

- *People management: What additional workplace and workforce initiatives are required?*
- *Financial management: What approach should be adopted to measure progress, demonstrate benefits and report progress to customers, parliamentarians and to Canadians?*
- *Project management: What measures need to be in place in SSC and in customer organizations to deliver integrated project planning?*
- *Service management: What new tools and processes are required to deliver on SSC's "as-a-service model"?*
- *Security management: How should SSC be delivering its "security by design" approach for 24/7/365 protection against cyber-security threats?*
- *Are there other areas that SSC should add for additional focus?*

Action plans to implement the People, Financial, Project, Service and Cyber Security strategies will be developed and informed by the IT transformation agenda consultations, by the advice from the Independent Review Panel and ongoing engagement with SSC staff and customer organizations.

Revamping the Roadmap

A vision is nothing but a good idea unless supported by a solid strategic plan to translate vision into reality. The updated IT transformation agenda, informed by the work of the Independent Review Panel, and the broad-based consultations with staff, customer organizations and industry will fulfil this purpose by presenting SSC's realistic and actionable plan for realizing its vision. By delivering the IT Transformation Plan, SSC will address the challenges encountered to date, and ultimately move the Government from an increasingly unreliable and costly environment to a simpler, smarter and more secure government-wide IT platform and service delivery model.

Organizational Transformation – Service is the First Priority

First, SSC wants to ensure its programs and services reflect an enterprise-class service delivery organization. SSC can realize this vision by implementing the plans under its People, Financial, Project, Service and Cyber Security strategies, and by generally embracing a “service first” philosophy and an “as-a-service” model to deliver the right services at the right time. To achieve its “service first” model, SSC is using service delivery tools, such as:

- Clear service targets, such as service hours, service availability and the time required to restore services
- A consistent customer experience and customer-driven demand management regime
- Full customer visibility over the state of their services

In this target state, SSC would act not only as a service provider, but also as a service broker for high-value IT infrastructure services, delivered either by SSC or by private industry. In all cases, services would be delivered in a timely fashion and would meet customers' highest standards of security and confidentiality, integrity and availability. At the same time, SSC would offer advice

Question:
To achieve its “service first” model, what other tools should SSC consider using?

and guidance to support its customers in developing strategies and services, addressing the needs of today, while preparing to meet those of tomorrow. Throughout, SSC wants to operate as a single entity, supported by modern service-management tools and processes and organized to serve government as a single enterprise while working to meet the needs of each organization.

Technological Transformation – The IT Infrastructure of the Future

Second, SSC will realize its technological vision through the efforts of its six key program areas:



1) Email Transformation Initiative (ETI): The ETI was put in place to leverage a whole-of-government approach and industry expertise to establish a single enterprise email system with a standard *@canada.ca* naming convention. This system is designed to improve public access to government services and overall service quality, value, and security.

Through the ETI, SSC is consolidating and modernizing the email services of 43 federal departments and agencies, representing 500,000 mailboxes in 63 separate email systems across Canada.

The completion of the ETI across the 43 departments was scheduled for March 2015 and is now projected for completion by March 2018.



2) Data Centre Consolidation (DCC): The goal of DCC is to deliver government programs and services from more than 500 data centres in 2011, to seven or fewer secure, highly reliable and interconnected enterprise data centres in the coming years. The new data centres need to have back-up capability (built-in redundancy and efficiency) so that if one system or section goes offline, data and applications can still be

retrieved and government operations and services will continue to be delivered seamlessly.



3) Telecommunications Transformation Program (TTP): SSC delivers consolidated, cost-effective data, voice and conferencing services across five principal service areas: 1) wide area network (WAN) services; 2) local area network (LAN) services; 3) voice services; 4) conferencing services; and, 5) hosted contact centre

services. The Government's existing IT infrastructure currently comprises a series of silo-

built networks with minimal interconnectivity. Moreover, voice services are delivered through a mix of technologies, with little standardization and varying service quality.

Through the TTP, SSC is addressing these issues by:

- 1) Consolidating the Government's WAN infrastructure into a single enterprise network to deliver faster, more reliable and more secure network connections, to support the growth in bandwidth demand, and to reduce the number of connections to the Internet
- 2) Consolidating the LAN infrastructure and enabling wireless connectivity (Wi-Fi) for 80 percent of public servants by 2020
- 3) Eliminating unused phone lines and migrating federal organizations from outdated and costly legacy phone systems to wireless devices and new, modern technology, including Voice-over Internet Protocol (VoIP) services
- 4) Standardizing videoconferencing services to deliver improved interoperability, increase end-user productivity, reduce the need for travel and associated expenses, and generally generate improved value
- 5) Reducing duplication and achieving economies of scale by consolidating and integrating the Government's contact centre infrastructure, including public-facing contact centres



4) Cyber and IT Security (CITS): The CITS is responsible for the development of plans, designs and operations of cyber and IT security services for the Government of Canada's IT infrastructure and for Government of Canada Secret infrastructures within SSC's mandate. SSC's role in strengthening security is paramount to: 1) delivering the Government's programs and priorities; 2) protecting the privacy of

Canadians; and, 3) preserving Canada's competitive advantage, economic prosperity and national security. Canadians (individuals and businesses alike) and our allies must have confidence in the Government's ability to safeguard their personal information and sensitive data.

The CITS strategy is in alignment with broader Government of Canada IT strategies and action plans, such as the *Government of Canada Information Technology Strategic Plan 2016-2020*, [Communications Security Establishment Canada's \(CSE\) Top 10 IT Security Actions to Protect Government of Canada Internet-Connected Networks and Information \(Top 10\)](#) and [Public Safety's Canada Cyber Security Strategy consultations](#). Priorities will be continuously informed by a number of key drivers to result in the breadth and depth of

security necessary to mitigate the risks and threats facing the Government of Canada, today and in the future.



5) Workplace Technology Devices (WTD) Initiative: Workplace technology devices are essential office IT and computing equipment. This includes office productivity tools like word processing, spreadsheet and presentation software, as well as desktop and laptop computers, printers and scanners.

The WTD Initiative pursues enterprise-wide standardization, consolidation and modernization through activities such as contract consolidation. In so doing, SSC is delivering improved value by leveraging the Government's buying power, while also enhancing services to users and strengthening the Government's security posture. Departments and agencies are responsible for workplace technology device deployment, support, and asset life-cycle management.



6) Service Management: As stated above, SSC is adopting a "service first" management and program delivery approach so that SSC is a customer-centred information technology service provider. In addition to having a whole-of-department management focus, SSC is also making service management a transformation program. Under this program, SSC has established a Service Management Strategy and

has implemented service-management processes and tools, such as the Service Catalogue and service-level expectations for each of the IT services SSC is mandated to deliver. These strategies and tools are supported by account management teams that deal directly with client organizations for improved customer experience. A new information technology service management (ITSM) tool is also being put in place. Through a phased approach, the goal is to establish effective service-management practices by implementing mature ITSM processes to maximize efficiencies, to simplify workflows, and to enhance the quality of services delivered.

SSC's ability to deliver on each program will continue to depend heavily on government-wide alignment and support, particularly as its transformation initiatives compete for funding, resources and time across the enterprise. SSC is thus adopting an integrated planning approach to identify all key interdependencies, to directly address departmental readiness and capacity, and to ensure proper sequencing and horizontal coordination throughout execution to avoid transformation fatigue to the greatest extent possible. SSC will also continue to leverage the dedicated inter-departmental committees on enterprise-wide IT planning and priorities to support its efforts in this area.

Questions:

- *Has SSC designed the right plan for building a secure, reliable and efficient digital platform for delivering services to Canadians?*
- *Is SSC's objective to deliver modern, reliable, secure and cost-effective IT infrastructure services aligned with the IT transformation agenda and the future of IT and customer needs?*
- *Does SSC have the right business capacity and skill sets in place to support a revised IT Transformation Plan?*
- *Will the proposed implementation plans help us to move toward the desired goals in each area?*
 - *Do those implementation plans raise new issues that SSC will need to address?*

Leveraging the Cloud

SSC will also make intelligent use of commercial cloud services. SSC's efforts directly support the [Government of Canada Cloud Adoption Strategy](#) by establishing SSC as a [cloud services broker and provider through the Cloud Enablement Strategy](#) and as the intermediary for cloud computing needs, serving its federal customers alongside public-sector stakeholders at the provincial and municipal levels. In this role, SSC will challenge its customers to build the right cases for using cloud services, while serving as public stewards to ensure that services delivered always meet the Government's highest standards of security, availability and value.

Technological Transformation – Industry

Industry participation and dialogue are crucial to realizing SSC's vision and to ensuring it remains at the forefront of technological change, delivering the highest value services to its customers. For example, as part of its procurement process, SSC regularly holds "Industry Days" and one-on-one question and answer opportunities with companies during the development of Invitation to Qualify or Request for Proposals notices associated with its telecommunications, data centre and workplace technology procurements that are posted to buyandsell.gc.ca. SSC will also continue to make effective, balanced use of the private sector, alongside in-house solutions, to take advantage of new, emerging technologies and industry managed services where it delivers the best value. For example, SSC will continue to leverage the private sector in

managing and maintaining its data centres. As specialists in the field, these companies will ensure ongoing operation and maintenance of these specialized facilities, in full compliance with the Government's operational, security and privacy policies and practices.

SSC continues to engage industry via its [Information Technology Infrastructure Roundtable](#). Having hosted 10 working sessions to date, this forum leverages the valuable role the private sector can play in transforming the Government's IT infrastructure, and enables SSC to directly solicit industry advice and guidance on its plans. SSC will also continue to apply its collaborative procurement solutions that are based on continual consultation with industry, throughout procurement, to gauge private-sector appetite and capacity, and provide opportunities for SSC to address industry concerns. SSC will continue to refine this approach to support improved communication with the vendor community, including small and medium enterprises. Collectively, this will enable SSC to improve its procurement outcomes while adopting innovative procurement approaches.

Questions:

- *What is needed for SSC and/or the Government of Canada to meet the ever-growing demand for more IT hardware, software and systems to deliver services to Canadians?*
- *Will SSC's IT Transformation Plan be adequately aligned with IT sector trends and vendor capacity?*
- *Are there industry benchmarks against which SSC can gauge the progress of its transformation?*

CONCLUSION

At the end of the day, Canadians expect secure, prompt and reliable service, delivered when and where needed and at the highest possible value. SSC remains committed to supporting the Government in meeting, if not exceeding, these expectations and, in so doing, realizing the vision of a modern, digital public service, making smart use of technology to best serve Canadians.

Notwithstanding the many challenges, the creation of SSC remains a sound government decision. The Government of Canada could not continue to operate on outdated technology, and the idea that each federal organization would modernize its IT infrastructure by building independent systems one by one is simply not viable. Government has to work together, building a shared service and IT platform and eliminating inefficient duplication in the process. In fact, the assumption of a common IT infrastructure underwrites the Government's entire digital vision; without it, this vision cannot be realized. This includes ensuring adequate cyber protection of Canada's and Canadians' data, which necessitates the establishment of a strong perimeter defence, with all organizations behind shared firewalls and IT security defences.

SSC's transformation agenda is bringing all of government together to build the IT backbone to underpin service delivery for years to come. This is not an easy task. It demands leadership, it demands perseverance, and it demands a service-oriented organization that listens to its customers, coupled with customers committed to working in partnership to realize a shared vision of IT service excellence, even in the face of challenging operational conditions. SSC is confident it can and will continue to meet these demands, armed with a more sustainable business model, a more realistic and better integrated implementation approach, and a service-first philosophy. Canadians expect and deserve no less.

Questions:

- *What three things will make SSC successful?*
- *What three things could interfere with making SSC successful?*