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Evaluation of the Canadian Digital Service

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Evaluation of the Canadian Digital Service

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Introduction

This document presents the results of a formative evaluation of the [Canadian Digital Service](#) (CDS) at the Treasury Board of Canada Secretariat. The evaluation was carried out by the Treasury Board of Canada Secretariat's Internal Audit and Evaluation Bureau with the assistance of Goss Gilroy Inc.

The evaluation:

- was conducted in accordance with the Treasury Board *Policy on Results*
- assessed the effectiveness of CDS in its early stages, including lessons learned
- examined CDS's delivery from the second quarter of 2017–18 to the second quarter of 2020–21 inclusively

This was an evaluation of CDS, which operates within the broader digital ecosystem. The evaluation did not include the entire digital ecosystem, which inevitably affects CDS's delivery.

Results at a glance

CDS rapidly adapted to shifting government priorities and needs and to changing circumstances. The speed required to respond to the pandemic may have reduced some of the bureaucratic barriers that posed challenges in the past. CDS capitalized on these conditions to collaborate with leaders across organizational and jurisdictional silos in multidisciplinary teams to change how services are delivered.

As will be detailed later in this report, the evaluation found:

1. CDS effectively implemented an agile digital delivery model based on continuous improvements. Issues were raised about the adequacy of resourcing relative to CDS's mandate and the lack of understanding of CDS's role as it relates to other actors in the Government of Canada.
2. CDS met departments' needs and interests to some extent. CDS's influence is dependant on partners embracing the type of change and modernization that the Government of Canada and CDS seeks to instill. While some partner departments are receptive, the conditions required to enable change are not yet systemic.
3. Product partnerships increased capacity in partner departments; however, sustaining departmental capacity post-partnership remains a challenge. For example, the gap in Government of Canada job classification standards is an issue for positions that are new to government.
4. The evidence indicates that CDS products meet user needs. Tension does arise at times between CDS's implementation of user-centred methods and the

established ways of delivering services in some partner departments.

5. CDS is making progress toward their intermediate outcomes. However, CDS's achievement of its intermediate outcomes is constrained by factors such as the limited number of partnerships CDS undertakes, the legacy systems used by partner departments, and a lack of expertise and skills in departments. There is also a need for government-wide culture change, including shifting the institutional structures, processes and ways of working to enable digital practices and service delivery. Partnerships with individual departments do not have the same reach as platform services that can be used and reapplied government-wide. As a result, there is a lack of clarity around CDS's mandate in relation to other actors in the digital field. The way its partnerships and platform business lines complement each other to influence change, and the intended reach of CDS's outcomes are important to its success and to managing expectations. Closing the gap between the immediate and intermediate outcomes for the whole government involves issues beyond CDS's control. Nonetheless, the COVID-19 pandemic demonstrated that change can happen quickly when it is prioritized.

Mandate of the Canadian Digital Service and its context

CDS was launched in July 2017 with the mandate to change the way the government designs and delivers services. CDS was assigned to:

- deliver services by partnering with departments and building prototypes of user-centric services
- build the capacity of departments to apply modern service design and technological methods and tools
- provide advice on key technology and service investments 1

Program context

The [2013 Fall Report of the Auditor General](#) and the [2016 Fall Reports of the Auditor General](#) found that government online services were not focused on the needs of

Canadians and that accessing those services was complex and time-consuming. The 2016 Fall Reports highlighted “the gap between government’s capacity to provide technology-based services and Canadians’ expectations.” The Standish Group reported that almost 84% of information technology (IT) projects partially or completely fail. The top two factors behind such failures are a lack of support from executive management and a lack of user involvement. The Standish Group study also found that 52% of projects studied between 2003 and 2012 were over budget, behind schedule or did not meet user expectations.

The Government of Canada has made incremental investments toward digital service delivery. The Treasury Board of Canada Secretariat supported the delivery of digital services through:

- [Government of Canada Digital Standards: Playbook](#)
- [Government of Canada Service Strategy](#).
- [Policy on Service and Digital](#)
- the launch of open government initiatives

Similarly, some departments, such as the Canada Revenue Agency (CRA) ² and the Canada Border Services Agency, continue to improve the digital offering of services, such as tax preparation ([collaboration between the Canada Revenue Agency and the Canadian Tax Preparation and Software Industry](#)), [tax filing and payments](#), and digital transmission of pre-arrival information ([eManifest Portal](#)).

The current digital landscape in the federal government “is highly complex with a myriad of networks, applications, programs, collaboration tools, and data centres – many unique to individual departments.” ³ As CDS’s foundational documents outline, the Government of Canada continues to be challenged by the need to replace outdated technologies and legacy systems. Moreover, there is “limited capacity to recruit, retain and harness top digital talent in public sector organizations [that] exacerbates this lack of responsiveness.” ⁴

CDS was created to “help address the gap between Canadians’ expectations and federal [digital] services.” ⁵ The made-in-Canada design of CDS was based on a

review of its international predecessors (especially in the United States and the United Kingdom) and [a public engagement process across Canada](#). CDS was launched following a series of engagements on digital government with adjustments made to suit the Canadian context and digital ecosystem. These adjustments included a focus on collaboration through partnerships to deliver services differently, as well as a focus on areas such as accessibility and bilingualism. CDS also committed to recruiting new skill sets into the government and helping to make the Government of Canada an employer of choice for digital professionals using modern methods and practices.

Program business model

The CDS business model is based on:

- lean, start-up, design, and agile methodologies used for public and private product development
- partnerships with departments and agencies

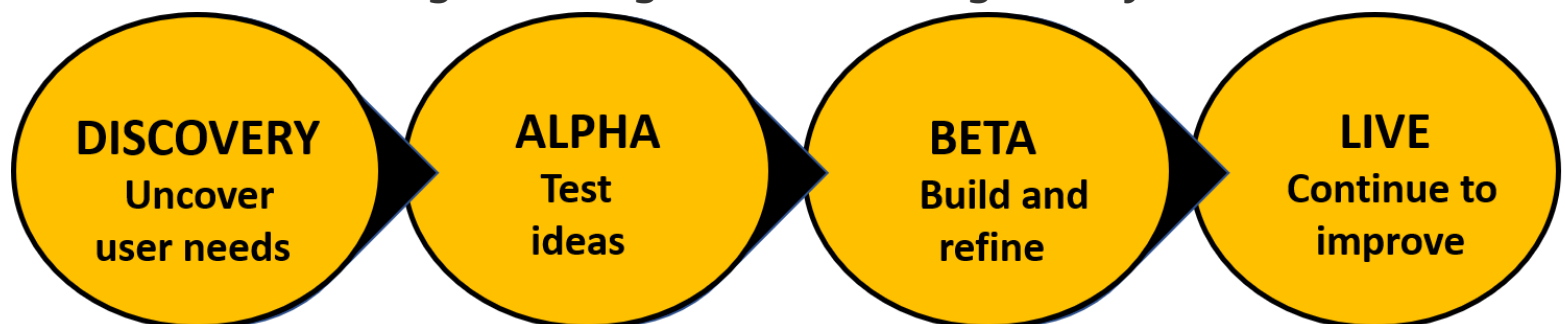
The CDS business model is based on principles that are common to other digital service organizations and teams, including the following:

- Open: working in an open and transparent way to accelerate change across departments and jurisdictions by:
 - publishing code, tools and guidance, research insights and other resources
 - engaging with users and stakeholders
- Human-centred: conducting user research and testing products and services directly with the people they expect will use them
- Networked: co-creating with the broader civic technology community and finding new ways to solve common problems through collaboration
- Agile:
 - being nimble and iterative to integrate experimentation in service delivery
 - being action-oriented
 - allowing for learning and course corrections along the way
- Lean:

- modelling a start-up organization by adopting lean processes
- minimizing hierarchy
- focusing on delivery
- Modern: creating an enabling environment, such as a workplace that is equipped with cutting-edge tools and practices that would allow CDS to compete for and retain top talent

Building digital products and services by applying user-centred design (that is, designing services based on continuous research and testing with the people who will actually use them, coupled with agile software development practices) is the foundation of the CDS business model and philosophy. At the time of writing, 14 product partnerships ⁶ have been launched with two currently in live status. Figure 1 shows the phases of the digital service design life cycle that CDS applies to its digital product development. ⁷

Figure 1 : digital service design life cycle



▼ Figure 1 - Text version

- Discovery: Uncover user needs
- Alpha: Test ideas
- Beta: Build and refine
- Live: Continue to improve

Source: CDS

In its third year, CDS accelerated its platform business line, particularly with the launch of:

- [GC Notify](#).
- [tools and resources](#) available for reuse

To determine which product partnerships to pursue, CDS developed three project selection criteria that remain evergreen:

- readiness
- reach
- replicability

These criteria were established by CDS for project selection in 2017 to:

- identify departments that may benefit from an opportunity to improve service delivery
- provide a systematic way to assess departmental readiness
- help determine where CDS can provide the most value with its limited resources

The criteria have evolved and currently encompass the following:

- departmental readiness and willingness to change
- reach and impact of the proposed service
- priority of the proposed service for the department and the Government of Canada
- CDS's capacity and availability

CDS identifies partnership opportunities by:

- reviewing and assessing direct inquiries
- engaging with departments that deliver core services
- reviewing additional sources, such as the Speech from the Throne, the federal Budget and reports from the [Office of the Auditor General of Canada](#)

Governance and structure

Within the Treasury Board of Canada Secretariat, CDS:

- reports directly to the Secretary
- is overseen by the [Minister of Digital Government](#)
- works in close collaboration with the Office of the Chief Information Officer

CDS's Chief Executive Officer is supported by the CDS senior management team, which includes the Chief Operating Officer, the Chief of Staff and a Senior Technical Advisor. At the time of publication, CDS also has a Director of Partnerships, a Director of Platform and a Director of Digital Practices.

The CDS has a flat and [matrix](#) organizational structure, which is composed of functional communities and operational support teams that work together to achieve the goals of the business units (Partnerships and Platform). Product teams make most product or service design decisions on their own, chiefly informed by direct user research and usability testing. Strategic decisions are taken after consultation with the heads of communities, directors of business units, and often with other members of the senior management team. For products and services developed in partnership with a department, delivery teams are composed of both representatives from CDS and from the department. Delivery teams consult their CDS Partnerships Advisor and representatives, including senior executives, in the department to inform decision-making when needed.

Approximately 85 people work at CDS in areas such as design, design research, engineering, talent, product management, outreach and policy.

Expected outcomes

The expected outcomes of CDS, as shown in its logic model (see [Appendix A](#)), 8 are as follows.

Immediate

- Departments in product partnerships increase capacity in modern IT and service design methods
- CDS guidance on IT investments and service design benefit partner departments
- Products created by CDS meet user needs

Intermediate

- CDS partner departments use modern IT and service design methods

- Government of Canada departments increase the quality of digital services
- Digital solutions that meet user needs are reused across Government of Canada departments
- Service delivery meets user needs

Evaluation methodology and scope

The evaluation assessed the program's achievement of immediate outcomes and progress toward the intermediate outcomes using multiple lines of evidence:

- a document and data review
- interviews (n=63)
- case studies (n=6)

Limitation of the evaluation

No data limitations were identified in during this evaluation.

Effectiveness

Implementation of the CDS model

Conclusion

CDS effectively implemented an agile digital delivery model based on continuous improvement. Issues were raised about the adequacy of resourcing relative to CDS's mandate and the lack of understanding of CDS's role as it relates to other actors in the Government of Canada.

Findings

CDS implemented a digital delivery model inspired by successful international examples and has been adapting to the challenges it encounters. CDS is committed to the [Government of Canada Digital Standards: Playbook](#), such as designing with users, iterating and improving frequently and working in the open by default. CDS has developed innovative hiring practices and has used a revolving cadre of

experienced digital practitioners from the public and private sectors on temporary tours of duty.

Documentation and interview evidence show that improvements to service delivery by CDS are based on lessons learned. CDS is now shifting its approach to meet departments where they are by focusing on departmental readiness, as well as on ensuring that all relevant stakeholders within a partner department are involved at the outset of every project.

CDS does not have the authority to mandate change. In light of this, the evaluation found that in order to make progress with partner departments, CDS needs:

- an empowered service owner who champions a multidisciplinary team, helps break down barriers, manages limitations and enables product development
- a department's ability to stay the course with a product even when there are organizational changes

There is evidence that the CDS model promotes the fast development of digital products; the team routinely assesses and documents lessons from partnerships, and continuously adjusts to different circumstances.

According to documentation, CDS initiated the provision of platform tools in 2019–20. One platform tool that underwent rapid development and uptake is [GC Notify](#), a free, cloud-based tool that departments can adopt to integrate simple email and text notifications into their services. ⁹ The development of platform tools was appreciated by most interviewees as an important contribution, even those who were most skeptical of the CDS model. Some interviewees even perceived that developing platform tools for the Government of Canada would be more useful than developing digital products in product partnerships, given that the platform tools can be used by various services and by multiple departments and agencies.

The evidence from two case studies and interviews shows that CDS priorities, scope of work and visibility also dramatically shifted as a result of the COVID-19 pandemic. The pandemic accelerated the growth of GC Notify: over 100 government services

regularly send updates to Canadians, including appointment reminders, confirmation of submission and requests for information.

Building on GC Notify is Health Canada's [Get Updates on COVID-19](#), a new email notification service developed by CDS, Service Canada and Health Canada. This email notification service:

- uses GC Notify and a client interface from Service Canada
- was launched in two weeks and, in two months, 50,000 people had signed up to receive over a million notifications

This growth in the number of users highlights the success of GC Notify and indicates likely success for similar platform services. Potential examples of platform services that CDS could offer include tools for scheduling, replacing PDF forms and creating a digital identity for government services.

The pandemic also expanded the need for CDS's services beyond the federal government. This need was demonstrated by the temporary authorization to use GC Notify to help provincial governments in response to urgent needs related to the COVID-19 pandemic.

CDS was also called upon to develop COVID Alert, a national exposure notification application. Using Bluetooth technology and protecting people's privacy, COVID Alert lets individuals know if they have been in close contact with another user who tested positive for COVID-19, which can be disclosed via the application using a one-time key. As of April 2021, nine Canadian provinces and territories are using COVID Alert, the application has been downloaded over six million times, and over 28,000 people have entered a one-time key in the application to let other people know that they may have been exposed to COVID-19.

There is a perception among some interviewees that CDS is isolated from the network of actors supporting digital modernization. For example, an interviewee indicated that CDS is not consistently engaged in discussions on digital transformation, modernization or the [Chief Information Officer \(CIO\) Strategy](#).

Council. This feedback is meaningful given the view that having CDS participate in these discussions would be beneficial for government.

Several interviewees felt that CDS interacted more with like-minded, early adopters than with those outside this group. Senior leader interviewees also believe that CDS should work with project proposals from smaller departments. However, the document review showed that CDS established partnerships based on government priorities and departmental readiness. CDS has engaged a range of government organizations, such as the Royal Canadian Mounted Police, Health Canada, the Privy Council Office, Employment and Social Development Canada, the Canada Revenue Agency and Veterans Affairs Canada.

Documentation and interviewees indicate that CDS's ability to achieve its mandate may be inhibited by its resource level, the high expectations placed on it and the complex needs of departments. Some interviewees pointed out that similar entities in other jurisdictions (namely the Government Digital Service in the United Kingdom and 18F in the United States) are larger and have more authoritative mandates than CDS.

Most partner department interviewees and senior leaders were unclear about CDS's role in the Government of Canada digital space. Several interviewees were unsure whether CDS teams are meant to play a support role as enablers, whether they are set up to be the lead architects of solutions, or whether they can play both roles. Although the CDS role needs clarification, the COVID-19 pandemic has favoured a delivery-first ethos with CDS being the lead architect of solutions.

Addressing departmental needs and interests

Conclusion

CDS met the needs and interests of departments to some extent. CDS's influence is dependant on partners embracing the type of change and modernization that the Government of Canada and CDS seek to instill. While some partner departments are receptive, the conditions required to enable change are not yet systemic.

Findings

The evaluation found there is general consensus that government needs to become more agile and open, and more focused on using iterative and user-centred methods when developing and delivering a service. There is much less understanding within government about how to do this in practice. Interviewees within and outside CDS indicated that CDS's value lies in showing what change looks like and what is required.

CDS has addressed the needs of partner departments by building prototypes and digital products, and by using product partnerships as a vehicle for capacity building. Although departments can develop products internally or through contractors, half of partner department interviewees indicated that CDS brought unique value through its cutting-edge expertise, speed and agility. Using an alternative would have taken partner departments longer or resulted in a lower-quality product. A few respondents were confident that the products would not have been developed at all without CDS.

Overall, interviewees believe CDS could increase its effectiveness by working more collaboratively and by better understanding the challenges faced by its partners. It is also important to work with departments to enable the conditions for change and to ensure the success of products and services. Even though challenges manifested in COVID-19 initiatives, CDS representatives have acknowledged the issues and efforts are underway to address them.

CDS aims to influence behaviour and culture change through capacity building; however, shifting cultural norms in partner departments is recognized as a challenge. Some of the issues departments face include dealing with legacy systems and new systems, working with existing suppliers and new vendors, and applying an agile model within the traditional hierarchy of government. Key informants acknowledged that, at times, issues can be related to a department's willingness or ability to change, and whether there is adequate prioritization and support. These issues are outside of CDS control.

Immediate outcomes

Expected outcome

Partner departments in product partnerships increase capacity in modern IT and service design methods.

Conclusion

Product partnerships increased capacity in partner departments; however, sustaining departmental capacity post-partnership remains a challenge.

Finding

According to CDS documentation, building capacity is about “empowering public servants by providing hands-on training, publishing tools and resources, and building communities.” [10](#) CDS encourages partners to co-locate staff with CDS product teams and helps departments to develop their own multidisciplinary digital delivery teams.

The evaluation found that CDS built capacity directly or indirectly in partner departments in areas such as:

- user-centred research and design
- agile software development and deployment
- open government
- iterative design and delivery processes
- innovative Human Resources practices

All lines of evidence show that CDS has contributed directly or indirectly to building the capacity of its partners. CDS has helped partner departments create teams that mirror their own, which includes new-to-government positions, such as Product Managers. These team members brought digital knowledge back to their departments after working with CDS.

The following are examples of product development that increased capacity in partner departments.

- The EnerGuide application programming interface (API) developed with Natural Resources Canada (NRCan): CDS helped the Office of Energy Efficiency at NRCan adopt new agile, user-centred design approaches and accelerate the transition

of its data to the cloud. The API has been reused by other provincial and municipal governments.

- An online service to report cybercrime to the Royal Canadian Mounted Police (RCMP): CDS helped the RCMP build capacity so that the RCMP can eventually assume responsibility for the ongoing maintenance and refinement of a digital cybercrime reporting mechanism.
- Veterans Affairs Canada's (VAC) benefits finder for veterans and their families: Interviewees noted that capacity was developed among VAC staff in agile, user-centric design and other innovative techniques as a result of the partnership with CDS. VAC assumed responsibility for the product and was able to make improvements (iterative updates) to it more often. VAC's multidisciplinary team mirrored the CDS team and this mirroring was identified as a success.
- CDS supported the Canada Revenue Agency in prototyping a new tax-filing service that helped create a playbook for conducting real-world testing.

The evaluation found, however, that sustainability in partner departments is a significant challenge to CDS's capacity-building efforts. Some interviewees from partner departments described instances where they were unable to independently manage their product once CDS ended its involvement because they lacked the capacity to maintain the needed level of user-centric improvements after the end of the partnership.

Evidence from key informants and case studies indicated a need for departments to better prepare themselves before or during the CDS partnership. One department used for a case study created a plan for the post-partnership phase. In doing so, the department was able to manage the product at the time of the handover. This type of plan would enable senior management to better understand and anticipate the resource and change requirements of an ongoing, long-term commitment, and would support informed decisions.

Lastly, another challenge that hinders CDS's capacity-building efforts in departments is the gap in the current Government of Canada job evaluation standards. Both interviewees and the documentation showed that the current occupational group

structure does not define the nature of the work being introduced by CDS, such as design research, service design and product management. This results in employees who do the same job being slotted into different classifications, such as Computer Systems (CS), Information Services (IS), and Economics and Social Science Services (EC), which has implications on recruitment, fair pay, union sensitivities and mobility.

Expected outcome

CDS guidance on IT investments and service design benefits partner departments.

Conclusion

The evidence shows that CDS guidance on IT investments and service design has benefited partner departments to some degree.

Findings

The document review shows that CDS plays an important role advising departments in different areas. Within product partnerships, CDS helped departments adopt user-centric and agile practices, and open government. CDS also helped departments navigate cloud infrastructure, hire private sector talent and obtain non-standard hardware. A few interviewees found that CDS guidance was not useful to the department because, in their view, CDS did not always consider the Government of Canada context.

The document review also shows that CDS provided:

- advice on major government priorities
- input on the *Policy on Service and Digital*
- advice to update [guidance on public opinion research](#) (POR)

CDS provided advice and input to inform changes to POR guidance in order to clarify the distinction between POR and design research. The document review shows that partner departments benefited from the update of the POR guidance by having clear information on how design research differed from POR and knowing if design research must adhere to POR requirements.

CDS shares its knowledge and lessons learned through the [CDS blog](#) and social media channels, such as Twitter at [@CDS_GC](#). Documentation shows that CDS has published [tools and resources](#), most of them to assist departments in product development. One of the tools that has been most useful is GC Notify. Departments increased their use of GC Notify during the COVID-19 pandemic as they saw a greater need to communicate with Canadians. Departments using GC Notify were able to reach more people than they otherwise would have. The departments were able to avoid buying new tools or building tools from scratch. CDS has also:

- published several guides on building new solutions to deliver services
- published over 100 blog posts on digital delivery
- delivered over 20 workshops, community events and conference talks

Expected outcome

Products created by CDS meet user needs.

Conclusion

The evidence indicates that CDS products meet user needs. Tension does arise at times between CDS's implementation of user-centred methods and the established ways of delivering services in some partner departments.

Findings

Interviews and most case study evidence indicate that user-centred design has been the major strength of CDS product development in partnerships. Most interviewees also perceived that user-centred design is needed but greatly lacking within the Government of Canada.

In all partnerships, CDS conducts an intensive discovery research phase (see Figure 1) to:

- define the problem
- explore specific user needs
- identify possible solutions to meeting those needs

The discovery phase entails desktop and design research with users, stakeholders, and departmental staff through interviews, surveys and usability testing. For example, work on Canada Pension Plan disability benefits with Employment and Social Development Canada involved reaching out to different groups of program applicants, health professionals, as well as program staff during the discovery phase. Representatives of the CDS Operations Unit (that is, the policy unit team) and IT support were also engaged.

CDS also deploys various strategies to recruit and engage potential participants for research purposes (for example, keeping interactive bulletin boards open [11](#) to participants after the end of an interactive session in order to get further insights or using snowball-sampling techniques).

CDS uses an iterative approach throughout the development phase (see Figure 1). Interviewees recognized CDS's ability to develop tools that meet user needs and noted that products are designed to be user-friendly, while meeting accessibility needs and providing better user experience than comparable tools. One example was Employment and Social Development Canada's COVID-19 Benefits Finder, which was developed quickly and involved rounds of moderated usability testing, a user survey and iterative user feedback.

An issue that emerged through case studies was balancing departmental requirements and constraints (for example, how to conform to existing approval structures, processes, investments or infrastructure) with the needs of end users, and how to reconcile these requirements and needs when they differ. In one partnership case study, although the discovery phase findings were valuable to the department, CDS was viewed as prioritizing user needs without adequately considering management priorities. The issue was not resolved and resulted in the termination of the partnership.

In another case, user needs versus departmental requirements led to delays that impeded the product's usefulness. CDS designed a tool in a few weeks using language tested and preferred by users, but which was not compatible with the program language in legislation and in the regulations. These differences meant that

program content and departmental approvals had to be re-validated. As a result, users accessing benefits at the beginning had to find information through other sources, which reduced the tool's impact.

CDS is meant to:

- help departments consider both legitimate departmental constraints and user needs
- ensure that the constraints do not prevent user needs from being met

However, if departments are unwilling to do things differently or if there is no compromise in a partnership, the result may mean retiring, delaying or not releasing a product.

Progress toward intermediate outcomes

The evaluation assessed progress toward intermediate outcomes and concludes on their progress only, rather than on their achievement.

Overall conclusion

CDS has made progress toward its intermediate outcomes, although they are constrained by:

- legacy systems
- a lack of expertise and skills in departments
- the limited number of partnerships that CDS can take on
- a need for government-wide culture change to enable digital practices and service delivery

CDS has contributed to the use of modern methods of service design in partner departments. As indicated earlier, the document review and interviews show that most partner departments co-locate with CDS, which contributes to participants having improved skills and knowledge in modern methods of service design.

Nonetheless, several interviewees also noted that modernization of service delivery in the Government of Canada requires a coherent approach to digital technology in

government that goes beyond public-facing online tools and interfaces. Such modernization requires progress on culture change, which means, for example, shifting institutional structures, processes, and ways of working to enable digital practices and service delivery.

Partnerships with individual departments do not have the same reach within government as platform services that can be used and reapplied across government. To manage expectations, clarity is needed on the following three points:

- CDS's mandate in relation to other actors in the digital field
- the way that CDS's partnerships and platform business lines complement each other to influence change
- the intended reach of CDS outcomes

The evaluation found that CDS has helped to increase the quality of digital services in partner departments by engaging in more complex projects and expanding to new areas. CDS provides platform tools that departments can set up for their services, which helps departments avoid the cost of building tools from scratch or contracting and risking vendor lock-in. Despite the tools offered by CDS, senior leaders noted that departments often face challenges in adopting agile, user-centric approaches.

The evaluation found that CDS digital solutions built through partnerships and CDS platform services are being reused in government. For example, the EnerGuide API has been reused by other provincial and municipal governments. Some departments use GC Notify, the platform tool mentioned earlier, to send emails or text messages to keep the public informed and make government services more transparent. Departments increased their use of the platform during the pandemic as they saw a greater need to communicate with Canadians.

All code from CDS products and services is available for reuse. However, several senior leaders pointed out that there is a lack of capacity in departments to work in and use open source code, which is one reason why tools may not be reused frequently. Another senior leader indicated that departments have access to different open source tools, which they select based on the context of their own departments' tools and systems.

The evaluation found that through CDS's support, partner departments have made improvements in meeting the service delivery needs of users. They credit CDS for pushing the envelope through collaborative feedback (web and system designers) and iterative improvements for end users. Products are described as user-friendly because they use accessible language and provide a superior user experience.

Closing the gap between the immediate and intermediate outcomes for the whole of government involves issues within departments that are beyond CDS's control. From the evaluators' perspective, the challenges departments face point to the need for further progress in embracing the notion of user-centred service and improving outcomes for users. The challenges also reflect the difficulty departments have in changing and the need for leadership to drive culture change that is timely, sustainable and meaningful. The experience gained during the pandemic demonstrates that change can happen quickly when it is prioritized.

Recommendations

- Given that the evaluation found a lack of common understanding of CDS's role, it is recommended that CDS engage other digital actors and strategically communicate its mandate and role within the digital ecosystem.
- The extent to which CDS's intermediate and long-term outcomes aim to realize significant change – not only in departments, but also system-wide – indicates a need to revisit its own program theory. ¹² Therefore, it is recommended that CDS re-examine its program theory of change, particularly in relation to its role in capacity development and how digital products and components are replicated and scaled.
- Taking into account recommendations 1 and 2, and the evidence indicating a lack of alignment between the scope and scale of CDS's mandate and its resource levels, it is recommended that CDS undertake a complete review (ideally by a third party) of its resourcing in order to fully understand the authorities and resources needed to fulfill its mandate and adjust as needed.

- In light of the pressing need to embrace the notion of user-centred service and to work cooperatively across government, it is recommended that CDS use its expertise and experience to work with leadership across government and build support for timely digital change.
- Given the complexity of the change required within departments, it is recommended that CDS work with senior leaders and departmental representatives to better enable the conditions for change when considering new or improved digital products and services. CDS should ensure that memoranda of understanding with departments reflect agreed-upon shifts to delivery conditions; outline related roles, expectations and commitments for the partnership; and include a full understanding of resource implications.
- It is recommended that CDS continue sharing its recruitment and delivery experiences with stakeholders, as well as its advice on how classification needs can be met for new-to-government positions.

Appendix A: Canadian Digital Service (CDS) logic model

Long-term outcome
Government services are designed and built to meet user needs

Intermediate outcomes

CDS partner departments use modern information technology (IT) and service design methods

Government of Canada (GC) departments increase the quality of digital services

CDS digital solutions (products, components, utilities, services) that meet user needs are reused across GC departments

Service delivery in partner departments meets user needs

Immediate outcomes

Partner departments increase their capacity in modern IT and service design methods

CDS guidance on IT investments and service design benefits partner departments

CDS guidance on IT investments and service design benefits partner departments

Outputs

- Learning events, communities of practice, IT tools
- Interchange, co-ops, internships, fellowships

- Advice and input on standards, best practices, white papers
- Data collection methodologies, reusable digital tool kits, open source code
- CDS blog posts and GitHub repository

- Digital solutions, application programming interfaces, user feedback mechanisms (pre- and post-survey forms)
- Prototypes, horizontal platforms, data visualizations

Activities

- Host and attend learning events
- Develop and provide access to tools
- Establish IT and design talent pipelines

- Advise on IT investments
- Measure service performance (analytics)
- Work in the open

- Scale existing solutions
- Develop digital solutions
- Co-create projects with departments
- Conduct user research and testing

Appendix B: evaluation methodology

The evaluation was guided by an approved evaluation framework, which was a detailed plan of the evaluation activities, questions and indicators.

Evaluation questions and indicators

- 1. To what extent has the Canadian Digital Service (CDS) effectively implemented a digital delivery unit model in Canada and adapted to evolving circumstances, challenges and lessons learned?**
 - a. Extent to which CDS's implementation varies from initial design or implementation plans and why

b. Assessment of drivers, challenges and lessons in establishing CDS

c. Evidence that lessons have been applied

2. To what extent does the CDS address departments' needs and interests?

a. Evidence of demand by Government of Canada departments for CDS services

b. Analysis of what would have taken place without CDS involvement (counterfactual)

c. Partner department views on how CDS meets their needs

d. Evidence of the extent to which departments are using or require CDS support for their digital service delivery

e. Barriers or challenges departments face in the current Canadian digital environment

3. Have departments in product partnerships increased capacity in modern information technology (IT) and service design methods as a result of CDS's intervention?

a. Evidence that CDS methods and tools are used

b. Evidence that partner departments have changed delivery practices

c. Evidence of partner departments coordinating and deploying new internal teams and skill sets

d. Views of partner departments on their ability to sustain the product or service

4. Has CDS guidance on IT investments and service design benefited departments?

a. Views of departments on the extent to which CDS guidance, tools, and advice meet their needs and benefit them

b. Evidence that departments benefited from CDS guidance and advice

5. Do the digital products created by CDS meet user needs?

a. Extent to which digital products created by CDS meet user needs

b. Problems and challenges encountered and attempts to resolve them

6. What factors helped and hindered CDS's achievement of its short-term outcomes?

- a. Analysis of the factors that helped and hindered CDS in achieving their short-term outcomes

7. Is CDS positioned to achieve its intermediate outcomes?

- a. Evidence of the reach and impact of CDS advice, guidance, tools and resources, and lessons learned on non-partner departments and stakeholders
- b. Views of stakeholders on the extent to which CDS is positioned to achieve its intermediate outcomes
- c. Assessment of delivery barriers and enablers

Methods

The following methods were used in this evaluation.

Key informant interviews were held with key internal and external stakeholders. Interviews were used in the evaluation to address most issues and questions. The interviews gathered views on CDS's design and performance from partner departments, other government departments and leaders in digital government.

The interviewees were:

- CDS representatives and employees (12)
- Treasury Board of Canada Secretariat digital policy and transformation employees (3)
- Employees in partner departments (15 individuals representing 8 partnerships)
- Senior leaders involved in digital development in other government departments (6)

A document and data review was also conducted, in which these secondary data sources were mined for evidence to address evaluation questions. The review included but was not limited to progress reports, plans, presentations, exit interviews, survey reports and audits. This review included:

- 237 documents catalogued
- 63 documents analyzed

A total of six case studies were conducted. The objective of the case studies was to obtain an in-depth view of how CDS worked with departments, what was achieved and what could be strengthened or replicated in future projects. These case studies were suggested by CDS and included a document review and interviews to understand product partnerships with the following five federal organizations and one platform service:

- Public Services and Procurement Canada
- Canada Revenue Agency
- Veterans Affairs Canada
- Canada School of Public Service
- Employment and Social Development Canada
- GC Notify

Appendix C: management response and action plan

The Canadian Digital Service (CDS) has reviewed the evaluation and agrees with the recommendations. Proposed actions to address the recommendations of the report are outlined in the tables below. CDS will also continue working in the open, and share progress, lessons, code, tools and resources, and other content on its website, social media accounts and on GitHub.

CDS developed its Management Response and Action Plan during the continuing pandemic, which has seen CDS pivot its efforts substantially as part of the government response to COVID-19, including a substantial portion of the team being engaged in the development and delivery of the COVID Alert application. CDS team members and their families, friends and communities have also experienced the impact of COVID-19. Every effort has been made to set actions and timelines based on reasonable projections of capacity and prioritization. However, the increased uncertainty associated with the pandemic and anticipated recovery period, together with the emergent and responsive nature of CDS's work relative to government needs, increases the likelihood that actions and timelines identified below could be

adjusted based on the trajectory of the pandemic and corresponding delivery pressures on CDS.

Recommendation 1

Given that the evaluation found a lack of common understanding of the CDS role, it is recommended that CDS engage other digital actors and strategically communicate its mandate and role within the digital ecosystem.

Management response

CDS agrees with the recommendation.

Proposed action for recommendation 1	Start date	Target completion date	Office of primary interest
1.1 CDS will: <ul style="list-style-type: none">• present updates on its mandate, current priorities and evolving service offerings• provide service demonstrations• share lessons learned at relevant events and governance bodies	Underway	Focused on current fiscal year due to renewal: by March 31, 2022, but also ongoing	CDS Policy, CDS Partnerships and CDS Platform Business Units
1.2 CDS will develop and publish a strategy that communicates: <ul style="list-style-type: none">• its mandate and roles relative to others• its theories of change and approaches to influence and enable better service delivery	August 1,2021	March 31,2022	CDS Policy, CDS Partnerships, CDS Platform Business Units and Digital Practice Communities

<ul style="list-style-type: none"> • how it will monitor progress and continuously improve <p>This strategy will be informed by:</p> <ul style="list-style-type: none"> • the findings and recommendations of the present Treasury Board of Canada Secretariat evaluation • existing and ongoing feedback from partners and stakeholders • CDS's engagement with senior leadership through actions 1.1 and 4.3 			
1.3 CDS will publish a significant update to its website to clarify its mandate, mission, role and offerings to departments.	Underway	August 31, 2021	CDS Outreach

Recommendation 2

The extent to which CDS's intermediate and long-term outcomes aim to realize significant change not only in departments, but also system-wide, indicates a need to revisit its own program theory. Therefore, it is recommended that CDS re-examine its program theory of change, particularly in relation to its role in capacity development and how digital products and components are replicated and scaled.

Management response

CDS agrees with the recommendation.

Proposed action for recommendation 2	Start date	Target completion	Office of primary
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		date	interest
<p>2.1 CDS will review and update its program theory of change and performance information profile, including the embedded logic model and underpinning assumptions, to reflect:</p> <ul style="list-style-type: none"> • the growth of and increasing demand for its platform components and how they are used and scaled • lessons learned in partnerships and new service offerings to better enable the conditions for digital service delivery • the roles of CDS's digital practice communities (software development, design, design research and product management) and enabling functions (policy, talent, internal operations, partnership development and outreach) • Budget 2021 funding levels • ongoing collection and monitoring of program-level indicators to track and report the overall progress and performance of CDS over time 	Underway	March 31, 2022	<p>CDS Policy, CDS Partnerships, CDS Platform Business Units and Digital Practice Communities</p>

Recommendation 3

Taking into account recommendations 1 and 2, and the evidence indicating a lack of alignment between the scope and scale of CDS's mandate and its resource levels, it is recommended that CDS undertake a complete review (ideally by a third party) of its resourcing in order to fully understand the authorities and resources needed to fulfill its mandate.

Management response

CDS agrees with the recommendation.

The following actions relate to any return to Cabinet in future years to propose changes to the CDS mandate or further investment beyond Budget 2021 levels. Access to and implementation of the funding proposed for CDS in Budget 2021 is being informed by the existing mandate and resource analysis, covering current plans for growth in partnership and platform services, as well as by the results of this evaluation.

Proposed action for recommendation 3	Start date	Target completion date	Office of primary interest
3.1 Prior to seeking further changes in mandate or budgeted investment in future years, and with a view to aligning resources to mandate, CDS will: <ul style="list-style-type: none">• complete a review of:• its mandate, authorities, resource levels, and organizational structure in relation to common digital policy levers (for example, running platform services, embedding teams in other organizations) that digital service teams use to influence and enable change• how CDS might evolve and work with others to enable better digital service delivery• have this analysis validated by a third party with knowledge of and experience in the civic technology and digital government unit space to inform any return to Cabinet in the future with proposed changes to CDS's mandate and resource levels	August 1, 2022, or as needed	October 31, 2022, or as needed	CDS Policy

Recommendation 4

In light of the pressing need to embrace the notion of user-centred service and to work cooperatively across government, it is recommended that CDS use its expertise and experience to work with leadership across government and build support for timely digital change.

Management response

CDS agrees with the recommendation.

Proposed action for recommendation 4	Start date	Target completion date	Office of primary interest
4.1 CDS will continuously curate and publish advice on digital delivery practices and the empowerment of digital teams.	August 1,2021	Ongoing	CDS Policy and Heads of Digital Practice
4.2 CDS will work with the Office of the Chief Information Officer and Treasury Board of Canada Secretariat program sectors to help provide guidance to program analysts who support them in: <ul style="list-style-type: none">identifying public-facing services in Treasury Board submissions where the “Design with users” section of the Government of Canada Digital Standard appliesunderstanding the extent to which user research has been conducted and is informing the Treasury Board submissionproviding recommendations to departments to develop and recruit design capacity or plan to conduct user research and usability testing in their	September 1, 2021	March 31, 2022 (and ongoing)	CDS Policy

development and delivery of a service			
<p>4.3 CDS will undertake targeted outreach with senior management of service departments across the federal government to better understand their needs and challenges with a view to:</p> <ul style="list-style-type: none"> • identifying how best to work with them to build support for digital change • building additional awareness of what services CDS can offer • understanding what enablers they need and how to better act on the barriers they face 	September 1, 2021	July 1, 2022	Chief Operating Officer, CDS Policy, CDS Partnerships and CDS Platform Business Units

Recommendation 5

Given the complexity of the change required within departments, it is recommended that CDS work with senior leaders and departmental representatives to better enable the conditions for change when considering new or improved digital products and services. CDS should ensure that memoranda of understanding (MOUs) with departments reflect agreed-upon shifts to delivery conditions; outline related roles, expectations and commitments for the partnership; and include a full understanding of the resource implications of the partnership.

Management response

CDS agrees with the recommendation.

Proposed action for recommendation 5	Start date	Target completion date	Office of primary interest
5.1 CDS will take steps to:	October 2021	Ongoing	CDS

<ul style="list-style-type: none"> • adapt its partnership service offerings to reflect lessons learned through delivery • better meet departments where they are • help departments change how they're designing and delivering their services, for example by: • establishing a consulting team to provide coaching, advice, or time-bound, hands-on help to departments to improve their service delivery practices and outcomes • offering an explorations service to help departments identify practical steps they can take to apply digital practices and shift their delivery conditions to be more enabling of those practices • working toward embedding teams in select partner departments to help them change how they design and deliver their priority services, if the enabling conditions are in place or when there are commitments to shift the conditions included in a MOU, along with related roles and responsibilities 			Partnerships
5.2 CDS will update its criteria for assessing partnership opportunities to include the following, based on lessons learned to date:	Underway	September 2021	CDS Partnerships

<ul style="list-style-type: none"> • the reach and impact of the service itself, to determine the extent to which there is room to measurably improve how people are served by government • the readiness and willingness of the department to change how they are working • the extent to which a service is both a departmental and federal priority • the capacity and skill sets available at CDS at the time 			
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Recommendation 6

It is recommended that CDS continue sharing its recruitment and delivery experiences with stakeholders, as well as its advice on how classification needs can be met for new-to-government positions.

Management response

CDS agrees with the recommendation.

Proposed action for recommendation 6	Start date	Target completion date	Office of primary interest
6.1 CDS will engage the Office of the Chief Human Resources Officer, the Office of the Chief Information Officer, and the leadership of the Public Service Commission of Canada to help identify appropriate venues and opportunities for CDS to share its experiences and advice related to digital talent.	September 1, 2021	December 31, 2021	Chief Operating Officer and CDS Talent
6.2 CDS will document, share, and publish	October 1,	Ongoing	CDS

lessons learned, tools and resources, and recommendations from its active recruitment, candidate experience, classification, staffing, and empowerment of digital talent. Such information-sharing will include making updates to its Talent Handbook to support digital delivery and human resources teams in departments.	2021		Talent
6.3 In addition to continuing to advise and support departments in staffing multidisciplinary teams, including in the context of partnership engagements, CDS will explore the possibility of offering its talent operations directly as a service (for example, running recruitment processes to staff departmental positions), including engaging departments on possible models for such a service.	January 1, 2022	July 1, 2022	CDS Talent

Footnotes

- 1 2019 CDS internal document
- 2 [Chartered Professional Accountants \(CPA\) Canada, CRA digital service improvements: What's new, what's next](#)
- 3 [Shared Services Canada 3.0: An Enterprise Approach](#)
- 4 [*Beginning the Conversation: A Made-in-Canada Approach to Digital Government*](#)
- 5 [*Minister of Digital Government briefing book: Canadian Digital Service \(CDS\)*](#)
- 6 [Canadian Digital Service, Partnerships](#)

7

[Canadian Digital Service, Read the Blog, From build first to users first](#)

8

CDS is updating its outcomes framework, which is informed by its progress and learning. The framework includes program and product evaluation findings and the emergence of its platform services.

9

The CDS blog indicates that [GC Notify has reached Beta](#).

10

[Minister of Digital Government briefing book: Canadian Digital Service \(CDS\)](#).

11

[Canadian Digital Service, Read the blog, Conducting user research with NRCan to inform an API build: Part 1](#)

12

“Program theory or logic explains *how* and *why* a program is expected to work.” From [James Madison University, Assessment Program Creation and Mapping – Articulating Program Theory, What is Program Theory?](#)

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