

# **PSCIOC Information-Sharing Template – September 2019 – Government of Ontario**

*Information Sharing is collected for the purpose of the PSCIOC Meeting of September 2019.*

*Information contained in this document cannot be shared without the approval of the member jurisdiction (author).*

JURISDICTION: Ontario	Contact
<b>1. Accomplishments:</b> Briefly highlight major IT/IM accomplishments, progress, and/or significant milestones achieved in your jurisdiction over the past 6 - 12 months.	
<b><u>Land and Resources I&amp;IT Cluster (LRC)</u></b>	<div> <b>Fish and Wildlife Licensing Solution (FAWLS)</b>  <p>The Ministry of Natural Resources and Forestry (MNRF) issues licenses for recreational fishing and hunting in Ontario. MNRF is partnered with the Land and Resources I+IT Cluster (LRC) to replace the existing system with a modern online e-commerce system. FAWLS launched on November 26, 2018. Since The launch, system functionality continues to be developed, including QR Code reader for field license validation (mobile) and releases for spring turkey tags and antlerless deer, moose and bear draw/tags.</p> <p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• User-centric, on-line, mobile 24-7 online public access to hunting and fishing licenses.</li> <li>• Improved client service, including electronic license fulfillment.</li> <li>• Enhanced administrative management, including product configuration and flexibility, and adaptability to future regulatory change.</li> <li>• Reduce effort and cost per transaction.</li> </ul> <p><b>Mining Lands Administration System (MLAS)</b>            The Ministry of Energy, Northern Development and Mines (ENDM) regulates prospecting, mineral exploration, and mine development and rehabilitation. ENDM partnered with the Land and Resources I+IT Cluster (LRC) to implement a new online mining land-use management system supporting changes to the Ontario Mining Act and enabling electronic mining claim acquisition. MLAS Launched on April 1, 2018. Since the launch, ongoing industry-requested enhancements/improvements have been implemented.</p> <p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• E-staking 24/7 global access to mining/pro prospector services.</li> <li>• Reduced time for mining claim acquisition (days to minutes).</li> <li>• Public information on claims and activities available on a map (spatial data)</li> <li>• Improved indigenous community notification.</li> </ul> </div> <div> <b>John DiMarco</b>            Chief Information Officer            Land and Resources I&amp;IT Cluster            416-326-6954  <a href="mailto:john.dimarco@ontario.ca">john.dimarco@ontario.ca</a> </div>

### **Permissions Enterprise Platform (PEP) (MECP)**

The Ministry of the Environment, Conservation and Parks (MECP) safeguards our natural environment and healthy communities through environmental approvals and permissions. Approvals/permits are required for Ontario businesses that release air, water, land, or noise pollutants, or handle waste.

MECP has partnered with the Land and Resources I+IT Cluster to move from a paper-based Certificate of Approval program to an online digital service. This enterprise solution enables a risk-based framework that can support all ministry approval/permit business areas. Continuing to iteratively onboard new permission/approvals lines of business.

#### **Outcomes:**

- Business cost and time savings through online self-registration for low-risk approvals (months to minutes)
- Faster and easier online access to information, approvals, and permits (mobile access).
- Scalable, flexible, and reusable platform (enabling new lines of business to be onboarded in under 4 months), latest permissions onboarded to the Environmental Activity and Sector Registry (EASR):
  - Permit to Take Water (PTTW)
  - Pesticide Licenses

In addition to air emissions, automotive refinishing, commercial printing, non-hazardous waste transportation, solar facilities, end-of-life vehicle disposal already implemented.

### **Environmental Registry Ontario (ERO) (MECP)**

Ontario Public Service (OPS) ministries post public notices for any proposal, decision or issue with potential environmental impacts. The Ministry of the Environment, Conservation and Parks (MECP) Environmental Registry enables the posting of these notices online and provides Ontarians a means of participating in decisions. This project has been selected by the Ontario Digital Service (ODS) as one of their first digital priorities. The project will replace the existing outdated system with a modern, interactive, and user-friendly public engagement platform. Launched acts, regulations and policies into Beta in April 2018 and Instruments March 2019.

#### **Outcomes:**

ODS via their delivery process aligned with the Ontario Digital Service Standard:

- Updated, intuitive design that can be accessed from any device (computer, tablet, mobile).
- Improved account features, notifications, alerts and searches and plain language postings.

	<ul style="list-style-type: none"> <li>Streamlined business processes for ministry posting and monitoring.</li> <li>Better business intelligence and reporting on individual postings and usage.</li> </ul>	
<b>Cyber Security Division (CSD)</b>	<p><b>Cyber Security Awareness Month (CSAM) - October 2018</b></p> <p>CSAM is an internationally recognized campaign held each October to inform people around the world of the importance of Cyber Security. This is the 15th year for the event globally and the 7th year in the Ontario Public Service (OPS). Cyber Security delivered an enhanced program in 2018 that included collaboration with public-sector partners outside the OPS. Partnerships included Government of Canada, Get Cyber Safe, Metrolinx, Ryerson University and the Ontario Provincial Police to brainstorm and create joint materials. Through the month the division also released new educational material weekly – including new videos, infographics, articles and offered webinars that were available to staff and managers across the province that allowed participation across Ontario.</p> <p><b>Office 365</b></p> <p>Office 365 is foundational to modernizing the way the Ontario Public Service works and enhancing the employee experience with industry-leading office productivity, communication and collaboration tools. In order to ensure that the adoption of Office 365 would be a success, we joined forces with Information Technology Services to provide support on relationship management, risk advisory, education, policy and standards, and monitoring.</p> <p><b>Ontario Elections</b></p> <p>The Cyber Security Division and its many units came together with the Office of the Provincial Security Advisor when Elections Ontario sought advice on how to secure the 2018 Ontario general election. Taking a holistic view of their program, we assessed risks, identified vulnerabilities and recommended treatment options and mitigations that could be implemented in advance of the election. This teamwork resulted in the implementation of new polling technology for elector registration. Cyber Security's ethical hacking team assessed this technology and advised EO executives on ways to resolve security issues to enhance user experience at the polls. Our 24/7 Cyber Security Operations Centre also worked with partners to provide enhanced network and system monitoring of the Ontario Elections systems.</p> <p><b>Cloud Computing Security Reference Architecture</b></p> <p>With the introduction of cloud computing, traditional network boundaries are now evolving, and we must deploy new tools that allow us to shift our practices – instead of</p>	<p><b>Mohammad Qureshi</b>  Chief Information Security Officer, CSD  <a href="mailto:mohammad.qureshi@ontario.ca">mohammad.qureshi@ontario.ca</a></p>

	<p>watching the network edge, we need to monitor applications and detect behavioural anomalies regardless of where government information is created, processed or stored (whether in our data centre or a public cloud). We have created a Cloud Computing Security Reference Architecture to guide the secure adoption of cloud services in the OPS and developed a complimentary reference architecture that accompanies the Cloud Computing Reference Architecture (CCRA) published by the Information Technology Services Division, entitled “Cloud Computing Security Reference Architecture” (CCSRA). This provides a consistent experience when evaluating and implementing security for cloud-based services across any cloud.</p>	
<p><b><u>Infrastructure Technology Services (ITS)</u></b></p>	<p><b>Modernizing Collaboration and Productivity Tools – Microsoft Office 365 &amp; Techlounge</b></p> <p><b><u>Office 365</u></b></p> <p>Office 365 is a cloud service securely provided at Microsoft’s data centres in Toronto and Quebec City. It is replacing several individual Microsoft products previously provided or hosted internally by the OPS including enterprise e-mail, Microsoft Office desktop tools (Word, Excel, PowerPoint), workgroup and home file shares (centralized network electronic storage for documents) and Lync instant messaging. In addition, Microsoft O365 offers more productivity and collaboration tools available through the Microsoft Office 365 web portal. The enhanced features of Office 365 will bring these tools up-to-date and provide employees with new ways to engage each other, collaborate, and share information.</p> <p>An early adopter migration with select IT staff started in the Fall 2017 with 2,300 migrations completed by May 2018. A wider group of early adopter migrations completed in September 2018 with an additional 8,000 staff migrated to Office 365. OPS-wide migrations commenced in the fall of 2018 with over 70,000 active OPS users migrated to date and expected completion of all mailbox migrations by October 2019. Following a similar approach, all ITS Home Shares have been migrated to OneDrive for Business as of January 2019 with Cluster shares completed in June 2019, over 14,000 shares currently migrated.</p> <p>Additional significant product activations completed:</p> <ul style="list-style-type: none"> <li>• Advanced Data Protection – information sensitivity classification – August 2018</li> <li>• Enterprise Mobility + Security / InTune (Phase 1) – device management – November 2018 (for 25k+ mobile devices)</li> <li>• Microsoft Teams – workgroup-focused collaboration – February 2019</li> </ul>	<p><b>Rocco Passero,</b> Enterprise Chief Information Officer, Infrastructure Technology Services (416) 356-7605 <a href="mailto:Rocco.Passero@ontario.ca">Rocco.Passero@ontario.ca</a></p>

While it is anticipated that the migration of active mailboxes and public folders will be completed in October 2019, significant project activity will continue including:

- EMS / InTune (Phase 2) activation – enhanced management capabilities enabling significant user benefit such as removing the requirement to use VPN to access Outlook, Skype or Teams and syncing user settings across corporate devices. To be complete by December 2019.
- Workgroup Shares migration – the establishment and testing of a cloud-based service capable of hosting over 450TB of legacy workgroup share data. To be complete by March 2020 with migration timeline TBD.
- Home/Personal Shares migration – the relocation of an additional 60,000 private user shares from on premises infrastructure to OneDrive for Business. To be complete by March 2021.
- Infrastructure Decommissioning – the removal of the legacy Enterprise Email Service (EES) environment by March 2020, Home Share and Group Share infrastructure aligned with their migration timeline.
- Adoption & Change Management (ACM) RFB, pending approval – the onboarding of a vendor to implement an ACM program to assist users in leveraging new collaboration functionality (beyond the info sessions and training being provided by the project)

It is anticipated that the full migration to Microsoft Office 365 will ultimately position the OPS to utilize and access the latest technological updates and enhancements as soon as they are released by Microsoft. To ensure a smooth transition to Office 365 and to provide an enhanced end-user/employee experience with Microsoft Office products, a number of migration awareness and support initiatives have been implemented including weekly interactive webinars to prepare users for their migration and use of Office 365. Forty-eight 90 minute sessions have been held to date, along with over 130 Microsoft-partnered “See. Do. Learn” business theme workshops with over 12,000 OPS staff participating. Additionally, an Office 365 Change Champion program has been launched with over 275 OPS resources being mobilized to foster adoption of O365 in the OPS.

#### **TechLounge/Techlounge Express**

Traditionally, Infrastructure Technology Services (ITS) has provided first point of contact IT support to Ontario Public Service (OPS) employees through phone and email. Success is measured in many ways, including the time it takes to resolve a customer IT issue and overall customer satisfaction with the service provided. Historically, customer resolution time where an onsite technician is required is five business days, and the overall customer satisfaction rating is 95%.

Industry trends indicate a shift towards a multi-channel approach for IT services. Research shows employers are now offering a variety of ways employees can engage IT for support, aligned to an 'anytime, anywhere, access on any device' approach seen in the consumer marketplace. To evolve with the industry, the OPS has begun offering new support channels including self-service support, live-chat, and Artificial Intelligence (AI) chatbot services. To further enhance the end-user experience, and to complement these channels we have also begun offering an in-person retail-like support service, branded as TechLounge.

Techlounge Express offers similar services to Techlounge but operates adhoc in available boardrooms, does not offer a display area for available products & offerings, and does not have loaner equipment available.

As of August 2019, 3 Techlounge or Techlounge express locations are operating in Toronto, Guelph and North Bay.

#### **Redesign of Service Desk and Order Desk - August 2019 Update**

For over 10 years the Ontario Public Service (OPS) Service Order Desk On-Line "shopping cart" service (S.ODO) has been a successful way for OPS employees to acquire infrastructure and enterprise IT products and services. S.ODO is an internal OPS marketplace used by over 60,000 users with approximately 250,000 orders processed annually.

The OPS is taking a user centred design approach to redesign and modernize S.ODO. The new tool known as ONRequest was beta launched in June 2018. Since then, over 27,000 requests have been submitted by OPS staff through ONRequest with an extremely positive feedback from our end users. They are reporting easier and a more intuitive interface, faster processing times, and an improved overall end user experience.

The project team continues working with ministry partners to move their existing products and services to the ONRequest with approximately 40% of the existing products and services migrated. As part of the migration process, the team is focused on improving the end to end experience of each product or service. This includes filling out the request form, the approval process and the eventual fulfilment of the request. All aspects of the request are being analyzed for optimal user experience and efficiency.

New features in ONRequest include a chatbot powered by IBM Watson and a live chat service that enables another channel for OPS staff to connect with the OPS IT Service Desk. The chatbot and live chat services were beta launched in ONRequest in June of 2019 with a pilot group of 2,500 OPS employees. With a focus on user experience testing, the team continues to iterate on the chatbot and live chat experience and is anticipating a full roll out across the OPS over the next year.

User experience testing with OPS staff continues as development progresses, continuously iterating and identifying new features and improvements for ONRequest. Upcoming features based on user testing and feedback will include:

- Mobile access to ONRequest
- Approval delegation and automation system
- Automation initiatives for new staff onboarding, offboarding, and employee moves

It is anticipated that the core services identified today in SODO will be fully migrated into ONRequest at the end of December 31, 2019 where the development team will continue to iterate, improve and simplify the customer experience.

#### **Cloud Computing VOR**

The OPS is adopting a Digital First approach, that will improve the services delivered to citizens, lower internal administrative burden, lower the cost of doing business, simplify processes, and open new avenues for innovation. Governments are embracing digital technologies and principles to revolutionize the delivery of services and the adoption of cloud computing is foundational in the delivery of these services. A digital approach to improving service delivery to citizens needs to be a priority for the Ontario Public Sector and a key enabler for the OPS is to support the acceleration of cloud adoption by ministries.

Cloud First is not just about technology, but rather about modern approaches to the procurement, acquisition and delivery of digital services. The acquisition of cloud services is a key enabler to cloud adoption within the OPS. The Ministry is conducting a procurement for Cloud Computing Services that will establish a list of qualified vendors capable of providing enterprise-wide cloud computing services through a RFQ and negotiate agreements with selected qualified vendors to create the VOR. In addition, an additional procurement is being conducted to allow Ministries to acquire professional services to support their cloud adoption. The Ministry intends to acquire the following:

	<p><b>Cloud Computing Services</b> - IaaS (Infrastructure-as-a-Service) and PaaS (Platform-as-a-Service) services.</p> <p><b>Development Software</b> - Specialized software and tools used for development on Cloud Native Application Platforms (CNAP).</p> <p><b>CNAP Professional Services</b> - Standard Request for Bids (RFB) for CNAP professional services</p> <p>All three procurements are currently posted and are scheduled to close in mid September 2019 with a target to qualify vendors by December 2019.</p> <p><b>Voice Services Program</b> The Voice Services Program is a review to streamline voices services, such as desk phones, voicemail and mobile phones, across government, with the objective to identify savings opportunities to ensure that services are cost effective and that they meet business needs.</p> <p>It is important to note that there will be no change in the way people contact and interact with Ontario government offices and services. Any changes made through the Voice Services Program will not have any impact on frontline services for the people of Ontario.</p> <p>The overall timeline for this program has been aggressive and involved the engagement of all Ministries. During the fall of 2018, extensive work was done on data collection, verification and data informed decisions made by each Ministry based on their business requirements. Implementation has been done over four months and is expected to complete by September 2019.</p> <p>Overall the Voice Services Program has been successful in achieving the forecasted savings, as well demonstrating the benefit of collaboration across all ministries and the importance of having good data to make informed decisions.</p>	
<p><b><u>Ontario Digital Services</u></b></p>	<p><b>Digital Wallet Prototype</b> Ontario developed a custom, fully functional digital wallet prototype to inform components of our conceptual Digital Identity Technology Blueprint. The digital wallet allowed the team to experiment with new and emerging technologies, and validate how a potential solution could work, identify additional areas for learning and experimentation and inform our overall go-forward approach. The prototype has since been shut down.</p>	<p><b>Robert Devries</b> Assistant Deputy Minister, Platforms Cabinet Office (416) 668-5727 <a href="mailto:Robert.Devries@ontario.ca">Robert.Devries@ontario.ca</a></p>



<p><b><u>Children, Youth and Social Services Information and Information Technology Cluster (CYSSC)</u></b></p>	<p><b>Social Assistance - Electronic Document Management (OPS Docs) for Ontario Works and ODSP</b>  March 2019, CYSSC rolled out EDM to 5 ODSP offices, with plans for future expansion to all ODSP and Ontario Works offices. This resulted in a reduction of 5 hours per week of ODSP Administrative Support Clerk's tracked time by eliminating unnecessary paper and administrative processes.</p> <p><b>Social Assistance – MyBenefits</b>  March 2019, CYSSC piloted MyBenefits across 52 Ontario Disability Support Program (ODSP) offices and Ontario Works sites. There are now more than 3,000 users.</p> <p><b>Social Assistance Intake Tracking Report</b>  A new self-service, interactive report providing case workers and supervisors a view of client cases moving through the intake process. July 2018, the first iteration with limited features was implemented in 10 social assistance offices to test the new reporting functionality. In November of 2018, the second iteration was implemented incorporating test feedback and additional functionality in the same 10 social assistance offices. In January 2019, the final version was released to all social assistance offices across the province.</p> <p><b>Reloadable Payment Card (PRC)</b>  CYSSC introduced the card to Ontario Works clients to provide a more convenient and secure method of payment. September 2018-March 2019, CYSSC partnered with RBC Bank and Visa over a seven-month period to test customer experience, access and usability of this service. 600,000 cheques were being printed per year. This initiative helped reduce the impact on the environment by moving to RPC. The target is to reduce the number Ontario Works clients receiving cheques from 11 to 1 percent in the next fiscal. RPC will reduce or eliminate expensive cashing fees.</p> <p><b>Ontario Autism Program (OAP)</b>  CYSSC developed the Autism Client Information System (OACIS) to support the changes made to the OAP. April 1, 2019. the first release of the OACIS was ready for use.</p> <p><b>Ontario Disability Support Program Office Modernization</b>  The implementation of a modern, accessible, welcoming offices to support clients in achieving their personal goals and receive the essential services they need, closer to home. CYSSC led a multi-stakeholder team applying an integrated project management lens, which led to opening the doors to 3 modernized offices this fiscal in Kingston, Yorkgate and Wellesley Place.</p>	<p><b>Antonio Paniccia</b>  Chief Information Officer  CYSSC  416-417-7908  <a href="mailto:antonio.paniccia@ontario.ca">antonio.paniccia@ontario.ca</a></p>
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	<p><b>Family Responsibility Office (FRO)</b></p> <p>A series of technology upgrades were completed to support the implementation of the future of the FRO Case Management system. Technical enhancements of the business functionality were completed to improve service delivery to FRO clients:</p> <ul style="list-style-type: none"> <li>• There are 273,000+ active support payors supported by Family Case Management System (FCMS)</li> <li>• More than 270,000 active support recipients are supported by FCMS</li> </ul> <p>This initiative improved services for more than 180,000 families or 380,000 clients across Ontario</p>	
<p><b><u>Labour &amp; Transportation I&amp;IT Cluster (LTC)</u></b></p>	<p><b>Driver Medical Review Program</b></p> <p>Core function of Medical Review (MR) program is to assess a driver's fitness to safely operate a motor vehicle based on MTO Driver Medical Policy and Procedures, CCMTA National Medical Standards, and Canadian Medical Association Standards. Current Driver Medical Policy is difficult to use in guiding decision making, resulting in inconsistent decisions for drivers, undue burden for healthcare practitioners and drivers, long lead times to train new case processors, and potential for negative reputational impact for MTO from stakeholders and clients.</p> <p>MR program's vision is to <i>"Effectively and efficiently take action on driver fitness information through fully engaging our citizens, stakeholders, and employees to continuously improve road safety, while also meeting the core needs and expectations of our citizens."</i></p> <p>Cross ministry teams of business and IT participants worked in an agile way to deliver the following:</p> <ul style="list-style-type: none"> <li>• Agile sprints to transform and optimize driver medical policy</li> <li>• Digital Transformation Strategy – business model canvas, citizen centered design, target state business model</li> <li>• Business Requirements – Epics, and User stories</li> <li>• Implementation Plan – Release and pre-implementation</li> <li>• Core Product Toolset Overview – outlines the technology set to be used</li> </ul> <p>Additional project accomplishments to-date include:</p> <ul style="list-style-type: none"> <li>• Optimization of medical condition specific forms for better experience by medical practitioners and to align with the transformed medical policy</li> <li>• Cleansing data to make it ready for migration to the new solution</li> <li>• Solution Build vendor procurement – contract award and vendor onboarding are underway</li> </ul>	<p><b>Wynnann Rose</b>  Chief Information Officer  LTC  905-704-2167  <a href="mailto:Wynnann.Rose@ontario.ca">Wynnann.Rose@ontario.ca</a></p>

### **Ontario Truck Inspection Station Automation Project (OTAP)**

The Ministry of Transportation (MTO) received approval to use Automated Commercial Vehicle Pre-Clearance and Pre-Screening systems technology in Ontario, to focus enforcement more efficiently and effectively on commercial vehicles that pose a risk to highway safety and allow safe and responsible carriers to keep moving along Ontario highways. MTO conducted an open competitive procurement process to deploy electronic pre-clearance technology at truck inspection stations (TIS) across the province, and pre-screening technology at 4 TIS locations along the 401 corridors, to improve the efficiency and effectiveness of commercial vehicle enforcement operations and assess their efficiency in assisting inspection officers in the Ontario specific traffic and weather conditions. Intelligent Imaging Systems Inc. (IIS) was the successful vendor for this implementation (Canadian company based in Edmonton and Vancouver). MTO engaged into a services delivery partnership contract with IIS to deploy electronic pre-clearance technology at all TIS locations and pre-screening technology in 4 pilot TIS locations in May 2018.

This technology drives improved safety and assists officers in identifying trucks and carriers with severe defects and safety concerns that need to be addressed. It also reduces the delay to compliant carriers and improves the efficiency and effectiveness of commercial vehicle enforcement operations.

Automated Commercial Vehicle Pre-Clearance can:

- Identify and communicate with approaching commercial vehicles and inform low risk carriers to bypass a TIS
- Bring in for inspection unknown, non-compliant or high-risk operators/vehicles

Automated Commercial Vehicle Pre-Screening can:

- Pre-screen for specific safety defects at slow speed at or inside the TIS

Success to date:

- Successfully commenced Pre-Clearance Pilot Jan. 9, 2019 across the entire province:
  - ~5200 carriers participating to date
  - ~9400 bypasses received by trucks
  - 783 hours saved
  - 38 Tonnes of CO<sub>2</sub> saved \*

*\*Based on 0.004 US Tonnes of CO<sub>2</sub> saved per bypass; reported in metric tonnes*

- Successfully piloting Pre-Screening technology at 3 of the 4 Truck Inspection Stations:
  - Lancaster – June 18, 2019
  - Vineland – April 29, 2019
  - Whitby – May 9, 2019

#### **Ministry of Labor (MOL) 360 Program**

The MOL360 program is an initiative to develop new digital and mobile capability that better meets client needs (i.e. cross-platform compatible across desktop, tablet and mobile devices and new functionality) to support the Changing Workplaces Review (CWR) legislation affecting the MOL Employment Standards (ES) program.

The program is scheduled to go-live by end of March 2020 to replace the existing Employment Standards Information System (ESIS) that is used for the management of all enforcement of employment related transactions such as processing and investigating claims, and the creating and tracking of events and inspections.

ESIS is used by approximately 500 internal users, (expected to grow to approximately 680) to deliver services to 450,000 employers and 6 million employees across Ontario.

The replacement MOL360 solution is being developed in an agile way, delivering incremental business value to ensure the Employment Officers, Employers and Employees benefit from the new solution as soon as possible.

- In October 2018, MOL Self Audit tool was implemented on the OPS Azure cloud platform, in partnership between OPS IT and Pivotal Labs, with the following outcomes:
  - Positively impacted employers providing them with the tools required to understand and ensure compliance,
  - Provided over three hundred (300) employees with positive outcomes, recovering over \$79k from just 24 audits
  - Delivered the foundation for the Case Management process including the role-based access module required to support the end to end Case Management functions.
- In March 2019, a new electronic Self-Check service was created to allow Employees and Employers to anonymously verify monetary and non-monetary

scenarios against the Employment Standards act. This will allow for the following direct benefits:

- Employees unfamiliar with the Employment Standards act will be able to verify straightforward situations without the need to open a case or interact with an officer
- Employers unsure of the application of the Employment Standards act will be able to pro-actively verify straightforward situations electronically
- The overall number of cases opened will be reduced with officers focusing on more complex situations requiring expertise
- March 2020 – target to deliver complete Case Management functionality, replacing existing outdated system:
  - Bi-weekly demos are being conducted with many Ministry of Labour employees to ensure the team is communicating openly with the business units on the overall progress of the project and to ensure its ultimate success.

The project continues to build on several key firsts for LTC, Ministry of Labour and the OPS, introducing Pure Agile Practices such as Lean, Extreme Programming, User Centered Design Practice:

- the first team and solution to use Pivotal Cloud Foundry tools and methodologies which will prove to be a game changer for software development in the OPS
- the first project to introduce new roles such as product owner and product manager leveraging user and stakeholder knowledge as a critical component in software development
- knowledge transfer using the paired programming approach
- pivotal agile software development methods to deliver value and quality quickly leveraging return on investment
- microservices architecture for solutions that are modular and provide the ability for us to build on our foundations

embracing a fully integrated, co-located balanced team and governance structure that included all stakeholders and their needs. One team, including MOL, LTC, Information Technology Services (ITS), and Enterprise Service Management (eSM), along with members of the public and business communities as part of requirements discovery.

	<p><b>Ministry of Labour Certification Management System End-to-End Project</b></p> <p>The Ministry of Labour Prevention Office oversees the administration of mandatory workplace safety training and prevention for Ontario workers. The Certification Management System End-to-End Project was initiated to implement a solution that will enable automation of the manual workflow and to create a seamless business process for ministry staff, training providers as well as Ontario workers as learners. This solution looks to deliver the vision of a self-service portal that allows users to easily submit, access and maintain training records for health and safety that is expandable to other training and provides indicators for better prevention planning and outcomes.</p> <p>The new, modernized cloud-based solution went live March 2019. The project worked with Bluedrop Learning Network and delivered a mobile friendly Software as a Service (SaaS) solution as a single platform for internal administration, over 400 health and safety inspection officers and approximately two million workers, training providers and employers. With project team members located in British Columbia, Newfoundland and Ontario, the project team breaks down location and time-zone barrier using collaborative tools such as Microsoft DevOps, Skype, SharePoint Online and Slack to communicate from coast to coast.</p> <p>Since its implementation, the solution has over 73,000 new users registered, and over 100K electronic training certifications processed. Ontario workers can now come to this platform to find relevant information about the 2 mandatory training programs – Joint Health and Safety Committee Certification training and Working at Heights, locate training providers and enroll in training sessions directly online. Employers and health and safety inspection officers now have a reliable source to verify mandatory training records without the burden to maintain the paperwork manually.</p> <p>The team is now working on further enhancements to introduce streamlined training provider application processes and further develop data analytical capabilities to enable evidence-based decision making.</p>	
<p><b><u>Central Agencies I&amp;IT Cluster (CAC)</u></b></p>	<p><b>CAC Implementation of MOF IM Operational Program</b></p> <p>The Architecture and Information Management Consulting Services at CAC completed the Information Management File Plan designs for the entire Ministry of Finance, in the province of Ontario. This initiative identified every type of business records that MOF receives, or produces; and:</p> <ul style="list-style-type: none"> <li>ensured appropriate retention and disposition is defined for every record type,</li> <li>identified where the records reside,</li> </ul>	<p><b>Liz MacKenzie</b>  Chief Information Officer  CAC  (416) 327-1476  <a href="mailto:Liz.MacKenzie@ontario.ca">Liz.MacKenzie@ontario.ca</a></p>

- defined business rules on how to handle the business records,
- defined access and security for every record, and
- developed “Function Based”, technology agnostic taxonomy for organization of the business records to enable ease of discovery and access.

This initiative, rarely undertaken at this scale, was executed in a form of a Program with multiple projects and streams and took about 3 years to complete.

#### **Cognitive Computing Service Advancement**

The Cognitive Computing & Innovation Consulting Services team successfully advanced cognitive computing services in 2018-2019. The team:

- Developed first Chatbot application – Ada (AIP’s digital assistant) to answer project management process related questions
- Developed first Natural Language Processing (NLP) application in the form of the Lessons Learned POC application
- Developed CAC Cognitive Modelling Tool (CCMT) which was CAC’s first cognitive application implemented in a production environment

#### **Tax Compliance Verification Modernization**

Tax Compliance Verification (TCV) is a service that the Ministry of Finance (MoF) provides for a wide variety of government programs/services that confirms businesses are in good standing with their provincial and federal tax obligations.

CAC, in partnership with MoF and the .Net Centre of Excellence recently delivered a modernized TCV application. This solution facilitates an online, self-service channel for public users to confirm tax compliance in real-time, coupled with a back-office suite that empowers our ministry partners to perform self serve functions while easing manual administrative burdens.

This initiative supports Ontario’s Open for Business mandate making it easier to do business in the province and overall goal of offering digital public services.

#### **Advisory Pro Application (AdPro)**

The Ministry of Finance (MoF) in partnership with CAC and the .Net Centre of Excellence recently delivered the AdPro system, a fully automated case/workload management system coupled with an ‘online’ self serve channel to address internal OPS common inquiries/interpretations and consultation on all tax related legislation and benefit programs administered by MOF.

Work requests are now generated by MoF’s Advisory Services internal OPS clients, primarily through a web portal and those work requests can be automatically routed to the appropriate manager for assessment and workload management. This improves

efficiencies within the branch and allows Advisory Tax Specialists to focus more on service delivery.

**IAM Modernization – ONe-Key, GO secure, GO-PKI**

Identity and Access Management (IAM) services enable Government business applications to be accessed securely by the Public, Broader Public Sector (BPS), and the Ontario Public Service. Modernized IAM services will be launched as Public Secure, BPS Secure, and OPS Secure in order to enable the Government’s Digital First Strategy and Managing Transformation: A Modernization Action Plan for Ontario by supporting business applications hosted in OPS data centers, in the cloud, or through business partners. IAM is critical to ensuring appropriate access across technology environments and to meet increasingly rigorous compliance requirements such as cyber security. Today, applications, services or technologies are accessed through the following IAM authentication services:

- Active Directory: provides authentication and access control services to all users and servers connected to the OPS network domain. It enables access control activities such as logging into local workstations connected to the OPS network, access to Office 365 services (e.g. email, file shares), internet and printing;
- GO-PKI: is used to identify and authenticate OPS employees and BPS users requiring access to sensitive business systems;
- GO Secure: provides a seamless mechanism for OPS and BPS users to access the Government’s business applications. It works with GO-PKI to protect sensitive government systems, or on its own, provides access to less sensitive systems; and
- ONe-key: provides credential for Ontario citizens or private business to perform secure transactions with the Government of Ontario. It works in concert with the registration and security controls of a Government program.

The IAM authentication services currently support over 1,300 business applications such as Social Assistance, Child Protection, Family Responsibility Office, Vital Records, Driver and Vehicle Registration, Health Services and business taxation.

**OPSdocs**

OPSdocs enables digital management of the information that government and broader public-sector employees use to perform their jobs and serve Ontarians. The service



	<p>enables the management of OPS business records through the full document and records management lifecycle in an enterprise class content management system (i.e. OpenText). The service offers a set of processes and content management technologies that manage information across the OPS - from capture (scanning) through to archiving and disposition (records management). Information is securely stored in a central location, is easy to find, and provides tools to ensure adherence to OPS recordkeeping policies. This means all digital documents can be accessed and shared in any way that makes sense to a program area. OPSdocs provides modernized management of OPS business records in an enterprise class content management system. Currently, there are 11, 849 OPSdocs users in the OPS and approximately 90.9M documents stored.</p> <p><b>Talent Management Modernization</b></p> <p>The Talent Management (TM) Framework is the mechanism through which the Ontario Public Service (OPS) understands and manages talent, ensuring that employees continue to have the skills and capabilities to fulfill their roles and deliver quality public services. The current TM system is a solution that enables the organization to implement the TM Framework and consists of three application modules: Talent Profile, Performance and Readiness Assessment (PRA) and Succession Management. The modernized TM system will include a new system delivering core functionality of the Talent Management System in the GO Cloud environment and will replace core components of the Talent Profile module and the Performance and Readiness Assessment (PRA) module.</p> <p><b>Public Appointments Management System (PAMS) Modernization</b></p> <p>The Public Appointments Management System (PAMS) is a digital space where appointments staff across government manage public appointments for their agencies, boards and commissions. This system is administered by the Public Appointments Secretariat (PAS) and is used by the Premier’s Office and several Ministries in the OPS. Users are able to create positions, advertisements, and browse candidates to find the right fit for public appointments. Modernization of the existing internal facing Public Appointments Management System (PAMS) application and public facing Public Appointments Secretariat (PAS) website that administer the appointments of competent people to the province’s agencies, boards and commissions will involve migration away from the current .NET SDC hosted/supported applications to Azure Cloud hosting managed by CAC.</p> <p><b>Binder Browser Electronic Meeting Management</b></p>	
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Binder Browser is an electronic meeting management application the enables the elimination of the large paper binders that are often used to support meetings and their agendas. Using a tile and band format to display the agenda, users can also access and comment on supporting materials via a touch screen or traditional interface using a mouse. Binder Browser was adopted for all Cabinet meetings and Cabinet Committees and has also been adopted as the standard tool for Cabinet and Treasury Board meetings by the new administration. This means that Ontario’s Cabinet and Treasury Board meetings are now fully digital.

Usage of the tool across the user community includes:

- Over 30 committees
- In excess of 2,000 users
- Over 600 binders have been created electronically saving many hours of printing and assembly as well as thousands of trees.

**eApprovals**

eApprovals is an approvals workflow tool used to digitally approve packages of documents, such as briefing notes and reports. This system replaces the traditional process of print, sign, scan, email, and repeat with an easy to use browser-based application (no more printing) that can support any file type and can be done within minutes. eApprovals helps to reduce overall OPS costs for approval systems, by using a shared enterprise wide system which leverages one solution and infrastructure for all ministries. This system also helps to reduce the overall amount of paper required in the OPS.

**Contingent Workforce Model**

CAC has continuously led an innovative contingent workforce model to support Ontario Public Service and broader public sector clients on I&IT projects. We offer a pool of ~200 highly skilled internal employees, with technical expertise in Architecture, Project Management, Analysis and Privacy Impact Assessments. Also, CAC supports the acquisition of external consultants via the Task-Based Vendor of Record, where the Ontario government spends over \$120 million annually. Since inception of the contingent workforce model, in 2009, CAC has contributed to \$68.9M in cost avoidance (including \$4.4M in the last fiscal year). CAC continues to explore and identify the adoption of alternate service delivery mechanisms to drive value and efficiencies in contingent workforce management.

**Forensic Predictive Data Model**

	<p>The Forensic Predictive Data Model supports fraud prevention, increasing the integrity and quality of the contingent workforce procurement process. This enables the province to flag and report any unusual activity and/or inconsistent data. The tool provides summary results on vendors/consultants, including flags for:</p> <ul style="list-style-type: none"> <li>• Potential non-compliance with the procurement process and potential fraudulent/erroneous payment to vendors (post-procurement)</li> <li>• Inconsistent information being submitted by suppliers</li> </ul> <p><b>Planview EPPM</b></p> <p>In support of the strategic government priorities to centralize and standardize IT services, share information to enable evidence-based decision making and drive process efficiencies, CAC delivers the enterprise-wide Planview Project Portfolio Management service (EPPM). Planview simplifies organization of information, provides capabilities to manage Strategies, Projects, Financials, Resources effort and cost, and allows reporting and analytics from a project level all the way up to a corporate strategy level. Planview became the first enterprise-wide EPPM solution across the OPS and is fully leveraged by all I&amp;IT Cluster organizations, as well as some business clients. In 2018/19 CAC supported the adoption of Planview for corporate risk and issue management, and operational planning. Key benefits include improved visibility of the work the enterprise is performing, enhanced controls, quality and reporting, and expanded organizational capacity.</p> <p><b>Organizational Change Management</b></p> <p>CAC is developing a service model for increasing the success of public service initiatives by improving the way people experience change (Organizational Change Management). The focus is on developing a best practice methodology aligned for use in the public service, key performance indicators that highlight benefits and ROI, service delivery recommendations (e.g. coaching models, implementation options), and change agent competencies/capabilities</p>	
<p><b><u>Information, Privacy and Archives Division (IPA)</u></b></p>	<p><b>Legislative Updates</b></p> <p>Targeted amendments to Ontario's access &amp; privacy legislation in support of data sharing for the purposes of policy research and analysis in a privacy-protective manner.</p> <p><b>Privacy Management Current State Report</b></p> <p>Completed a comprehensive current state analysis of Ontario's privacy management capacity, activities and processes; including large internal stakeholder engagement.</p>	<p><b>John Roberts,</b> Chief Privacy Officer and Archivist of Ontario IPA <a href="mailto:john.roberts@ontario.ca">john.roberts@ontario.ca</a></p>

**Justice Technology  
Services (JTS)**

**Civil Claims Online Filing**

The creation of an online electronic filing service for Civil Actions in the Superior Court of Justice enables users to initiate actions and file documents for civil claims, such as: Statement of Claim, Notice of Action, Affidavit of Litigation Guardian of a Plaintiff under a Disability, Request for Bilingual Proceedings, Consent to File Documents in French, as well as make payments for those filings. This service will be expanded incrementally for additional document types to provide for more convenient user experience and services.

The first project wave of this online service was launched in April 2017 as a pilot at five sites (Brampton, Ottawa, Newmarket, London and Sudbury). It was followed by wave 2 and 3 that expanded existing functionality to include Account Profiles, searchable online filings history and file additional documents online such as Statements of Defence and proof of service documents.

The fourth wave was completed in Nov 2018 and provided users with improved service related to document previews, automated data population for common fields and improvements in usability of the overall application.

Since launch, **35%** of the total Statement of Claims have been filed electronically through the eFiling portal.

**Outcomes:**

- Delivers simple, modern, user-friendly online services, both to the public and our partners.
- Provides Ontarians filing civil actions with online services that are accessible, responsive, and easy to use.

Ontarians will be able to quickly and easily file, and track filings related to their civil claims online.

**Data Collection, Analytics and Management Reform (DCAMR) Project**

The Development and BI Analytics teams have been working in collaboration with the Ministry of the Solicitor General Corrections Modernization Division to reform all hard copy file management processes within Correctional Services to digital / electronic systems including:

- Update of OTIS (Offender Tracking Information System) data for all 25 provincial correctional complexes to baseline their capacity and set the designated purpose of housing locations.

**Robin Thompson**

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Justice Technology Services  
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- Segregation tracking, reporting and analysis and capacity management reporting introduced to electronically track institutional capacity across the province, regions and correctional complexes.
- Paper-based process for tracking capacity and utilization to be discontinued by end of fiscal 19/20.
- Lockdown data tracking implemented for digital analysis of lockdown occurrence details like duration, individuals impacted, reasons for lockdown.
- Business Intelligence/Analytics Portal launched to provide centralized access to segregation, lockdown and capacity information, related KPI's, and self-service analytics.
- Delivery of key reporting tools for decision makers including
  - Detail & Summary Segregation & Exception Reports
  - Institution Capacity Reports by Population and Location
  - Daily Lockdown Schedule Reporting
  - Lockdown Data Quality Exception Reporting
  - Analytical Cubes
- Tracking/reporting for Human Rights accommodations

All BI related dashboards are completed; however, we are awaiting policy confirmation before publishing the associated dashboards to the correctional BI portal. This is scheduled for late fall 2019.

#### Outcomes:

- Enable Correctional Services to understand key issues within Institutions for evidence-based decision making and better management
- Increase public transparency with institutional improvement programs across the province
- Enhanced quality assurance and oversight reporting
- Replacement of existing manual, paper-based processes
- Business intelligence/analytic reporting tools
- Data management (daily extracts / uploads for BI purposes)
- Outcomes based performance measurements

#### **Rollout of Electronic Briefs (SCOPE deployment)**

SCOPE is the Ministry of the Attorney General's system supporting criminal case disclosure tracking from Police Services (municipal and OPP), case management, file management, and digital scheduling. It is progressively being deployed to Crown office locations across the province.

	<p>Now over 90 per cent of Ontario’s criminal case volume resides within the SCOPE database covering twenty-six municipal police services and nearby OPP detachments. Since Jan 2018 this includes deployments to 18 municipal police services and 58 OPP and Indigenous Police Service detachments.</p> <ul style="list-style-type: none"> <li>• Hamilton Police Service</li> <li>• Peterborough Police Service</li> <li>• City of Kawartha Lakes Police Service</li> <li>• Northumberland / Cobourg / Port Hope Police Services</li> <li>• Annisnabek Police Service</li> <li>• Barrie Police Service (incl. South Simcoe Police Service)</li> <li>• North Bay Police Service</li> <li>• Sudbury Police Service</li> <li>• Belleville Police Service</li> <li>• Orangeville Police Service</li> <li>• Shelburne Police Service</li> <li>• St. Thomas Police Service</li> <li>• Woodstock Police Service</li> <li>• Sarnia Police Service</li> <li>• Cornwall Police Service</li> <li>• Owen Sound Police Service</li> <li>• Sault Ste. Marie Police Service</li> <li>• Brockville Police Service</li> </ul> <p>Outcomes: For sites where SCOPE has been deployed:</p> <ul style="list-style-type: none"> <li>• Ontario’s criminal cases are received, tracked, and disclosures disseminated electronically</li> <li>• All information is shared electronically across jurisdictions, throughout MAG, and with external justice partners.</li> <li>• All Crown staff are scheduled electronically.</li> </ul>	
<p><b><u>Government Services Integration Cluster (GSIC)</u></b></p>	<p><b>The IFIS Refresh initiative</b></p> <p>The Integrated Financial Information System (IFIS) is one of the Ontario Public Service (OPS) key Enterprise Resource Planning (ERP) system and IFIS is vital to supporting financial management activities for all ministries in the delivery of their programs and services to Ontarians.</p>	<p><b>Renee Laforet,</b> Chief Information Officer, GSIC (416) 327-7867 <a href="mailto:renee.laforet@ontario.ca">renee.laforet@ontario.ca</a></p>

	<p>The IFIS Refresh Project is part of a necessary cycle of asset maintenance and meets our commitment to modernize IT systems and maintain financial transparency and accountability. The IFIS Refresh Project will deliver two major improvements:</p> <ol style="list-style-type: none"> <li>1. On August 28th, 2018, EFSB has successfully implemented a state-of-the-art architecture to modernize the IFIS Infrastructure. A solid, innovative technology solution is provided to enable future OPS business transformation and expansion. This agile technology foundation introduced the latest innovative industry technology – Engineered System and consolidated the IFIS footprint by 80%. The new IFIS infrastructure paved the first step required to move towards a cloud solution and met the strategic priorities to be faster, smarter and better.</li> <li>2. Business Intelligence Modernization which will replace obsolete reporting software and toolsets and will deliver a modern, powerful, secure BI and analytics platform capable of meeting emerging enterprise ministry and central agency needs.</li> </ol> <p>The first phase replaced Discoverer with OBIEE; Modernized BI Security; Migrated PDTHE (Public Disclosure of Travel and Hospitality Expenses) to IFIS Core. This was successfully implemented January 28, 2019.</p> <p>The second phase migrated Cash Forecasting and Public Accounts Consolidation to IFIS Supercluster; Implemented Cost Centre, Salary and FTE Forecasting in Hyperion. Go-live occurred on March 31, 2019 and April 29, 2019</p> <p>The final phase will increase the usage of data analytics and evidence-based decision making by further education of IFIS related date sets for advanced power users. This is expected to be completed by the end of 2019-2020 fiscal year.</p>	
<p><b><u>Health Services I&amp;IT Cluster (HSC)</u></b></p>	<p><b>OHIP+: Children and Youth Pharmacare Redesign</b></p> <p>On January 1, 2018 OHIP+ was implemented providing publicly-funded drugs to Ontario children and youth 24 and under. On June 30, 2018, the Ontario government announced that the OHIP+ program would be changed to focus OHIP+ on those children and youth who do not have an existing prescription drug benefits plan (these changes came into effect on April 1, 2019).</p>	<p><b>Karen McKibbin</b>  Assistant Deputy  Minister/Executive Lead, HSC  647-618-0597  <a href="mailto:Karen.McKibbin@ontario.ca">Karen.McKibbin@ontario.ca</a></p>

Changes to the ministry's I&IT solution as well as changes to solutions provided by other health system partners in the end-to-end service chain for the Ontario Drug Benefit business were implemented prior to the effective date of April 1, 2019.

#### **Digital Yellow Card / Immunization Connect Ontario**

Digital Yellow Card (DYC)/Immunization Connect Ontario (ICON) remains a popular web tool for Ontarians to access and submit their and their children's immunization records to public health through the provincial Digital Health Immunization Repository. As of August 2019, more than 228,000 individuals have accessed their digital yellow card over 350,000 times and submitted over 1,067,000 immunizations.

A number of technology improvements have been made to ICON in the past year to advance operational efficiencies including:

Docker Enterprise Platform Enhancements, upgrading to Kubernetes orchestration and integrating high-value, low-cost open source solutions, including:

- GitLab Enterprise, used as the source code control repository, supporting Continuous Integration Deployment on the Docker Enterprise platform.
- Sematext, a Docker container-based monitoring tool that provides anomaly detection and alerting within the Docker Enterprise platform.
- Logsene, providing log management that makes all application and server logs searchable and providing log alerting and unlimited dashboards.

#### **Digital Health Drug Repository**

The ministry developed the Digital Health Drug Repository (DHDR) to enable physicians, pharmacists and other health care providers to access patients' dispensed medication and pharmacy service histories at the point of care. The DHDR is populated with dispensed drug history events from the ministry's Ontario Drug Benefit (ODB) Claims Adjudication System as well as dispensed data from the Narcotics Monitoring System (NMS).

Approximately 1.4 billion (over 8 years of) publicly funded drug and pharmacy service records (e.g., MedsCheck program) and 0.2 billion (over 6 years of) narcotic records have been loaded into the DHDR and connected to the provincial clinical viewers for use, with approximately 17 million new dispense records added into the DHDR each month.

As of November 2018, ~150,000 health care providers (~50% of registered health professionals in Ontario) are eligible to access DHDR, via two regional clinical viewers, at 546 sites across Ontario in order to enhance patient safety and continuity of care.



The ministry is currently assessing the DHDR roadmap and will identify incremental enhancements and new priorities for delivering value with a focus on empowering patients with access to their drug and pharmacy service information, better integration with the workflow of frontline providers and a streamlined approach for obtaining more comprehensive information. The ministry is considering options for seeking government approval to implement this roadmap under the Digital First for Health strategy.

**Special Authorization Digital Information Exchange (SADIE)**

The SADIE project is modernizing the Ontario Public Drug Program's Exceptional Access Program by providing access to life-saving drugs to people faster with improvements to the:

- Patient Experience: Speeding up the time to receive an EAP decision
- Prescriber Experience: Reducing administrative burden so that prescribers can focus on providing direct patient care
- Program Delivery:
  - Reducing the effort required to manage program on behalf of patients
  - Manage complex business rules as EAP drugs are expensive and the funding criteria are complex
  - Manage increasing volumes due to program changes and an aging population

The scope of this initiative includes an online service for prescribers including real-time adjudication of many drugs, improved program management data analytics, reporting and automation improvements for the back office.

A prototype was made available to selected healthcare providers in December 2018 for clinician feedback as part of an Agile development strategy which resulted in a successful limited production release of SADIE to a pilot group of 240 prescribers on April 1, 2019. Access to SADIE was significantly expanded to more than 10,000 prescribers in May 2019, followed by the implementation of an enhanced release of the SADIE solution to all Ontario physicians and nurse practitioners (more than 40,000 potential users) as of July 1, 2019. Over 140 dynamic, criteria-based forms are now available online with additional forms being added each month. Requests submitted online can skip several preliminary back office administrative steps and, as a result, turnaround times for SADIE submissions have been notably faster than for faxed forms.

	<p><b>Automatic Vehicle Locator (AVL) Aggregator Service</b></p> <p>Automatic Vehicle Location (AVL) technologies utilize satellite and GPS location data to track the real time location of each ambulance in Ontario. This information is critical to enable the Ambulance Communication Officers to assign a 911 medical call to the most appropriate ambulance resource. This information once received is integrated into GIS mapping layers within various dispatch technologies.</p> <p>The Ministry replaced a legacy solution and developed an AVL Aggregator service that consolidated the feeds from 56 paramedic services in real time and passing this data to the appropriate ambulance dispatch centers. This was implemented and went into production in June 2019 leveraging a combination of in-house development and available cloud technologies. The result has significantly improved the service and provided enhanced monitoring and incident management capabilities.</p>	
<p><b><u>Community Services I&amp;IT Cluster (CSC)</u></b></p>	<p><b>Modernizing Child Care</b></p> <p>The <b>Child Care Licensing System (CCLS)</b> was successfully designed and delivered to support the minimization of manual processing and providing a real-time, online electronic mechanism for documenting complaints about licensed programs. This solution allows ministry staff to track and manage public complaints in a centralized and consistent manner while ensuring data accuracy. Additionally, a province-wide database supports timely response to complaints and enables data analyses to identify trends and the provision of reports at the provincial level.</p> <p>In March 2019, a new release was successfully launched to support additional features and enhancements. The key enhancement of the release was to enable Regional Managers and the Account Coordinator to change the mode of payments as needed based on individuals' requests. Also, the CCLS Survey Module was modified to reflect new data collection elements.</p> <p>The <b>Early Years Analytics Solution (EYAS)</b> is a business intelligence and reporting solution designed to integrate data from the multiple I&amp;IT business solutions to support evidence-based decision-making. EYAS provides a flexible web-based solution that creates and distributes standard reports to ministry staff to assist in managing workload distribution across seven regions. EYAS includes 30 standard reports and three dashboards as well as self-serve ad-hoc reporting functionality that enables ministry staff to track child care license information and identify trends and issues across multiple regions over time.</p>	<p><b>Soussan Tabari,</b> Chief Information Officer, CSC (416) 326-8216 <a href="mailto:Soussan.Tabari@Ontario.ca">Soussan.Tabari@Ontario.ca</a></p>

Over the past months there have been numerous enhancements made to EYAS to accommodate new features and changes from the CCLS source system, as well as new reporting functionality designed to assist with the delivery and monitoring of ministry initiatives focused on the early years portfolio. These upgrades all centre around providing a flexible and streamlined process that efficiently addresses reporting needs, reduces manual effort wherever possible, and ensures data quality. Going forward, the project will begin implementing Lean Six Sigma methodologies to apply best practices and further refine both the development and delivery of new functionality; including an updated Child Care Survey report released in Spring 2019 as well as an updated Municipal Profile report planned for Summer 2019.

A new collection (Early Year Experiences) was added to the Ontario School Information System (OnSIS) to gather comprehensive, retrospective information about a child's participation in early years programs. The data would be requested at the time of the child's registration to kindergarten and would be used to better understand how families access programs and to improve policy development and program delivery.

**EarlyON** is a data collection application for capturing up-to-date location and contact information for child and family centres across Ontario. This data is used to display a public facing map on Ontario.ca, and to report to the federal government on the status of EarlyON Centres in Ontario (reporting includes, Indigenous & French Programming, Hours of Operation, etc.).

In 2018, locations and contact information was collected for over 1000 EarlyON locations and were used to populate a live public-facing map on Ontario.ca to provide parents with an up-to-date view of all EarlyON programs, their locations and hours of operation across Ontario.

**The Investigative Case Management System (ICMS)** was developed to assist with the tracking and monitoring of childcare investigation to support childcare enforcement, as mandated by the Childcare and Early Years Act. Using the Child-Care Application and Modernization framework that was already established, and the Case Management platform (Siebel) technology, the system was built and launched in November 2015 to begin capturing unregulated childcare facility cases and to aid the inspection and the enforcement processes. The system captures the entire lifecycle of childcare investigations, including complaints, first visits, investigations, enforcement actions, and prosecutions and includes data analytics functionality.

	<p>A mobile application was successfully delivered in March 2017, along with a new infrastructure environment to support the release. This mobile solution allows investigators to use a mobile device while conducting investigations and inspections of child care centres. This reduces case processing times and enables users to connect with a backend case management system to retrieve case details and use voice recordings, images and videos to support investigations.</p> <p>The mobile solution is currently being leveraged by field investigators who conduct their investigations on iPads and are able to reduce the processing times to the goal of 50% by cutting out post investigation visit desk time to input notes into the system.</p> <p>Since the solution was delivered, enhancements have been made to keep the system up-to-date such as adding time sheet tracker, introducing new compliance templates and global search functionality.</p> <p><b>Application of Artificial Intelligence to Unstructured Documents</b></p> <p>The Community Services I&amp;IT Cluster collaborated with the System Planning, Research and Innovation Division, Ministry of Education (EDU) to revamp the existing “<b>Made in EDU</b>” solution. The solution provides policy and program analysts access to a repository of documents to identify and locate previously conducted research, evaluation and knowledge mobilization reports/materials to assist in the development of policies and programs.</p> <p>The revamped solution launched in April 2019 incorporates artificial intelligence, specifically Natural Language Understanding which provides more pertinent research to users faster, and enables the exploration of tangential, related research. The “<b>Revamped Made in EDU</b>” solution enabled users to conduct their searches using phrases in a manner that is natural to them rather than adapting their searching to the machine and employed a simple, intuitive user interface that greatly improved the usability of the solution. The AI-enabled solution resulted in greater confidence in the relevance of the search results and a significant reduction in the time taken to locate a specific document or resource when compared to the prior solution.</p> <p>Through the improvements implemented in this AI-based solution, users in the Ministry of Education will be better equipped to conduct the research needed to develop policies and programs aligned with government priorities that meet the educational needs of Ontario’s students and their parents.</p> <p><b>Long Term Care Homes - Rate Reduction</b></p>	
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	<p>The Community Services I&amp;IT Cluster worked in close partnership with the Long-Term Care Homes Division, Ministry of Health and Long-Term Care (MOHLTC) and Health Services I&amp;IT Cluster, to implement the Electronic Rate Reduction Information System Application (E-RRISA) to modernize the Long-Term Care Homes (LTC) rate reduction line of business.</p> <p>LTC home residents are required to contribute towards the cost of their accommodation (basic or preferred) through a co-payment. To ensure that income is not a barrier to access, residents who do not have sufficient income to pay the full co-payment rate may be eligible to have their co-payment amount reduced. This is known as 'rate reduction' and is available to residents in basic accommodation only. LTC homes submit requests for rate reduction to the ministry on behalf of residents. It is estimated that the ministry receives approximately 33,000 applications annually.</p> <p>E-RRISA is integrated with automated income verification functionality, where a detailed Notice of Assessment for long term care residents can be retrieved from the CRA and populated into E-RRISA for the rate reduction application. This feature improves data accuracy and reduces manual entry by long term home administrators. CSC continues to support E-RRISA for all operational and production support activities including infrastructure and application maintenance.</p> <p><b>An End-to-End Service Provider Lifecycle Management Solution</b></p> <p>The Employment &amp; Training Division (ETD) of the Ministry of Training, Colleges and Universities (MTCU) has been working with Community Services I&amp;IT Cluster hand in hand for a full Service Provider Lifecycle Management (SP Connect) Solution. The solution includes a number of features, such as business planning, transfer payment agreement contracting with plan development, assessment, recommendation, approvals, agreement template and generation. The solution also enables managing the agreements, monitors the performance and financials as well as follow-ups, and evaluates the service provider and the transfer payment agreements.</p> <p>This solution provides a homogeneous framework for planning, delivering and monitoring the programs and services with consistencies and efficiencies. The highly configurable template driven design enables program areas to design, deliver, and evaluate the programs and services, as well as make quick adjustments when necessary. The flexibility and capability of the system design allows it to be leveraged within Ontario government for similar requirements.</p>	
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The system was successfully delivered in March 2017, and enhancements have since been released to increase efficiency and further reduce administrative burden for both ministry and service providers. We have also been making required enhancements to keep the system up-to-date such as updating program templates. Currently changes are being made to the system to support Ontario's Employment Service Transformation (EST) which is an integration of social assistance programs and Employment Ontario programs.

**Automated Collection of Financial and Staffing Data from Ontario Municipalities**

Oracle's Hyperion Planning suite of products has been deployed to automate and secure the process for collecting financial and staffing data from over 444 municipalities in Ontario. Previously this task (known as Financial Information Returns (FIR)) was accomplished with spreadsheets and emails resulting in a labour-intensive, error-prone and non-secure collection method which has been replaced by a centralized financial planning application modelled on the Canada Revenue Agency's e-file approach. A key focus of this fully modernized new system is to enable more effective internal use of the collected data (On-Line Analytical Processing) and to facilitate the sharing of data amongst all stakeholders using familiar interfaces such as Microsoft Excel. This was implemented in all of Ontario's municipalities and went live in March 2017.

A small pilot project was completed in March 2019 to modernize the current public website in an effort to make FIR data easily accessible and useful. Funding is being requested to continue this work with the ultimate goal to provide dynamic access directly to FIR data in order to replace the static csv file approach that is currently being used.

**Improved Usability and Availability of Education Data**

The Ontario Ministry of Education (EDU) has a mandate to collect education-related information from schools and school boards across Ontario for the purpose of reporting, analytics and evidence-based decision-making.

As an evolution of the existing data warehouse, the Community Services I&IT Cluster, along with their EDU partners, have aligned the already rich education information data collection to the many business processes the ministry uses every day. As a result, the usability of the information has drastically improved, as has the efficiency of data storage and retrieval. In addition, there is also new capacity for linkage to many other internal and external data sets, providing the opportunity for more comprehensive

education analytics. This new dimensional approach has resulted in the creation of the industry leading Ontario Education Data Warehouse (OEDW).

With a complete set of education data now available, the focus on OEDW development has been on the creation of business-driven data marts built around student achievement and graduation. Efforts have also been made to make student level information accessible to multiple branches within the ministry such that the data will be used in a consistent manner.

To provide an effective window into this enriched source of data, EDU and CSC have forged ahead in the self-service business intelligence space with the creation of the **Education Information Center (EIC)**.

EIC is a reporting and analytics portal for use by the Ministry of Education and representatives of Ontario's 72 publicly funded school boards and 4 school authorities. It enables EDU to share interactive reporting applications with ministry and school board stakeholders, giving them a unique view on education trends and results through an easy to use web-based interface.

Recent releases included an Indigenous Education Analytical Profile interface which will enable users to explore enrolment trends and student achievement results for self-identified indigenous students. Another recent release included a new School Board Profile application, which offers an overall view of education statistics for each school board.

September 2017 introduced a major shift in application delivery with the migration of EIC to the cloud – the first OPS-integrated application to do so. Moving to the cloud enabled more flexible resource utilization, cost efficient application delivery, and improved time-to-market.

On May 15, 2019, the implementation of phase two of the EIC portal was approved. The main new feature introduced is a significant improvement in the tool used to query data. Microsoft's Power BI suite of tools will replace the currently available Power View product. This change will mean a significant improvement in EIC capabilities. The new tool is fully compatible with all internet browsers and is accessible via mobile applications. This means that EIC users will now be able to access the full suite of new reporting tools using any browser on a wide variety of devices. The upgrade to Power BI will also give board users new analytical functions that will enable data-supported planning and monitoring. EIC phase two is set to launch fall 2019.

### **Ontario Student Assistance Program (OSAP)**

*(Lighthouse project)*

Ontario Student Assistance Program (OSAP) is a flagship program of the Ministry of Training, Colleges and Universities (MTCU). OSAP is responsible for administering both provincial and federal student financial aid programs for Ontario students undertaking postsecondary studies.

OSAP provides eligible Ontario students with financial aid to help pay for education-related costs such as tuition, books, living costs and transportation. In addition, OSAP provides repayment assistance options when students have completed their studies. Financial aid includes over 20 funding instruments and can come in many forms: grants, bursaries, scholarships, fellowships, debt reduction, interest relief, work study or loans.

OSAP program is a mobile friendly web-based solution that contains over 50 applications and sub-systems to support data collection and application processing for three active academic years and data viewing for all historical years. OSAP is used by over 3 million Ontario students, hundreds of ministry staff and over 3,000 financial aid agents in over 2,000 financial offices across over 2,000 universities and colleges over the world.

Over the past 12 months, there have been over 40 releases across all major applications and sub-systems to support government priorities, policy changes and enhancements. This included changes to align the system with government fiscal commitments, redesigning Grant to Loan Conversion and Grants Paydown system, changing manual payment to electronic payment system for core part time students, implementing new Data File Portal for third party integration and enhancements related to Accessibility for Ontarians with Disabilities Act (AODA) compliance and security.

### **Program Approval and Registration Information System (PARIS)**

CSC's Program Approval and Registration Information System (PARIS) application is an example of how CSC is making it easier for organizations to do business with the government through digitization, self service and streamlined processes. In February 2019, the PARIS application went live. PARIS automates the end-to-end business processes between the Ministry of Training, Colleges and Universities (MTCU) and approximately 500 Private Career Colleges. PARIS supports the role of the ministry in monitoring and regulating Private Career Colleges (PCCs) and to modernize the



	<p>branch's core business through automation, business process reengineering, and improved data management.</p> <p>PARIS is transformative for the PCC sector as it represents a major leap forward from a largely paper-based processes to true digitally enabled service delivery. Re-engineered business processes and automation will greatly reduce the administrative burden on both the PCC sector and PCCB's internal operations and will lead to improved turn-around times for key services. PARIS will provide a client-focussed user experience for its sector stakeholders through a modern user interface and the convenience of paperless application submission and online payment processing.</p> <p>The PARIS application also demonstrates CSC's ability to make I&amp;IT investments go further. PARIS was built on the iACCESS platform. This is the platform that was first built to enable a student financial assistance program ("Ontario Student Assistance Program") in MTCU and has subsequently been leveraged for the following diverse lines of business:</p> <ul style="list-style-type: none"> <li>○ Child Care – Ministry of Education</li> <li>○ Archeology and Heritage – Ministry of Tourism, Culture and Sport</li> <li>○ Long Term Care – Ministry of Health and Long-Term Care</li> <li>○ Residential programs for children and youth – Ministry of Children, Community and Social Services</li> <li>○</li> </ul>	
<p><b>2. Priorities:</b> Briefly describe what your organization sees as its <b>top IT/IM priorities/initiatives over the next 12 to 36 months</b>. <i>The PSCIOC is particularly interested in jurisdictional information in the following areas:</i></p> <ul style="list-style-type: none"> <li>• <b>Digital Government</b></li> <li>• <b>Cyber Security</b></li> <li>• <b>Talent Management</b></li> </ul>		
<p><b><u>Land and Resources</u></b> <b><u>I&amp;IT Cluster (LRC)</u></b></p>	<p><b>Parks Reservation and Registration Service (PRRS)</b> The Ministry of the Environment, Conservation and Parks (MECP) manages 329 Ontario Parks through protection, conservation, education and providing recreation opportunities including: camping, hiking, canoeing, swimming, skiing, snowshoeing and nature viewing. MECP has partnered with the Land and Resources I+IT Cluster to replace the existing reservation and registration system with a modern online digital service e-commerce and tools for ministry business intelligence and revenue management. Go-live data Oct 26, 2019.</p> <p>Anticipated Outcomes:</p>	<p><b>John DiMarco</b> Chief Information Officer Land and Resources I&amp;IT Cluster 416-326-6954 <a href="mailto:john.dimarco@ontario.ca">john.dimarco@ontario.ca</a></p>

- Faster and easier public access to Ontario Parks information, registration and reservations.
- 24-7 online access to services and information
- Streamline public experience at parks (check-in, permits, vendor)
- Identify opportunities for additional improved digital Parks Ontario services and functionality
- Improved ministry data and business intelligence

#### **Compliance Re-Engineering and Information System Technology Project (CRISP)**

The Ministry of the Environment, Conservation and Parks (MECP) safeguards our natural environment and healthy communities through regulatory programs, monitoring compliance and enforcement if required. This project will modernize the Ministry's core regulatory compliance programs and associated business processes, and enable a risk-based approach through the implementation of a compliance and enforcement solution. Launched Spills Action Centre (SAC) September, 2018, now developing an integrated project plan and begin iterative delivery.

Anticipated Outcomes:

- Central access to data and information, with holistic information on compliance for each regulated area.
- Business intelligence and analytics to enable:
  - Compliance monitoring and assurance.
  - Risk-based planning and decisions.
  - Research and policy development.
  - Efficiencies and improved functionality, replacing legacy systems.

#### **Natural Resources Information Portal (NRIP) (MNRF)**

The Ministry of Natural Resources and Forestry (MNRF) provides resource management services for sustainable management and industries for economic prosperity and quality of life. This project will implement a public online portal to provide business and Ontarians with resource-based services and information in a Cloud Based Acquired Solution (CBAS). It is linked with Regional Operations Division (ROD) Common Business Solution (CBS) Strategy, Forest Information Portal will be the first area released.

Anticipated Outcomes:

- A single portal for fast, accessible, easy-to-use, and secure online services.

- Improved information, reporting and user experience for Ontario industry reporting users. Collecting and managing data, improved business intelligence for evidence-based decision making.
- Implementing a common solution across business areas, reducing technology footprint.
- Replacing legacy out-of-date systems, reducing risk of system failure and introducing new functionality. Improved information quality, reduced risk of data error.

#### **Laboratory Services Review and IT Modernization (MECP)**

The Ministry of the Environment, Conservation and Parks (MECP) provides analytical laboratory services to support monitoring compliance, audit and emergency response needs. The ministry Delivers high-quality testing, expert consultation, scientific reference service, method development and the application of relevant analytical technology. This project will replace legacy technology from the 1990s with a modern, scalable and expandable Commercial off-the-shelf (COTS) solution.

#### **Anticipated Outcomes:**

- Modernize current processes (60% are currently are manual / paper-based).
- Streamline all business processes and improve/automate operations for the end-to-end service (From request intake to results returned).
- Reduced risk of system failure and data degradation.
- Consolidate side applications used for data and automate data collection and management.
- Meet high-level of standards for ministry International Organization for Standardization (ISO) accreditation.
- Improve business intelligence and performance measurement of laboratory performance.

#### **AgriSuite Modernization (OMAFRA)**

The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) provides calculator tools and resources for use by farmers, environmental and agricultural professional and ministry staff to support the Nutrient Management Act, 2002 and Minimum Distance Separation guidelines. This project will modernize the AgriSuite application and 10 environmental calculators with a mobile-enabled digital user experience and launch 2 new calculators (Phosphorus loss and greenhouse gas emissions) to promote scientifically sound agronomic, environmental and land-use practices.

	<p>Anticipated Outcomes:</p> <ul style="list-style-type: none"> <li>• Mobile Access to all tools, supporting growing trend of using mobile devices for farm operations.</li> <li>• Provide current users with a better user experience and more flexibility to conduct their business.</li> <li>• Client profiles with individual user log-in and retention of profile information across all calculators.</li> <li>• Decision making tools to promote scientifically sound agronomic, environmental and land-use practices (with new Phosphorus Loss and Greenhouse Gas).</li> </ul>	
<p><b><u>Infrastructure Technology Services (ITS)</u></b></p>	<p><b>IT Modernization through Back Office Efficiencies</b></p> <p>In alignment with findings from the recent Ernst Young (EY) Modernization Action Plan for Ontario / Line-by-Line Review, ITS is leading a Back-Office Efficiencies multi-year program aimed at driving in efficiencies, cost savings and improved delivery of services to Ontario Public Service (OPS) employees and the citizens of Ontario. This program is organized across 4 different work streams:</p> <ul style="list-style-type: none"> <li>• Efficient Use of IT Services</li> <li>• Common Infrastructure Consolidation</li> <li>• Selective and Strategic Sourcing</li> <li>• Broader Public Sector use of OPS IT Infrastructure services (eg. Hosting Services)</li> </ul>	<p><b>Rocco Passero,</b> Enterprise Chief Information Officer, Infrastructure Technology Services (416) 356-7605 <a href="mailto:Rocco.Passero@ontario.ca">Rocco.Passero@ontario.ca</a></p>
<p><b><u>Ontario Digital Services</u></b></p>	<p><b>Identity Management – Digital Identity</b></p> <p><b>API's and API Gateway</b></p> <ul style="list-style-type: none"> <li>• Ontario has started a proof of concept (POC) to develop basic API's (Application Programming Interfaces) to expose identity related data from trusted government assets. In addition, this includes establishing an API Gateway that will provide a single access point for internal and external consumers of these APIs in support of real-time validation of identity claims. This work is being done in a controlled lab/test environment to validate assumptions on approach and technology.</li> </ul> <p><b>Digital Identity POCs and Pilots</b></p> <ul style="list-style-type: none"> <li>• Ontario has been engaging Ministry organizations across the OPS to identify potential opportunities for POCs and pilots to demonstrate the benefits of a DI solution/approach.</li> </ul> <p><b>Pan-Canadian Trust Framework</b></p> <ul style="list-style-type: none"> <li>• Ontario will continue to work closely with Federal-Provincial/Territorial (F-P/T) Tables to advance the Identity Management priority and development of the</li> </ul>	<p><b>Robert Devries</b> Assistant Deputy Minister, Platforms Cabinet Office (416) 668-5727 <a href="mailto:Robert.Devries@ontario.ca">Robert.Devries@ontario.ca</a></p>

	<p>Pan Canadian Trust Framework (PCTF) which will inform Ontario's policy approach to enable a digital identity program in the province.</p> <ul style="list-style-type: none"> <li>Ontario also recognizes the value of a DI ecosystem that can interoperate with other governments as well as the private sector as a means to reduce the burden on both citizens and businesses.</li> </ul> <p><b>Sovrin / Digital Wallet</b></p> <ul style="list-style-type: none"> <li>Ontario is experimenting the use of digital identities with the Sovrin decentralized identity network. This includes use of the Sovrin digital wallet and publishing of identity claims to the wallet and onto the Sovrin blockchain network. This is another learning opportunity for Ontario and the information will be used to inform our future path forward.</li> </ul>	
<p><b><u>Children, Youth and Social Services Information and Information Technology Cluster (CYSSC)</u></b></p>	<p><b>Enable Digital First for Service Delivery</b>          Deliver more government services through digital means to improve services and reduce administrative burden for staff:</p> <ul style="list-style-type: none"> <li>Modernize common platforms to enable digital functionality and reduce hosting/maintenance costs</li> <li>Automate solution development, testing and deployment and reskilling staff resourced in digital activities</li> <li>Explore centralized data warehouse and cross-program data models for an integrated view</li> <li>Modernizing data and analytics technology platforms to enhance data management (including privacy/security)</li> </ul> <p><b>Identify Operational Efficiencies</b>          Identify opportunities to reduce annual operating costs, increase efficiency and support faster development</p> <ul style="list-style-type: none"> <li>Retire and/or migrate peripheral applications</li> <li>Rationalize internal file shares, telephony/voice equipment and other user seat costs where internal billing exceeds actual usage/productivity of these assets</li> </ul> <p><b>Broader Public Sector I+IT Services</b>          Expand savings related to key I+IT shared services and Supply Chain Ontario contracts to the Broader Public Sector. This can range from offering services from consolidation through to rationalizing I+IT services into the OPS</p> <ul style="list-style-type: none"> <li>Explore partner agencies and transfer payment recipients to determine candidate agencies/partners that would benefit from the enterprise grade I&amp;IT services leveraging the buying power of the OPS</li> </ul>	<p><b>Antonio Paniccia</b>          Chief Information Officer          CYSSC          416-417-7908  <a href="mailto:antonio.paniccia@ontario.ca">antonio.paniccia@ontario.ca</a></p>

	Develop an intake process and implementation plan (collaborative effort by the OCCIO to be delivered in partnership with ITS).	
<b><u>Labour &amp; Transportation I&amp;IT Cluster (LTC)</u></b>	<p><b>Digital Government</b> MTO is working collaboratively with MGCS to push the governments digital agenda forward through various digital first initiatives (Top 10 Transactions and Digital First Omnibus Bill)</p> <ul style="list-style-type: none"> <li>○ <b>Top 10 Transaction:</b> MTO is working with MGCS to enhance 8 of the 10 top ten transactions and improve uptake of existing digital services, including online Driver's licence, health card, address change, electronic renewal notices etc. (i.e. building on existing transactions).</li> <li>○ Top 10 will shift approximately 10 million in-person transactions to digital channels saving up to \$33.5 million over the next five years.</li> </ul> <p><b>Digital Garage:</b></p> <ul style="list-style-type: none"> <li>○ <b>Sr Driver's Renewal</b> - Review the Sr Driver's Renewal Program and identify opportunities for digital transformation, increasing efficiencies and improving the user experience.</li> <li>○ <b>Driver's License Check</b> - Enhance the DL Check Online service to provide users with a simple and more accessible way to check the validity of a Driver's License, increase service awareness, and create a mechanism for the users to receive timely notifications of any changes to a Driver's Licence status</li> <li>○ <b>Digital Driver's Handbook</b> -The move to digital formats is on the rise and our citizens are expecting us to follow the trend. Through this project we explore the opportunity to digitize the Ontario Driver's Handbook.</li> <li>○ <b>Driver's Instructor Card Elimination</b> - Move away from physical cards to a modern digital format that is accessible online and/or on our mobile devices.</li> <li>○ <b>Photo Card</b> - Enable the application and renewal of the Ontario Photo Card to be processed through a digital service.</li> </ul> <p><b>Digital First Omnibus Bill</b> Features amendments to the MTO Highway Traffic Act (HTA) intended to remove legislative barriers to data sharing and becoming a digital first organization</p> <ul style="list-style-type: none"> <li>○ <b>Phase 1:</b> Three regulatory changes to the Highway Traffic Act (HTA) were approved:</li> </ul>	<p><b>Wynnann Rose</b> Chief Information Officer LTC 905-704-2167 <a href="mailto:Wynnann.Rose@ontario.ca">Wynnann.Rose@ontario.ca</a></p>

	<ul style="list-style-type: none"> <li>▪ Enable customers who renew their driver's license online to get digital temporary driver's license to continue driving with until their new driver's license card is received</li> <li>▪ Permit online valtag renewal for customers whose valtag is expired or set to expire within 10 days of renewal</li> <li>▪ Allow for online beginner driver education (BDE) training</li> <li>○ <b>Phase 2:</b> Six legislative changes to the HTA have been proposed, seeking LRC approval in September <ul style="list-style-type: none"> <li>▪ Process documents digitally and allow for information to be shared across government (i.e. apply for a Driver's Licence/register a vehicle online and receive a digital document and facilitate digital IDs)</li> <li>▪ Provide roadside enforcement (i.e. short-term ability to show a permit/DL on a mobile device, long-term ability to transfer information digitally for enforcement)</li> <li>▪ Electronic provision of information with no risk to breach of privacy (i.e. enabling digital transfer of identification (mobile DL) for third parties such as financial institution, LCBO etc.)</li> <li>▪ Allow permit validation with or without a valtag (i.e. renew licence plates without providing a sticker)</li> <li>▪ Allow digital signatures</li> <li>▪ All the notification of suspensions or notices digitally (i.e. receive a notice of suspension)</li> </ul> </li> </ul>	
<p><b><u>Central Agencies I&amp;IT Cluster (CAC)</u></b></p>	<p><b>Governance Blockchain Kanban Board:</b> The Architecture and Information Management Consulting Services team in CAC is responsible for governing the architectural designs of the IT projects undertaken by CAC. With complexities around governing various projects, one of our priorities is to be aligned with Digital Government and ensure Security in governance. To do so, it is one of our initiatives to undertake a proof of concept and deploy a solution to leverage Kanban and Blockchain to track, manage, and maintain auditable project governance records in a secure, yet transparent environment.</p> <p><b>Cognitive Computing Service Advancement:</b> CAC will continue to explore how Cluster business partners and the broader enterprise can benefit from emerging technology adoption.</p> <p><b>Business Architecture (BA) Baseline</b> The BA Baseline is an integrated set of OPS standard models for business description (e.g. programs, functions, and service profiles) CAC has collected approximately 300</p>	<p><b>Liz MacKenzie</b> Chief Information Officer CAC (416) 327-1476 <a href="mailto:Liz.MacKenzie@ontario.ca">Liz.MacKenzie@ontario.ca</a></p>

business process scenarios or models to help build a robust Business Architecture (BA) Baseline.

- A reusable BA Baseline streamlines project architecture development

Contributes to business decision-making while supporting continuous quality improvement and business re-engineering initiatives.

**Revenue Processing, Image Capture and Data Entry Transformation Initiative (RIDE-TI)**

The RIDE-TI multi year project will re-engineer, modernize and deliver the way MoF manages and delivers its payment processing, imaging and data capture processes. Benefits of this initiative include better serving the public through an on-line portal, aligning with the government’s digitization strategy and MOF’s e-services vision, enhanced security, administrative efficiencies, operational savings, and a reduction in the total amount of paper processed by up to 85%. Implementation of RIDE-TI will be accomplished using a phased approach where the current solution will be gradually transitioned to the new IT solution by August 2023. It will generate long-term savings to the MoF through the re-engineering of business processes and streamlining of operations.

**Centralized Collections**

MOF’s Tax Compliance and Benefits Division (TCBD) is the debt collector for the Ontario Public Service (OPS) and other public entities (agencies, boards and commissions). The collections of tax and non-tax debt accounts are handled by individual collectors working on various computer systems using different rules, training and procedures. These systems range from complex case management systems to spreadsheets. To support MOF’s role to provide debt collection services to other ministries, MOF requires the supporting IT system to use enhanced tools to collect on debts owed to the province.

MOF collects tax debt using a robust tax collection IT system (OntTax) that provides enhanced collection tools (i.e. liens, warrants, and garnishments) to collect on outstanding debt.

MOF and CAC are planning to enhance the existing tax collection system (OntTax) to include all the partner ministry accounts and to expand the use of enhanced collection tools for these partner ministry programs.

These improvements will increase the collection of debts owed to the province.

**IT Source Branch**



	<ul style="list-style-type: none"> <li>• Expand and continuously improve IT Source service offerings (e.g. People Placement, Project Source, OCM) to realize business value and ensure alignment with strategic priorities.</li> <li>• Modernize CAC resource models (people, technology and financials) to maximize ROI through innovation (e.g. cost sharing, base funding) and ensure fiscal responsibility, accountability and sustainability.</li> <li>• Develop a future-ready digital workforce model. Enhance attraction, skills, development and flexibility of the CAC model to support Digital First mandate and Workforce of the Future.</li> </ul>	
<b><u>Information, Privacy and Archives Division (IPA)</u></b>	<p><b>New Information Policies, Methods and Processes for Digital</b></p> <p><b>Data Integration</b> – The Ontario Data Integration Framework includes a foundational set of requirements related to collection, use and disclosure of personal information, including privacy, transparency and accountability. The Ontario Data Integration Framework introduces targeted amendments to the Freedom of Information and Protection of Privacy Act (FIPPA) adding Part III.1 Data Integration. The FIPPA amendments were introduced under the 2019 Ontario budget bill, Protecting What Matters Most Act. Data integration units will be designated and regulations, standards, practices and procedures developed to support implementation of the framework.</p> <p><b>Email Management</b> - Implementing a roles-based approach to the management of email accounts for the OPS, based on the Capstone model developed by the United States National Archives and Records Administration (NARA). This approach categorizes roles in the public service and retain or dispose entire email accounts based on their significance.</p> <p><b>Privacy Management Action Plan</b> – Following extensive internal stakeholder engagement and analysis, an action plan is being executed for privacy management that will uplift Ontario’s privacy management capability. Work includes developing a strong program framework for privacy management that will assist ministries in optimally organizing and consistently delivering on privacy management.</p> <p><b>Appraisal for Recordkeeping</b> - Continuing to develop a made in Ontario recordkeeping framework based on the concept of appraisal that repositions recordkeeping as a proactive, by-design process with emphasis on techniques for identifying requirements for creating and managing records</p>	<p><b>John Roberts,</b> Chief Privacy Officer and Archivist of Ontario IPA <a href="mailto:john.roberts@ontario.ca">john.roberts@ontario.ca</a></p>

	<p><b>Integrating Recordkeeping into IT</b> - Ensuring recordkeeping requirements, considerations and solutions are incorporated into the design of IT systems and the processes that government IT projects (e.g. Enterprise Architecture).</p> <p><b>Modernizing Freedom of Information (FOI) Services</b> - Ontario is working on legislative proposals to improve the efficiency of Ontario's FOI services and to provide faster, more reliable access to government information through its access to information programs. Proposals include streamlined FOI processes and procedures, modernized fee schedules, and proactive disclosure. Additional complimentary proposals are being developed to strengthen recordkeeping in the Ontario government.</p>	
<p><b><u>Justice Technology Services (JTS)</u></b></p>	<p><b>Criminal Justice Digital Design (CJDD)</b></p> <p>The Justice Ministries have received initial approval for an ambitious digital modernization project (Criminal Justice Digital Design), including:</p> <ul style="list-style-type: none"> <li>- Development and implementation of a new Court Case Management System</li> <li>- Acquisition and implementation of a Digital Evidence Management Service</li> <li>- Criminal e-Intake – the electronic exchange between police and judiciary of charge packages and warrants</li> <li>- Digital Disclosure - cloud based online solution to enable E2E disclosure from police to prosecution to defense</li> <li>- An integration platform for the secure exchange of documents between corrections, police, courts and the judiciary</li> </ul> <p><b>Provincial Justice Video Network</b></p> <p>Expansion of the Provincial Justice Video Network to move to a “video first” approach that prioritizes video conferencing as the first option for most types of in-custody pre-trial court appearances</p>	<p><b>Robin Thompson</b> Chief Information Officer Justice Technology Services (416) 277-9611 <a href="mailto:Robin.M.Thompson@ontario.ca">Robin.M.Thompson@ontario.ca</a></p>
<p><b><u>Government Services Integration Cluster (GSIC)</u></b></p>	<p><b>Robotic Process Automation and Machine Learning for Accounts Payable - Pilot Project</b></p> <p>In 2018, Enterprise Financial Services Division (EFSD) in partnership with Government Services Integration Cluster (GSIC) completed a Proof of Concept (POC) to assess and review the potential benefits of utilizing Robotics Process Automation &amp; Machine Learning (RPA/ML) for Accounts Payable processes. The POC validated that the use of Robotics Process Automation and Machine Learning was a viable solution to further explore to modernize Accounts Payable processes. The Ministry has since launched a Pilot project to automate invoice distribution, processing, and verification and</p>	<p><b>Renee Laforet,</b> Chief Information Officer, GSIC (416) 327-7867 <a href="mailto:renee.laforet@ontario.ca">renee.laforet@ontario.ca</a></p>

	<p>modernize the submission process by providing a digital portal to replace the current paper-based submission method. The Pilot scope will focus on invoices submitted by one ministry and expected to go-live in Fall 2019 with a planned OPS-wide roll out to follow. The expected outcomes are:</p> <ul style="list-style-type: none"> <li>• Enhanced service delivery by using modern-day digital technology solutions and automating processes to reduce manual processing</li> <li>• Improved client ministry experience – simpler, faster and better end-to-end services</li> <li>• Increased efficiency and reduction in end to end processing</li> </ul>	
<p><b><u>Health Services I&amp;IT Cluster (HSC)</u></b></p>	<p><b>Special Authorization Digital Information Exchange (SADIE) Enhancements</b>  SADIE (see Accomplishments) is being delivered iteratively in subsequent releases until August 2020 that will continue to add functionality, including the ability for prescribers to designate office staff to perform some online functions and real-time adjudication for many drugs and indications, thereby continuing to improve access to life-saving drug benefits for vulnerable citizens under Ontario’s Public Drug Programs.</p> <p><b>Electronic Medical Records (EMR) Integration</b>  As part of Ontario’s continued efforts to provide rapid access to complete, accurate, and up-to-date patient information so clinicians are in the best position to make more informed decisions and deliver better quality care, Ontario is embarking on a project to integrate certified electronic medical records (EMRs) used by community-based physicians and nurse practitioners with the provincial Digital Health Drug Repository (DHDR) and Digital Health Immunization Repository (DHIR). DHIR integration will be bi-directional, i.e., clinicians will be able to view and submit immunization records from their EMR.</p> <p>Not only will improvements be seen in workflow efficiency and the comprehensiveness of information available to clinicians, but enabling multiple purposes for the collection, use and disclosure of personal health information (e.g., using information in the DHIR to provide public health immunization services as well as for clinicians to better provide health care to patients) will support a Digital First government.</p> <p>To date, DHIR Fast Healthcare Interoperability Resources (FHIR) Point of Care specifications have been published with eHealth Ontario to guide EMR vendors in their development of APIs to connect to the DHIR and to the DHDR. Integration activities between the Provincial Gateway and the two repositories are underway, and EMR vendors are expected to commence their development activities by September. Planning work is also underway with OntarioMD and eHealth Ontario on the legal /</p>	<p><b>Karen McKibbin</b>  Assistant Deputy  Minister/Executive Lead, HSC  647-618-0597  <a href="mailto:Karen.McKibbin@ontario.ca">Karen.McKibbin@ontario.ca</a></p>

agreements framework as well as on the provisioning / onboarding of community-based physicians and nurse practitioners.

**Ontario Seniors Dental Care Program (OSDCP)**

Oral health is an essential component of overall health. Oral health problems can lead to serious health issues, such as infection, pain, abscesses, and an increased risk of heart disease, stroke and respiratory diseases. As part of the Platform Commitment, the government committed to implementing a new comprehensive dental care program that would assist almost 100,000 low-income seniors, age 65 and older, helping to close the gap for those that currently do not have dental coverage. The ministry is implementing a publicly-funded dental benefit program for low-income seniors through a staged implementation approach beginning in fall 2019 that will help reduce unnecessary trips to the hospital, prevent chronic disease and increase quality of life for Ontario's seniors. OSDCP services will be offered by dentists in public health units and through partnerships with Community Health Centres (CHCs) and Aboriginal Health Access Centres (AHACs)

To support OSDCP, the ministry is updating the Client Treatment Data Management solution used by public health units (Oral Health Information System - OHISS). Income verification through an electronic interface with the Canada Revenue Agency will leverage the Automatic Income Verification (AIV) process, to ensure rigor and consistency in eligibility assessment. The ministry has procured the services of a Third-Party Administrator (Accerta) to manage application intake, account management, client support, enrolment and renewal.

**Arbitration Award between the Ontario Medical Association and the Ministry of Health**

After five years without an agreement, the Ministry and the Ontario Medical Association was awarded a Physician Services Agreement through binding arbitration in February 2019. This agreement is for April 1, 2017 to March 30, 2021 and includes multiple elements over the four-year period that will require continual I&IT development and support to meet the arbitrated savings requirements and targets.

**Real-Time Data**

911 medical call volumes are rising year over year and creating pressures on both Paramedic Services and Ambulance Communication Centres to keep up with 911 calls while ensuring patients get the necessary medical care they need. The real-time data exchange service provides live data feeds from ambulance dispatch to paramedic

	<p>services and hospitals for situational awareness of incoming 911 calls and enable operational decisions to improve response time and patient outcomes.</p> <p><b>Cyber Security Centre of Excellence</b> In partnership with the government's Cyber Security team, the Ministry has initiated the establishment of a centre of excellence to support the broader health sector.</p> <p><b>Digital Playbook and Service Catalogue</b> To support the newly launched Ontario Health Agency and Ontario Health Teams, the Ministry has developed several guiding digital strategies and material including a digital catalogue, digital playbook and a digital health information exchange strategy.</p>	
<p><b><u>Community Services I&amp;IT Cluster (CSC)</u></b></p>	<p><b>Increasing access to education through broadband connectivity</b></p> <p>The goal of the multi-year Broadband Modernization Program (BMP) is to provide a fast, reliable and secure level of broadband connectivity to all Ontario students and educators – including those in rural, remote and northern areas.</p> <p>The target speed is 1 megabit per second per student (1 Mbps/student), understanding the need for scalability to address the anticipated increased growth in internet usage in the future. That means school board (board) networks will be able to adapt to future increased bandwidth needs of technological advancements in the learning environment.</p> <p>This is the target speed noted in the Ontario Association of School Business Official's (OASBO's) Manifesto for 21st Century Learning report in 2013 and the 2017-18 target set by the State Education Technology Directors Association (SETDA) in the U.S., as adequate for an elementary/secondary (K-12) learning environment. Further analysis confirmed this is an adequate target based on the download wait times of average course work. Based on the information collected by the boards in spring of 2016, the data indicated that the majority of boards were operating below this threshold</p> <p>This program is implementing software-defined wide area network (SD-WAN) technology in full collaboration between the ministry and school boards. The initial focus was to start small by upgrading a limited number of schools with representation from English, French, public and Catholic boards across all regions of the province to create learnings for application to future work. These learnings informed the strategy and approach for the full roll-out which started in August 2017.</p>	<p><b>Soussan Tabari,</b> Chief Information Officer, CSC (416) 326-8216 <a href="mailto:Soussan.Tabari@Ontario.ca">Soussan.Tabari@Ontario.ca</a></p>

As of August 1, 2019, 26 school boards and more than 1,500 schools have completed their modernization work, impacting more than 550,000 students, and including 550 rural schools and 348 northern schools. There are 34 additional boards in implementation, which means that they have completed the design phase, and subsequent procurement and deployment activities are underway to implement the updated broadband network design. Within the 34 school boards, more than 538,000 students, 245 rural schools and 81 northern schools are included.

Upcoming planned activities will be informed by the current implementation and will focus on the completion of the remaining boards, as well as the development of a cyber protection framework that incorporates cyber security, cyber safety and privacy, and how to address sustainment beyond the program.

### **Student Transitions**

*(Lighthouse project – Ontario Education Number)*

Students from elementary school through to post-secondary education have a unique student identification number, the Ontario Education Number (OEN), to allow a better understanding and tracking of a student's progress through the education system.

CSC has developed a secure and safe solution that not only links data using the OEN but also other unique identifiers. With the ability to link datasets with OEN and other identifiers, the ministries now have a wider spectrum of dataset to explore, including child care and employment data as well as expanding the synchronization into Ontario Student Assistance Program (OSAP) data through alignment with existing college and university enrollment data. This will enable following a child's progress from the early stages of their life and throughout their education path, as well as their transition into Ontario's workforce.

### **Apprenticeship Modernization**

The now legacy Apprenticeship (APPR) system was launched in March 2006 to support the administration, management and certification of clients training in apprenticeship and modular trades, as well as the exam management process leading to the licensing of Journeypersons.

The 2019 Ontario Budget set out the government's vision for a modernized and ministry-led delivery model for the apprenticeship and the skilled trades system. This vision included a commitment to "modernizing service delivery in apprenticeship by developing a new client-facing digital system, including a one-window digital portal for apprentices." A digital portal will allow apprentices and sponsors to access information

and carry out transactions related to their apprenticeship, such as registration and skills-tracking, online. A modern, digital-first delivery channel for apprenticeship will empower clients to easily navigate and progress through the apprenticeship system using an online self-service model, and also significantly reduce administrative overhead by automating administrative activities

#### **Targeting, Referral and Feedback System (TRF)**

Ontario's programs for employment and training, persons with disabilities and upcoming innovative programs involves a complex web of programming, service providers and internal government accountabilities. This initiative is to implement processes and systems to collect all the data elements for Labour Market Development Agreement (LMDA) and Workforce Development Agreement (WDA) and to implement Targeting, Referral and Feedback (TRF) system.

TRF is a system that provides Provinces/Territories with the ability to actively offer services to selected Employment Insurance (EI) applicants including:

- Targeting: Enables Provinces/Territories to filter EI applicants and make their employment services more effective and aligned to priorities
- Referral: Transmits details on targeted EI applicants separated by Provinces'/Territories' local offices so that the Provinces/Territories can actively offer assistance
- Feedback: Provinces/Territories can return information on applicants' responses

#### **Employment Services Transformation**

Ontario is transforming its employment services to help more people find and keep quality jobs and increase the number of businesses finding the right workers with the right skills. In November 2018, the Ministry of Training, Colleges and Universities (MTCU) received approval for the transfer of responsibility for employment services programming for social assistance recipients (Ontario Works and Ontario Disability Support Program) from the Ministry of Children, Community and Social Services to MTCU.

In addition to the integration of employment supports, MTCU also received approval to undertake a staged transformation of the integrated employment system, in parallel with integration, through a commissioning approach open to non-profit, private, and/or municipal entities, beginning in three geographic areas by fall 2019. Client intake will begin on April 1, 2020. Full employment services transformation will be phased in by 2022-23.

### **Streamlining Approvals Processes**

The goal of the Streamlining Approvals Processes initiative is to support the Ministry of Municipal Affairs and Housing in the development of process and technology options that will advance the Ministry's priority to streamline building development approvals.

### **Extending Evidence-Based Decision Support**

In 2015 an analytics sandbox proof of concept had been successfully set up for the Ministry of Training, Colleges and Universities (MTCU) to enable more self-service analytics to better support evidence-based decision-making. One pilot study using the sandbox investigated postsecondary student mobility, which looked into student transition and mobility across university and college institutions and programs. The success of this initiative has led to expansion of the proof of concept to make available an open analytics environment to university and college institutions, enhancing usability, openness and trust between the ministry and postsecondary education sector partners.

CSC is looking at extending the use of this concept to Ministries of Education (EDU), Tourism, Culture and Sport (MTCS), Municipal Affairs and Housing (MMAH) to enhance their analytics capacity.

### **Modernizing Education Capital Management**

**Education Capital Information System (ECIS)** is a business process re-engineering initiative intended to modernize and replace the existing legacy **School Facilities Inventory System (SFIS)** with a new integrated and automated Commercial-Off-The-Shelf (COTS) Integrated Workplace Management Solution (IWMS). The new solution will improve efficiency and effectiveness in the administration of Education and Child Care capital and operating funding, while automating the overall business processes, and meeting Ontario Public Service (OPS) Application and Security standards and other government mandated compliances.

Ontario's publicly funded school infrastructure consists of an asset base of \$56 billion and approximately 5,000 schools that serve close to 2 million students annually or close to 15% of Ontario citizens. To support this infrastructure, the Ministry of Education (EDU) and school boards utilize SFIS to manage and maintain this asset inventory.

The information in SFIS is relied upon to allocate over \$4 billion in School Foundation Grant and School Operations and Renewal Grants annually and to conduct policy



change analysis and decisions (e.g. Capital Priorities funding decisions, Pupil Accommodation Review Guidelines, etc.).

The new solution would provide the business, school boards, and other ministries and stakeholders with a number of important benefits. Some of the benefits include:

- 1) Increasing availability, transparency and sharing of information between relevant parties and systems (e.g. visibility of data between school boards, which does not exist today)
- 2) Providing streamlined and automated capital processes for higher efficiency, adaptability, transferability (i.e. between ministries and programs), and equity
- 3) Achieving a high level of accountability through system automation, auditable process flows, and detailed data extraction and reporting capabilities to meet internal information needs, stakeholder needs, other ministry needs, media requests, MO and PO reporting/information needs and public information requests
- 4) Offering timeliness, adaptability, transferability and scalability to meet evolving requirements

#### **Ticketing, Reservation and Resource Management System (TRRMS)**

The Ticketing, Reservation and Resource Management System (TRRMS) system is intended to provide a new ticketing, reservation, and resource management system to further I&IT enable Ontario's attractions.

In collaboration with Ministry of Tourism, Culture and Sport (MTCS) partners, an open competitive procurement is underway for a solution to modernize admissions and operations for key Ontario attractions. This project has been expanding in scope, with up to eight tourism and culture agencies involved in the procurement. The solution will provide a common core system that can be leveraged by multiple agencies, maximizing operating efficiencies and aiding in the better achievement of economies of scale.

Robust ticketing, reservation and resource management system will allow the entities to:

- Maintain and possibly increase their current annual revenue (memberships, events, donations, attendance)
- Reduce event set up time, as well as reduce time and staff effort in managing customer information and accounts manually
- Manage resources and assets to maximize usage and identify efficiencies
- Comply with Ontario Public Service (OPS) cyber security and policy standards

- Deliver, promote and market programs and special events on-line and through built-in links to social media, in response to latest public expectations
- Provide timely customer service and meet consumer expectations for support across various channels (online and tablets)
- Mitigate payment information risks by ensuring alignment with Canadian banking and payment card industry data security standards
- Address future technology changes, security upgrades
- Realize cost avoidance through integrated and holistic system and benefit from the expertise in ministry's resources to plan and implement
- Enable consistent reporting back to MTCS.

#### **Serious Occurrences Reporting /Residential Licensing (SOR-RL) Modernization**

In 2015, a Residential Services Review Panel was established in Ontario to conduct a review of the child and youth residential services across all sectors (i.e., youth justice, child welfare, mental health and complex and special needs). The review analyzed the needs of children and youth in residential settings with a focus on approaches to effective treatments, programs, services as well as placement, care and treatment methods in residential settings. In 2016, the Panel delivered their final report and recommendations, "Because Young People Matter: Report of the Residential Services Review Panel".

The highlighted Report determined that a modernized IT solution would automate, simplify and consolidate end-to-end residential licensing processes to support many of the recommendations outlined in the Panel's report, namely:

- The creation of a centralized, publicly accessible, web-based directory of all licensed service providers to support placement decision-making
- Developing capacity across residential services for data collection and reporting on the number of young people in out-of-home care within specific cultural, racial, faith, or gender groups
- Integrating data across existing databases
- Enabling the use of Business Intelligence (BI) to conduct extensive trend and comparative analyses to aid in developing benchmarks and performance targets
- Contributing to a proactive strategy to ensure the rights, well-being and participation of young people is promoted – especially for young people with complex and special needs.

Due to the strong alignment of the proposed solution with the existing Child Care Licensing System, ministry partners have engaged CSC for the development of an IT solution to address the Panel's recommendations. Since project approval, requirements for Release 1.0 have been signed-off on, development and User Acceptance Testing (UAT) have been completed and the application is ready to go-live at the end of September 2019. A subsequent release 2.0 is being planned for launch in fall of 2019.

#### **Housing and Homelessness Business Intelligence Portal**

In Ministry of Municipal Affairs and Housing (MMAH), to ensure public policies are created based on quantifiable measures, a tool is required to minimize the effort (e.g. labor, technology required) during the decision-making process. Thus, the **Housing and Homelessness Business Intelligence (HHBI) project** was created to improve MMAH's ability to collect, manage, access, and use data essential for evidence-informed public policy development and delivery of program. This will enable the ministry in becoming a leader in research and analysis for key housing markets and sub-markets, demographic and socio-economics trends, and impacts on the overall housing market and economy. With the HHBI tool, the ministry will be able to:

- Highlight data linkages with evidence-based policy and provide holistic views of the client
- Highlight data integration across multiple housing sectors (e.g. social, market)
- Have greater insights into client demographics and outcomes

The four-year project roadmap aligns with the housing sector modernization and delivers the following components. The project is currently in Year four (4) of its lifecycle. The roadmap is revisited regularly to ensure the right items are being implemented, in alignment with ministry priorities over the lifecycle of the project.

- **Year 1:** Focused on a robust MMAH Housing and Homelessness Data Warehouse combined with powerful business intelligence and analytics tools to make existing data easier to access and analyze (**Status: Completed**)
  - In May 2017, the Housing and Homelessness Business Intelligence (HHBI) Data Portal was launched. The HHBI Data Portal is a decision support platform built to support policy-driven, evidence-based decision-making. This web portal provides strategic reporting dashboards and dynamic data access map viewing (GIS) to all users, as well as self-service business intelligence tools for trained power users to produce and publish customized reports.

	<ul style="list-style-type: none"> <li>• <b>Year 2:</b> Identify the priority datasets from MMAH and transform/load data into HHBI portal; Enable access for business (ministry) users to utilize the portal for data analysis <b>(Status: Completed)</b></li> <li>• <b>Year 3:</b> Continue with introduction of other datasets into the system and implement iterative automated data refresh process for data updates; Enhance general usability of HHBI by creating new mapping visualizations and dashboards. <b>(Status: Completed)</b></li> <li>• <b>Year 4:</b> Explore and create an integrated view of datasets and create meaningful data linkages between data of different nature; Provide portal access (with only applicable regional information) to Service Managers. Enhance data visualization suite and advance towards predictive analytics <b>(Status: In Progress)</b></li> </ul> <p><b>Ontario College of Trades (OCOT) Transition</b>  Apprenticeship in Ontario needs to be modernized and transformed to better meet the needs of apprentices, employers and industry. As part of the government's commitment to reduce unnecessary regulatory burdens, and to modernize apprenticeship in Ontario, the government is winding down the Ontario College of Trades. The government intends to develop a replacement model for the regulation of the skilled trades and apprenticeship system in Ontario by fall 2019.</p>	
<b>3. Issues and Needs:</b> Briefly describe <b>any issues you would like to share with the Council</b> and what assistance you might be seeking from PSCIOC		
<u><b>Children, Youth and Social Services Information and Information Technology Cluster (CYSSC)</b></u>	<p><b>Governance</b></p> <ul style="list-style-type: none"> <li>• Current governance process is disconnected and does not support rapid, agile delivery.</li> <li>• Opportunity to integrate across TBS IT Governance, Enterprise Architecture and ODS Digital First Assessment.</li> </ul> <p><b>Resourcing</b></p> <ul style="list-style-type: none"> <li>• Staff require training on digital solution development practices and technology. Required on an ongoing basis given the pace of change in technology.</li> <li>• Need the ability to quickly staff up/down based on workload.</li> <li>• Need to build digital mindset with our business partners that will help enable change management from current to future business processes.</li> </ul> <p><b>Existing Technology Footprint</b></p> <ul style="list-style-type: none"> <li>• Currently, the ministry has large monolithic applications that are costly to maintain and enhance.</li> <li>• Need to move to smaller, more agile applications that support larger systems of record.</li> </ul>	<p><b>Antonio Paniccia</b>  Chief Information Officer  CYSSC  416-417-7908  <a href="mailto:antonio.paniccia@ontario.ca">antonio.paniccia@ontario.ca</a></p>

	Learning of experiences and best practices across jurisdictions around Governance, Resourcing and Agile Application Development (i.e. containerization)	
<b><u>Information, Privacy and Archives Division (IPA)</u></b>	<p><b>Shifting Information Practitioner Capabilities to Digital</b></p> <p>Through transformation, Ontario seeks to ensure that the right skills, behaviours and capabilities are identified, integrated into its information practitioner workforce to shift our capabilities to digital. To this end, it is undertaking a multi-year program of work to 're-professionalize' the disciplines required to support effective recordkeeping, access and privacy.</p>	<p><b>John Roberts,</b> Chief Privacy Officer and Archivist of Ontario IPA <a href="mailto:john.roberts@ontario.ca">john.roberts@ontario.ca</a></p>
<b><u>Health Services I&amp;IT Cluster (HSC)</u></b>	<p><b>High Assurance Identity and Access Management</b></p> <p>Ontario's Ministry of Health requires adequate provincial Identity and Access Management tools and services to ensure cost effective, secure and authorized access to systems and information for providers and patients, while complying with relevant legislation such as the province's <i>Personal Health Information Privacy Act, 2000</i>.</p> <p><b>Standards</b></p> <p>There is a need for a national organization to advance the use of messaging standards and standard terminologies for health. Opportunities that would benefit from multi-jurisdictional investigation, leadership and support include:</p> <ul style="list-style-type: none"> <li>• Common HL7-FHIR messaging standards</li> <li>• Adoption and maintenance of standardized drug terminology within each jurisdiction's Drug Information System (DIS) and interfacing systems, for clinical as well as adjudication purposes (e.g. the Canadian Clinical Drug Data Set (CCDD))</li> <li>• Adoption and maintenance of the standardized immunization terminology in the Canadian Vaccine Catalogue (CVC), the comprehensive national source-of-truth for all vaccine-related terminology content. <ul style="list-style-type: none"> <li>○ Immunization schedules are complex, vary across the country, and change frequently as new vaccines are licensed. People rely on public health nurses and their doctors and other health care providers to help them know what immunizations are needed and when. The CVC is critical to ensuring that citizens and their health care providers can access and share accurate, comprehensive, life-long digital immunization records, increasing Canadians' confidence in their ability to manage their immunizations and supporting more informed discussions with their doctors</li> </ul> </li> </ul>	<p><b>Karen McKibbin</b> Assistant Deputy Minister/Executive Lead, HSC 647-618-0597 <a href="mailto:Karen.McKibbin@ontario.ca">Karen.McKibbin@ontario.ca</a></p>

	<ul style="list-style-type: none"> <li>○ Four EMR vendors (Accuro/QHR, Oscar, YMS, Indivica) are currently aligning with the CVC as part of Ontario's EMR DHIR/DHDR integration work.</li> <li>○ The CVC was funded by the Public Health Agency of Canada (PHAC) until March 2019. There is now a funding gap to support API development and ongoing sustainment support costs.</li> </ul> <p><b>Immunization Information Technology</b></p> <p>IBM has built a reference implementation (RI) of Panorama, containing standardized national configuration values, but it requires additional investment for jurisdictions to realize the full benefits. The Panorama RI provides all jurisdictions with a stand-alone sandbox environment representing best practices from across Canada that can be used for requirements analysis (Phase 1). If IBM shipped new releases of Panorama with RI configuration (Phase 2), national terminology standardization efforts would be greatly advanced and jurisdictions could realize substantial savings due to reduced configuration efforts, but this work is currently unfunded.</p>	
<b><u>Community Services I&amp;IT Cluster (CSC)</u></b>	<p><b>Digital leadership and entrepreneurship for modern governments</b></p> <p>It would be valuable to know the experiences across jurisdictions of building digital and modern governments by demonstrating digital leadership as well as intrapreneurship at all levels of the organization. This would include:</p> <ul style="list-style-type: none"> <li>• How different jurisdictions are re-skilling the public sector to encourage innovation and build digital leadership capacity.</li> <li>• Successful case studies for: <ul style="list-style-type: none"> <li>○ Effective joint business and I&amp;IT strategic planning to inform new policy options;</li> <li>○ User-centric business model co-design between IT and policy/program partners.</li> </ul> </li> <li>• Learning of experiences across jurisdictions around pilots / proofs-of-concepts pertaining to emerging technologies to advance digital government such as: <ul style="list-style-type: none"> <li>○ Artificial intelligence, Block-Chain, drones and Open Government.</li> </ul> </li> </ul>	<p><b>Soussan Tabari,</b> Chief Information Officer, CSC (416) 326-8216 <a href="mailto:Soussan.Tabari@Ontario.ca">Soussan.Tabari@Ontario.ca</a></p>
<p><b>4. Topics of Interest:</b> Please <b>identify topics of interest</b> to your jurisdiction for future PSCIOC meetings /teleconferences.</p>		
<b><u>Central Agencies I&amp;IT Cluster (CAC)</u></b>	<p><b>Governance Blockchain Kanban Board - process management, governance and efforts in blockchain</b></p> <p>To be successful in the Governance Blockchain Kanban Board initiative, we would need to learn about other initiatives in process management, governance and efforts in blockchain.</p>	<p><b>Liz MacKenzie</b> Chief Information Officer CAC (416) 327-1476 <a href="mailto:Liz.MacKenzie@ontario.ca">Liz.MacKenzie@ontario.ca</a></p>

	<b>Contingent Workforce Management and Organizational Change Management</b> Cross-provincial collaboration on sharing best practices in areas of common interest, e.g. contingent workforce management and organizational change management.	
<b><u>Health Services I&amp;IT Cluster (HSC)</u></b>	<b>Integrated Business and IT Service Delivery Models</b> A fundamental assumption of Ontario's Health Services I&IT Cluster is that business and IT need to be integrated partners since technology is fundamental to the success of any organization in the current climate of technology-centric service delivery. The Ministry of Health is exploring integrated service delivery models that will allow it to continue to meet ever more demanding operational and sustainment commitments while providing the flexibility to modernize and transform business program delivery. The ministry is interested in any lessons-learned by other jurisdictions working towards similar objectives.  <b>Public Safety Broadband Network</b> As the 911 and public safety sector continues to innovate and evolve, there are great opportunities to leverage modern tools and technologies to improve the experience for first responders such as paramedics and ambulance dispatchers while improving services for patients. As paramedics and other critical functions are delivered in the field the ability to communicate to mobile devices reliably in both urban and rural environments is critical. A secure and dedicated broadband network will enable these critical services to be delivered and innovative opportunities to be realized.  <b>Managed Service Models</b> As health care providers become more integrated we are interested in learning how best to ensure the technology is kept current across the sector including security requirements and standards - particularly for stakeholders who have typically managed their own environments such as primary care doctors. Managed service models that include support for the actual equipment itself, operating system and software upgrades, patching, network connection, monitoring and remote support are of interest.  <b>Claims Processing</b> We are currently reviewing options to modernized our claims processing (medical and pharmaceutical) and would be interested in hearing from other jurisdictions as to how they have modernized their approach.	<b>Karen McKibbin</b> Assistant Deputy Minister/Executive Lead, HSC 647-618-0597 <a href="mailto:Karen.McKibbin@ontario.ca">Karen.McKibbin@ontario.ca</a>