CPO’s
NTELLECTUAL PROPERTY & MODERNIZATION
The Journey

CWS / 9 Digitization Initiatives
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Presenter: Jean-Charles Daoust,
Director General, Programs Branch
Agenda

• Operational Improvements
• Tactical Enhancements
• Digital Transformation
Operational Improvements

In light of the C-19 global health crisis, CIPO prioritized investments to enable business continuity and facilitate employee/business client relations and executed many short term priority investments. This included:

- **Incoming Correspondence Unit (ICU) remote fax handling**: As part of CIPO’s short term C-19 Operational Enhancement we implemented a system for digital processing of incoming faxes, and have provided the required training to staff to handle the new processes from home/office.

- **Patent Branch / Patent Appeal Board (PAB) Remote payment processing**: CIPO has also implemented remote processing of Patent incoming correspondence via eCommerce (No payment). This allows existing online submissions to be handled by our Incoming Correspondence Unit digitally. PAB fees are also now payable online as of April 30, 2021 and PCT submissions can be made online. Ongoing work continues to make PCT fees payable online.

- A number of other investments have been delivered and other longer term delivery initiatives were identified. This includes – Setup of Remote work for CIPO Employees, ICU Remote Payment processing, ICU application Performance and Stability enhancements, Patent Branch e-signature for Incoming Correspondence, Courtesy emails to clients for grants, Industrial Design Remote work and Scanning solution.
Tactical Enhancements

• **Trademark Enhanced E-services – (final phase Dec 2021)** Recently and as part of COVID-19 government-wide work at home directive, Trademark Branch enhanced its digital service offering (using Java) by providing the eGeneral Correspondence solution for client to **submit electronically many types of requests** (Transformation of an International Registration into National Applications request (new) - via eGeneral Correspondence, Change of name and/or address, Change of Ownership, Change of Agent and automated change requests) with or without fees which were only available via mail/paper submission previously.

• **Industrial Design Search tool – (planned for 2022)** CIPO is looking for a search tool to reduce the amount of time spent on applications for examiners. The ID Image Search initiative aims to **improve the current human-based visual search of industrial designs** through the utilization of advanced software (possibly Artificial Intelligence). A visual search tool is being considered for designs that make it possible to automate the ranking and ordering of similar designs (currently at the end of the procurement stage).

• **Trademark E-correspondence (planned for Spring 2022)** Currently, Trademark and Industrial Design Branch (TIDB) and the Trademark Opposition Board (TMOB) operational units print and send the majority of outgoing correspondence for Trademark prosecution and proceedings via regular mail. The volume is approximatively 450,000 per year. Furthermore, due to COVID-19, TIDB and TMOB are implementing a sustainable solution to remotely, provide digital correspondence to ensure services are provided on time and efficiently. This investment (using Java) allows both **CIPO and its clients to remotely access and process all correspondence** related to the prosecution of a trademark including an opposition expungement proceedings files.
Digital Transformation

- **Electronic Issuance of Patents** - CIPO implemented an **electronic Patent Grant issuance process** using a combination of technologies (Java, Openshift on AWS, Notarius, etc.) saving employees both time and resources in sending Grant certificates. Clients who have been issued a Canadian patent now receive their documents in electronic format rather than a paper copy. On the patent, the digital signature replaces the physical Patent Office seal. Clients will now see a visual representation of the seal placed on the patent. With this digital signature, the patent is considered official. One cannot edit the document without breaking the digital seal.

- **Identity management (IDM)** – planned multifactor authentication – CIPO is looking to implement and plan next stages of the departmental IdM project. This includes Multi-factor authentication which is an electronic authentication method in which **a user is granted access to a website or application only after successfully presenting two or more pieces of evidence** to an authentication mechanism (using Keycloak as a technology).

- **API ring fence** - **API Platform to address scalability and security for production** was implemented using Redhat 3scale. As network connectivity from public cloud to on-premise data centers is not yet available, a temporary solution to provide connectivity by configuring API platform mirrors both in cloud and on-premise, in order to establish a secure link via the secured network ports to each of the firewalls.

- **Modernization of Patent National Entry Request process** - In August 2021, CIPO implemented a **new online digital service** for applicant filing for Canadian patents (**National Entry Request**) through the international process under the Patent Cooperation Treaty (PCT) using Salesforce as a main technology enabler.
Annex – Supplemental Information
CIPO Patent National Entry Request

Our next steps in transitioning to designed-for-digital experience:

- Online Patent Application Submission adhering to data standards for data consistency and integrity
- Integration to WIPO Systems to retrieve application data and documents on the client’s behalf
- Automated compliance verifications of Patent Application validation and warnings to help clients avoid mistakes
- Pay Online
- Instant issuance of Canadian Application Number and Filing Date (Key Client Needs!)

Designed for Digital Experience:
Building new IT enabled capabilities
API Ring Fence Three Layer Architecture

An example from CIPO TA004 reflecting the three layers (Experience, Process and System) API architecture

**Experience APIs**
- 1. Submit a National Entry Request (WIPO Format)
- 2. Submit a National Entry Request (Simplified Format)

**Process APIs**
- Operation 1: File an NER
- Operation 2: Get patent information
- 5. Add inventor to PCT application
- 6. Add applicant to national application
- 7. Add priority to national application
- 8. Add IPC classification to national application
- 9. Add national patent application
- 10. Add person/company (PERC) information
- 11. Retrieve a shortlist of PERC information
- 12. Indicate if classification is required
- 13. Add PCT classification to national application
- 14. Retrieve patent information with ID

**System APIs**
- New Read PCT Data from DB2 Legacy DB
- Submit patent documentation (CM-8 SDK)

**Legend**
- Used
- Not used
- Newly Built

REST APIs on Cloud API Integration Platform
REST APIs on Fuse API Integration Platform
Legacy APIs on TechSource Mainframe