TRANSPORT CANADA

Robotics Process Automation

Finance and Human Resources administrative processes

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FMI PD Week 2019

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Transport Canada

Transport Canada (TC) is responsible for developing and overseeing the Government of Canada's transportation policies and programs so that Canadians can have access to a transportation system that is:

- ✔ Safe and secure
- ✔ Green and innovative
- ✔ Efficient

TC is a medium sized department with 6,100 employees across 6 regions:

- ✱ Atlantic
- ✱ Quebec
- ✱ Ontario
- ✱ National Capital Region
- ✱ Prairie and Northern
- ✱ Pacific

Background

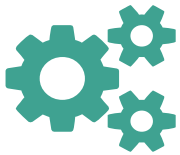
The implementation of Robotics Process (RPA) at Transport Canada

Digital Roadmap

Transport Canada (TC) launched its Digital Roadmap as part of department's Transformation agenda, which will modernize the way the department delivers its mandate

Innovation

The Digital Roadmap challenges all program areas across the department to explore opportunities to improve the user experience (internal and external) by leveraging modern and disruptive technologies



Robotics Automation Process

In response to this challenge, the Finance and Administration team at TC has begun to implement Robotic Process Automation for process efficiencies, internal control improvements and service delivery transformation

Robotic Process Automation (RPA)

RPA is the use of software to replicate the actions of a human user interacting with applications.

Robots are…

- Computer-coded software
- Programs that perform repetitive rules-based tasks
- Cross-functional and cross-application macros

Robots are not…

- Walking, talking auto-bots
- Physical machines processing paper
- Artificial intelligence or voice recognition and reply software

Robots can…

- Log into applications
- Open and send emails and attachments
- Follow "if-then" rules/decisions
- Move files and folders
- Extract, map, and validate structured data from documents and the web (including social media)
- Fill in forms, read and write to databases, reformat data into dashboards or reports
- Search for and update information in various applications
- Perform data calculations

RPA Benefits

Source: Deloitte LLP

RPA at Transport Canada

The challenges that led Transport Canada to search for innovative solutions

Resources

Significant time and effort is being spent on day-to-day data entry and manual processes

Integration

Lack of integration between finance and HR systems and processes

Strategy

Lack of capacity to focus on strategic value-added activities (e.g. analyzing data to produce information for decision-making)

Delivery

Service demand is outstripping capacity to deliver and respond to new and emerging issues

Finance and Human Resources (HR) at TC began to explore the use of RPA to enhance our ability to meet service obligations, reduce backlogs, improve timeliness of transaction processing, enhance data quality, and provide more value-added advice

Our Approach

A targeted approach to find meaningful solutions that work

- Conducted an initial **Proof of Concept** with Deloitte over a period of 12 weeks for a total cost of $140K
- Use an **agile delivery approach** in sprints of 3 to 4 months per initiative (with some running concurrently)
- **Involve stakeholders** throughout the process to:
  - Understand the current state
  - Help develop the future state
  - Help ensure a positive impact on day-to-day roles and the changing work environment
- Ensure **knowledge transfer** and develop expertise to leverage at the enterprise level
- Clarify that **jobs will not be eliminated**, but that some jobs will change and new jobs will be created
- **Refocus internal resources** to more value-added, strategic and advisory activities

Proof of Concept

HR Staffing Actions and Salary Forecasting were identified as a strong candidates for **RPA** due to:

- **High volume** - Over 140 employees involved in processing over 8000 HR staffing actions annually
- **Repetitive, structured processes** – Employees navigating over 50 screens, across 10 different applications to process and forecast a single staffing action

Key Findings			
Feasibility	**Cost-Benefit**	**ROI**	**Scalability**
The proof of concept demonstrated feasibility for several HR and Finance-related processes and systems	Potential to save up to 19,000 hours annually for selected activities, providing an opportunity to redeploy scarce resources to more value added activities	Return on Investment (ROI) is estimated at approximately six months	The RPA solution can be easily applied to a variety of other business processes across the Department (e.g. security clearance processing)

Current HR Staffing and Salary Forecasting Process

1 – STAFFING NEED IDENTIFIED

Hiring Manager
Requests entry of planned staffing in Salary Management System

HR Advisor, HR Assistant and Financial Management Advisor (FMA)
Validate Hiring Manager's authority

FMA
Update Salary Management System with planned staffing

HR Advisor or HR Assistant
Updates HR Planning System with planned staffing

HR Advisor, HR Assistant and FMA
Notify Hiring Manager

End

2 – CANDIDATE IDENTIFIED

Hiring Manager and HR Advisor
Create and process a staffing request

HR Assistant
Enters staffing request in HR System

FMA
Enters staffing request in Salary Management System

HR Advisor or HR Assistant
Updates the HR Planning System

HR Advisor or HR Assistant
Electronically files the necessary documents

HR Advisor or HR Assistant
Creates and sends Letter of Offer

End

3 – CANDIDATE ACCEPTS POSITION – LETTER OF OFFER SIGNED

Hiring Manager
Sends Letter of Offer to HR Advisor and FMA

HR Advisor and HR Assistant
Update HR System and notify Compensation Advisor

Compensation Advisor
Receives documents from Candidate

Compensation Advisor
Processes compensation in pay applications

Compensation Advisor
Sends confirmation to FMA, HR Advisor and HR Assistant

End

4 – COMPLETION OF EMPLOYEE FILE

HR Advisor and HR Assistant
Receives final documents from Employee

HR Advisor and HR Assistant
Electronically files all documents in Document Record System

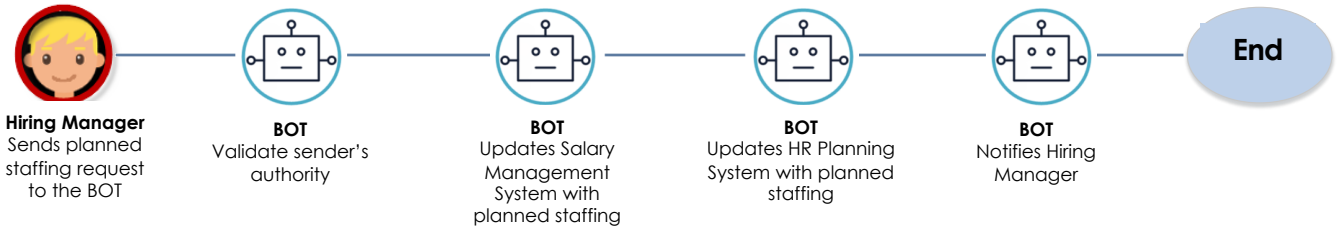
End

STAKEHOLDER LEGEND

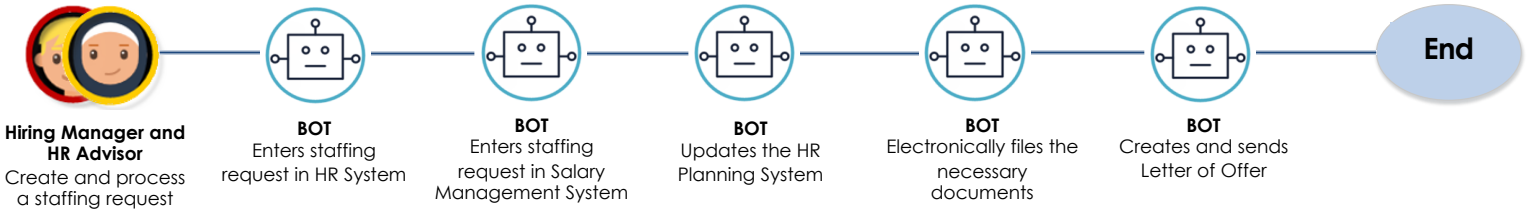
- Hiring Manager
- HR Advisor
- HR Assistant
- Financial Management Advisor (FMA)
- Compensation Advisor
- Bot

HR Staffing and Salary Forecasting Process Leveraging RPA

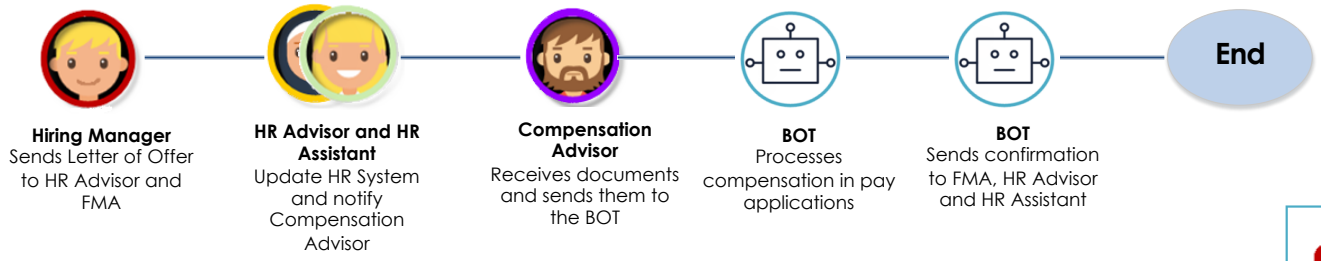
1 – STAFFING NEED IDENTIFIED



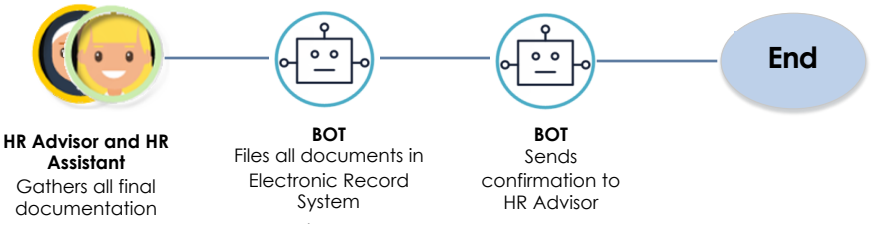
2 – CANDIDATE IDENTIFIED

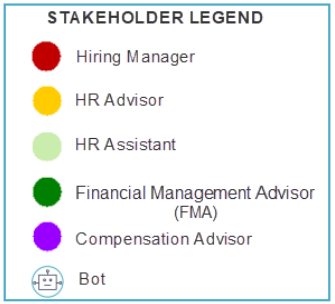


3 – CANDIDATE ACCEPTS POSITION – LETTER OF OFFER SIGNED



4 – COMPLETION OF EMPLOYEE FILE





What did we learn in terms of benefits?

- **Increased satisfaction:** for both clients and team members
- **Efficiency:** estimated 80% improvement in process efficiency
- **Productivity:** increase in processing volumes and 24/7 operations
- **Higher data quality:** 20-40% reduction in error processing
- **Scalability:** easy to scale across functions and demand
- **Resource reallocation:** frees up time to focus on other value-added activities
- **Easy building and training:** built by the users, for the users

Overview of TC Deliverables

Milestone	Description	Timeline
Phase 1 – Setting the Foundation:		
o Set up technical landscape	Implemented necessary technical infrastructure and installed RPA software.	Implemented
o Financial Signing Authorities Database	Use of RPA to populate and standardize the Financial Signing Authorities database (foundational piece for all other phases) and automated processing of Acting Memos.	Implemented
Phase 2 – Salary Forecasting:		
o Salary Forecasting for Indeterminate, Planned Staffing and Acting staffing actions:		
1. Detailed Process Mapping	Detailed Business Process Mapping of current and future state salary forecasting processes	November 2019
2. RPA Coding	Use of RPA to enter salary forecasting data into the Salary Management System (SMS)	March 2020
Phase 3 – HR Staffing and On-boarding Additional Processes:		
o HR Staffing Actions	Use of RPA to update the HR systems (TIPS, WPA & RDIMS) for HR Actions	FY 2020-21
o User Access Control to financial systems	Use of RPA for validation and granting of access to financial systems.	FY 2020-21
o Accounts Receivable	Use of RPA to automate accounts receivable processes, including customer master data and billing	FY 2020-21

Lessons Learned

Findings based on work completed thus far

Importance of taking an **in-depth look** at the **end-to-end business process** to validate that it meets the four criteria necessary to achieve desired efficiencies:

- Process is repetitive
- Process is high-volume
- Process is rules-based
- Process contains low level of exceptions

Use of **Agile project management** methodology, which relies on consultation with business experts throughout the system development lifecycle

Essential to ensure **participation and engagement** of the hands-on subject matter experts from the very beginning of the process and throughout the project lifecycle

The importance of **Change Management** and **communication** should not be under-estimated

Key Considerations

Efficiency

RPA offers significant opportunities for efficiencies by automating high-volume, repetitive, rule-based, manual tasks, thus enabling a re-focus of internal resources to more value-added, strategic and advisory activities

Speed

Using an Agile approach, RPA results are visible in a matter of weeks, not years

Engagement

Engagement with employees, bargaining agents and other stakeholders ensures clarity regarding the impact of changes on current work

- ✓ Have meaningful discussions with bargaining agents on the impact of technological change
- ✓ Update skills and competency profiles and define new training needs
- ✓ Communicate often with employees throughout the development and implementation cycle
- ✓ Review and update work descriptions according to new roles and responsibilities

Collaboration

Collaboration amongst departments is key to sharing lessons learned and developing a common approach to enterprise-wide issues and challenges

Excellence

Creation of a Center of Expertise is imperative to provide the necessary in-house knowledge for departments to become proficient in RPA

- ✓ Developing and leveraging internal skills helps reduce expenses
- ✓ Complexity of government processes introduces risk of cost creep

Questions?

What has been your experience with Robotics Process Automation?

Can you see opportunities to take advantage of RPA in your organization?

What roadblocks or challenges would stand in your way?

Do you have concerns that were not addressed during this presentation?

Do you have any questions about TC's experience with RPA?

Contact us!

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