



Canada Revenue
Agency

Agence du revenu
du Canada

Charlie the Chatbot – At Your Service

Joint Councils | Toronto, ON | February 2020

Advancing Self-Service in the CRA



95% of touchpoints with CRA
are through self-service channels

**Web
220M**

Optimizing the web
to update content

Improving task
completion rates

Adding new features
(i.e. using wizards)



Piloting Charlie
the chatbot

Leveraging social media



**Portals
75M**

Improving usability
(My Account landing page,
payment functionality
and print options)

Making access easier
(linked accounts)

Adding new features
(i.e. proof of income
statement)

Building a
progress tracker

**Correspondence
50M**



Simplifying
correspondence & guides

Nudging

Making forms digital
(i.e. DTC app)

**IVR
8.3M**



Adding new
self-service features
(i.e. check balance)

Ordering forms
Validating through PIN

**PROGRAM
DESIGN**



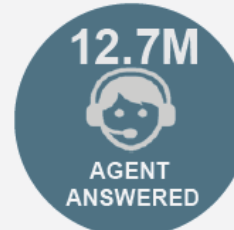
5% of touchpoints with CRA
are through a call centre agent



80%
Clients
satisfied



20%
Increase in call
handling time



12.7M

**AGENT
ANSWERED**



88%
Accuracy



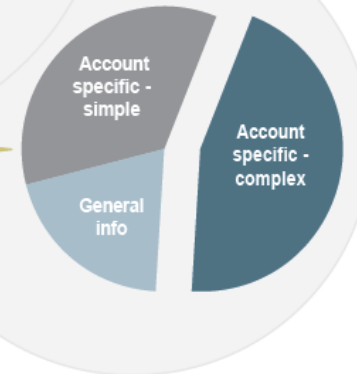
15%
Digital channel
support



**Call driver
analysis**

Phone and portal
survey insights

Client experience
research

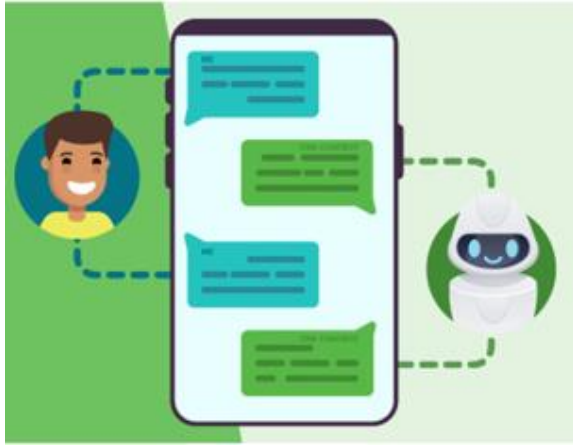


FEEDBACK

**FIELD
OPERATIONS**



Pilot 1 – Charlie the Chatbot



The CRA's First-Ever Chatbot

- Launched March 15, 2019
- The CRA's **first cloud-hosted service** (Microsoft Azure)
- Collaborative approach between four branches:
 - Program area, IT, Public Affairs and Innovation Lab
- Limited to **one topic** (Climate Action Incentive Payment)



Successes

- Multi-branch Collaboration – **Completed in under 120 days!**
- Charlie **answered 40,000 questions in seven weeks** (filing season)
- Requests to expand Charlie with other programs and tasks

Challenges

- Timelines, security risks, legal and approvals
- Learning curve: New technology for everyone involved

Pilot 2 – Charlie the Chatbot v2.0



In **March 2020**, the CRA will release a **second pilot** with **three topics**:

- Employer Taxable Benefits and Allowances
- Top call drivers for individuals (not account-specific)
- Top tax-related topics on Canada.ca

What's New?

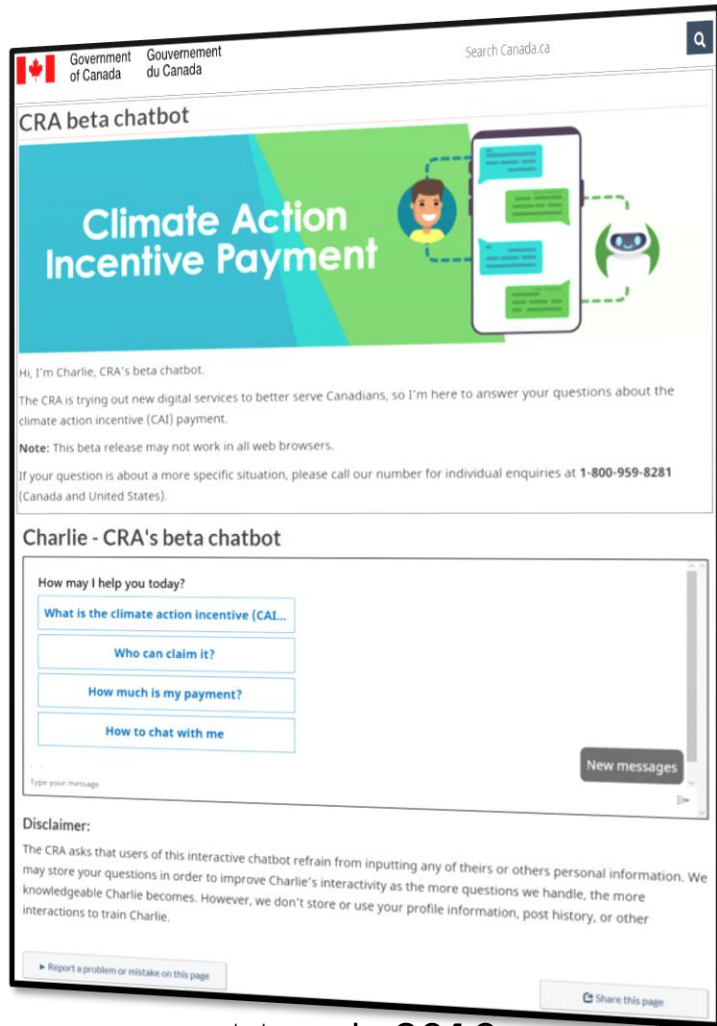
- **Request a call back**
- **Pop-up window** for a true “chat” experience
- Located on multiple web pages of Canada.ca
- Content is based on existing topics, allowing us to **measure impacts** to call drivers and other service channels

What's Next?

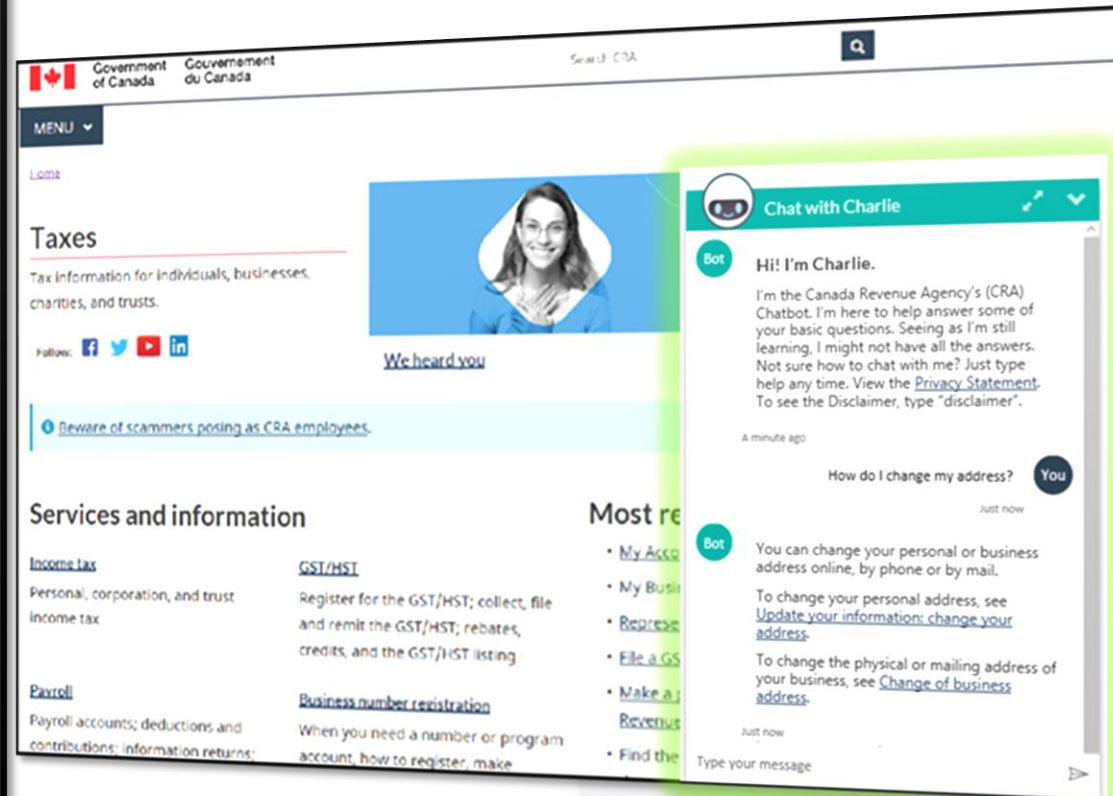
As the project continues to work toward an enterprise-wide solution, future consideration will be given to:

- **Final branding** of the CRA chatbot
- Accessing the chatbot in a **secure space** (account-specific responses)
- Expanding to include **more CRA topics**

The Evolution of Charlie



March 2019

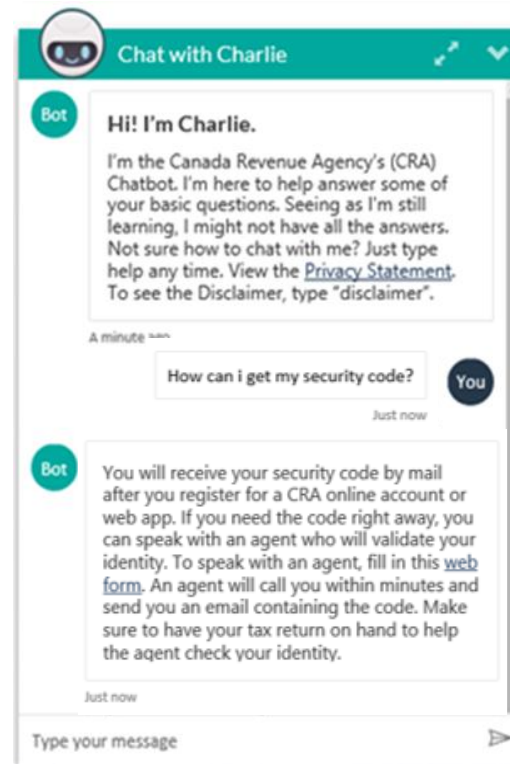


March 2020

New Feature – Request a Call Back

How does it work?

Request a Call Back (Smartlinks) is an existing tool that is being piloted in the Chatbot environment. The pilot will direct the user to an existing “call back” functionality.



**Redirect to
Smartlink
webpage**

Why experiment with Smartlinks?

Our goal is to gain valuable insight into the user's journey as they cross multiple service channels to accomplish their tasks.

Which topics will have a Smartlink?

1. Obtaining a security code by email to complete the registration process for My Account (secure online portal).
2. Reporting frauds/scams (in addition to existing methods).

Government of Canada / Gouvernement du Canada

Search Canada.ca

Need assistance?

We can help if you need assistance navigating the CRA Web site or to get additional information about specific topics. Complete the information below and click on the «Connect to an agent» button. An agent will call you within minutes to help you with your enquiry.

Provide a telephone number where you can be reached (mandatory). This service will only work for direct phone numbers (no extension numbers) within Canada. Use this format: 123 4567890

* Phone Number (required)

When do you want us to call?:

☒ Call me as soon as possible

☐ Wait at least 5 minutes to call me (select if using dial-up internet)

Language preference:

☒ English

☐ French

Important

If the agent has to access a tax account, you will have to provide personal information from the tax account such as:

- social insurance number
- address on file
- amounts reported on a recent tax return

Connect to an agent

What's Next?



Evaluating the Pilot

- Measure the number of conversations and the accuracy of the bot's responses
- Measure the impact on calls received
- Analyze the suitability of the content for the bot
 - General enquiries
 - Complex guides
 - Topics
- Share lessons learned
 - Plain language
 - UX testing
 - Technology



Defining the Strategic Direction

- Develop a strategy for chatbots and other virtual personal assistants (VPAs) within the CRA
- Establish guiding principles for selecting the right content on the right channel
- Collaborate across the GC, establishing a community of practice to support other departments looking to the CRA as an early adopter



Planning for Enterprise-wide

- Prepare a business case for funding
- Develop a plan for content and architecture that will be scalable for the CRA
- Evaluate different technology solutions (such as VPAs) for long-term integration with other CRA services

Contact

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