City of Markham
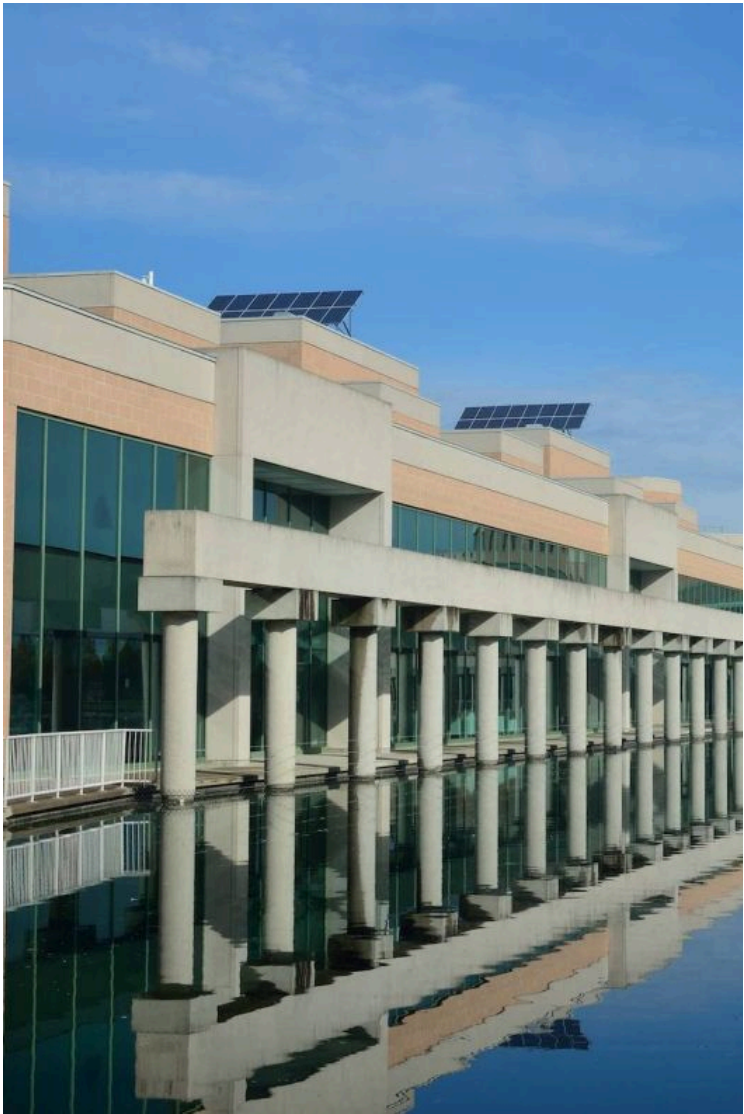
Viral veracity—how to combat COVID-19 with AI and up-to
answers

Business challenge   Transformation   Results   Business challeng

In an effort to help keep its community informed and safe of
COVID 19 pandemic, the City of Markham—Canada's high-t
became the first city in Canada to deploy the IBM watsonx
Citizens virtual agent, enabling users to receive up-to-date
information online, by phone or by using the Access Markh
app.

× Close

Hello! How can we help
you?

Business challenge

As the rapidly evolving COVID-19 public health crisis impacted Markham,
a proven technology platform to deliver current and trustworthy informati
around the clock.

Transformation

By deploying the IBM watsonx Assistant for Citizens virtual agent, the City
delivers reliable, consistent and accurate information to residents about the COVID-19
pandemic and its impact on City services.

Results

Accessible from any device anywhere, anytime
to meet the public's need for pandemic-related information
24 hours a day

Understands key COVID-19 pandemic-related topics
to answer pressing questions about the pandemic and its
impact on City programs and services

Constantly trained and refined through machine learning
to improve answer quality with each user session

Business challenge story

The pandemic comes to Canada

On a cold Thursday morning in late January 2020, an ambulance pulled up to a hospital
in northeast Toronto and a feverish 50-year-old man with a cough entered the ER. As the
medical staff prepared for another case of the flu, the patient added another bit of
information that changed everything—he had just returned from Wuhan, China.

After testing positive for a COVID-19 infection, the Wuhan visitor was transferred to an
isolation room and became the first known case of coronavirus in Canada.

As the number of COVID-19 cases began to rise in Ontario, and in York Region, Markham
officials looked for innovative technology-based tools to keep City residents safe by
providing trusted, up to date information about the pandemic.

Hello! How can we help
you?

But then, one of Markham's leading technology companies reached out to local City leaders with another timely perspective: what if the city didn't have to wait for a tech-based solution? What if it was ready now?

"Markham embraces technology and this initiative strengthens our partnership with IBM Canada, which is an integral part of our community."

Frank Scarpitti
Mayor
City of Markham

Transformation story

Answering the call for accurate information

With its Canadian headquarters based in Markham, IBM has been a cornerstone of the city's technology community since the early 1980s. Markham city officials were pleased to learn that IBM had recently built a COVID-19 communication tool based on AI technology and could have it up and running for the city on an expedited schedule.

When reports started coming out of China in late 2019 about a coronavirus outbreak in Wuhan, IBM engineers proactively built the IBM watsonx Assistant for Citizens virtual agent platform. The tool was specifically designed to help governments, healthcare and academic institutions deliver automated and updated information to the public in an intuitive, conversation-style format.

Watson Assistant for Citizens combines IBM Watson® Natural Language Understanding capabilities with IBM Watson Discovery technology to understand and respond to common questions about COVID-19. To make sure users get information from trusted sources, the platform collects its information from the City of Markham website, the Public Health Agency of Canada, the Ontario Ministry of Health and York Region Public Health.

IBM and Markham's Communications and IT staff started working together on the last day of March. Nineteen days later, IBM and the City of Markham introduced the IBM watsonx Assistant for Citizens in a special virtual announcement and went live on the city website with the chatbot. And 10 days later, the team launched the telephone virtual agent, accessible using a toll-free number. The City of Markham recently launched the service on the Access Markham mobile app—making access to COVID-19 information even easier.

"As we continue to deliver essential municipal services to the people of Markham, this virtual agent will prove to be an extremely useful tool during this public health

Hello! How can we help you?

emergency. In fact, I would describe it as a critical and necessary tool," says Frank Scarpitti, Mayor of the City of Markham.

"Delivering exceptional services to our residents and businesses has always been a priority. Providing up to date information is even more critical during this public health emergency. We need to ensure that people can access information quickly and that it is accurate."

Frank Scarpitti
Mayor
City of Markham

Hello! How can we help you?

Results story

Getting smarter with each conversation

Within days after going online, the IBM watsonx Assistant for Citizens chatbot served over 1,000 Markham citizens. Both the online chatbot and telephone virtual agent continue to serve large numbers of users and provide answers to top-of-mind concerns, such as:

– What are COVID-19 symptoms?

– Where can I get tested for COVID-19 in Markham?

– How do I protect myself from COVID-19?

– Are parks and trails closed?

– What city services are available?

– Will my garbage be picked up as usual?

With each text and phone call, IBM watsonx Assistant for Citizens learns more about the intent of user questions. The virtual agent becomes more adept at providing answers and referring users to other resources for more in-depth responses. And as COVID-19-related information keeps evolving, updated information is fed to the virtual agent so that it is always current.

To help ensure that the virtual chatbot and phone service are always ready to respond to citizens, the platform is hosted on the public IBM Cloud®. IBM also provided the product free of charge to Markham for the first 90 days and provided technical assistance with initial set-up.

"IBM has always been a great corporate citizen in the city of Markham, and innovation is part of our DNA as a City," says Mayor Scarpitti. "Thank you to the team at IBM Canada for this important collaboration using transformative technology and for helping us stay safe as we all work together to get through this crisis together."
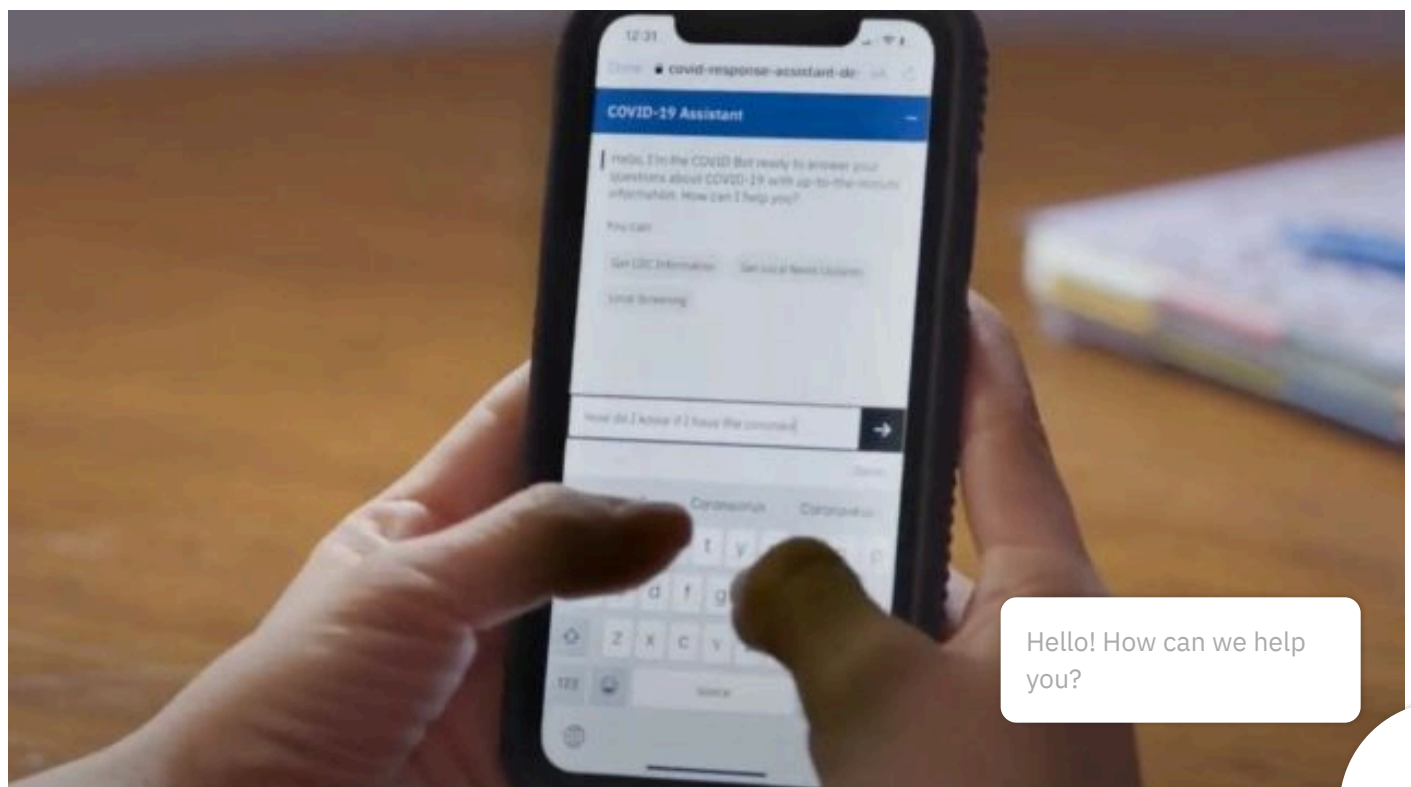
City of Markham

With more than 350,000 residents, Markham (link resides outside ibm.com) is the largest community in York Region and is home to over 650 corporate head offices and more than 1,500 high tech and life science companies. Markham is a leader in attracting foreign direct investment with more than 234 foreign companies located in the City. Founded in the 1790s, Markham is Canada's most diverse community and enjoys a rich heritage and outstanding community services. Markham has received the Excellence Canada Gold Award for Organizational Quality & Healthy Workplace, and multiple heritage and environmental awards.

Solution components

Cloud & Data Platform	→	IBM watsonx Assistant	→
Watson Discovery	→	Watson Natural Language Understanding	→

Take the next step

To learn more about the IBM solutions featured in this story, please contact your IBM representative or IBM Business Partner.

View more client stories	→

Contact IBM

Hello! How can we help you?

Hello! How can we help you?