



### Business challenge

A leader in innovative public services, the London Borough of Redbridge wanted to simplify communication with residents regarding rubbish collection.

### Transformation

Working with IBM Business Partner EscalateAI Ltd., the London Borough of Redbridge launched its new Binbot, powered by IBM® Watson® technology. The chatbot can answer questions related to routine rubbish collections and empowers the public to easily report dumped garbage and other nuisances.

### Results

**25% lower call volumes**  
while keeping residents better informed about schedule changes

**Drives efficiency**  
in waste clearing efforts by keeping enforcement staff better informed

**~95% satisfaction rate**  
among users of the chatbot during the Christmas period

# London Borough of Redbridge

## Cleaning up the streets with an AI-powered chatbot

With its administrative functions hosted in Redbridge Town Hall in Ilford, the [London Borough of Redbridge](#) oversees a host of public services including adult and children social care, regeneration, parking, waste collection and park management. At present, the borough encompasses a population of over 305,000 residents.

*“With EscalateAI and Watson, we can be far more proactive and stay ahead of the data trends and as such demand.”*

—Emeran Saigol, Head of Change, London Borough of Redbridge



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## A holiday rush

Boasting a number of parks and open spaces, the London Borough of Redbridge is recognized as one of the greenest regions of the Greater London area. In addition, over the past several years, the borough has developed a reputation for innovation and improving the lives of its citizens.

“We are focused on driving change in our community and getting things done for our residents,” explains Emeran Saigol, Head of Change for the London Borough of Redbridge. “So we were looking at small scale problems that we could address that would have a direct impact on our customers, and that’s when we looked at our contact center.”

Every year in the weeks following the Christmas holiday, the center would experience a spike in call volumes related to garbage collection. Given the marked increase in waste and recycling during this period, the borough was forced to increase the frequency of its collection efforts, which often changed the pickup dates for residential neighborhoods.

“They’d be calling to ask, ‘When are my bins going to be picked up?’” adds Saigol. “We wanted to take the heat out of the contact center, but the Christmas bin collection schedule was due to start in a 17-day window.

We needed something in a hurry, as any solution would have no value going live five days into the Christmas holiday period.”

## That’s rubbish

Moving quickly, the borough joined with IBM Business Partner EscalateAI Ltd. to develop an AI-based chatbot able to answer the public’s queries regarding waste collection.

“We called it ‘Binbot’ because ‘Christmas Bin Collection Date Bot’ is a mouthful,” adds Chris Patterson, Managing Director at EscalateAI. “We had to act aggressively to have it done by Christmas since it’s not very useful having a Christmas Binbot in January. From our first conversation to go live was only a two-week period.”

Built using the IBM Watson Assistant solution, Binbot allows citizens within the Redbridge region to ask questions regarding collection schedules. And thanks to IBM Watson Tone Analyzer technology, the chatbot can monitor the conversation and escalate it to a call center representative depending on the tone of the discussion as well as the confidence rating of its answers.

“Chatbots are good with straightforward questions,” explains Patterson. “But as soon as there is

any emotion or difficulty—if a user is getting upset or has a really complex question—then a human agent needs to become involved.”

The Binbot quickly proved to be a success, leading the borough to examine other areas where it might use Watson™ technology to help protect the beauty of Redbridge. “Politically, clean streets are one of our administration’s big agenda items,” clarifies Saigol. “And the movement of waste collection dates generates a huge amount of contact for the council. But by ensuring residents are able to find out what their collection dates are, we can ensure that we have a clean borough and happy residents.”

“After all,” adds Patterson, “who wants uncollected rubbish outside their front door?”

Expanding on the Binbot solution, EscalateAI added a new visual analysis component to the tool, taking advantage of the IBM Watson Visual Recognition offering. The team trained the solution with over 3,000 images of rubbish, enabling it to identify commonly dumped items. Now residents can use their cell phone to take a picture of public waste, such as a rogue mattress, loose bin bags or an abandoned vehicle, and notify the borough by uploading the image through the chatbot.

## Nice and tidy

“What’s really important for us is the value and output,” clarifies Saigol. “For a local government organization to commit to new types of technology in times when budgets are extremely tight, we need to show results. Fortunately, this solution did that.”

He continues, explaining: “The contact center experienced a 25 percent reduction in calls compared to the Christmas period of the previous year. And on one day, we had about 1,600 conversations through the chatbot. That level of engagement helps us to be more efficient and can potentially save us money in the long run.”

The public also appears to be pleased with their interactions with Binbot. “We built a feedback system into the bot,” adds Patterson. “And I would say about 95 percent of the feedback was excellent. They were saying, ‘Fantastic work. Great bot!’”

Beyond the Christmas season, the rubbish visualization component helps keep streets clean and empowers the borough to be more responsive to the needs of the public.

“Before, we had reports that came in secondhand, maybe five or six days after the rubbish was dumped,” adds Saigol “But now it’s much easier for people to tell us what is going on out

there. We can let our enforcement teams be intelligent in how they go about planning their day-to-day operations. With EscalateAI and Watson, we can be far more proactive and stay ahead of the data trends and as such demand.”

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## Solution components

- IBM® Watson®
- IBM Watson Assistant
- IBM Watson Tone Analyzer
- IBM Watson Visual Recognition

### Take the next step

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

### About EscalateAI Ltd.

Founded in 2018, IBM Business Partner [EscalateAI](#) develops customized chatbot solutions that seamlessly integrate human support staff via their EscalateAI platform. The business is headquartered in London, UK and maintains development facilities in Manila, the Philippines.

To learn more about its chatbot solutions and what EscalateAI can do for you, please visit: [EscalateAI Ltd.](#)

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