

Town of Richmond Hill

A new CRM system that integrates Salesforce, Maximo and Esri map service is helping the municipality's contact center to work smarter and more effectively in handling citizen requests.

Background

Canadian municipalities and local governments are entrusted to deliver core household services to tax-paying residents.

Many have a strategic vision for this and ways to measure their effectiveness, but service delivery is often obstructed by the challenge to share information—internally and with residents. Inefficient legacy systems and communication silos between departments keep municipal organizations from achieving the desired results.

Yet people today expect to be served by organizations where modern technologies are table stakes. We are savvy enough to know that Big Data and the Internet make everything searchable. The level of service municipalities give to citizens must reflect the ease of communications in our mobile, connected era.

In recognition of this, the Government of Canada unveiled a plan in June 2017 for encouraging municipal service innovation: the **Smart Cities Challenge**. Canadian communities are signing up to compete for millions of funding dollars—plus bragging rights as the country's "smartest" in terms of improving the lives of residents through data and connected technology.



The Town of Richmond Hill, part of Ontario's York Region, is ahead of the game when it comes to improving service delivery through innovation. Located 36 kilometers north of downtown Toronto, the town delivers municipal services to more than 200,000 residents.

The customer relationship management (CRM) system for its contact centre, Access Richmond Hill, was nearing its end of life from the vendor. In 2017, the town began looking for a CRM that had integration capability—something that would connect enterprise

systems and geo-location data, improving access to information and services.

Spatial DNA and the Town of Richmond Hill collaborated on a four-month project to deliver an integrated Salesforce CRM solution, along with integrated services for the town's Maximo operations management system, and a mapping component that leverages the town's Esri ArcGIS map services.

A municipal business challenge

Access Richmond Hill is the main point of contact for residents who need help with property tax bills, water services, waste collection, tree maintenance, winter maintenance, recreation and culture programs, parking, and more.

The CRM system they were using was an intake data silo. Complaints or requests that came in (like reporting a pothole or a damaged tree) were entered into the CRM. But to create a work order to fix the problem, operations staff had to manually enter the same information into Maximo.

Also, the contact centre staff had no way of tracking the status of a work order once it was passed along. They had no insight into completion timing or issues. So when residents followed up on complaints, staff had little information of value to share, other than saying "The work order has been created."

The town's systems kept its front-end and back-end information in different silos. Its CRM system was focused on the external customer and had no connection to the downstream Maximo system, which managed the work orders. Because the two systems did not talk to each other, it was a time-consuming hassle to share data between call centre reps and other departments.

"When we realized we needed a new CRM system, the aim from a business point of view was to find an efficient solution that was effective in communicating customer requests, reducing the time it takes to process those requests, and keeping people informed in near-real time," said Asher Jaffri, an IT project manager at the Town of Richmond Hill who was in charge of the CRM project implementation.

Project scope and requirements

As project manager, Asher's role was to ensure well-drafted solution architecture so the town would have no questions or concerns from an infrastructure, scalability or security standpoint.

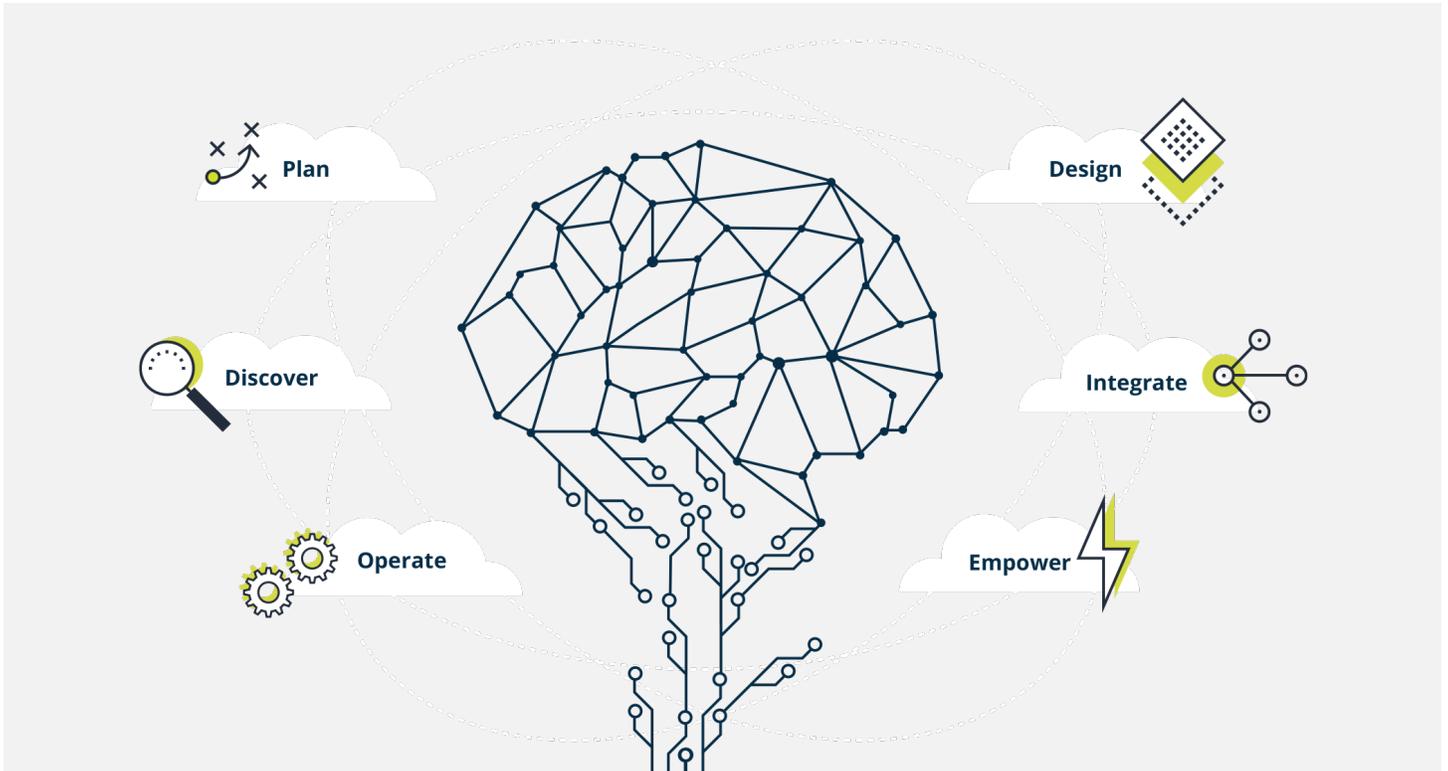
Deliverables were defined already when Asher got into the project. He had a set of tools in his arsenal, including Safe Software's FME platform. Plus he had to use different components – Salesforce, Maximo, and map data – as efficiently as possible.

"This is where we got Spatial DNA involved; we worked together as a unit," he said. "Everyone on the project team was wearing multiple hats and they worked alongside us to help make the integration as seamless as possible."

He added, "Spatial DNA took the time to understand the architecture, our policies and security requirements."

To achieve a robust infrastructure that the town could build upon, Asher and the project team relied on Spatial DNA's enterprise integration expertise. He said they invested in "numerous sessions, whiteboarding it out" to make sure everyone understood all the components and business rules touching the relevant systems.

The Spatial DNA Solution



The Spatial DNA solution

One of Spatial DNA's first priorities was to document the information exchanged between the town's systems. This step identified how to automate those processes, since many were manual.

"We looked for friction points and designed ways to automate around those," said Neil Hellas, Spatial DNA's Director of Solution Delivery. "Working through that process with staff included a mentoring component where we explained layers of complexity that are apparent even in things that aren't really complex as a whole."

Spatial DNA worked with the municipality's users and managers to map out existing workflows and user experiences with an eye for optimizing them. This happened through numerous workshops and informal discussions about how people work within the organization.

"Their existing processes and workflows were undocumented so we went through a discovery process together as the solution was being built," said Todd Lewis, President and CEO of Spatial DNA. "The goal was to make business rules that match existing processes and workflows, or create new ones where it made sense."

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As a Safe Software partner, Spatial DNA is an expert integrator of Safe's robust FME platform.

FME has traditionally been used as a powerful tool for moving CAD, remotely sensed imagery, GIS, 3D design files, and other complex file and database formats between systems. Spatial DNA has taken the lead in developing accelerators to support the use of FME as an "enterprise service bus" (ESB) to integrate multiple systems so data can be shared easily among an organization's departments.

"Integrating different systems using a point-to-point approach is costly and difficult to maintain. Whereas an ESB integrates numerous systems in a scalable, resilient way," says Neil. "But many ESB platforms and frameworks are expensive and require significant up-front implementation effort. And typically they cannot handle spatial information very well. This is why we use FME as an ESB—it has all the capabilities of a traditional ESB such as data transformation, publish/subscribe mechanisms, and real-time messaging."

Asher said he and his team knew what FME was capable of but they lacked the deeper insight to see exactly what the platform could achieve. With the CRM integration project, Spatial DNA helped them unlock its potential.

The project's sponsor was Meeta Gandhi, Communication Services, Town of Richmond Hill. In describing the ultimate value delivery, she said:

"When we got into the development process we knew what was possible, but not how to get there. What we had built wasn't working in line with what we wanted... This is where Spatial DNA was tremendous in helping us build what I think is really the poster child of this type of implementation."

The Town of Richmond Hill wanted a system that was highly available, covered all disaster recovery scenarios, and reliable from a business standpoint—something that delivers value at all points in time.

Working with Spatial DNA, they acquired the appropriate licenses for FME Server and Desktop and developed a second test environment - which was more robust and ensured seamless exchange of data with all integrated test instances. that it showed how the systems were talking amongst each other.

More importantly, they were comfortable in how the high availability and disaster recovery scenarios played out. They failed over the system numerous times to make sure that all the edges were secure and no points were left open.

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After the rigorous set of tests, Asher said they felt comfortable to push the solution into production.

Benefits

Now when complaints or requests come in—whether through calls or online forms—the contact centre creates a new case in the system. Cases are routed from Salesforce to the appropriate department, where a work order is created in Maximo.

The status of a work order is viewable in both Salesforce and Maximo. Automated email alerts are sent to users within the workflow to keep things on track.

Asher says the new system has revolutionized how the town's contact centre agents work. "Now they have a single view into the customer's profile and related work orders, and how they file requests is much easier because it's a user-friendly solution that makes logical sense."

He says requests are populated in near real-time. In the past, it took days or weeks because the old system relied on numerous manual processes.

Now if a resident calls Access Richmond Hill and says they need tree branches cleaned up at a specific address, by the time they've hung up an email has been sent to them with their case number. Meanwhile, in near-real time the request is also sent downstream to Maximo as a work order, where an operator acknowledges it, and updates the system to assign the work order to the tree maintenance department.

As soon as the work is completed the case status is updated. If a resident calls with their case number to check when their complaint will be resolved,

employees have tangible information to share. They enter the case number and get a detailed view of when the initial call came in, who was assigned to it, when the work was completed, and any additional comments.

"In the past, without a holistic view of the entire process, we couldn't provide that rich insight and complete connection between systems," Asher said. "Now they log into Salesforce, they see a seamless view of the map where the incident – like a tree branch cleanup – is reported, and they have the appropriate information to share with the citizen."

Residents can also see what's happening in near-real time. They can zoom into a neighbourhood and see how many cases are open. If they know about a missed garbage collection, for example, they can view it online as an icon on the map. The icon means a case has already been created and they don't need to report it again. Or they can call Access Richmond Hill to check on the case status.

Asher said the team is now building a robust dashboard for Meeta, the project sponsor, to measure improvements and calculate ROI. He estimates the metrics will show vast improvement.

"From a municipal standpoint everyone is going down this path of the Smart City Challenge and implementing a citizen-centric community-facing system. But this solution brings us leaps and bounds ahead of other municipalities," he said. "Everyone is moving towards this, and we share best practices to help each other out, but now we're leading the pack."