Transform Your Business with the Power of Location

Spatial DNA Case Study

BACKGROUND

Canadian municipalities and local governments are responsible for delivering essential household services to taxpayers. While many have a clear strategic vision and ways to measure effectiveness, service delivery is often hampered by information-sharing challenges—both internally and with the public. Legacy systems and communication silos between departments prevent municipalities from achieving their desired outcomes.

Today's citizens expect tech-enabled, responsive service. With Big Data and ubiquitous connectivity, they assume services should be transparent and easily accessible. Recognizing this shift, the Government of Canada launched the *Smart Cities Challenge* in June 2017 to inspire municipal innovation. Communities now compete for millions in funding and the title of the "smartest" city based on improvements in data use and connected technologies.

RICHMOND HILL: A STEP AHEAD

Located 36 km (about 22.37 mi) north of downtown Toronto, the Town of Richmond Hill (York Region) serves more than 200,000 residents. In 2017, the CRM system used by Access Richmond Hill was approaching end-of-life. The town sought a modern CRM solution with integration capabilities—one that could connect enterprise systems and geolocation data to improve access to services.

Spatial DNA partnered with Richmond Hill on a four-month initiative to implement an integrated Salesforce CRM, connect it with Maximo operations management, and enhance the solution using Esri ArcGIS map services.

A MUNICIPAL BUSINESS CHALLENGE

Access to Richmond Hill serves as the public's main point of contact for services such as property tax, water, waste collection, maintenance, and recreation.

The legacy CRM system operated in isolation. Service requests—like pothole repairs or tree removal—were logged but had to be manually re-entered into Maximo to generate work orders. Call center staff lacked visibility into task progress or completion. CRM was used externally, while Maximo handled internal operations—resulting in a slow, manual, and error-prone process.

"When we realized we needed a new CRM System, the aim... was to find an efficient solution... reducing the time it takes to process requests, and keeping people informed in near-real time."

— Asher Jaffri, IT Project Manager, Town of Richmond Hill

PROJECT SCOPE AND REQUIREMENTS

Asher Jaffri, the project manager, ensured the solution architecture aligned with Richmond Hill's infrastructure, scalability, and security needs. Key platforms included Salesforce, Maximo, Esri mapping, and Safe Software's FME.

"This is where we got Spatial DNA involved... Everyone on the team was wearing multiple hats... they worked alongside us to help make the integration as seamless as possible."

Spatial DNA took the time to fully understand the town's architecture and policies. Collaborative whiteboarding sessions helped clarify all components and business rules.

THE SPATIAL DNA SOLUTION

Spatial DNA began by documenting inter-system data exchanges, identifying manual processes, and automating them.

"We looked for friction points and designed ways to automate around those."

— Neil Hellas, Director, Solutions Delivery, Spatial DNA

Through discovery workshops, Spatial DNA helped map Richmond Hill's existing workflows—most of which had never been formally documented. The aim was to retain current processes where possible, refine others, and build new ones where needed.

"The goal was to make business rules that match existing processes... or create new ones where it made sense."

— Todd Lewis, President & CEO, Spatial DNA

FME AS ENTERPRISE SERVICE BUS (ESB)

Spatial DNA leveraged FME as an enterprise service bus (ESB), enabling scalable, spatial-data-aware integration—without the inflated cost or complexity of traditional ESB platforms.

"This is why we use FME as an ESB—it has all the capabilities... plus spatial support."

— Asher Jaffri, IT Project Manager, Town of Richmond Hill

Richmond Hill already has FME Server/Desktop licenses and has set up a robust test environment to validate integrations. Rigorous failover testing ensured resilience and secure data exchange.

BENEFITS

Today, when residents submit requests (by phone or online), cases are automatically created in Salesforce, routed to Maximo, and tracked in real time. Automated alerts keep residents and staff informed throughout the process.

"Now they have a single view into the customer's profile and related work orders."

— Asher Jaffri

Requests are processed in near real-time instead of days or weeks. Residents receive a case number and email confirmation immediately after reporting. Maximo work orders are auto generated, and staff can access and share updates instantly.

Salesforce now offers map views of service incidents (e.g., downed trees), enabling greater transparency. Residents can check case statuses or view existing reports—like missed garbage pickup—online.

A robust dashboard for project sponsor Meeta Gandhi is currently under development to measure performance and ROI.

"The solution brings us leaps and bounds ahead of other municipalities."

— Asher Jaffri

CLOSING QUOTE

"When we got into the development process, we knew what was possible, but not how to get there...
This is where Spatial DNA was tremendous... the poster child of this type of implementation."

— Meeta Gandhi, Communication Services, Town of Richmond Hill