Case Study: The Township of Langley – Becoming a Regional Tech Leader with FME, One Cart at a Time

Client: Township of Langley
Partner: Spatial DNA

Focus: System integration using FME Server for solid waste management and long-term service delivery

BACKGROUND

Residents expect their local government to deliver public services efficiently clean water, infrastructure upkeep, waste collection, and emergency services. Yet, behind the scenes, coordinating these day-to-day functions for a population of over 121,000 residents (expected to double by 2040) is a complex logistical puzzle.

For the Township of Langley, the sixth-largest municipality in Metro Vancouver, siloed systems and manual processes were hampering the delivery of public services. Even seemingly simple tasks—like replacing a garbage cart—required coordination across multiple departments, each using different platforms with little to no interoperability.

"We knew that with all the systems we had in place, getting them to talk to each other was important. And doing it in a standard, sustainable, and resilient way—that was the key."
— Shane Barnaby, Manager of Applications, Township of Langley

Although Langley had seen other municipalities successfully adopt integrated platforms, many off-the-shelf solutions were prohibitively expensive. However, the Township identified an underused resource in their own tech stack: Safe Software's **FME**, traditionally used by their GIS team.

CHALLENGE: CONNECTING SILOED SYSTEMS

Initially, FME had been leveraged for spatial data transformation—moving CAD files, imagery, and GIS data. But Langley saw potential in using it as an **Enterprise Service Bus (ESB)** to integrate various departmental systems.

"I was working with our GIS team and said, 'You know, we could really leverage this to do more. Does anybody use FME as more of an ESB?'"
— Shane Barnaby

That question sparked the Township's first integration project, starting with one of the most complex and high-touch areas in civic operations: **solid waste management.**

CART REPLACEMENT WORKFLOW

The garbage cart replacement process involved:

- Resident request intake (phone, email, or in-person)
- Validation and payment processing
- Work order submission to the third-party vendor
- Cart delivery and vendor system update
- Inventory system update
- Tax billing adjustment

This heavily manual process was prone to delays and errors—problems that would scale unfavorably with population growth.

"It took a lot of time and resources. We knew this would be a great test case: it touched citizen requests, internal case management, third-party vendor systems, inventory, and tax systems."
— Todd Lewis, CEO, Spatial DNA

THE SPATIAL DNA SOLUTION

Spatial DNA, a Safe Software Authorized Partner, brings deep expertise in government integrations. They were the only vendor with a clear methodology for building an ESB on the FME stack.

"There's a lot of capable people out there, but Spatial DNA was the only one focused on integration as a process."
— Shane Barnaby

SOLUTION ARCHITECTURE

Spatial DNA implemented **FME Server** as an enterprise integration platform. FME acted as a message broker, orchestrating data across:

- **Microsoft Dynamics CRM** (call center)
- **Tempest** (billing and inventory)
- **Esri** (address validation)
- **Vendors work management system** (garbage cart delivery)

This heavily manual process was prone to delays and errors—problems that would scale unfavorably with population growth.

"If we could get the system working for this process with multiple systems and touchpoints, we knew we could extend it to others."
— Shane Barnaby

DESIGNING THE INTEGRATION

Led by **Neil Hellas**, Director of Solution Delivery at Spatial DNA, the project followed a structured methodology:

1. Planning
- Understand client goals and long-term business needs.

2. Design
- Map technical possibilities for timelines, budgets, and priorities.

3. Implementation
Build, iterate, and refine solutions with continuous client input.

"We iterate with clients at every phase to make sure the solution fits real-world use."
— Neil Hellas, Director of Solution Delivery, Spatial DNA

RESULTS & BENEFITS

The integration achieved multiple outcomes:

Operational Efficiency:
- Manual processes were eliminated, saving time and reducing errors.

Automated Workflows:
- Cart delivery now automatically updates the tax billing system.

Cross-Department Collaboration:
- Systems now work in sync across internal teams and external vendors.

"Now, as soon as a garbage cart is delivered and the service request closed, the tax billing system updates automatically."
— Neil Hellas

"The solution we developed with Spatial DNA is now a core platform technology enabling service delivery in our community."
— Steve Scheepmaker, Director of Corporate Administration, Township of Langley

WHAT'S NEXT

Following this success, the Township is extending the platform to additional departments, starting with **Parks and Recreation** to handle tree fall requests and other service issues.

"The way it's designed, it can handle a handful—or scale to many more departments and services."
— Neil Hellas

Spatial DNA and Langley are also enhancing ERP integration to modernize work management while removing costly custom code in favor of non-code solutions.

"A cornerstone of our eGovernment strategy is integrating systems and information to meet evolving needs. We wanted an open, supported, and extendable way to do that—no expensive black-box solutions.."
— Steve Scheepmaker

KEY TAKEAWAYS

- **Client Type:** Municipal Government
- **Core Systems Integrated:** FME Server, Microsoft Dynamics CRM, Tempest, Esri, Vendor Platforms
- **Use Case:** Multi-system integration for service request automation
- **Key Win:** Replaced manual workflows with automated, scalable integrations
- **Spatial DNA's Role:** Integration architect, delivery partner, and long-term advisor