Case Study:
City of Surrey's Self-Service Data System

Key Facts:

Industry: Local government
Problem: Manual process of fulfilling data requests makes it difficult to respond to customers efficiently
Solution: FME Server
Results: "Self-service" data distribution minimizes processing burden on staff and increases customer responsiveness
Location: British Columbia, Canada

"We needed a long-term technological solution that would streamline this process and relieve our limited personnel resources from the time-consuming administrative tasks of processing data requests."

*- Sean Simpson,
GIS Manager,
City of Surrey*

The Organization

The GIS section of the City of Surrey's engineering department is the central support hub regarding all-things GIS for this fast-growing Vancouver suburb in British Columbia. For over 15 years its staff of 13 has been steadily designing and developing the strategic direction of the City's GIS while amassing 140 Gb of spatial data, including cadastre, infrastructure and aerial imagery, for the whole city. The update and maintenance alone of this sizable database would be a significant undertaking for any GIS team, but compounding this maintenance is the fact that Surrey has been one of Canada's fastest growing cities for a number of years. This rapid change in the landscape has been leading a number of customers to their door in search of GIS-related data, significantly taxing the GIS section's resources.

Powered by FME, the City of Surrey's online data distribution system enables efficient self-service access to customized datasets.
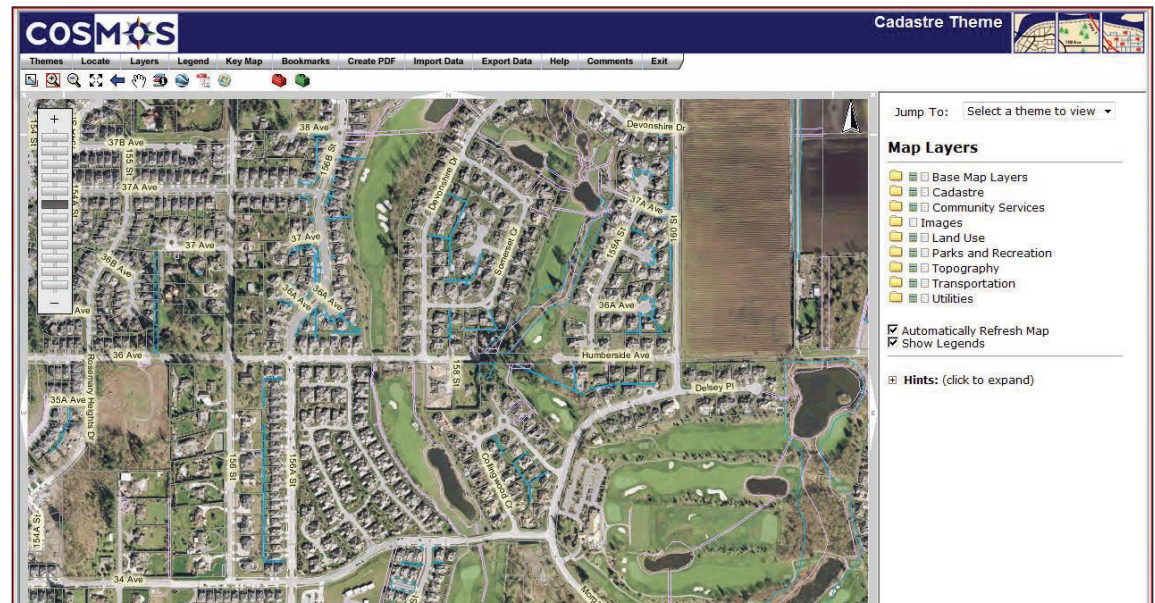
The Challenge

Though the City's GIS section established the City of Surrey Mapping Online System (COSMOS) for viewing spatial data online, ordering and processing data requests were done offline, requiring significant staff time and effort. Even the simplest request would spark a laborious game of musical chairs, passing the order through several hands before it was completed. With 600 data requests a year, that time-consuming effort not only made it difficult for personnel to respond to customers in an efficient, timely manner, it also challenged them to dedicate the time needed to update and improve their data offerings.

"Our staff's time was being consumed by fulfilling mundane, repetitive data requests, and that's an inefficient use of their time," says Sean Simpson, City of Surrey's GIS manager. "We needed a long-term technological solution that would streamline this process and relieve our limited personnel resources from the time-consuming administrative tasks of processing data requests."

The Solution

To reduce the data-processing and delivery burden on staff, the GIS section needed a proven technological solution that would both automate data distribution and reflect the City's e-government initiatives promoting "self-service". It needed to integrate e-commerce, e-processing and e-delivery functionality with COSMOS to create a secure, user-friendly, and full service online spatial data-distribution system. Of critical importance was that the system allow users to freely request data in whatever format, projection or coordinate system they need and then respond accordingly to that specific request. As a 10-year veteran user of FME technology from Safe Software, the GIS section was confident that FME could provide the data transformation strengths it needed to achieve e-freedom.

"Of all the integration components involved in the project, FME was the only given," says Simpson. "We knew it would handle the complex and demanding data extraction, translation and delivery functions without problem."

Launched in July 2008, the full-service component of COSMOS now allows the online data-viewing system to function as an information drive-thru, enabling users to visit the site, order the datasets they need in their preferred format, pay for them and then download the files. Once on the COSMOS site, users zoom into their area of interest on the district-sectioned map, and using a wizard-based approach, the system guides users through the data download process, prompting them with questions to help them locate and to view the data layers they need. A data-layer legend allows them to activate or deactivate spatial features such as parcels, bus routes, water bodies, parks, bike paths, contours, or drainage mains and display them on orthoimages, satellite imagery or a topographic base map. After selecting desired layers, users click on the export button, pay for their data order and FME begins to work in the background, automatically compiling the selected data layers and exporting them into the requested format. The system automatically sends customers an email with a link to the data for them to securely download at their convenience.

The Results

Capitalizing on the data transformation and data delivery strengths of FME, COSMOS now epitomizes self-service. It allows users to choose and to automatically receive customized datasets any time of the day.

"Providing an online distribution system based on FME helps people do their own GIS work and incorporate GIS data into their own workflows," says Simpson. "We can now supply users with requested raster and vector data on the fly and in the format that they can readily use. That helps minimize the burden on our department to service the requests. It's a far more responsive and effective way to service customers."

With FME at the data integration and distribution helm, COSMOS also provides the added benefit of data standardization. Unlike in the past where GIS section personnel did not always compile data orders in the same format, the new online system enables staff to apply a standard format on every request and every deliverable. Standardizing both the output and the input assures customers that they'll receive a consistent data package and removes a time-consuming data-translation burden from personnel.

The Future

With the afforded time to improve the functionality and data offering of COSMOS, personnel are continually adding new data layers to the system such as rain gauge stations and garbage collection boundaries, as well as specialized reporting tools.

Learn More

To find out how FME can help address your data interoperability challenge, or to download a free evaluation copy of FME, *visit www.safe.com*.

"Of all the integration components involved in the project, FME was the only given. We knew it would handle the complex and demanding data extraction, translation and delivery functions without problem."

- Sean Simpson,
GIS Manager,
City of Surrey

SAFE SOFTWARE

Server

www.safe.com