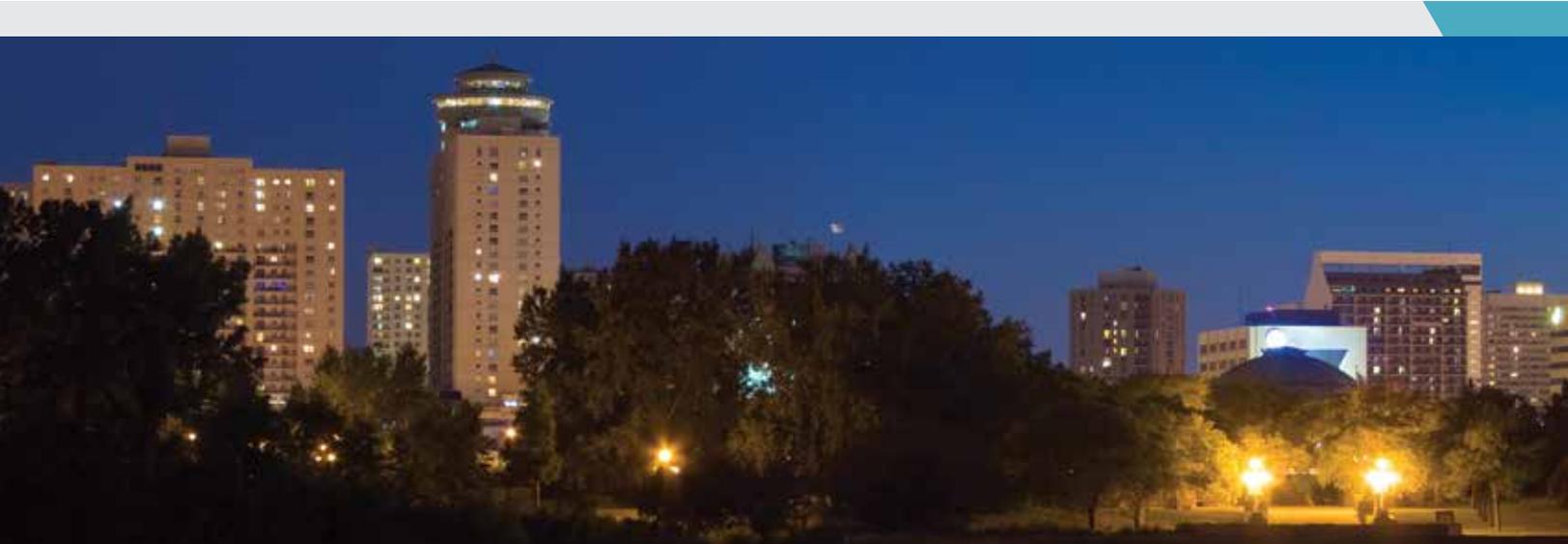**HEXAGON** GEOSPATIAL

INTERGRAPH®

City of Winnipeg Leverages Geospatial Solutions From Intergraph® for Infrastructure Management

City of Winnipeg, Manitoba, Canada

FACTS AT A GLANCE

COMPANY: City of Winnipeg

WEBSITE: www.winnipeg.ca

DESCRIPTION: Winnipeg is the capital city of the Province of Manitoba, Canada, and has a population of more than 700,000. The city is situated in the center of North America, making the city Canada's largest distribution center between Vancouver and Toronto. Winnipeg is one of few North American cities poised to handle domestic and international distribution of manufactured goods by air, rail, and highway, with direct links to seaports.

INDUSTRY: Government

COUNTRY: Canada

PRODUCT USED

- GeoMedia® Professional
- GeoMedia WebMap

KEY BENEFITS

- Efficient maintenance and updates to the city's water and sewer facilities, all within a single environment
- Access to all spatial information in a format customized for each department
- Flexible data model, allowing for easy expansion and enhancement

> GeoMedia technology allowed us to integrate directly with Oracle, which has improved access to our asset information for both our engineering and technical staff, as well as our field personnel.

Intergraph Solutions Provide City Employees with Improved Access to Geospatial Information

IDENTIFYING GOALS

As a growing metropolitan area, the City of Winnipeg realized the value of geospatial technology as a tool for municipal infrastructure management. Winnipeg wanted to implement an information system that would streamline infrastructure management for the city's water and waste department. In addition, the city also needed a flexible geospatial solution it could leverage across the enterprise for land information management, public information services, and other areas.

The City of Winnipeg Water and Waste Department is a large civic department consisting of three distinct areas – water, wastewater, and solid waste disposal. The department provides tax-supported services for land drainage, flood control, and solid waste collection. The Water and Waste Department contributes to the high quality of life the citizens of Winnipeg enjoy by protecting public health, property, and the environment; collecting and treating wastewater; managing land drainage and flood control; and providing collection, disposal, and waste minimization programs, and facilities for solid waste. The department's network database includes information from a service area of 178 square miles, contains more than 200,000 pipe segments, and more than 1,000,000 additional features. Winnipeg was faced with the challenge of finding a solution that would improve access to the city's asset information and allow all city departments to share and integrate geo-referenced information.

OVERCOMING CHALLENGES

- Provide an off-the-shelf solution for the replacement of the existing rules-based application and preserve the accuracy and integrity of existing and new data
- Store data efficiently in a non-proprietary format using industry-standard databases, such as Oracle
- Develop new advanced analysis functions for engineering and technical personnel
- Allow for easy integration with third-party applications, such as work management and asset management

REALIZING RESULTS

Intergraph geospatial solutions facilitated the integration of Hexagon Geospatial's GeoMedia® and GeoMedia WebMap into the existing system, so the Water and Waste Department could share and integrate geo-referenced information with all city departments. Winnipeg employs Oracle and Oracle Spatial for its enterprisewide database with the municipal infrastructure management system. The system enables the department to effectively maintain and update the city's water and sewer facilities, all within a single environment. By employing the open technology of GeoMedia Professional, the department can maintain the city's massive database.

Using GeoMedia WebMap Professional and a corporate staff-developed intranet application, iView, city employees can access all spatial information in a format customized for each department. The department has made great use of this application throughout the city to enable quick-and-easy access to facility information through its internal network.

Ken Dalton, the supervisor of drafting and graphics services at the City of Winnipeg Water and Waste Department, says, "GeoMedia technology allowed us to integrate directly with Oracle, which has improved access to our asset information for both our engineering and technical staff, as well as our field personnel. With the tools available in GeoMedia Professional, the data entry workflow is much easier, and the accessibility of the spatial and attribute information has also improved. GeoMedia's tight integration with AutoCAD allows for easy digital submission of as-built information directly into the system, further improving efficiency."

The City of Winnipeg also uses GeoMedia's commercial off-the-shelf technology for additional infrastructure management solutions and to meet other unique needs. For example, the city's Insect Control Branch uses a configured GeoMedia application to track trucks and crews. The system was initially rolled out with two dispatchers and eight trucks. Today, it manages daily schedules for about 100 trucks. In addition to getting the right people and right equipment to areas identified for spraying, the department can prevent duplicate trips to the same site. The system also identifies the best routes to job sites, and dispatchers can locate trucks that are closest to target areas, providing significant time and cost savings.

MOVING FORWARD

Winnipeg continues to leverage Intergraph solutions as

other departments recognize the benefits of implementing geospatially powered solutions for asset management. The Water and Waste Department plans to add meter data to all households with water service connections. Other projects include integrating aqueduct information into the system, as well as building a water treatment facility. The department is also considering automated meter reading, which would allow electronic control of valves and other functions from a desktop.

The Insect Control Branch wants to expand the system by adding dynamic tracking and automatic vehicle location capabilities. There are also plans to integrate the system with GeoMedia WebMap to provide public visibility to insect control activities. This will provide citizens with direct, real-time access to department information and geospatial data.

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For more information, visit www.hexagongeospatial.com. Contact us at marketing@hexagongeospatial.com.

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