



BACKGROUND

Toronto's Water Department is responsible for \$28 Billion of assets that govern production and distribution of clean water; then the handling of water waste across Toronto.

CHALLENGE

In 2012, 1500 staff were deployed on land and water to manage the management of clean water and waste water activities. Various provincial legislations set the standards of performance. The Fire Prevention and Safety Act is one such legislation, and provided some of the impetus for change. Alex Marich was managing this organization and the continuous improvement effort that has delivered 20% productivity increase since 1996. Rob Lash, Manager of Work Optimization was tasked with standardizing the work process associated with asset maintenance, starting with Water Hydrants. The work-order distribution and reporting processes were generally paper based, requiring manual document distribution and completion; with staff or administrative clerks tasked with data entry into their InForHansen 'Work Management System'. Both the Ontario Fire Protection & Prevention Act and the city's Insurers require process validation. Proving compliance and consistency using the current paper processes was difficult.

SOLUTION

The existing Citrix online approach was discarded because connectivity wasn't always available and the in-truck access still required the duplicate entry, from paper to the InFor Hansen system. The always connected requirement was costly and didn't deliver the efficiency that was anticipated. It was also felt that a flexible mobile solution could be adjusted to changing work requirements rather than having to change their InFor-Hansen system; that an online all the time approach required. Rob Lash had been exposed to the concept of a mobile platform through Toronto's Children's and Youth Services Division. The RFP was written with future requirements and adaptability of purpose functionality in mind.

Glenn Gerard was given the project management task to deliver a mobile solution that satisfied the Water Hydrant asset management responsibilities for the four divisions, while improving the work processes and reliability of the data stored. Very quickly,

PROFILE:

- Government Ministry
- Responsible for Ontario
- Water Department

CHALLENGE:

- Large number of tasks done manually
- Use of paper for reports and other processes
- Manual data entry

SOLUTION:

- FieldWorker integration with the existing InForHansen work management system

RESULTS:

- Eliminated duplication of data entry
- Data available to field workers at any time
- Standardization of processing work orders and entering data
- Elimination of costs associated with multiple data entry sources

Glen recognized the flexibility of the FieldWorker platform and the initial solution specifications were massaged to incorporate other business requirements and associated work processes.

- **The RFP requirement; to push down asset data (Water Hydrants) for the inspection, location (GPS) and condition of these assets.**
- **A secondary work process; that of establishing the “flow rate” of various Hydrants in both Winter and Summer was added. This allowed the color coding (painting) of valve covers thus providing an instantaneous ‘visual assist’ for fire fighters. Currently “hydrant status reports” are not sent electronically to the Fire Department; a simple process given The Fire Department receives access to the FieldWorker web portal that is managed by the Water Department.**
- **A Validation requirement was added to the Water Hydrant asset management work, which confirmed that the asset being inspected and ‘flow certified’ was within the GPS location parameters that the GIS system delivered; to validate both location and condition at the date of inspection.**
- **A CSR (Customer Service Report) application was inserted into the SOW whereby any water department employee could initiate a work-order from happenstance observation.**

- **While the RFP specified water hydrants as the asset, Glenn Gerard realized that the specificity of the RFP could readily be extended to any asset class. That extension of this FieldWorker application for other as-sets types remains on the “Work To Do” list.**

RESULTS

More data (such as local history and Criticality of assets) is now available to the field worker, improving awareness. Work is captured once by the user and duplicated work, network dependency, and associated costs eliminated. These work process are now standard across the department and the data is accountable and dependable. Internal capabilities using this technology allows Toronto's IT staff to adapt existing applications or deploy self configured applications iteratively as changing needs develop. The organization can now extend this technology across other departments since this platform is now housed in their shared services IT department.