



## Move to Mobile (M2M) Hits the Mark Hydro One



Geoenabling workforce management improves field crew productivity, safety, and response times, helping to lower costs, and ultimately, boost customer satisfaction.

**“From an SAP WM perspective, Critigen helped us put GIS in the field.”**

Tom Kydd, Vice President Operations, Hydro One



### BACKGROUND

Hydro One has a long history in the electricity services industry. Starting in 1906, Sir Adam Beck’s vision to supply electricity to southwest Ontario and Toronto, eventually led to the creation of the 450 megawatt (MW) Queenston Chippawa station at Niagara Falls. In its time, it was the largest power station in the world.

Today, Hydro One manages 30,000 km (18,641 mi) of transmission lines, 123,000 km (76,429 mi) of distribution lines, and 1.6 million poles over a diverse territory of lakes and rivers.

*“Working with Critigen, we were able to tightly integrate GIS with SAP’s Work Manager, cutting the data updates from an upper end of 180 days to only 4 to 5 days.”*

Tom Kydd, Vice President Operations, Hydro One

### CHALLENGE

The challenge for Hydro One was finding innovative ways to increase system performance and reduce costs while keeping safety the number one priority. The current processes were antiquated and in need of updating.

Completed work was also done on paper, requiring time consuming data entry. Data update time took months, and data input and integrity sometimes suffered.

Lineman only carried maps for their operational area. If an incident occurred near them, but in another area, the paper maps they had in the truck wouldn’t be of any help.

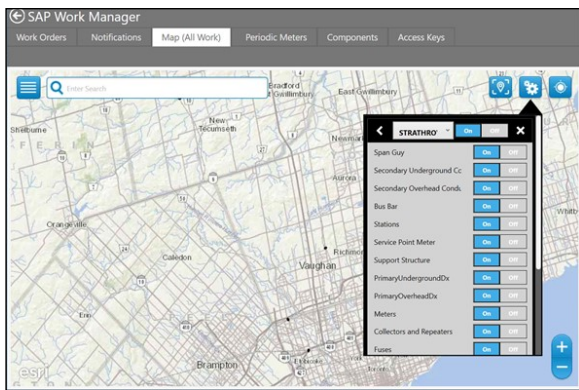
### Project Details

Hydro One

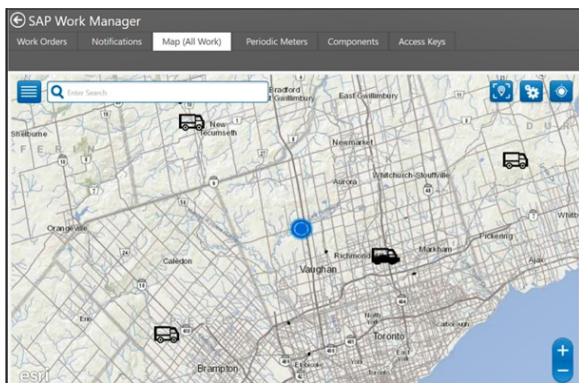
Industry: Power, T&D

Duration: 1 year





Lemur™ allows users to configure the GIS to cache specific map layers for offline use in the field, as well as update frequency and extent of coverage.



Lemur™ enables crew locations to be shown in the WM map view and shared with dispatch so they can notify the nearest crew of a defect or emergency.

*"Schedulers now bring up a map and say, 'show me all work activities in an area,' they circle them, and then assign to staff."*

*"The efficiencies around scheduling and routing, and execution of work are improving thereby increasing our execution efficiencies."* Tom Kydd,  
Vice President Operations, Hydro One

## SOLUTION

The solution was the Move to Mobile (M2M) initiative, which involved the tight integration of SAP Enterprise Asset Manager (EAM) with Work Manager (WM), scheduling software, and Esri ArcGIS using Critigen's Lemur™ product. Lemur™ acted as the glue, connecting systems and automating the update of map data to field crews' tablets.

"From an SAP WM perspective, Critigen helped us put GIS in the field," said Tom Kydd, Vice President Operations and M2M Corporate Sponsor. "Every Monday, field crews receive up-to-date cached map data for their region. If an incident occurs in another region, they can access that region's data to respond."

The move to digital also involved connecting the field to the back office. "As linemen complete their work in WM, our business processes are maintaining that asset information, both on the SAP side and in the enterprise GIS," said Tyler Towers, Business Solution Architect, and M2M Technical Lead at Hydro One.

## RESULTS

By integrating best in class technologies, Hydro One replaced 40+ paper forms, modernized scheduling methods and gave linemen real-time access to up-to-date SAP data and GIS maps.

Linemen drive time was reduced each day, reducing costly windshield time.

Using Lemur™ to automate the extent and frequency of map cache updates lowered the demand load on server architecture.

There was a marked increase in the timeliness of data input and the integrity of field submissions, and data update time was significantly improved from and upper end of 180 days down to just 4 or 5 days.

Truck locations are now visible to schedulers, and crews can now see defects in the power system on their tablets. They can now also report defects or address them on the spot. "They've never had that visibility before, and they are taking ownership of the process," said Towers.

"We have successfully integrated both SAP Work Manager and GIS into one system," said Kydd. "I've talked to other utilities that didn't go this route in one large step, and regret it. I'm glad we did."

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