

Delivering over 12 billion barrels of crude oil over the last decade takes a highly reliable network – wherever the pipeline may lead



## CUSTOMER PROFILE

Over the past 60 years, Enbridge has become a leader in the safe and reliable delivery of energy in North America and is proud to be recognized as one of the Global 100 Most Sustainable Corporations in the World.

We transport energy, operating the world's longest, most sophisticated crude oil and liquids transportation system. We have a significant and growing presence in the natural gas transmission and midstream businesses, and an increasing involvement in power transmission.

We generate energy, expanding our interests in renewable and green energy technologies including wind and solar energy, geothermal and hybrid fuel cells.

We distribute energy, owning and operating Canada's largest natural gas distribution company, and provide distribution services in Ontario, Quebec, New Brunswick and New York State.

[www.enbridge.com](http://www.enbridge.com)

## Uplogix Benefits for Enbridge

To deliver energy safely across thousands of miles, Enbridge relies on an extensive information network to monitor and control its pipeline network. Uplogix Local Management enhances network security and serves as a common management platform for administrators supporting pipelines on land and sea:

- ▶ **Access Security** | All access to remote network and communications devices goes through Uplogix to track user sessions for compliance and reporting.
- ▶ **Optimized Monitoring** | Local management of devices allows for detailed monitoring with minimal network traffic. Data sent upstream to tools in the NOC is compressed and encrypted.
- ▶ **Heterogeneous Devices** | From SCADA and networking gear to connectivity over dial-up, cellular and LEO satellite, Uplogix is a single management interface for diverse deployments.

## Enbridge operates the largest and most complex liquids pipeline system in the world

Uplogix helps secure and simplify management of the network that controls the transportation of energy for millions in North America

For over 60 years, Enbridge has operated pipeline systems. Today, millions of people across North America rely on energy transported by Enbridge pipelines every day. With a foundation built on safety, the number one concern at Enbridge is the integrity and viability of their pipelines.





## Secure remote access and automation for SCADA and hybrid networks

The ongoing convergence of SCADA and IP has introduced additional complexity into networks in the Energy industry. At Enbridge, Uplogix has reduced the number of truck rolls required to service remote networking sites while increasing network security.

### Secure, always-available access

Enbridge uses Uplogix to manage access to monitoring and control devices along the pipelines. Uplogix can maintain management access and control over distributed locations, even when the network is down or degraded. Uplogix Local Managers (LMs) function securely and consistently—both in-band and out-of-band—and provide multiple backup connectivity options (PPP/analog, cellular, satellite).

Enbridge uses Uplogix to enforce security policies and maintain compliance—even during network outages—by controlling access to managed devices; enforcing granular authorization controls; and logging all device changes and the results of those changes.

### Local monitoring is more efficient

Uplogix Local Managers continuously monitor critical device statistics and user interactions with managed devices via an always-on, serial connection with no impact to network performance. For Enbridge, this is especially important because some sites operate at low bandwidths and benefit from the LM compressing and encrypting monitoring data before sending it upstream to tools in the NOC.

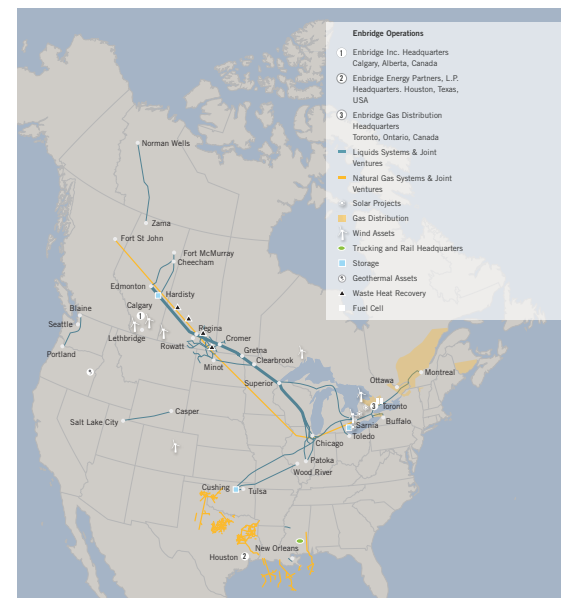
### Heterogeneous device support

Pipelines bring together high technology and communications with the physical world of transporting energy from one location to another. This means a variety of devices are critical to the operation. Uplogix can monitor and manage SCADA, networking and communications gear.

Enbridge has remote connectivity across the pipeline and also to their barges and vessels offshore through a mix of out-of-band channels including dial-up, cellular and Iridium satellites.

### Even at the most remote locations, Uplogix keeps Enbridge connected to critical monitoring and control infrastructure

As the operator of the largest pipeline system in the world, Enbridge is also one of the largest users of Uplogix in the Energy industry. We're proud to help in their mission to safely transport energy that millions of people rely on in their daily lives.



**ABOUT UPLOGIX //** Uplogix provides the industry's first local management solution. Our co-located management platform automates routine administration, maintenance and recovery tasks—securely and regardless of network availability. In comparison, traditional network and systems management depends on the network, uses multiple tools, and remains labor intensive. Uplogix puts the power of your most trusted IT administrator everywhere, all the time.

Uplogix is privately held and headquartered in Austin, Texas. For more information, please visit [www.uplogix.com](http://www.uplogix.com).

[www.uplogix.com](http://www.uplogix.com) | Headquarters: 7600B N. Capital of Texas Hwy, Suite 220, Austin, Texas 78731 | US Sales 877.857.7077, © 2013 Uplogix, Inc. All rights reserved. Uplogix, the Uplogix logo, and SurgicalRollback are trademarks of Uplogix, Inc. All other marks referenced are those of their respective owners. 021113