

Case Study

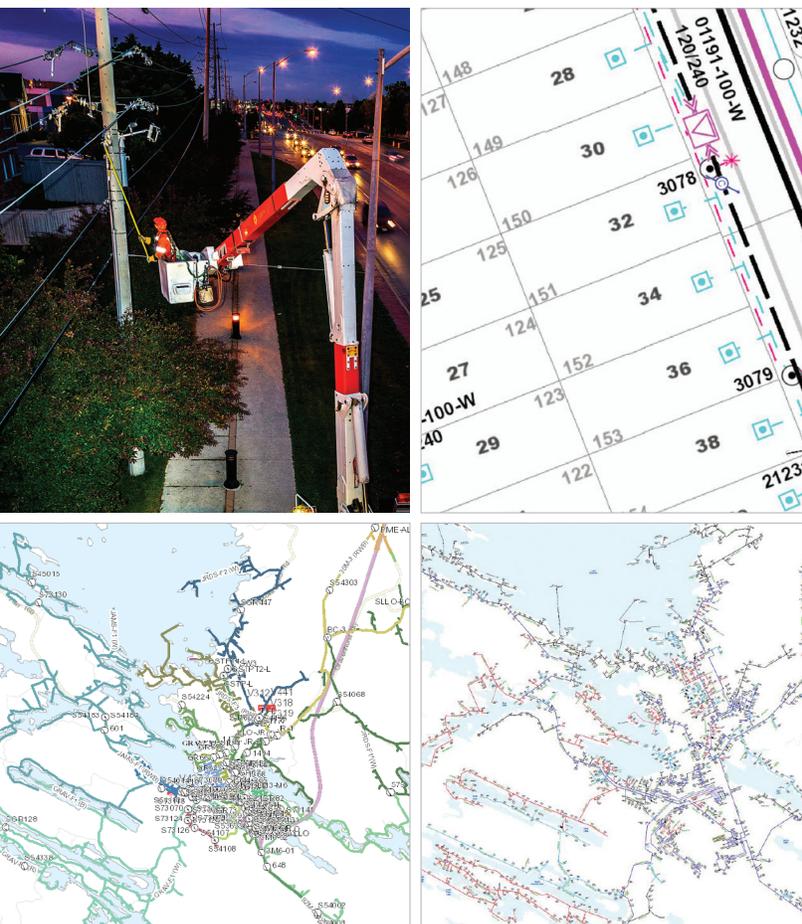
Veridian Connections Powers Innovation through GIS



ArcGIS helps utility streamline operations communication and reduces effort required to capture project changes by up to 50%.

Veridian Connections (“Veridian”) is the seventh largest municipally-owned electricity distributor in Ontario, serving more than 119,000 residential and business customers in a 639 km² service territory. As demonstrated by the results of the Ontario Energy Board’s 2014 Electricity Distributor Scorecard, Veridian is committed to delivering positive customer experiences and operating effectively. Driven to continually improve and seek efficiencies, Veridian conducted an internal review in 2014 to evaluate potential enhancement opportunities.

In 2014, Veridian implemented several ArcGIS solutions to help further integrate its systems and processes to drive greater efficiencies. As a result, Veridian has streamlined the flow of information throughout the utility and eliminated redundant processes, resulting in an improved customer experience and more efficient utilization of existing staff.

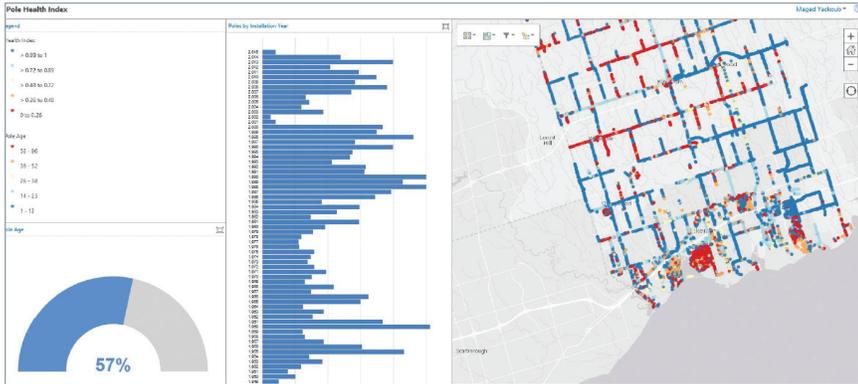


Challenge

Like many utility companies, Veridian needs to ensure that information related to its power system is accurate and accessible to support the engineering, operations and customer service goals of the organization. Veridian also continually seeks ways to improve productivity and focus on improvements that their customers value. This led Veridian to conduct an internal review that identified opportunities to enhance the way systems worked together and how communication occurred across departments, particularly with regards to outages.

Operations staff needed to receive information from the field sooner, and when power outages occurred, customers appreciate restoration updates as quickly as possible. Veridian identified that expanding upon its existing use of GIS technology would help the utility address some of these needs. To achieve this, Veridian had to streamline its backend data maintenance processes so GIS analysts could devote more time to effectively serving the organization. A plan was designed to ensure Veridian’s enhanced data management system would satisfy their current requirements, as well as future improvements. With this in place, Veridian began exploring GIS solutions that were cost-effective and could be readily integrated into its existing system. Given the mission-critical nature of Veridian’s business, a provider that would remain engaged with the utility throughout the project lifecycle was essential.

Veridian’s old network diagram (left) compared to its new diagram (right), which was created using ArcGIS Schematics. The new network diagram creates a more simplified version of the company’s utility distribution network.



Using dashboards, Veridian has created a series of operational views to monitor activities and projects. Above, a dashboard details hydro pole conditions in a specific area.

“Esri Canada has been able to provide us with the tools necessary to accomplish many of our high-level goals, such as situational awareness, having a customer service focus and expediting the restoration of power.”

Mike Weatherbee
 Manager, System Control Centre
 Veridian Connections

Solution

Veridian worked with Esri Canada to develop and implement several focused, lightweight applications and dashboards using the ArcGIS platform. Veridian also adopted ArcGIS Schematics—an ArcGIS for Desktop extension that creates a simplified view of a utility’s network. ArcGIS Schematics enables Veridian to represent its utility network within a defined space—without geographic scaling constraints—to clearly visualize its network infrastructure and make operations easier to understand at a glance.

Veridian used mobile workforce management technology offered by Esri gold partner Clevest. Using maps, smart workflows, electronic forms and interfaces to enterprise systems, Veridian’s mobile workforce solution organizes and optimizes the scheduling, assignment and completion of work by field staff. Also, Veridian configured dashboards using Operations Dashboard for ArcGIS to give management a clear picture of the current state of field operations of specific activities and projects. For example, a dashboard was created that visually summarizes the condition of hydro poles across Veridian’s service territory as they are inspected.

Veridian unified the fragmented collection of paper and digital maps used by staff to create one, central GIS-based web map by leveraging ArcGIS APIs (Application Program Interfaces) to seamlessly integrate several disparate systems. An outage reporting tool running within that app now acts as a one-stop shop to communicate outage updates. When outage updates are entered into the system, notifications are automatically sent to Veridian’s Twitter account, Integrated Voice Response (IVR) system, a customer-facing web map and via email to key staff.

Benefits

Veridian’s new GIS solution has streamlined the flow of information from the field, to operations, and their customers. Backend data management and field reporting enhancements have improved the quality of GIS information. As a result, Veridian has improved the customer experience by delivering information with even greater speed and accuracy to the public. Internally, worker productivity and safety have been enhanced: operations staff can more effectively understand and prioritize service calls when dispatching field crews to areas with the greatest needs.

Implementing ArcGIS Schematics has eliminated data maintenance tasks previously performed using duplicated processes in CAD software, which offered a limited view of its utility network and was not optimized for information sharing and collaboration. Adopting ArcGIS Schematics has facilitated an improved decision-making process and enhanced efficiency by allowing GIS staff to focus on additional projects without requiring further staffing investments. This has also reduced some data maintenance tasks by close to 50%, which has allowed Veridian to increase capacity without adding staff.

Veridian’s mobile workforce solution and dashboards help to provide a more holistic view of their field operations for dispatchers, schedulers and administrators; as well, the integration of many maps into one GIS-based app has created efficiencies by reducing data management efforts and eliminating duplication. Overall, this has created a self-serve environment for employees to access up-to-date information even quicker than before. Veridian’s GIS group reports a 90% reduction in information requests and interventions, freeing up more time for analysis, system maintenance and other improvements.

GIS Solutions for:

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Founded in 1984, Esri Canada provides enterprise geographic information system (GIS) solutions that empower businesses, governments and educational institutions to make timely, informed and mission-critical decisions by leveraging the power of geography. The company distributes the world's leading GIS software from Esri, along with a comprehensive portfolio of complementary GIS products and services. Headquartered in Toronto, the company serves over 10,000 customers from 16 regional offices across Canada.

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