



CASE STUDY

Automating Mobile Workforce Management with FortisAlberta

PROJECT SUMMARY

Project:

Mobile Workforce
Management (MWFM)

Location:

Alberta, Canada

Number of Customers:

500,000+

Applications:

To increase job performance
and automate processes

Solution Implemented:

EpochField Work Scheduler

Customer Benefits:

- Digitize field service data collection
- Create, schedule, and manage operational workflows
- Share asset map data in real time

INTRODUCTION

As a regulated electricity distribution utility serving central and southern Alberta, Canada, FortisAlberta is responsible for ensuring the safe and reliable delivery of electricity to more than half a million residential, farm, and business customers across the region. To achieve the consistent service uptime customers require today, the utility's 1,100 employees work day and night to keep systems up and running, prevent and respond to outages, survey and repair infrastructure assets, and maintain the power grid.

FortisAlberta has developed a Grid Modernization Program that includes enhancing, replacing, or upgrading existing operational and information technology systems to better serve its customers, improve the reliability of its distribution network, be prepared for changes in the regulatory environment and distribution grid with the introduction of renewable energy, and gain operational efficiencies. The solution is an enterprise-wide Mobile Workforce Management (MWFM) system that integrates with their Outage Management System (OMS), Customer Information System (CIS) and Asset Management System (WAM), consolidating all these pieces into one application.

The MWFM solution will be based on Epoch Solutions Group (ESG)'s EpochField technology and will leverage full GIS capabilities, to support five key work types: planning, scheduling, dispatch, execution, and analysis.

THE CHALLENGE

According to Dave Stratichuk, Manager of Operation Technology for FortisAlberta, the utility company launched its modernization initiative five years ago to address a number of technological challenges impacting its field operations.

"We were working in systems that were approaching the end of life and wanted to proactively transition these out in a phased and manageable approach," Stratichuk said. "Keeping those older systems working placed a burden on our staff and gave us limited visibility into our daily operations and the status of our resources."

For FortisAlberta employees and field crews, manual processes, such as data entry, were used to trace and track the condition of field assets, create reports, and communicate with one another. The manual process at the field level was required to complete asset maintenance work and provide status updates.

Among the goals for modernizing its systems, the utility sought to deploy an enterprise-wide system that would reduce manual effort to manage field work, automate data collection where feasible, and create one schedule for all field work that supports proactive scheduling vs. reactive assigning. "For example, we wanted to automate as much of the data collection process as possible for field workers," said Stratichuk. "And we wanted all our systems to integrate so when a field worker or back-office employee entered data into one system, it would automatically populate into other systems, allowing all stakeholders to immediately consume and act on that information."



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THE SOLUTION

To achieve these goals across the utility's labyrinth of systems, applications, and networks, FortisAlberta partnered with ESG to implement EpochField and, specifically, its Work Scheduler solution.

A fully integrated suite of technologies, the EpochField portfolio of products provides utility companies with the breadth of functionality they need to:

- Digitize field service data collection processes
- Share asset map data in real time between field and back-office workers
- Achieve a single point of integration across the technological continuum

Unlike other applications on the market, FortisAlberta found the EpochField platform to be configurable for their unique needs. The solution allows utility companies to determine the best workflows for their processes and configure the platform so that it integrates seamlessly with the way they already work, eliminating extra burden on field employees to learn new processes in addition to the new technology. This ability to configure the solution also results in higher adoption at implementation. FortisAlberta is using EpochField as a critical piece of their digitization effort, allowing them to manage their operations at scale, with the features and functionality required to serve their technological needs. "Our objective is to put in place a single system for all work scheduled in the field, and to provide all stakeholders wherever they may be located with a single source of truth on what has been completed, what is happening now, and what is planned for the future," said Stratichek.

In building out the solution, ESG's implementation team gathered initial input from departments across the FortisAlberta organization to ensure that their needs and interests were reflected in the project specifications. The resulting MWFM initiative was then segmented into three phases to be rolled out in succession:

- Scheduling of long-cycle field work
- Scheduling and dispatching of short-cycle field work
- Optimization of the tool and expanded automation of scheduling and reporting tasks

EpochField Work Scheduler provides operations managers and dispatchers the ability to automate the scheduling and dispatching of field personnel, crews, equipment, and groups. Based on advanced GPS technology, Work Scheduler automatically tracks the progress of field workers and features route optimization tools to ensure resources are deployed as quickly as possible wherever they are needed.

EXPECTED RESULTS

Implementation of the MWFM system as one tool will be a significant driver of overall business benefits within the Grid Modernization Program for Fortis Alberta. This initial project will be the first deployment in the ongoing delivery of the MWFM solution with scheduling and advanced field applications including integrated mapping, work order templating, crew management, and in the future, scheduling, routing, use of GPS data, and distribution network status. EpochField Work Scheduler builds on EpochField's functionality by giving operations managers and dispatchers the ability to automate the scheduling and dispatching of field personnel, crews, equipment, and groups. Based on advanced GPS technology, Work Scheduler will automatically track the progress of field workers and feature route optimization tools to ensure resources are deployed as quickly as possible wherever they are needed.

FortisAlberta has already gone live with more than 300 power line technicians working within the new scheduling system based on the EpochField Work Scheduler. With mobile mapping capabilities, they have been able to digitize all that information, providing critical information to field workers and others internally who need visibility into the status of field work, but don't necessarily work directly with these systems. The system gives FortisAlberta visibility into schedules and workforce operations to support strategic decision-making that optimizes performance and customer satisfaction. "When we are making real-time scheduling decisions, we automatically have accurate, up-to-date information on who is on vacation, who is taking sick leave, and who has other scheduling limitations. Before, all this information had to be input into systems manually," said Stratchuk.

A future phase will focus on optimizing scheduling and reporting features and customizing its functionality for the specific needs of different departments across the organization.





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