



CASE STUDY

Large Midwestern utility scales up performance with Octave's outage management technology

Key facts:

Company: Wisconsin Public Service (WPS)

Website:
wisconsinpublicservice.com

Industry: Power

Country or Region:
United States

Octave products used:
Outage Management System (OMS), Fault Location Module

Key benefits:

- Improved efficiency of outage restoration
- Enhanced outage information to customers
- Dispatchers and field crews now have a single-screen view of outage details
- A central dashboard helps to reduce customer outage lengths

Wisconsin Public Service (WPS) serves more than 450,000 electric and 333,000 natural gas customers across Wisconsin and Michigan. Because its service area experiences a variety of weather conditions, from severe thunderstorms to snowy and icy weather, WPS field personnel and dispatchers must quickly respond to calls for service, including outages caused by fallen trees or damaged power lines.

Previously, when an outage or issue was reported, WPS dispatchers had to wait until a company line electrician arrived and confirmed the trouble spot. Without a specific outage location, WPS control center operators could not begin working on options to reroute power around the damaged equipment, increasing the length of the outage. As part of its ongoing focus on providing world-class customer service, WPS sought to upgrade its outage management system (OMS) to provide faster, more accurate outage information to field crews, control center staff and its customers.

Overcoming challenges

WPS wanted its new OMS to address the following challenges:

- Pinpoint trouble spots more accurately to decrease outage durations
- Provide rapid, real-time outage information to field and control center personnel
- Offer faster, more accurate notifications to customers about an outage through the WPS app and website

Realizing results

In 2020, WPS implemented the latest OMS from Octave to improve the efficiency of its outage restoration work and provide enhanced outage information to customers. The upgraded OMS gives dispatchers and field crews a single-screen view of all available details about an outage, including affected customers, status of repairs, and a map showing the location of the affected equipment. This central dashboard allows WPS to assign line workers, materials, and equipment to repair outages, reducing the length of customer outages.

Using mobile technology built into Octave's solution, WPS field crews see what control center dispatchers see. This means they instantly know where an outage is, what may have caused the outage, and who is able to respond quickly and safely to repair the outage using a detailed map view of the electrical and street network.

"Access to real-time information about our system and where other crews and employees are working is vital knowledge for our crews and our customers," said Brandon Swiatnicki, lead line journeyman for WPS.

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Brandon Swiatnicki
Line Journeyman,
Wisconsin Public
Service

Improving efficiency

The upgraded Octave OMS solution includes a new fault location module to help WPS crews repair outages faster and more efficiently. “Fault location means the system can better pinpoint the location or device causing the electrical outage and provide recommendations to our crews that help them locate the outage more quickly, which ultimately reduces the overall outage duration,” explained Leonard Socha, supervisor of OMS — WPS.

Dispatch control center, the upgraded technology and a streamlined user interface helped dispatchers and electric distribution controllers work more efficiently with field personnel. “With this upgrade and the new fault location module, our OMS gives us a more accurate trouble location before our crews get to the area,” said Ben Risch, supervising electric distribution controller — WPS. “It also has allowed us to provide more details about our distribution network to our field employees, which helps them repair issues more efficiently.”

Enhancing service

A key feature of the upgrade has been the ability to attach documents and photographs to calls for service, trouble calls and outages. Previously, field personnel relied on phone calls or emails to indicate what materials or equipment they needed to make the necessary repairs.

The ability to attach photos or documents to a specific event allows employees to more efficiently prepare and deliver items to a work site, complete follow-up tasks and retain detailed records. “A few pictures can help other work groups see exactly what the crew sees in the field, which leads to a smoother, more efficient repair process,” Risch said. The new system also provides WPS customers with improved notifications and alerts when an outage occurs, available via the WPS website and mobile app. “Anytime an outage occurs, we work as



WPS field crews can leverage Octave's interactive mapping technology to view outage information.

safely and quickly as we can to restore service to the customers who have been affected,” Risch said. “We also understand customers want to know when their lights will be back on. Sharing the details about an outage and when we expect it will be restored through our website and mobile app greatly contributes to customer trust and satisfaction.”

Upgrading remotely

The OMS upgrade was initially set for early 2020, but the onset of the COVID-19 pandemic in the U.S. halted travel, making an in-person upgrade unlikely. To ensure success for the WPS team and its customers, Octave designed and proposed a fully remote deployment. The teams worked together over several months and successfully upgraded the OMS and deployed the new fault location module. Training was completed via remote instruction.

“Improved communications about outages among our field personnel and a comprehensive view of an outage helps our dispatchers, line workers and supervisors determine the most efficient way to repair it,” Socha said. “These specific details allow our crews to respond and begin repairs more quickly, reducing the time an outage impacts our customers.”

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property, and assets— for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency, and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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