PowerOn Response

Integrated Damage, Outage and Storm Management Solution

PowerOn™ Response is an end-to-end solution that provides electric utilities with the integrated tools needed to assess, dispatch, report and restore power from outages caused by moderate and severe weather events, as well as everyday operations.

During weather events electric utilities must quickly understand the extent and location of damage to network assets that may result in complex and nested outages. Specifically, utilities need the ability to assess the impact on the network, prepare repair actions, determine resource needs, dispatch repair crews and communicate key damage and restoration information both internally and externally. Many electric utilities continue to utilize paper maps and/or disparate tools to assess damage and attempt to associate the results to outages and network devices.

With new regulatory pressures and requirements, utilities must improve their ability to respond and communicate network status throughout the unplanned event. The utility’s ability to respond and provide timely communications regarding these types of events directly influences customer, media and regulatory agency perception of the utility’s performance.

PowerOn Response has been designed with the utility in mind, focusing on the need for integrated tools and workflows that support the intelligent capture of network damage directly on the utility’s circuit model, and exchange the results with the Outage Management System (OMS) network model and operational workflows. This exchange of data ensures utilities are able to communicate the damage and repair actions to the appropriate crews quickly and efficiently. Advanced visualization, reporting and analytics tools are also provided so that internal stakeholders and Incident Command Centers have the tools to communicate all aspects of the storm response internally and externally.

Key Benefits

Reduce costs by minimizing the total duration of required storm restoration activities by:

- Improving efficiencies in the collection of damage assessments and immediate communication from the OMS to operational stakeholders
- Improving the accuracy and timeliness of communications regarding estimated repair times (ETRs) for specific outages, circuits and regional boundaries
- Improving customer, media and regulatory communications with reporting and analytics capabilities that provide accurate network status and ETR information
Workflow and Data Flow in PowerOn Response

PowerOn Response enables utilities to respond quickly during unplanned weather events. An intelligent exchange of data via integrated systems, tools and workflows allows utilities to identify the location and extent of network damage, and dispatch the appropriate repair crews quickly and efficiently.

Challenge

While utilities experiencing severe storm events have storm plans in place to ensure circuit patrols are performed and resources are available to deal with severe network damage, the tools and processes are typically a combination of paper or standalone applications that do not effectively share key data between them. Damage assessments are collected but do not get shared with repair crews and other utility stakeholders in a timely or efficient manner, causing delays in restoration response, multiple trips to same locations, manual preparation of various process status reports and insufficient and delayed customer communications.

Solution

PowerOn Response offers Intelligent Mobile Assessment applications that capture network damage directly on digital representations of utility circuits that can be initiated directly from the OMS workflow and represent damage directly on the OMS network model.

- Easy access to mobile assessment applications for any crew member from corporate servers
- Offline ability to report damage directly on digital circuit displays
- OMS workflow integration to initiate assessments and receive results

GE understands the need for information and workflow integration.
An effective storm response requires an effective plan and the processes and tools to ensure the integrity of the network prior to and during a storm response, as well as integrated processes and tools to manage outages, crews and customer expectations. As an integrated system, PowerOn Response enables a utility to improve their planning, response actions, and stakeholder communications during challenging weather events to deliver a more reliable and secure power system.

Challenge
While severe storms are usually infrequent events, utilities must be able to assess network damage as well as resource needs while communicating status. During the most challenging conditions for utility management and employees, public perception is driven by how well utilities communicate before, during and after the event. Good execution can be cancelled out by poor communications.

Solution
PowerOn Response stores all assessment and OMS outage data in a central data store so that utility executives, managers, and other personnel have access to advanced visualization and reporting tools to effectively manage all aspects of the storm response and provide timely and accurate status to external customers and stakeholders.

- Advanced visualization and reports for use by Incident Command Centers
- Reports support operational decision making and customer communications

GE understands the need to communicate at all stages of the storm event.

Visualization, Reporting & Analytics
Visualization of network outages and crews alongside critical outage reporting provides key external stakeholders with ongoing situational awareness and accurate ETRs.

Repair & Restoration
Crew tasks determined by results of assessment. Damage location and repair tasks wirelessly communicated to appropriate crew. As work is completed crew updates are captured and made available to OMS.