



# Spectra OMS™

## Outage Management System

### Spectra OMS™ - Advanced Outage Management Applications

In any Electric Distribution System, power outages occur every day, from various causes including accidents, weather and equipment failures. To respond efficiently and effectively to those and other situations, utilities require the abilities to:

- Become quickly aware of who has lost power
- Predict which devices have successfully operated to isolate the problems
- Identify and assign the nearest qualified and available crews to make repairs and to restore service
- Accurately document each outage job

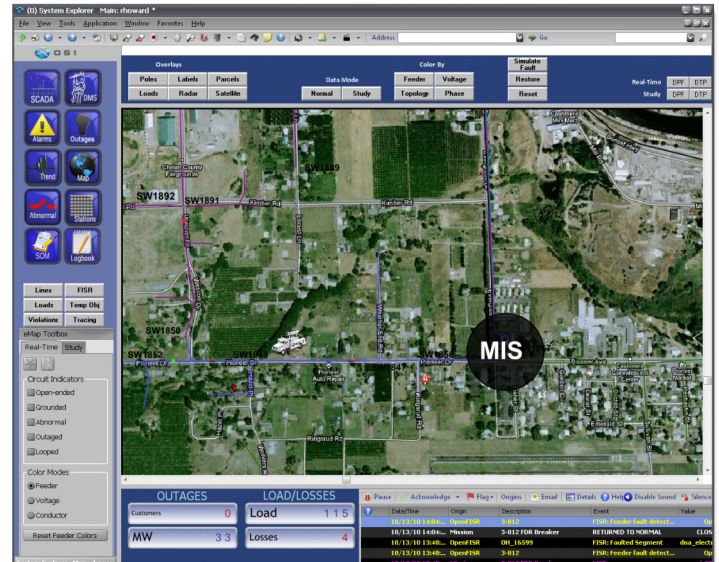
The speed and efficiency by which a utility is able to execute these tasks is directly proportional to how quickly service to affected customers can be restored, as well as to how well reliability metrics such as CAIDI and SAIDI will be.

**Spectra OMS™** is a robust and state-of-the-art outage management solution that empowers utilities to better manage all areas of their outage restoration processes, minimize their outage response times, keep customers, management and regulators well-informed about the scope, status and forecast for outage restoration efforts, as well as to improve overall system reliability. When integrated with OSI's **Spectra WMS™** (Workforce Management System), **Spectra OMS** equips utilities with a solution that enables them to efficiently and effectively assign work to field technicians and to improve field technician utilization and productivity.

#### Increased Outage Awareness

The ideal situation in regards to outage management is to be immediately aware of power outages, well before any customer calls are received. For live system status information, **Spectra OMS** easily integrates with AMR, AMI, MDMS, SCADA and other data acquisition systems, to obtain real-time changes in the status of electric meters, SCADA monitored devices and other distribution automation monitoring devices (e.g. fault indicators).

**Spectra OMS** additionally features a robust, standalone/backup outage call entry module which supports full-function interfacing with CIS, IVR and WEB portal systems, allowing customers to report power outages and to learn about the status of their outage job and Estimated Time of Restoration (ETR).



#### Improved Outage Prediction and Data Accuracies

A comprehensive and accurate system connectivity and customer model is among the primary requisites for accurate outage prediction and outage record data. **Spectra OMS** addresses this by providing for a system model that reflects the real-time state of the system in the field. In line with this, **Spectra OMS** supports:

- Incremental updates for system and customer additions, removals and changes
- Synchronized commissioning (within the model and in the field) of new facilities and system reconfigurations
- System model edits that reflect temporary changes made in the field (circuit cuts, installation of jumpers, mobile transformers and substations, etc.)
- Operating devices within the model that reflect the “as-switched” state of the system (switches, elbow terminators etc.)

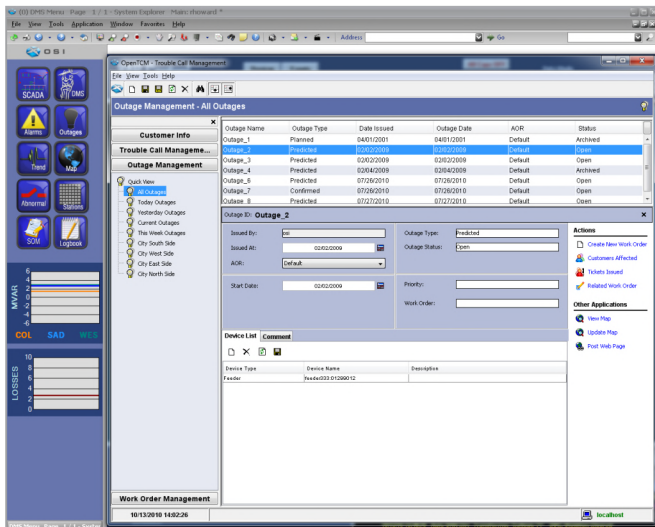
An important fact for effective distribution operations is how efficiently and how well the real-time system data, customer call data and the system connectivity/customer model data is processed to identify probable device outages. **Spectra OMS** is capable of processing thousands of real-time inputs per second, as well as thousands of customer calls per hour and is equipped with a highly configurable outage device prediction algorithm.

# Outage Management System - Spectra OMS

## Improved Time to Dispatch

**Spectra OMS** utilizes a powerful outage analysis algorithm for processing thousands of inputs per minute, producing real-time information about the number, location and extent of power outages within the distribution system. This real-time outage information is accessed by operators through a state-of-the-art Graphical User Interface (GUI), that features highly customizable tabular displays and a full-featured graphical viewer, enabling operators to quickly identify the highest priority work, along with the nearest qualified response crew.

**Spectra OMS** empowers utilities to minimize their response times to outage events and emergency situations, while at the same time improving their power delivery reliability metrics.



Utilizing **Spectra OMS**'s outage restoration verification module, operators are quickly able to identify customers associated with a completed outage job whose power has not been restored due to a secondary problem. In situations such as these, operators are able to quickly address secondary problems before crews move on, negating the need for customers to call and report that their power is still out.

## Beyond Traditional Outage Management

Just as utilities' outage restoration processes involve more than the management of outage calls and outage jobs, **Spectra OMS** functions as far more than a traditional outage management system, supporting many further business processes within the overall outage restoration process. Included among these value-added functions of **Spectra OMS** are:

- Field inspections for assessing asset damages
- Field inspections to investigate potential public safety situations
- Creation and processing of corrective action follow-up work orders
- Keeping customers and utility personnel informed about specific outage and storm restoration efforts
- Coordination of efforts for multiple decentralized dispatch offices
- Managing outage jobs that are beyond the capability of first responders
- Determining overall staffing requirements
- Managing local, foreign utility and contractor repair crews
- Documentation and processing of third-party damage to plant incident reports
- Managing priority customer and operational non-outage service orders

With **Spectra OMS**, operators are able to easily navigate within a consolidated software solution to perform their many tasks. It is no longer necessary to supply operators with a host of different applications, each employing their own user interfaces with disparate user functionalities. With the help of **Spectra OMS**, training time is dramatically reduced, valuable desk space is freed, redundant entry of information and manual transferring of information from one application to another are eliminated. **Spectra OMS** is a comprehensive solution that fully supports the overall outage restoration process.

# Outage Management System - Spectra OMS

## Spectra OMS Highlights

### User Interface

Operators access real-time outage information using a state-of-the-art interface that includes highly configurable tabular displays for easy accessing of outage job summaries, available resources and situational alarms. A full-function graphical viewer is also included, with both geographical and schematic views of the distribution system, for the operator to visualize outage calls, meters, jobs, crew locations and the current state of the system. All tabular displays within the User Interface are interactive with the system maps and schematic one-line diagrams. The **Spectra OMS** User Interface is also fully configurable and customizable at both the system and the user level.

### Outage/Event Communication

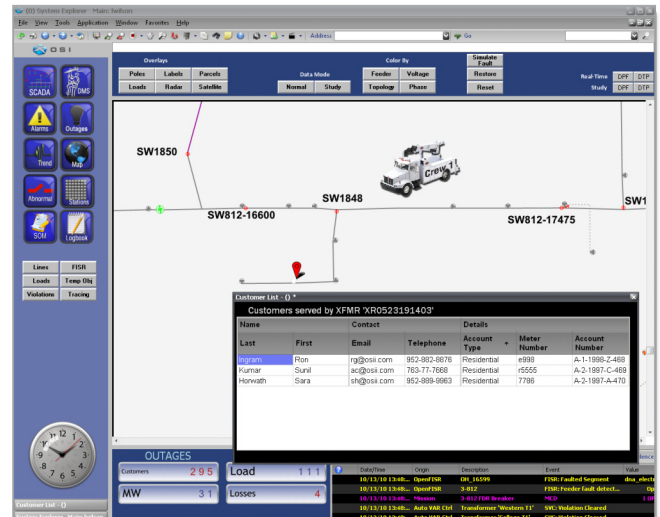
**Spectra OMS** makes it easy for operators to keep utility personnel informed and updated regarding significant outage events and storm restoration efforts. Supported features include:

- Outage specific information is automatically populated into messages
- Messages can be delivered to subscribers via e-mail, text message, digital pager, can be posted to websites and more
- Operators can be automatically prompted to issue updates and “restoration complete” messages

The **Spectra OMS** makes painless, the difficult task of keeping management, call center personnel, media and major customer representatives informed and updated regarding outages and restoration efforts, eliminating the disruption of phone calls and personnel visits into the control center.

### Outage Job Review, Edit and Approval

**Spectra OMS** supports a disciplined outage record review, edit and approval process, affording users’ confidence in the integrity of data and in the accuracy of reliability performance reports. For cases where it becomes necessary to make corrections to an outage record, the **Spectra OMS** outage editing tool allows for editing all aspects of an outage record, including the operating isolation device, partial restoration steps, times, comments, outage codes, etc. For edits made to outage records, **Spectra OMS** also maintains a comprehensive audit trail.



### Reliability Reports

**Spectra OMS** incorporates various tools for identification of repeat outages, as well as customers that have experienced numerous and (or) extensive outage durations, with integrated status tracking for resultant investigations and follow-up corrective actions. **Spectra OMS** additionally produces standardized reliability reports including CAIDI, SAIDI, SAIFI, CAIFI and MAIFI.

### Storm Manager

**Spectra OMS** supports the:

- Evaluation of how different repair crew staffing plans will impact a storm restoration effort and expected ETR's
- Development of repair crew deployment plans
- Calculation of a storm-specific Estimated Time of Restoration (ETR), utilizing outage data, historical performance data, current repair crew staffing levels and more
- Monitoring of system and localized restoration efforts

# Spectra OMS - Outage Management System

## Spectra Workforce Management – Spectra WMS

The **Spectra WMS** module is a full-featured workforce management module that utilizes the system geographical map, seamlessly integrating with wirelessly connected mobile PC's. For the operator, this combination supports the graphical display of crew statuses and locations, easy access to a crew's assigned workload, as well as detailed crew/vehicle information, collection of data for crew activity/performance reports and identification of the closest crew to an outage job or emergency's location.

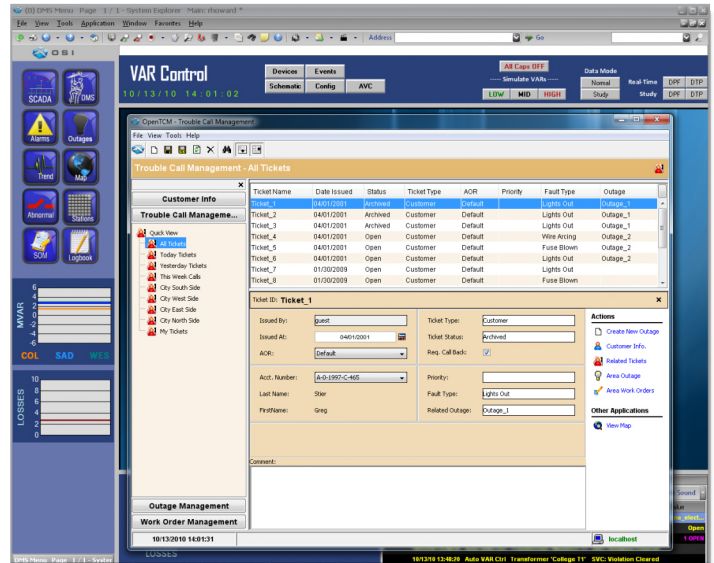
For field crews, this combination enables them to receive electronic copies of their assigned jobs, automatically display a job's locations on a system map, document in real-time their work performed on outage, emergency and non-outage job completion forms, create follow-up referral jobs and determine the best driving route to a job site. This module also features a crew and work scheduling algorithm for the scheduling of crew and customer appointments for non-outage service work and for automatically assigning jobs to crews.

## Beyond Spectra OMS

**Spectra OMS** and **Spectra WMS** can be easily expanded to handle other operational business processes and needs. Available advanced distribution management solution additions include:

- **Spectra SOM** – OSI's Switching Order Management Solution
- **Spectra FISR** – OSI's Fault Isolation and Service Restoration Solution
- **Spectra FR** – OSI's Feeder Reconfiguration Solution
- **Spectra DPF** – OSI's Distribution Power Flow Solution
- **Spectra VVC** – OSI's Volt/VAR Control Solution with Conservation Voltage Reduction

Each of these solutions functionally integrate with **Spectra OMS** and **Spectra WMS**, utilizing the same user interface and system model and maintaining the same look-and-feel, allowing the operator to seamlessly utilize any or all of the **Spectra** solutions.



To learn more about OSI's **Spectra OMS** solutions and how they can assist in transforming your outage response organization and associated business processes into a world class operation ready for the challenges of tomorrow, please contact [sales@osii.com](mailto:sales@osii.com).

Product specifications in this document are subject to change without notice.