

Outage Management System



Keep the lights on longer, at a lower operational cost and with greater response and service to your customers with Milsoft Outage Management System (OMS) -DisSPatch®

Milsoft Outage Management is used by hundreds of utilities who report that it has increased the effectiveness of their employees, shortened outage duration and improved customer communications and service. They have told us, "Milsoft Outage Management paid for itself during our first major system outage." and, "We could never go back to dealing with outages without Milsoft Outage Management."

Milsoft Outage Management solutions are integral components of Milsoft Engineering and Operations, a comprehensive system of fully integrated applications and data management for engineering and operations of an electric distribution system.



Keep Everyone Informed

The Milsoft Outage Management system includes tools to allow utility customers to stay more informed with outage information. Customers can view the Outage Web Viewer to see where current outages are occurring, estimated times of restoration, and other outage related information.

Customers can also be given the ability to log

into the outage web viewer to report outages for their accounts and view the status of existing outages effecting their accounts.

Milsoft Outage Messenger allows the utility to send emails and text messages to employees to keep staff informed of outage details and information. Key personnel get the information they need without having to look at their computer or open a specific app on their phone. Outage Messenger can also be configured to update social media platforms using email notifications providing additional methods for keeping customers in the know in regards to current outages on the system.

Leveraging the power of Milsoft Outage Management with Milsoft Communications

ILSOF'

also allows the utility to provide more details for outages to customers when they call or text into the utility. System features also allow the utility to automatically update a Twitter feed to assist in keeping the public informed.

Easily Integrate Other Utility Systems

Milsoft Outage Management allows the utility to leverage the investments already made in existing technology and systems. Using interfaces to AMR/AMI, SCADA, AVL, and CIS systems, Milsoft outage management integrates all of the necessary data from these systems into one easy to view place.

AMR/AMI Integration allows meter system to report when a meter has lost power as well as allows pinging of meters to see how big an outage may be. Outage events from the AMR/AMI responses create outages in the OMS system and allow the operator the ability to see where there may be outages, without the customer ever calling in.

SCADA Integration ties the devices in the Milsoft model to the SCADA system. If a device opens, and outage is created in the OMS system. If switches close, the OMS closes those switches and restores the outage, resulting in an automatic tracking of outage start and end times. SCADA can also be used to import fault current values, allowing the system operator to use the Fault Locator utility to see what locations downstream could have faulted, resulting in faster crew response times.

> AVL Integration displays the location of all AVL enabled crews on the system map, allowing the system operator focused to stay focused on the OMS system when working outages and assigning crews.

CIS Integration gives the system operator all of the necessary information associated with the service locations in the model. Contact information, such as name, address, and phone number, as well as account status (Active, Non-active, Non-pay) ensures that the system is always tracking the correct number of customers out and not recording outages for invalid accounts. Integration with some specific CIS systems allows Milsoft Outage Management to send outage information back to the CIS system, where customer service personnel can create outage calls and view the status of outages in the Milsoft system from within the CIS system.





Robust Electrical Model

The Milsoft Outage Management System uses a proven engineering circuit model as it's foundation. The circuit model contains all of the necessary attributes to easily identify and locate each feature. With the associated engineering data, the OMS system has the ability to calculate system impedance for Fault Location, reducing outage times by getting the crews in the right place quicker.

Background data, such as satellite imagery, roads, territories, and other utility networks (Fiber, Water, etc) can be visualized in the system by connecting files to the model.

Having a robust model also means that the system operator can replicate everything that a crew can do in the field. From performing simple by-phase open and closing on switches and devices, to installing new hot line jumpers and creating new opens, the Milsoft Outage Management system ensures that correct outage durations are maintained.

This same circuit model is also used in Milsoft Engineering Analysis, allowing switching plans and schemes to be designed in Milsoft Engineering Analysis, and seamlessly integrated into the Outage Management System. Once the switching procedure is sent to the OMS, the system operator is provided step by step instructions for implementing the plan in OMS.



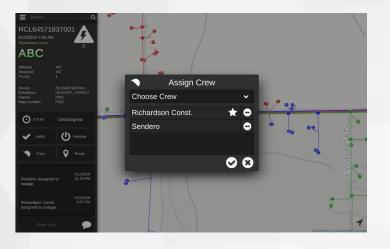
Milsoft Mobile

Empower your outage response team with Milsoft's first fully integrated OEM mobile application for working outages remotely in the field in real time. Milsoft Mobile places the Milsoft electric connectivity model over Open Street Maps allowing field personnel to interact and search both model and outage data. Dynamic outage symbology easily identifies the location of outages and which outages need to be assigned to crews.



Sample Screenshots

Assign Crew

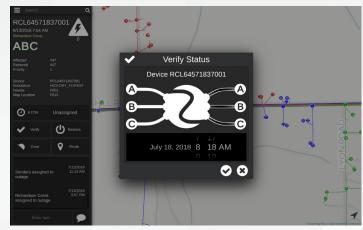


Zoom Outage Selected

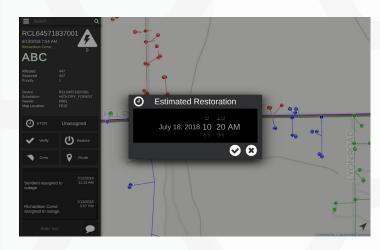


Fault with Notes, Night Mode

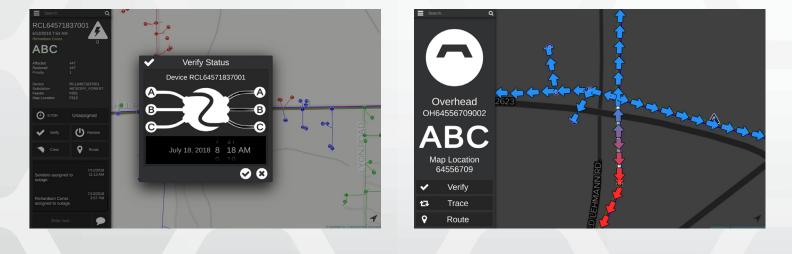




ETOR



Line Trace, Night Mode





Features/Benefits

The user interface features very fast zoom in and out touch screen controls. Panning is very easy as is the one touch selection of outage icons. Side panels gives you quick access to:

Model Interaction

- Search Electrical Elements
- Zoom/Move to Selected Element
- Routing to Selected Element
- Trace Upline/Downline from Element
- Verify Element(creates outages in OMS when performing line patrols)

Outage Data Visible

- Outage Name
- Start Time
- Status by Phase
- Number of Customers Affected
- Number of Priority Customers Affected
- Number of Customers Restored
- Estimated Time of Restoration
- Crew Assigned
- Substation
- Feeder
- Transformer
- Map Location
- Outage Remarks

User Settings

- Add/Edit Users
- Control User Types to Limit Functionality
- User Selects associated Crew upon login

Outage Searching

- View All Outages
- View Unassigned Outages
- View My Outages
- Search by Outage Data

Map Display

- Outage Symbols at Trouble Element
 Location
- Outage Grouping when Zoomed Out
- Flashing Outage Icons for Unassigned
 Outages
- Color by Phase Model representation
- Background use for maps
- Day/Night Viewing Mode

Working Outages

- Assign Crew
- Modify Estimated Time of Restoration
- Verify Outage with Timestamp
- Restore Outage with Timestamp
- Add Outage Remarks
- Modify Cause Codes

Hardware/Software Requirements:

• Milsoft OMS Software (Provides client with full outage editing and creation of permissions to the utility dispatcher. Remote outage permissions are defined by multiple user login roles which enable varying functionality with the application dependent upon the login of the user.

• The Milsoft Mobile will require iOS iPad Pro with 4GB of RAM, 64GB storage and the A10X Fusion chip with 64 bit architecture including the embedded M10 coprocessor.

*1 Milsoft first introduced Milsoft Unplugged for working outages in the field in 2003

*2 Milsoft also sells Milsoft Mobility which is partnership with Smart Energy Water solutions.



New! Milsoft Visual Analytics Powered by carries Analytics

When a picture says 1000 words...

No one can deny the power of collected and stored data. Contained in a broad range of data sets available to you is critical information that needs to be extracted, disseminated, and shared with your teams. There is no better way to turn your operational data into valuable information than by using Milsoft's Visual Analytics tools, powered by Envision solidThinking. Milsoft will provide a standard set of versatile templates designed to give stakeholders graphical dashboard views of critical operations metrics. Milsoft also offers authorship rights and training so that you can customize your reports to suit your organization's needs.

With Milsoft Visual Analytics, you'll be able to visualize both the present and the past. For example, you can use dashboards during an outage that shows who's out of power, how many calls are coming in per minute or the current total duration of the outages. It's really up to your utility, but the ability to report critical operational metrics to your teams and your customers will improve situational awareness and communications that improve customer service. However, it does not stop there. Why not take archived data and compare them by year or by feeders or substations? Use that amazing collection of stored data and turn it into compelling information that could lead to significant changes for the better of the utility and your customers.

Envision, developed by solidThinking, is a modern cloud-based business intelligence platform for hosted and onpremises environments. Architected for an optimized self-service user experience, Envision speeds data visualization, exploration and analysis.

Envision meets the data analytics needs of today's utilities industry, including data analysis for customer service and billing, meter data aggregation, outage management, rate schedule analysis and optimization.



About carriots Analytics

Standard Reports Package Included:

1) Current Outage system status

- Dashboard
- Outage Information
- Crew Information
- District Information
- Caller Information
- Assessment Information
- Note Information

2) Circuit Performance

- Yearly Substation Performance Comparison
- Yearly Feeder Performance Comparison
- Monthly Substation Performance Comparison
- Monthly Feeder Performance Comparison
- Worst Performing Circuit Dashboard
- Circuit Drill
- Device Drill
- Cause Drill

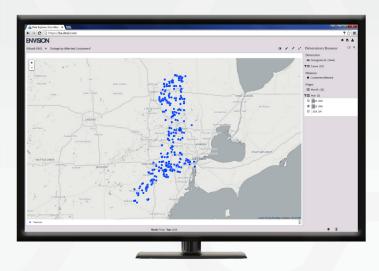
3) Outage Deltas

- Yearly Outage Deltas
- Monthly Outage Deltas
- Yearly Duration Deltas
- Monthly Duration Deltas
- 4) Outage History
 - Dashboard
 - Cause Drill
 - District Drill
 - Reporting Area Drill
 - Daily Summary
 - Outages
 - Outage Type by Substation (Count)
 - Outage Type by Substation (Duration)
 - Substation Outage Type Drill
 - Outage Details

- 5) Customer Circuit Overview
 - Circuit Customer Breakdown
 - Circuit Drill
 - Customer Drill
 - Priority Customer Information (4 pages)
 - Dashboard
 - Substation Drill
 - Report Name/Description
 - Customer Outage Drill
- 6) Assessments And Notes
 - Assessment Summary
 - Heatmap Drill
 - Category Drill
 - Substation Drill
 - Assessment Information
 - Note Summary
 - Note Information
 - Outage Details
- 7) Priority Customer Information
 - Dashboard
 - Substation Drill
 - Circuit Drill
 - Customer Outage Drill







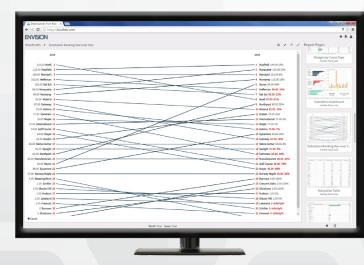






Microsoft Server 2008 R2 or newer / Microsoft Windows 7 or newer Quad-core processor 16GB Ram (8GB Minimum) 100GB HDD

Windows Server 2008 R2 Windows Server 2012 R2 Windows 7 Windows 8.1 Windows 10





Customer Outage Alerts

During outages, nothing is more effective at keeping customer calm than information. When the lights go out, customers just want to know that your utility is aware of the problem(s) and doing everything possible to restore power. With Customer Outage Alerts, you can get the communications tasks done!

Milsoft Customer Outage Alerts provides your utility with the means of communicating to customers via email, texting¹ and voice notifications² based on parameters established by your utility. Notifications can be configured to send automatically or manually sent based on outage criteria from Milsoft OMS System (DisSPatch.)



- Known outage areas
- Current restoration efforts

• Notify customers with updates or information regarding their services

You've got better things to do with your time during outages. Call or email us now to learn more about Customer Outage Alerts.

Requirements

1Texting capabilities require a 3rd party gateway provider to ensure compliance with all FCC, FTC, CTIA and MMA regulations. Milsoft can help with selecting a provider with proven integrations to Milsoft software.

2Voice notifications require Milsoft IVR 7.39

Milsoft DisSPatch OMS 8.6.4 or higher



Personnel Notification

Milsoft Personnel Notification is a configurable communications solution for contacting select employees based on variety of trigger events or scenarios as required by you, our customer. Milsoft Personnel Notification deploys email, and/or text¹, and/or voice calls² to complete the Notification process.

Key Functions

- Multiple phone numbers and email addresses
- Automatic retries
- Call2 one employee at a time until someone "acknowledges"

 If no one "acknowledges"
 (by pressing 1), the list can be eactivated or activate another group

- Monitoring and reporting tools
- Dynamic and interactive content

Personnel Notification of OMS related events

- Key Account involved in Outage
- Verified Outage (with status changes)
- Outage affecting more than 100 customers (with status changes)
- Estimated Time of Restoration has expired
- Outage lasting longer than one hour
- Outage Reported (OMS) (each consumer level outage ticket created)
- All above events can be made available by district

Requirements Milsoft DisSPatch OMS 8.6.4 or higher 1Text Power 2Milsoft IVR 7.39 or higher with Customer Notification

