



# Outage Management

*Electric utility service interruptions not only inconvenience customers, they can result in tremendous expenses for those customers and for the utility. Service outage circumstances can also endanger public health and safety. Utility employees may have to work long hours in difficult conditions with inadequate information to restore service, while customers are literally in the dark about the nature and duration of the outage. A good outage management system can so greatly improve a utility's effectiveness in restoring service that it can pay for itself during one major outage.*

*DisSPatch® is a superior outage management system that enables rapid, efficient management of outages on an electrical distribution system. DisSPatch processes information from a variety of sources such as customers, utility crews, SCADA, AMI, IVR, AVL, CIS, GIS, and weather monitors in order to locate the cause of the outage and identify affected customers. DisSPatch will enable your utility to better manage any level of system outage, from a single transformer outage to major disasters where a significant portion of your customers are without power.*



## Benefits

- Fully detailed distribution circuit model results in extreme accuracy
- Advanced logical prediction speeds, outage location and identification of affected customers
- Track alternative switching scenarios for accurate outage location prediction in switched distribution grid
- Rapid, accurate outage location results in more effective and efficient deployment of crews and resources
- Rapid, accurate outage location and restoration results in better customer communication and service
- Automated analysis of multiple data sources improves accuracy, speed and efficiency
- Rapid manual call entry using the Calls Manager or WebCall
- Interface to IVR systems via MultiSpeak®
- Enhanced Milsoft IVR interface
- Interface to SCADA, AMR/AMI, Smart Meter via MultiSpeak
- Full access to, and control of, system and outage information
- Quick access to priority customers, calls received and customers affected by an outage
- Distribute outage information (number of outages, number of calls, etc.) throughout your organization using web-based applications
- Reduce personnel needed to manage outages; no more paper shuffling to identify problem areas
- Complete outage history saved for future reporting on all customers and devices affected
- Incremental restoration accurately calculates interrupted consumer hours
- Accurately compute and report standard reliability indices (SAIDI, SAIFI, etc.)
- Manage crews assigned to outages
- Easily create planned outage calling or mailing lists
- Locate and track crews with AVL
- Intuitive, easy to use software with full geographic display allows any trained employee to manage any outage



## Calls Manager

The Calls Manager provides for quick and efficient entry of customer outage information into the DisSPatch system.

### Features of Calls Manager

- Incremental CIS search by name, account number, meter number, map location and service address and any field can be searched with customization
- Service area map allows CSR to view caller location
- Ability to identify caller as part of an existing outage
- View complete call and outage history
- CSR can alert dispatcher to specific trouble call information
- Enter and perform callback requests
- View and edit open trouble calls
- Listen to messages left through the Milsoft IVR system
- Resolve unmatched IVR callers to correct account
- Call ticket displays outage duration clock with the length of the outage
- Manage non-pay customer accounts using the Financial Data tab
- Caller comments are separate from system messages
- Display system alert messages
- IVR Message player compatible with \*.mp3 or \*.wav files
- Ping AMR meters from the AMR tab
- Create assessments to track work or damage

### Connectivity Model

The connectivity model can be created from several different sources including WindMil® and GIS systems. A connectivity model can even be created by digitizing paper maps. The ideal connectivity model consists of all equipment in the distribution system from the substation down to the consumer. Each of these are necessary for accurate prediction and outage management.

## MultiSpeak AMI Interfaces

### Get AMR supported meters

- Matches the AMR meter number to a specific service location on the circuit model
- Validates the AMR reported phasing with the electrical model
- Request the most recent meter readings or readings from any day

### Software

DisSPatch is the software component that ties CIS data and the connectivity model together for accurate predictions and outage management. With a comprehensive set of tools, DisSPatch provides utilities with the industry leading solution for outage management.

### Web Call

The WebCall Server provides a web-based interface for call management. Just like the Calls Manager application, WebCall allows users to enter manual calls for prediction, check current outage conditions, view calling history and view outage history all via a web browser.

### Outage View Server

The DisSPatch Outage View Server allows utility personnel to view current outages impacting the electric system. Detailed information for each outage and a graphical display of historical outage data can also be viewed.

### Weather Interface

The Weather Interface displays real-time weather data from CustomWeather\* or WDT\*. These weather information services provide data feeds to the Milsoft Weather Server via http using the Open GIS standard specification. An independent study has shown that these forecasts are more accurate than all other major weather providers based on both mean forecast temperature error and number of forecasts accurately predicted within three degrees Fahrenheit.

\*Requires 3rd party weather subscription and capabilities may vary depending on the data provided by your supplier

**Minimize downtime**  
*and restore power to your customers when they need you the most*

### Meter connectivity change notifications

The Outage Analysis system can send the AMR system meter connectivity changes due to switching events used to restore load during an outage

## MultiSpeak SCADA Interfaces

- Request a list of SCADA status, analog and fault points and map points to devices on the circuit model
- Receive status and analog change events resulting in verified outages or restorations
- Request individual SCADA status, fault or analog data for any SCADA point
- Run fault locator utilizing fault values measured and requested from SCADA
- Fault Data can be received from SCADA
- Faults can be located



## Unplugged

### Milsoft's Mobile Package

Unplugged is a remote viewer that allows a user to connect to the enterprise circuit model, download updates and disconnect with an updated copy of their model and customer billing data. Unplugged can display engineering data, LandBase® maps and track GPS position. Milsoft Unplugged will display detailed engineering data as well as customer billing data without the need for a network connection.

### Features

- Fast synchronization of the circuit model, equipment and customer billing information with a network connection
- Circuit model updates are incremental, reducing the amount of data synchronized
- Display LandBase maps
- GPS real-time tracking automatically pans as you drive, displaying your truck and the path traveled
- Mini Viewer for enhanced system navigation
- Circuit Element Navigator and Editor for displaying engineering circuit model data
- Perform circuit traces
- All circuit Coloring Modes included
- Display AMI meters on the map and/or in a grid
- Displays customer information as hint text on the map
- Utilizes off-the-shelf GPS receivers
- Uses locate to see customers and info from downline selected element
- Search for customers and AMR meters using the fast incremental search engine
- Search by name, account, meter, address, service address, phone and by service location
- Search for customers and AMR meter downline from any circuit element
- Search for meters containing a particular phase
- Search for meters that match a phase exactly

# DisSPatch Assessments

Designed for functionality in the field or at the office, Milsoft's Assessments solution provides the critical tools needed to manage anything from planned inspections to full-blown, live and in-field damage assessments.

Assessments allows users to input damage and maintenance information into DisSPatch and connect that information to specific circuit elements. Assessments can be related to a current outage, such as downed lines during a storm, or the information can be outage-independent, such as observations of required maintenance from the field.

Assessments can be created from Calls Manager, a DisSPatch client, Unplugged, or from an enabled mobile device, allowing tracking of damage, maintenance needs, and other information as it relates to elements in the circuit model. Assessments can be created, edited, distributed to Unplugged users, and then closed when resolved. Open assessments appear in the circuit model. Closed assessments do not appear on the circuit model, but information about them can be accessed through the Assessment Manager or by running reports.

## Benefits of Assessments

Assessments allows for the consolidation of damage control and maintenance needs into a single, DisSPatch-based tool. The incorporation of mobile devices and Unplugged into Assessments gives DisSPatch powerful applications.

When all the available elements are integrated, a field crew using a GPS-enabled mobile device can take photos of an element, suggest maintenance to be performed on that element, and determine their current GPS location. They can then send that information to the DisSPatch server, where an assessment is created based on the information supplied. During an outage, a customer can call to report an outage based on visible damage to an element. That damage can be registered with Assessments, assigned a crew, and monitored until the repair is complete.

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*you can depend on!*

*Milsoft stands behind all of our products and we are available when you need us most. We remain committed to being the best software support organization in the world. Our core values drive us to do the right thing for you **every time**. If you don't believe us, ask our users. For over 20 years Milsoft has supported our users with expert, dedicated employees who love to help you get your job done, day or night. If there are problems, Milsoft will always step up to help you solve them. A basic principal at Milsoft has always been to create valuable, lasting relationships with our users. We do that by being there **every time**.*



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# Milsoft OMS Features

- Outage predictions based on IVR, manual calls and AMI information
- SCADA open/close information used to automatically verify and restore outages
- Manage outages by district
- Automatic modification of outage locations based on incoming data
- Graphical representation of outage status: predicted, verified or restored
- Graphical display of calls received, AMR pings and crew locations
- Dynamic circuit changes to perform backfeeds or isolate problem areas
- Outage statistics and custom report generation
- Statistics accurately calculated for multi-stage outages
- Web-based manual call input
- Dynamic weather tracking displays lightning, IR and Doppler radar, weather alerts and forecasts in real-time
- Implementation of MultiSpeak 4.0 real-time interfaces
- Fault Locator using real-time SCADA fault currents
- Automatically generate callbacks on outage restoration
- Lightning strike analysis determines strikes within 100 meters
- Unresolved calls can be resolved to any open outage
- Display up-line element of outages to help determine common problems
- Manage non-pay accounts
- Web-based Outage View Server
- IVR Message player compatible with \*.mp3 or \*.wav files

## IVR Manager

The DisSPatch IVR Manager coordinates communication between an IVR system and the DisSPatch system.

## Outage Manager

The DisSPatch Outage Manager is a component of the DisSPatch client and provides a tabular view of the outages. The Outage Manager is used to modify and review outage information and access complete outage history.

## Crew Management

Manage crews on any level down to an individual employee. Any number of crews can be pre-configured then activated as needed.

## Reporting

Outage statistics can be customized as required. DisSPatch reports support IEEE 1366 and RUS 1730A-119 requirements.

## LandBase

LandBase is a graphical add-on for WindMil users who wish to view geographical data such as roads, highways, and water features on their electrical circuit models. With powerful capabilities, LandBase fills a gap between engineering analysis and AM/FM or GIS systems. LandBase allows for a direct display and re-projection of map layers without data conversion.

- Provide routines required to attach and display LandBase files with the electrical database
- Supports \*.shp, \*.dwg, \*.dxf, \*.dgn, \*.bmp and \*.sid files