

SurvalentONE

SCADA

Real-Time, Automated Monitoring & Control of Network Infrastructure for Improved Reliability & Streamlined Operations



Survalent.

SurvalentONE ADMS

The SurvalentONE ADMS platform is a fully integrated SCADA, OMS, and DMS solution that allows you to effectively operate, monitor, analyze, restore, and optimize critical network operations. By integrating data from across your network, the solution delivers real-time operational intelligence and control which empowers users to proactively respond and take corrective action when necessary.

It provides a common user interface for all roles for ease of operations, a shared as-operated network model and real-time database for increased performance, and a single hardware platform to simplify IT & OT maintenance and security. Easy to deploy, manage, scale and use, the SurvalentONE platform provides a low total cost of ownership.

Utilities from around the globe have benefited from greater operational efficiencies, enhanced customer satisfaction through reduced outages, and improved network reliability.

SurvalentONE ADMS

SCADA

**Monitor
& Control**

OMS

**Track
& Restore**

DMS

**Analyze
& Optimize**

**With SurvalentONE SCADA,
you can significantly
improve network
reliability, increase
utilization, and cut costs.**

Operating an electric, gas, water, or transit utility requires a high degree of analysis, planning, oversight, and coordination that is difficult to achieve without the support of a modern, centralized Supervisory Control and Data Acquisition (SCADA) system.

SurvalentONE SCADA provides a real-time overview of an entire utility network, as well as detailed insight into the current and historical state of individual field devices. As your network grows and evolves, SurvalentONE SCADA can grow with it, providing a solid foundation for Survalent's extensive suite of ADMS applications.

SurvalentONE SCADA is interoperable with devices from all manufacturers, supports a large suite of industry standard protocols, and supports up to quad redundancy which virtually eliminates downtime risk.

Improve Network Reliability

SurvalentONE SCADA offers unparalleled visibility into your distribution network, dramatically expanding your awareness of daily operations. Collecting and analyzing network data with SurvalentONE SCADA enables you to detect problems before they occur and make the necessary adjustments to prevent an outage.

When an outage does occur, SurvalentONE SCADA's advanced data collection capabilities help field crews identify the exact location without having to wait for customers to call in. As well, by isolating outages and rerouting power to unaffected sections, operators can control telemetered devices remotely, restoring power far more quickly and eliminating the need for costly truck rolls.

Streamline Operations

SurvalentONE SCADA automates routine network administration, maintenance, and recovery tasks which allows you to improve productivity within the control room and in the field. Instead of regularly dispatching field crews to diagnose problems and adjust equipment in the field, you can achieve the same result more quickly and economically by training operators who can address these issues remotely from the control room.

The solution allows your field crews to spend less time running between substations performing routine tasks and more time focusing on high-value network improvements.

For example, connecting an intelligent electronic device (IED) to the SCADA system is a routine task that can be both time-consuming and error-prone. With IED Wizard, operators can automate the creation of SCADA database points for IEDs, which eliminates point addressing errors, and reduces development and maintenance time. It features a powerful RTU mapping tool and a library of the most common IEDs, greatly simplifying the set-up process.

The IED Control Panel allows you to rapidly configure, view and operate a photo-realistic representation of each IED.

Since SurvalentONE SCADA is compatible with popular Microsoft Office productivity applications, reports can be easily created and disseminated to internal and external stakeholders.

Benefits

- Greater network reliability
- Increased operational efficiency
- Improved situational awareness, enables faster, more informed decision-making
- Cost savings achieved through remote monitoring and control of field devices
- Improved performance indices (e.g., SAIDI, SAIFI)

Key Features

- Support for wide range of industry-standard communication protocols
- Sophisticated authentication and access control
- Secure, multi-level tagging to inhibit control of devices
- Extensive, configurable alarm management
- Flexible report creation, formatting, and scheduling



SurvalentONE SCADA displays data collected before and after a disturbance in graphical format. Data is collected using the Disturbance Capture application and shown in the Point Capture Viewer.

Optional SCADA Applications

These applications allow you to increase the volume of network data that you collect and expand your ability to analyze that data, for more informed decision making. Easy to install and use, these applications are designed to facilitate communication within your utility by notifying key personnel about significant events and efficiently disseminating information to internal stakeholders who require it.

▪ Automatic Generation Control

Regulates the power output of electric generators according to a specified system frequency and/or scheduled interchange. Dispatchers can choose from one of four operational modes — Constant Net Interchange, Constant Frequency, Tie Line Bias, or Tie Line Bias plus Automatic Time Error — to calculate a NERC-compliant value for the area control error.

The application features economic dispatch calculation, monitoring of generation capacity reserves, scheduling of power interchange transactions, support for jointly owned units, and much more.

▪ Disturbance Capture

Records the state of SurvalentONE SCADA before and after a user-defined disturbance, and then analyzes all system wide changes in analog and status points. The application keeps a detailed log of dates and times, trigger points, reasons for a disturbance, and recorded lengths.

Users are able to set pre-and post-disturbance durations and sampling rates, and define trigger points for each disturbance capture. They can also perform graphical analyses of all points in the SCADA system using the included Point Capture Viewer.

▪ Event Data Recording

Logs all status changes, changes in selected analog points (can be calculated points), control actions, sequence of events data, and radio load shed commands in an online data file that can store up to 30 days of event data. With the built-in reporting feature, users can filter and analyze the data by event type, point name (with wildcards), and date/ time range.

▪ External Alarm Bell

Activates standalone audible and/or visible alarm devices to warn of critical changes in the network. This application is particularly useful for attracting the attention of personnel who work in noisy operating environments or outdoor locations. Each alarm bell can be narrowly defined by a distinct set of attributes, making it easy to communicate specific network conditions to key personnel. Regardless of how many bells are configured, the system always triggers an audible alarm at SurvalentONE workstations.

▪ Fault Data Recorder

Detects fault information such as fault type and fault current stored in relays, then uploads and records the data in the SurvalentONE SCADA database. Users can identify fault data points, as well as other points and parameters involved in the data retrieval process. The application can be configured for either automatic or manual uploads.

▪ Master/Slave Alarm Suppression

Defines a hierarchy of primary and secondary alarm point relationships so that only the real cause of a problem (i.e., the master) is presented on the alarm display in SurvalentONE SCADA.

If the alarm suppression function is enabled for a user-defined master/slave relationship, alarms on the slave points will be suppressed whenever the master point is in the alarm state. The application includes a group acknowledgement function that allows users to automatically acknowledge all slave alarms when they acknowledge an alarm on the master point.

▪ **Operations & Outage Accounting**

Scans the SurvalentONE SCADA event data file of the previous day and generates accounting data such as the number of operations caused by operator control, number of operations caused by protective relaying, outage start times, and outage durations.

The application is fully configurable, with tools for specifying which devices to track, how many operations to allow before an alarm is triggered, and much more.

▪ **Virtual RTU**

Sets up virtual devices that can be polled by other master stations via protocols (DNP3.0, Modbus, ICCP, MultiSpeak, IEC-101 or 104, etc.) simplifying how data is shared between SCADA master stations.

Since each dataset can be assigned to multiple Virtual RTUs, and is therefore available to multiple master systems, there is no need to maintain duplicate dataset definitions. By default, every virtual RTU is set up to include sections for status, analog, accumulator, control, and set points. New points can be added using the application's intuitive Drag-and-Drop Point Browser.

Optional Browser-Based Applications

These applications offer secure, read-only access to information stored in your SCADA system such as maps, alarms, and historical data. These applications allow key personnel to check network status from a remote computer or mobile device instead of travelling back to the control room every time a problem arises.

▪ **WebSurv**

Gives authorized users read-only access to SCADA data from any Internet-connected computer. The application supports panning, zooming, dynamic line coloring, and other dynamic SmartVU features.

Dynamic SmartVU graphics are rendered by HTML5 or SVG, depending on the browser's capabilities, while the refresh rate for dynamic data, alarms, and graphics is entirely user-defined. WebSurv includes custom reports, secure login, and a user-friendly interface that displays the data in Survalent Explorer.

▪ **SurvCentral**

Provides read-only, online displays of SCADA data formatted especially for the small touchscreens of mobile devices. Through SurvCentral, users enjoy anywhere, anytime access to network information, allowing them to maintain situational awareness and respond quickly when problems arise.

The application features built-in reports, secure login, session expiration, and user account management tools for administrators. Tabular and graphical data can be displayed on any mobile device with a browser.

• **Replicator & Archiver Reporting Applications**

Serve the dual purpose of copying data from the SCADA database to a SQL Server or Oracle database in real time, and providing convenient, browser-based access to all of the SCADA data stored in the Survalent Archiver Reporting application. Users can gain valuable insight into network operations by searching historical data and then displaying relevant results in easy-to-read graphs and tables.

The Archiver Reporting application is capable of exporting datasets in PDF and Microsoft Excel formats, enabling users to conduct further analysis with specialized, third-party software applications. It also offers auto-generated reports detailing historical alarms, events, and measurements.

The Replicator features an intuitive point-and-click interface that allows users to easily select database tables, fields, and historical data sets for replication.



SurvalentONE SCADA can be configured to provide operators with relevant information at a glance. Maps, single line diagrams, schematics, event summaries & alarms are shown in this view.

Control your critical network operations with confidence

With Survalent, you can control your critical network operations with confidence. We're the most trusted provider of advanced distribution management systems (ADMS) for electric, water/wastewater, gas, and transit utilities across the globe.

Over 600 utilities in 30 countries rely on the SurvalentONE platform to effectively operate, monitor, analyze, restore, and optimize operations. By supporting critical utility operations with a fully integrated solution, our customers have significantly improved operational efficiencies, customer satisfaction and network reliability.

Our unwavering commitment to excellence and to our customers has been the key to our success for over 50 years.

“Survalent’s SCADA system performed flawlessly and it was instrumental at enabling the operations team to coordinate all their efforts to restore power in the fastest possible way.”

- Golfo Norte Distribution

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info@survalent.com • survalent.com • 905-826-5000