



Siemens Outage Management

Premium Supply Reliability

Supply reliability traditionally plays a central role for electricity, gas and water suppliers. However, in today's context – increased competition, stricter statutory regulations and growing customer requirements – network operators more than ever sense the need to reduce the number of both planned and unplanned outages. At the same time, they must ensure that these are as short and unimposing as possible and maximize transparency of all network processes.

Siemens Outage Management makes an important contribution to network management because it allows unplanned outages to be quickly and efficiently dealt with while also ensuring that any necessary planned action is optimally prepared so as to minimize the consequences for customers. The comprehensive reporting system integrated in Siemens Outage Management not just supports the analysis of events – it also facilitates the fulfillment of information obligations to the authorities.

Reliability and transparency required
Maximum supply reliability and the greatest possible transparency at the lowest possible cost – this is the challenge many utilities are facing today, whether national, regional or municipal, regardless of whether they supply electricity, gas or water or a combination of these. Customers increasingly want not only supply reliability but also to be kept fully informed about outages, whether planned or unplanned. The regulating authorities expect network operators to provide them with detailed reports on availability, reliability, costs and efficiency standards of their services. In fact, network operators are under pressure from all sides these days – from rising personnel costs, over competition and ever stricter environmental requirements and approval conditions, through to network access charges and the trend towards decentralized power generation.



This situation makes it imperative for utility companies to reduce the risk of supply disruption. Both planned and unplanned events must be analyzed and cleared as quickly and efficiently as possible, with limited consequences. Data transparency is another vital aspect, for event analysis and the reliable provision of information to customers alike, and last but not least in line with statutory requirements.

Efficient Outage Management requirements:

- Increased supply reliability: fewer outages and shorter downtimes (planned or unplanned) with less impact on customers
- Reduction of maintenance and restoration costs: thanks to early identification of causes and optimal maintenance planning
- Greater data transparency: complete and to some extent automated documentation of events and the measures used to contain and restore them
- Event analysis: in order to avoid future outages or, when inevitable, minimize the impact thereof

In the context of mergers, cooperations and decentralized generation, networks are becoming increasingly large and complex, making Outage Management now one of the most central and important processes in the utilities sector.

Siemens' answer

Our Outage Management (OMS) provides a comprehensive overview of the supply network. It acts as a hub for the localization of faults, restoration and the coordination of maintenance (so that the network only has to be switched off once, for example), including documentation.

To achieve this, the system accesses both technical and commercial data sources, such as network monitoring and control systems (SCADA), as well as network and customer information systems (GIS, CIS), and builds a comprehensive network model from it. Furthermore OMS continuously provides other applications with up-to-date information.

A better overview

This combination of technical and commercial data provides both a better overview of the supply network as well as an information basis for strategic decisions and day-to-day business alike. This facilitates a more effective and efficient outage process and optimized network management in general.

Improved reliability

The number of outages is reduced, while supply reliability is increased. Furthermore OMS experts can plan ahead and thus fulfill their tasks more efficiently and goal-oriented. Thanks to increased process automation, OMS allows faster and more flexible reactions in the event of unplanned outages - based on precise information.

More customer satisfaction

With OMS it is easier to manage complex networks as well as to make decisions. Furthermore, OMS makes companies better equipped to meet future challenges such as a changing competitive environment or new statutory regulations. This means lower costs and fewer outages which not only increases customer satisfaction but makes utility companies more competitive.

Investing for the future

Siemens Outage Management uses EAI (Enterprise Application Integration) and SOA (Service Oriented Architecture), providing the flexibility to be integrated into modern IT landscapes. The great advantage this brings is the continuity of OMS usage when new systems are added.

The components

Siemens' OMS consists of four main components that between them guarantee comprehensive documentation, processing and analysis of planned and unplanned events:

Event collection

- Information – such as network status changes, tickets from call taking, transmitted meter data or maintenance jobs from ERP (Enterprise Resource Planning) – is clustered
- Events are generated based on the clustered information

Event analysis

- Prioritization of events
- Fault localization determines the likely cause (device) and the affected customers based on the assumed location in the network
- Search for workarounds or partial solutions for supply disruptions

Event processing

- Plan and track necessary steps for restoration (switching procedures, on-site jobs)
- Provide outage information, for example to SCADA or WFM



Reporting

- Detailed documentation and logging of all interruptions in supply: time stamps, devices affected, changes in status, activities and customers affected
- Calculation of associated Key Performance Indicators (KPIs), such as CML, SAIFI and CAIDI
- Analysis of unplanned events

Additional options

The OMS solution can be further expanded with Call Taking, which enables recording of customer calls about outages in tickets, as well as with Workforce Management. The latter includes scheduling and dispatching crews for planned or unplanned work orders. Mobile Workforce Management allows continuous status updates to and from the field staff. These options are used in cases where no specific CRM or WFM solution was installed previously.

From module to complete solution

Depending on their requirements, utility companies can opt for a complete solution which supports the entire outage management process or OMS modules as an add-on to an existing Siemens Distribution Management System (DMS). In either case, the result is a comprehensive Outage Management, where not only all relevant applications, but also data and processes are fully integrated.

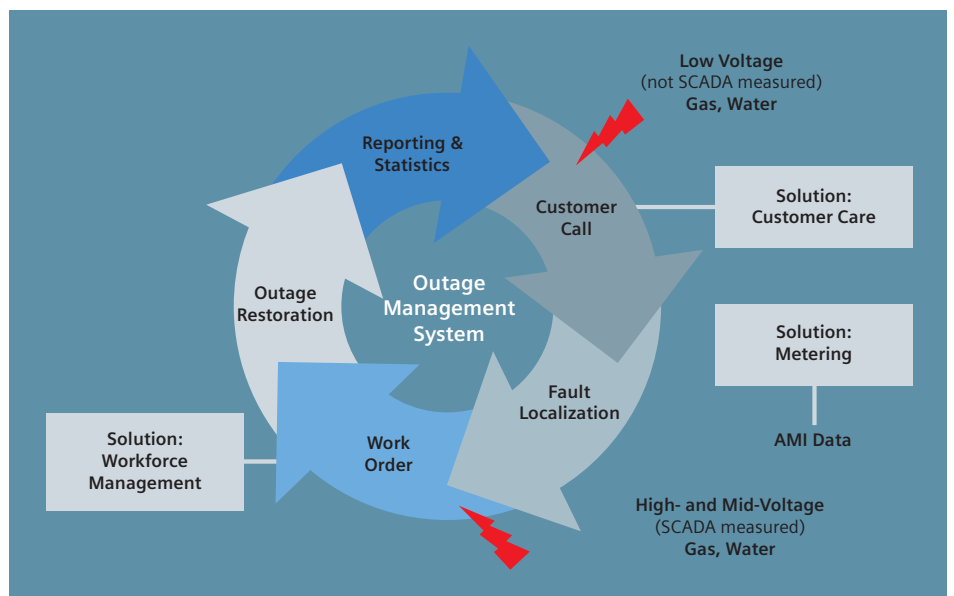
Comprehensive services for efficient network management

Siemens' Outage Management solution includes the complete range of services, from consulting and solution design over implementation and integration, through to user training, operation and support. We offer these services in close collaboration with partners specialized in outage management applications. As a central sub-process of the overall network management, OMS obtains its data from other processes. In combination with Workforce Management (WFM) and a Distribution Management System (DMS), Siemens offers utility companies a complete solution for intelligent and efficient network management.

How you benefit from Siemens Outage Management

Siemens OMS offers network operators extensive possibilities to optimize core aspects of network management, including:

- Reduced network downtime, measured in CML (Customer Minutes Lost), among other KPIs, thanks to combined managing of planned and unplanned events
- Increased efficiency and decreased operating costs in workflows for planning, event analysis, fault localization and workforce deployment
- Detailed documentation of all events with preconfigured reports for standard KPIs as well as customizable analyses and reporting, which also ensure regulation compliance



Outage Management process



- Improved customer communication through contact lists and automatically generated status information, which at the same time reduces call center capacity requirement

Siemens – experience in energy

Together with Siemens Energy, Siemens IT Solutions and Services is more deeply integrated in the utility sector than any other traditional consulting and IT service company. Therefore we understand the problems and processes of utilities companies from top to bottom. This enables us to offer you excellent tailor-made solutions meeting your needs that can bring significant business impact. In close collaboration with our OMS Expert Pool and highly specialized solution partners we design outstanding, seamlessly integrated Outage Management solutions.

Our long-standing experience, global presence and proximity to energy networks are benefits which bring real business value for our customers.

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