

OMNETRIC

A Siemens Company

OMNETRIC
defines next-generation
outage management



Defining next-generation outage management

The cost of failure

Utilities are placing renewed emphasis on outage management. The cost of failure is rising, consumer expectations are higher, and severe weather, particularly in the United States, has raised regulatory scrutiny in many regions. To improve grid reliability and increase customer confidence, utilities know they have to make better use of outage intelligence. This will enable them to predict and prevent outages, and react faster.

What's the hold up?

Despite their best efforts, utilities struggle to make sense of all the data at their disposal as:

- Their data sources are often not accurate or complete
- The level of visibility and automation in a distribution system is still relatively low
- Information critical to restoration is not yet coordinated across channels.

Minimizing the negative impact of outages will require adaptation of many inter-related systems and processes within a utility.

What's needed?

When an outage occurs, events unfold in seconds. Decisions need to be made fast. To make those decisions, a utility needs to be able to:

- Analyze multiple data streams
- Act on intelligence
- Engage customers fluently
- Allocate resources efficiently.

What's different about OMNETRIC's next-generation outage management solutions?

Our holistic approach to next-generation outage management seamlessly integrates evolving data sources and applications (e.g., social media mining and smart grid analytics) with core systems (traditional outage management systems such as OMS, DMS and ADMS) with IT systems. This integration and the additional capabilities it makes accessible, enable utilities to leapfrog the limitations imposed by existing power technologies.

This approach forms the foundation of OMNETRIC's next-generation outage management solution.

A new way of thinking

OMNETRIC is a new-generation smart grid solution provider. A joint venture by Siemens and Accenture, it has the IT, utility operations technology (OT), business consulting, managed services, and domain expertise of its parents, and the agility of a startup. Its focus: IT/OT integration to help utilities leverage the benefits of a more digital grid. Its watch words: innovative, agile, expert, customer-focused.

We believe outage management systems require new thinking.

Next-generation outage management systems will be defined by their ability to:

- Make faster decisions by leveraging networks of smart sensors, meters, and distribution devices
- Use weather data to predict, track, and correlate grid events
- Use public and internal data for operational benefits
- Identify opportunities to engage and update customers faster than traditional means
- Ingest atypical outage data sets for event visualization and confirmation
- Establish enhanced mechanisms to dispatch crews and first responders.

Outperforming convention

Adding to the core

We took a core system – Siemens Spectrum Power 7, and advanced DMS with core OMS functionality ...

- Added advanced analytics – leveraging utility- and outage-specific analytics from the Accenture Analytics Platform, and Siemens EnergyIP Analytics and OMS Adapter ...
- And collaborated with solution provider DataCapable to integrate its UtiliSocial social media mining application and multi-channel customer communication platform.

The results

- Seamless integration of valuable social media intelligence into core utility processes to improve field intelligence, effective allocation of resources, prioritization of efforts, safety of customers, and time to repair
- Creation of a multi-channel digital communication platform to better engage with customers.

This enables integration of the utility front and back office at the customer communication point, which delivers improved outcomes at multiple levels for all stakeholders.

The value we add

OMNETRIC makes it easier.

Our approach enables utilities to more safely and reliably integrate the creative data sets of emerging vendors to add almost instantaneous value to existing systems. It outperforms conventional solutions:

- Augmenting a strong core platform of network applications with whatever new applications and services become available, from any provider, based on an established integration architecture
- Lowering total cost of ownership by increasing options for functionality and how it is provided (on-premise, as a managed service, or cloud-based)
- Offering surpassed flexibility in solution provisioning through more flexible upgrade paths, avoiding obsolescence and vendor lock-in
- Integrating the utility front office and back office at the customer communication point.



The cost of failure is rising, consumer expectations are higher, and severe weather has raised regulatory scrutiny.



Social media integration adds another dimension to outage intelligence

Imagine an ice storm approaching

The utility is forewarned by the analytics solution, which combines granular weather data and asset information, to predict the probability of asset failure and the potential impact on customers. By further incorporating data from the work management system, the analytics solution then optimally allocates field crews across the network to minimize the impact of the ice storm on customers, and protect vulnerable customers.

But it doesn't end there

There is a wealth of information generated by the customer via social media:

- A photo of a downed power line comes with a time stamp and GPS co-ordinates. It can provide a repair crew with invaluable visual information about the situation, the equipment and skills required to deal with the repair
- By combining data contained in multiple social messages, utilities can assess the extent of the outage as well as the damage

- Using the location information, algorithms can identify the nearest field equipment, create an outage record, and immediately recalculate the estimated time to restoration (ETR), communicating this to the customer.

DataCapable's UtiliSocial

UtiliSocial mines social media (Twitter, Facebook, Instagram, weather data, RSS newsfeeds, industry data, etc.) to improve outage intelligence. This data can rapidly broaden the utility's understanding of field conditions, helping it to more accurately assess the safety of its customers, and prioritize its workload.

UtiliSocial also provides the utility with an interactive multi-channel outage and customer communications capability which assists the utility to better engage with the customer.

Coupled with analytic solutions, this solution ticks many boxes for utilities, improving outage intelligence, predictive capability, resource allocation, time to restoration, and customer engagement. It is a prime example of how utilities can take advantage of new

emerging technologies, combining them with existing core systems to address critical issues.

This typifies OMNETRIC's vision and approach to developing integrated smart grid solutions for the digital era.

Developing next-generation outage management solutions

To develop next-generation outage management solutions we...

...use a proven core platform and add capabilities the utility needs or wants, selected from a broad menu

...integrate third-party apps and online services that use open standards and protocols and that bring innovation and value

...keep the data layer and analytics applications platform agnostic

...offer flexibility through in-the-cloud or onsite analytics solutions

...use diverse data sources and multiple media paths or channels to engage stakeholders (customers, utility personnel, related services)

...integrate the solution back into operational technologies so the utility can act on insights.

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OMNETRIC

OMNETRIC is dedicated to helping energy providers reap the benefits of the digital energy system by integrating their energy operations with IT to support their business goals.

Our global team of engineering, IT, security and data experts brings extensive industry experience to help customers discover and exploit data intelligence to capitalize on industry change, and realize new business models.

Helping customers since 2014, we are an inventive, technology services company. For more, visit www.omnetric.com.

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