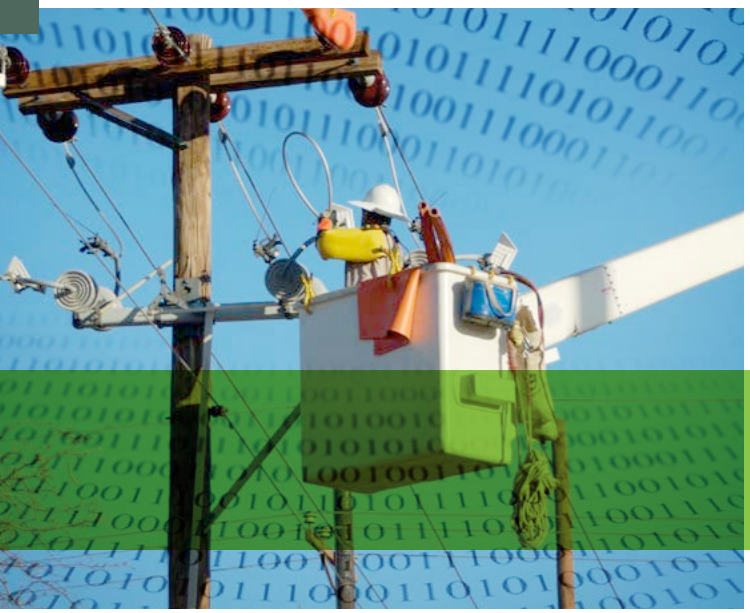

Gridstream SmartData for Outage Management

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Application Extension for the Gridstream MDMS

Overview

The number one task of a utility is to provide a much-needed commodity without interruption. So when an outage occurs, the affected world practically stops, and returning to normal requires a more effective use of information; it is available through your smart metering system, but not easily leveraged. When utilities opt for the Gridstream® Meter Data Management (MDM) solution with its SmartData for Outage Management (SD-OM) application extension, outages are detected and reported significantly faster and resolved using fewer resources.

That's because SD-OM tracks outage events in near real time and smartly scopes the affected area. From the moment an outage is recognized, the information—as in the size and location of the outage—is made available to the utility. The application extension then issues the notifications to address the outage efficiently.

Smart Meter Data – Extending its Value Beyond Billing

SD-OM leverages your smart meter assets to detect outage and restoration events quickly and intelligently. With SD-OM, proactive notification and smart scoping means the existing OMS infrastructure and outage business processes are maximized for quicker, more efficient response to customer inquiries, faster resolution and better use of field resources.

It's all done through seamless integration between your smart metering systems and your OMS. Smart meter data combined with SD-OM, offers you a high-definition view of when a service point loses or regains power. More granularity improves accuracy of the outage and restoration.

FEATURES & BENEFITS:
Why Landis+Gyr makes a difference.

- Leverage AMI/AMR investment
- Proactive IVR and Website notification
- More efficient resolution
- Quicker response
- Better use of field resources
- Extend existing OMS infrastructure and business processes

Putting the Smart in Smart Grid

Smart scoping logic is a major component within SD-OM. Intelligent scoping determines how many and which meters to ping and it ensures that the OMS only receives the data it needs when it needs it, protecting it against a flood of unnecessary outage data. Intelligent scoping means the OMS improving its efficiency—optimized to do what it does best—manage outages. Now that's smart.

How does it work? It uses business logic and rules to differentiate the circumstances that make an outage momentary versus sustained. SD-OM then signals the OMS with the "real" outages. With the smart meter data, SD-OM derives the status of the transformer associated with the meters it serves and provides the data to the OMS when it's needed. It's a proactive and ongoing process, meaning SD-OM is performing transformer-level analysis on all outage data. As restoration occurs, SD-OM only provides the OMS with information it doesn't already know.

When Every Minute Counts

When the electricity goes out, every moment counts for the utility and its customers. SD-OM provides a real-time engine that is unmatched in the market:

- Allows the utility to view outage status moment by moment
- Provides the utility with the data necessary to accurately report on the restoration process as often as necessary
- Gives a side-by-side view of outage status as derived from AMI data with outage status as determined by the OMS
- Provides the ability to execute parameter-driven queries of outage state and event data with drill-down capabilities
- Connectivity model of protective devices, distribution transformers and meters enable SD-OM to perform a high level of analysis
- Configurability based on Modes, Regions, and AMI technology allows for a high degree of tailored behavior
- Anticipated outages for common maintenance activities allow SD-OM to filter out occurrences that may contribute to unnecessary or redundant data from being processed
- Event of Interest logic provides arbitration to determine immediately if each event is of value
- Event Based Inferencing enables SD-OM to discover high-level causal event from seemingly independent service point events
- State Based Inferencing is used to determine if endpoint outages can reasonably be assumed to be related to a transformer-level event
- Restoration Verification will confirm that power has been restored once crews report that work is complete

With better use of actual outage and restoration endpoint data available through your existing and future smart meter assets, more accurate analysis and reporting are possible when it matters most.

As with all the modules offered by Landis+Gyr, SD-OM is just one part of a comprehensive solution – the Gridstream MDM solution. SD-OM is integrated with WAVE™ and iWAVE™, and together, the solution has the ability to generate zero consumption estimates during outage periods. It prorates and estimates based on outage status and it retains the historical data for each device in order to determine all outage and restoration events during its life cycle.

Oncor chief operating officer, Jim Greer, called the new approach [SD-OM] a game changer.

"In the past, we didn't know about an outage until a customer reported it," he said. "Now, we are able to use the information from our advanced meters to diagnose and fix many issues on our system before they cause problems."

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