Selecting a meter data management (MDM) system is among the most important decisions a utility will make for its Smart Grid project.

An MDM solution serves as the connective tissue that binds all of your disparate data collection points, interfaces, and systems together in order to create usable and accurate data that can be used for revenue and system planning purposes.

The idea of a self-healing, resilient power grid has been the vision of the “Smart Grid” for many years. Today it is becoming a reality. Federal stimulus and private funding are drawing new market entrants and increasing the development of new technologies. The velocity of change is unprecedented, unavoidable and unstoppable. Are you ready?

As a result of the changing industry landscape, an even greater emphasis is now placed on an MDM system being based on Common Information Model (CIM)-standards as well as –

• A common integration point
• A common repository of validated data
• A translator of data into a common format
• A common source for proactively sending metering alarms to the business
• A common engine that will enable the Smart Grid 2.0

This is the Gridstream MDM solution. And, more and more leading utilities are turning to the team at Landis+Gyr for the solution.

To create a great product it takes a thorough, comprehensive, and an ongoing understanding of user needs and priorities. For nearly a decade, Landis+Gyr has instilled a rigor of discovery and collaboration with customers and other industry leaders to develop, hone and innovate an MDM solution to meet the challenges of today and the future.

Meter Data Collection

The Gridstream MDM solution natively utilizes Web Services and JMS Queues based on IEC-CIM specifications for integration with meter reading systems, including AMI. This interface approach provides near real-time interaction between the systems and is the preferred approach to integration. For meter reading systems, that do not support a SOA-based architecture, secure flat file transfers are used.

Validating, Estimating and Editing

The Gridstream MDM system offers validation engines for register and interval data that are production proven to provide highly-accurate data for both the modest but critical population of large commercial and industrial accounts, as well as for the much larger population of mass market residential accounts. The VEE engines have been built from the ground-up to support large-scale, mass-market and complex VEE processes.

Command and Control

The Gridstream MDM solution offers built-in support for command and control support providing utility personnel with the ability to perform a real-time (on-demand) meter read, power status check and remote connect/ disconnects through an API in the MDM solution that supports both Web Service and JMS Queue requests or directly through the Gridstream MDM system user interface.

Exception Management & Workflow

The workflow capabilities within the Gridstream MDM system are focused on exception management and the remediation of events such as those related to the validation processes. Exception Management is performed for all validation and estimation exceptions that are not automatically handled with processing based on business rules pre-configured within the MDM system.
Data Synchronization

Master data synchronization consists of two main interfaces, a traditional file-based synchronization and a Web Service-based synchronization interface, for master data synchronization with utility systems such as CIS, AMS and GIS. Master data synchronization includes the ability to replicate customer, account and meter information into the MDM system for use in the core business processes, such as VEE, exception management, virtual metering and generating billing data.

Billing Extracts

The Gridstream MDM system provides cleansed, framed billing determinants to the utility CIS and/or Billing applications based on the billing cycle and the rate structures pertinent to each service point. This capability is configured via parameters and settings, and is based on the specific utility’s policies. The VEE’d usage data is automatically framed and aggregated into the appropriate rate structure for each service point.

SmartData for Outage Management

SmartData for Outage Management is pre-integrated with the Gridstream MDM solution and allows seamless integration with a utility’s Outage Management System. SmartData for Outage Management leverages smart metering assets to detect outage and restoration events in near real time, maximizing existing OMS infrastructure and outage business processes for a quicker, more efficient outage response.

SmartData Connect

SmartData Connect is pre-integrated with Gridstream MDM solution drawing upon the consistently validated data of the full MDM system and displays it in a straightforward, intuitive application designed to help utility end-customers understand their consumption patterns and make better informed energy decisions.

SmartData for Revenue Protection

SmartData for Revenue Protection is pre-integrated with the Gridstream MDM solution. It identifies suspect usage across meter install base and utilizes AMI/Smart Meter events and transformer data and correlates against typical usage patterns.

SmartData for Transformer Load Management

SmartData for Transformer Load Management is pre-integrated with Gridstream MDM solution. It aggregates load of all meters associated with a transformer, compares transformer rating and minimizes underutilized asset cost by identifying oversized transformers.