METER DATA MANAGEMENT AT YOUR SERVICE

Implement a meter data management solution in a scalable, private cloud-based environment.

The world is changing. Resources and budgets are increasingly limited, and consequently, we need to do more with less. We need to connect as many data points as possible to make good decisions.

WE NEED TO BE SMART

The smart grid is an important response to this new paradigm. Think of meter data management as the brains of your smart grid. The better you implement this crucial piece, the better your overall effort can perform. Without effective data management, your smart grid could underachieve and need remediation. And that can be costly.

A strong foundation is crucial to your success. That’s why Verizon has teamed up with Siemens to bring you meter data management (MDM), an integral part of Verizon Smart Metering solutions. MDM is an application and platform delivered from the cloud as a service. With a carrier-class intelligent network, process expertise, and security built-in, the solution leaves nothing out, so you can concentrate on what you do best—delivering great service.

MDM solutions answer your advanced metering infrastructure (AMI) data management challenges:

• Secures data in transit and at rest
• Efficiently stores large volumes of data
• Provides access to applications
• Helps bring customers on board with new capabilities
• Facilitates new pricing and billing models
• Supports smart grid energy efficiencies and renewable energy sources

STORAGE—EASILY ACCESSIBLE, SECURE

Each smart-meter transaction contains approximately 1.28 bytes of information. Four readings per hour for one smart meter will generate more than 350KB of data per month and 4.4MB per year per meter.

By multiplying that number by the hundreds of thousands or even millions of units of a typical smart-meter rollout, it’s easy to see that data management is a major challenge of the smart grid. For example, two million meters will generate approximately 8TB per year. This data consists primarily of usage data and events that are imported from the head-end servers that manage the data collection from the AMI.

While the amount of data collected by smart meters can be enormous, with MDM as a service, storage is not your headache. Our solution offers long-term data storage and management for the vast quantities of data generated by smart metering systems.

Your data is stored in a highly resilient, on-demand cloud environment, meaning hosted computing resources are delivered as needed over the network.

ABOUT SIEMENS ENERGYIP

The Siemens EnergyIP® grid application platform helps leading electric, gas, and water utilities worldwide modernize the speed of processing sensor data. It transforms business operations with a software application approach that delivers accurate billing, proactive outage management, revenue protection, customer engagement and more. Deployed at over 50 utilities worldwide, Siemens EnergyIP solutions empower utilities to rapidly deploy software and communications systems to effectively scale and maximize operational efficiency.

Your data is stored in a highly resilient, on-demand cloud environment, meaning hosted computing resources are delivered as needed over the network. In short, your data capacity scales up and down as needs change and is simple to use and consume. So you only pay for what you need and avoid the costs of over-provisioning to handle periodic peaks in demand. And it’s a complete cloud computing environment, supplying server hardware, bandwidth, load balancing, and integration to your back-end systems, firewall network security, and backup. Your data is protected by comprehensive security and control systems built on enterprise-grade infrastructure.
METER DATA MANAGEMENT AND MUCH MORE

Making meaningful use of your data is key to help you tap into the potential of this new technology. That’s why our solution is designed with flexibility and interoperability in mind. MDM delivers a hosted application that manages power usage and other data generated by meters.

And it supports functional requirements such as data receipt and collection from one or more AMI head-ends; comprehensive validation, estimating, and editing (VEE) processing; data storage; and interfaces to connect to other enterprise systems. It also supports integration to systems such as outage management, demand response, and workforce management, and integration to customer information management systems (CIS) and billing. It includes a data synchronization engine for integration; autotracking to multiple meters; and time of use (ToU) billing, bucketing, or framing.

Siemens EnergyIP applications are the fastest path to turn your meter data into usable information for your business units and customers, so you can quickly take advantage of new business opportunities and respond to regulatory change within the required timeframe.

THE SIEMENS ENERGYIP® SUITE OF APPLICATIONS INCLUDES:

• Register billing and interval billing applications transform the traditional meter-to-cash process from a batch-oriented, multiple-display process to a real-time, automated, and on-demand process. EnergyIP includes real-time validation, estimation, and editing (VEE) application, and supports pricing tariffs such as time-of-use and critical peak.
• The Energy Engage® Customer Portal fosters utility–customer collaboration with custom-tailored programs that help drive customer satisfaction, encourage conservation, and reduce peak demand.
• Remote connect/disconnect application automates the process of connecting and disconnecting customers, driving operational efficiency.
• Outage event management provides a robust outage and restoration management solution that reduces the impact on your outage management system (OMS).
• Analytics Foundation for EnergyIP gives you easy access to near-real-time, actionable information, so you can become more efficient, quickly respond to business and regulatory needs, and deliver higher levels of customer satisfaction.

APPLICATION INTEGRATION MADE SIMPLE

EnergyIP helps simplify platform integration with a service-oriented architecture and web services with open standards that provide the freedom to develop and innovate as the market grows and changes. Although your initial considerations will include the ability to deliver timely and accurate billing, you can add applications as you need them.

Key benefits of EnergyIP include:

• Flexibility to help you meet your current and future business and regulatory needs
• Synchronization across all enterprise systems to help enable your customers and business units to make informed decisions based on the most current and accurate data
• Low-risk integration to connect to any AMI system or enterprise application system through open APIs and web services
• Neutrality and standards that mean your data won’t fall through the holes or get stuck in any one system

A COMPREHENSIVE, READY-TO-IMPLEMENT METER-TO-CASH SOLUTION

• Creates a platform for enabling smart AMI
• No up-front licensing costs
• Per-meter fees can be budgeted against the utility's recurring revenue stream
• No need to maintain vendor-certified, in-house IT resources
• Proven implementation methodologies to streamline projects
• Allows for capital to be expended in areas where the business needs it most
• Managed solution with single point of contact
• Combines the MDM expertise of EnergyIP with the secure infrastructure capabilities of Verizon
• Options for both capex or opex models
BRING CUSTOMERS ONBOARD

In order to take full advantage of smart meters—and see a solid return on investment (ROI)—utilities will need to effectively manage data to improve customer service and interaction.

We’ve designed our MDM solution to take advantage of the information explosion occurring with the advent of the smart grid. We understand how to integrate your new data streams with your Customer Information Management Systems (CIS), outage management system (OMS), and billing system, so you can satisfy customers with new services that are billed in an accurate and timely manner.

The Siemens Energy Engage® Customer Portal fosters utility–customer collaboration with programs that drive customer satisfaction, encourage conservation, get customers involved with load management, and reduce peak demand. It will help enable consumers to make better-informed decisions about their energy usage and improve their satisfaction levels.

MAKE IT SECURE FROM THE START

As part of the nation’s critical infrastructure, you have important and ever-changing security mandates, including those provided through the NERC CIP standards. Smart grid transformation brings new challenges, particularly in regards to data protection and integrity.

We can help you build a strong defense and meet your obligations through end-to-end security analysis, threat detection and warning, and threat mitigation, plus readiness and compliance assessments for security-related regulations such as NERC CIP: Our Managed and Professional Security Services can help utilities do business—reliably and securely.

In addition, we incorporate physical security into our offering. We protect our cell site operations with redundancy in the equipment, automatic power backup systems, automatic fire-detection systems, and physical security systems and alarms.

STRENGTH IN NUMBERS

By teaming up with Siemens, we are doing more than just leveraging the expertise of two leading technology companies; we’re also delivering the support you need from end-to-end. We manage delivery and installation with standard methodologies and employ best practice installation and integration of MDM with AMI head-ends, meters, data concentrators, CIS, and other IT systems.

With our top-notch professional services, you will have a single point of contact to support your solution from the start, including a dedicated solution manager, client executive, and client engineer. Once installed, we help facilitate smooth operation for you by monitoring and managing application performance and the underlying enterprise cloud platform.

TAP INTO EXPERTISE

In the past, you could get things done by connecting point A to point B. Today, the world is considerably more complex. Everything is connected and data is flooding in.

Managing, securing, and storing data is not a traditional utility industry area of expertise. Verizon can help lift the burden, and give you the tools you need to succeed. So, you can concentrate your resources on transforming your business with exciting developments such as:

• New pricing programs
• Better management of transmission and distribution, peak demand, and renewable energy sources
• More customer engagement and participation
• New marketing approaches

With the right foundation, we can help you build a brighter energy future. We’re ready to help with the people, processes, and technology to support you.

Contact your Verizon business representative today, or visit us at verizonenterprise.com/contactrep/.