Itron Meter Data Management Solution Overview

The Itron Meter Data Management (MDM) application is a highly scalable solution that provides utilities with the ability to manage metering and other utility-operated data in one place. When it is paired with Microsoft SQL Server 2008 R2 data management software, utilities gain a high-availability solution that supports utilities' most demanding mission-critical needs at a low total cost of ownership (TCO).

The New World of Metering

Regulators and consumers alike are pressuring utility-industry companies to change the way they monitor and report electric, gas, and water consumption so they can better address environmental and efficiency concerns. More importantly, utilities are beginning to realize the operational savings they can achieve from smart meters and related processes.

To achieve maximum value, utilities need their new automated metering and business systems to:

• Be integrated at the utility and the home or business.
• Provide enterprise-class, mission-critical data management to:
  - Handle the torrent of information as data management goes from gigabytes to petabytes, with smart meters collecting data at intervals as short as a minute.
  - Validate and distribute smart-meter data for various needs, including billing and pricing.

With the right software, utilities can streamline operations, provide better pricing models, and improve purchasing decisions for customers, while they make their own businesses more profitable.
The Itron MDM solution uses the Microsoft platform, including SQL Server 2008 R2, to help ensure that it interoperates with a variety of systems. With this solution, people can work across traditional data boundaries and get streamlined access to information.
Support for the Most Intensive, Mission-Critical Needs

“Microsoft and Itron were able to verify that this data management architecture does, in fact, meet and exceed all the required performance and scalability demands necessary to satisfy the real-world operations of a large utility with upwards of 20 million residential AMI hourly interval meters. Working together, Itron and Microsoft provide real business value through a flexibly scalable solution with a lower total cost of ownership.”

—Julie Steury, Senior Director of Global Software Development, Itron

Microsoft and Itron have partnered to create the technology systems that utilities need to make the most of smart-meter data flows. The Itron Meter Data Management solution is a highly scalable, open-architecture, enterprise application that manages interval, register, and event data in a central repository. The Itron application supports a comprehensive list of advanced metering infrastructure (AMI) and automated meter reading systems for commercial and industrial (C&I) and residential markets. As a result, utilities improve operational efficiency, customer service, and distribution automation.

The Itron MDM solution runs on the Microsoft platform and uses SQL Server 2008 R2 Enterprise as its database foundation. By using SQL Server 2008 R2, customers benefit from a database solution that has fewer vulnerabilities than others and delivers fast data processing at a lower price to-performance ratio than other platforms. It also offers advanced business intelligence (BI) tools right out of the box—with no need to buy more products.

Itron Meter Data Management and Microsoft SQL Server 2008 R2 Enterprise

Microsoft and Itron have partnered to deliver advanced solutions with the highest level of benefits and performance for the utility industry. This collaboration includes the alignment of Itron development to Microsoft’s Smart Energy Reference Architecture (SERA). Microsoft SERA provides a prescriptive architecture for partners and utilities to deliver solutions based on an agile, secure, and familiar platform. This approach enables integration throughout the smart-energy ecosystem and creates the integrated utility of the future. SERA also addresses the key capabilities across the full utility value chain, including AMI and meter data management. Based on common standards and interoperability, SERA provides a foundation to plug thousands of smart devices into the smart grid, which further aligns to the value that Itron, together with Microsoft, delivers to the market.

By taking advantage of SERA best practices and SQL Server 2008 R2 as the database foundation, utilities can realize a lower total cost of ownership and time-to-value while deploying and running Itron MDM. In addition, businesses benefit from SQL Server 2008 R2 features such as failover clustering, table partitioning, advanced data compression, and database mirroring. SQL Server 2008 R2 also delivers 99.999 percent availability, ease of use, and interoperability with familiar Microsoft productivity software, such as Microsoft SharePoint 2010 and Microsoft Office, including Excel spreadsheet software. Because Itron MDM runs on the Microsoft platform, companies can use the same IT support staff they use for the rest of their Microsoft infrastructure to reduce their training and maintenance costs while gaining the benefits of Itron MDM.


Key Features of the Itron Meter Data Management Solution

• **Scalable, open architecture**
  Provides an enterprisewide solution that manages interval, register, and event data in a central repository for residential and C&I customers that want to control large amounts of data for use in multiple systems.

• **Highly secure, centralized data environment**
  Offers an environment that reduces the likelihood of errors in business processes that use meter data. Itron MDM easily interfaces with existing billing systems and analysis tools for complex billing, customer care, demand response, distribution optimization and design, and revenue assurance. This means companies can deploy a cost-effective data management system without affecting existing operating and business processes.

**Benefits of the Itron and Microsoft Solution**

• Reduces cost and time to gather, reconcile, and validate meter data from multiple collection systems.

• Provides enterprise-class scalability and performance to handle massive volumes of complex AMI data.

• Lowers the total cost of ownership of data management—from reducing upfront costs to minimizing expenses for deployment and ongoing support.

• Provides higher quality data through the operation of a single, purpose-built data repository accessible across enterprise systems.

• Improves the reliability, security, and consistency of meter data for billing, operational systems, and analytics.

• **Advanced metering infrastructure**
  Itron MDM integrates seamlessly with Itron smart-grid solutions to offer an open-standards approach to AMI that gives utilities the ability to readily support multiple applications throughout a highly secure network with advanced management capabilities. The Itron smart-grid solution provides full two-way communication to each meter, multichannel interval data collection, integrated mass market demand response, a built-in communication pathway to residential and C&I customers, and extensive smart-grid features.

• Reduces errors associated with increased data collection and intervals.

• Interfaces with a variety of analytical software.

• Improves operational efficiency by securing data that is audited and easily accessible to the enterprise.

• Insulates the utility’s business systems from the details of metering/meter reading in a multi-technology environment.

• Enables utilities to develop programs from a new dynamic pricing model that encourages the efficient consumption of energy.

**Supporting Resources**

For more information about Itron and Microsoft products and services, visit the company websites:

www.itron.com | www.microsoft.com

For more information on Microsoft SQL Server 2008 R2, see:


www.microsoft.com/utilities