



ISAIM MDUS

Itron Enterprise Edition™ SAP Adapter

In a constantly changing, data-intensive smart grid world, utilizing information from your smart metering system is critical to your success. Collecting the massive amount of detailed data is only half of the equation. As utility systems have grown and needs evolved, the efficient use of this new data in business and operational applications is an imperative and a growing challenge for IT. As an SAP-certified partner application, the Itron Enterprise Edition ISAIM adapter is Itron's MDUS (Meter Data Unification and Synchronization) solution. ISAIM offers you an end-to-end smart grid solution for managing and utilizing robust meter data—one that is fully integrated with SAP AMI for Utilities software.

IEE ISAIM MDUS improves your operations by bringing the flood of data under control and managing the entire utility business data process flow—from the meter and across the network, through an analysis and data validation, into your customer information and billing systems. This seamless solution gives you the capabilities to support future energy conservation efforts and new customer engagement strategies in addition to day-to-day billing operations. And because of its SAP certified and qualified status, IEE ISAIM MDUS greatly reduces implementation time and ongoing administration and upgrade risks, lowering your total cost of ownership—and the headaches previously associated with tying disparate systems into a single solution. It delivers a unified smart grid platform to utility customers around the globe.

BENEFITS

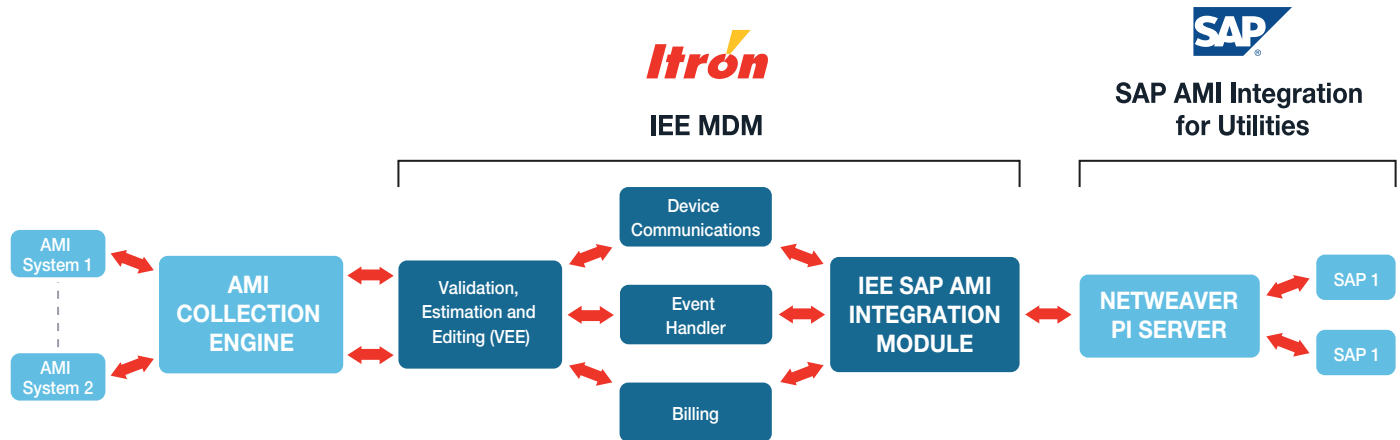
- » Reduced total cost of ownership through productized integration. The ISAIM MDUS solution integrates the AMI system with the SAP billing system
- » Decreased project risks with industry-recognized meter data experience, certified joint solution, and meter-to-cash processes
- » Shortened implementation times from solution testing and certification, as well as extensive experience with integration with SAP billing systems
- » Support for future applications with a robust yet flexible architecture that can incorporate new and diverse products and services as business needs change

"Itron Enterprise Edition MDUS, now an SAP-qualified business solution, will help utilities improve efficiencies and maximize the benefits of a smart grid."

– Stefan Engelhardt, Head of Utilities Business Unit, SAP



SAP® Certified
Integration via Enterprise Services



MDUS Architecture

How It Works

IEE ISAIM MDUS is based upon the IEE Meter Data Management (MDM) system. ISAIM MDUS offers the core critical capabilities of a meter data management solution. It consolidates data from multiple metering and collection systems into a single database, provides analysis, validation, estimation and synchronization services, and passes the data to SAP for Utility Solutions. The ISAIM MDUS and SAP synchronization services support key AMI business processes such as meter provisioning and changes, delivery of meter readings and events, and calculations and delivery of billing determinants. ISAIM MDUS also supports brokering of two-way AMI commands such as on-demand reads and remote connect and disconnect commands from SAP to the AMI systems.

The Itron-SAP Difference

Itron and SAP have a long, established history of collaborating on customer deployments and on new solutions. IEE ISAIM MDUS grew out of the two companies' partnership in the SAP AMI Lighthouse Council. The council was formed in August 2007 in part to foster the integration between meter data management systems

like IEE MDM with smart grid/AMI systems and the SAP for Utilities solution portfolio. The result was the SAP meter data unification system (MDUS); ISAIM is Itron's MDUS solution.

Through this partnership, IEE ISAIM MDUS is:

- » An SAP-certified partner application supporting SAP for Utilities
- » Based upon Itron's industry-leading MDM product and implementation experience—over 80 MDM customers processing data from over 39 million meters

A Fully-Integrated, SAP-Certified Partner Application

SAP-certified partner applications, such as IEE ISAIM MDUS, are complementary to SAP software offerings and provide additional choice and flexibility for organizations running SAP software. An SAP-certified partner application is developed and integrated in accordance with SAP development guidelines, has certified integration with the SAP NetWeaver® Process Integration (PI) technology platform, and has undergone solution qualification by SAP to meet additional criteria. SAP-certified partner applications address a specific business or technology focus—such as AMI. They have an established track record of successfully serving customer needs in the focus areas selected by SAP.

KEY FEATURES

SAP-Certified Partner Application

- » ISAIM MDUS supports SAP for Utilities Enhancement Packs EhP7 and EhP8 (the MDUS integration was not impacted by EhP8 and is backwards compatible with EhP7), which contain critical features for utility business processes

Robust Integration Using Service-Oriented Architecture

- » Both file-based and robust asynchronous and synchronous Web Service APIs for two-way integration with smart grid/AMI collection systems, an enterprise service bus, and utility operations systems such as billing, work and outage management
- » Out-of-the-box integration with Itron's OpenWay® and Choice Connect smart metering solutions and production-proven integration with other third party AMI technology providers

Robust Validation, Estimation and Editing (VEE)

- » IEE ISAIM MDUS leverages the core IEE VEE rules and its robust calculation engine for interval and register data to create billing-quality information which is fully capable of meeting rigorous financial standards worldwide and simultaneously support different VEE rules for non-billing scenarios

Scalability

- » IEE ISAIM MDUS is based on Itron Enterprise Edition which offers proven, high volume AMI processing that supports millions of interval meters to meet the needs of even the largest AMI deployment

Broad Set of AMI Interaction and Controls

- » Two-way integration with SAP CIS and AMI systems to broker and execute key AMI functions such as on-demand reads, remote connect/disconnect, HAN messaging, and meter status check

Flexible, Role-based Security Provisions

- » Users require no access to the database or two system directories. All Web Services interfaces in IEE ISAIM MDUS are developed using Microsoft's Windows Communication Foundation (WCF) to take full advantage of the run-time configurable aspect of security. Uses a comprehensive security structure that includes auditing and tracking of critical business data, as well as logging for operational tasks and modifications of reading data via manual editing, estimation or validation
- » High Volume AMI Workflows. IEE ISAIM MDUS includes workflows optimized for operators to investigate and efficiently resolve high volumes of exceptions that occur with daily AMI operations and interval billing

SPECIFICATIONS

- » Compatible versions of IEE MDM and SAP applications (SAP PI, SAP CRM and SAP ERP) for the target Enhancement Pack version
- » Database Platforms: Oracle® 11g and 12c on any Oracle-certified OS/hardware platform or Microsoft® SQL Server® 2012 or 2014
- » Operating Systems: Windows Server 2012 or 2016 for Server side application; Windows 7 and 10 for IEE MDM client application; .NET 4.5 and 4.6 frameworks for both application server and client application
- » VMWare: Application Servers are supported on VMware vSphere 5.x and 6.x environments in production as long as those VMs are appropriately sized



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