Delivering AMI the Right Way

Lessons Learned for Repeatable Project Success

UTEGRATION®

Connecting utilities to the future.

Rolling out advanced metering technology is one of the most profound transformations that a utility can possibly embark upon. The task is daunting, and the integration is complex. The changes to the business are exciting but can also be quite confusing. There are a few ways to "do it right" and many ways to "do it wrong."

The AMI transformation requires an enormous investment. With that investment, tremendous benefits await those utilities that do it right. Utegration has one of the best track records in the industry with regards to AMI implementations; we have helped many utilities to implement the solutions the right way and to quickly start realizing those benefits. In this document, we present our experiences with AMI implementations and some of the most important lessons learned that may be applied to your project.

The Benefits

With the smart meter rollout, the utility has a golden opportunity to achieve the following benefits and more (benefits vary depending upon the type and size of the utility and services provided):

- Transform the type and level of customer service provided

- Drastically cut operational costs with meter reading and field services

- Increase billing accuracy and collections effectiveness

- Improve distribution management

- Drive demand response

- Help achieve better balance between supply and demand

- Facilitate detailed planning within the various business units

Indeed, there is much value to be mined from your operations using this new technology, The promised benefits will be fully realized if you successfully manage the inherent complexities and risks with AMI projects.

The Complexities and Risks

As indicated, an AMI project is a very complex undertaking that should substantially upgrade your technology, reengineer your key business processes, change how you interact with your customers, and transform your organization. The path to AMI enlightenment, however, can be a bit of a minefield, and you can expect a number of complexities and risks to present themselves throughout the journey; these have the potential to jeopardize the project as well as undermine the full benefits realization. Based upon our experience, here is a list of the most common complexities and risks to watch for:

- **False start with procurement**

  Not identifying and articulating the right architecture, solution strategy, and integration approach can severely limit the value that the solution can deliver. Additionally, with so many products and services components to be procured for the project, the failure to ask the right questions in the RFPs, not assigning the right emphasis on the numerous business requirements presented (ineffective scoring criteria), and not adequately distinguishing long-term functionality requirements from the current project scope definition can jeopardize the effectiveness of the procurement process itself.

- **Failure to properly plan for the project**

  It's not enough just to plan; utilities must plan appropriately. Your business will be run very differently with AMI, but how? If you have not done this before as an organization, did you solicit the right help with planning? How do you properly prepare all of the business units as well as IT to operate differently with advanced metering? A lot of key decisions will have to be made within a relatively short period of time in relation to operational strategies, customer service strategy, and solution design. Are you ready to make those decisions? And do you have a concrete plan to realize the benefits of AMI after implementation?

- **Failure to maintain the right focus during the project**

  Every technology vendor at the table will have its own objectives and its own views on how its solutions are to be leveraged. Often, the solution components between different vendors at the table can overlap in terms of business functions covered. The focus can quickly turn towards maximizing the build-out of individual disjointed applications (with potential overlaps) rather than the delivery of one well-integrated solution. On top of that, system integrators that lack solution experience may conduct endless workshops and encourage their clients to more or less reinvent the wheel. When there is a struggle with the basic framing of the solution, it takes focus away from ensuring proper benefits realization during the solution design. The resulting projects can take years to complete, and the resulting solution will be difficult and costly to maintain and may fail to deliver all of the promised benefits.

As one of the premier AMI system integrators on the market, Utegration has helped many clients to navigate the inherent complexities and risks to successfully complete their AMI enablement projects. We help to remove a lot of the guesswork out of the framing of the solution so that utility personnel can spend time validating the new business processes, transforming their organizations to best run the new processes, testing the solution, and training their internal and external stakeholders. Delivering AMI the right way helps ensure our clients are set to realize the full benefits of AMI.

Our AMI Background

Utegration has demonstrated a high win rate when competing for AMI system integration opportunities. In fact, over the last six years, Utegration has primed as many AMI projects for SAP-run utilities as any other system integrator in the market. The industry knows us by reputation; our expertise is well-recognized.

Why do utilities choose Utegration for AMI implementation? Because Utegration knows how to get the best out of SAP. That's been our sole focus since day one and it's why we have an unmatched 100% success rate in implementations. Our AMI practice was started by previous SAP employees who had played a role on the SAP AMI Lighthouse Council — a working group created to help SAP develop its AMI functionality as well as its integration with the top meter data management solutions. These individuals are some of the longest-tenured AMI consultants in the market; their joint SAP and AMI solution knowledge is second to none. After having worked within the SAP AMI Lighthouse Council, they then participated in some of the very first AMI projects in North America that leveraged the SAP MDUS solution.
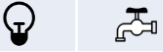
These industry leaders brought their expertise to Utegration, where they applied lessons learned to industrializing the AMI implementation process. They developed business process best practices and valuable solution accelerators that can be leveraged time and again to accelerate projects and deliver better solutions to utilities that are embarking upon the smart metering journey.

Utegration takes tremendous pride in the trust we have built with our AMI clients through our smart meter integration innovations and implementation track record.

Our Approach to Implementations

Integration Scope

Running an AMI implementation is a complex effort that involves the simultaneous implementation of major technology pieces was well as their integration. Utegration has worked closely and successfully with various leading AMI and meter data management solution vendors (along with their services divisions) to deliver the tightest integration. The head end system ("HES"), meter data management system ("MDMS"), and customer information system ("CIS") are the primary solutions that are typically integrated to realize customer service and meter-to-cash use cases (there are others). The table below summarizes Utegration's integration experience with these solutions at nine different utilities.

Utility Services	Head End System	MDMS	SAP Integration
Electricity	L+G Command Center	Siemens EIP	AMI MDUS Integration
Electricity	SSN Utility IQ	Itron IEE	AMI MDUS Integration
Electricity, Gas, Water	L+G Command Center	Siemens EIP	AMI MDUS Integration
Electricity	L+G Command Center	L+G Grid Stream	AMI MDUS Integration
Electricity, Gas	L+G Command Center	L+G Grid Stream	Custom AMI Integration
Electricity	Itron Openway	Siemens EIP	Custom AMI Integration
Electricity	Itron Openway	Itron IEE	AMI MDUS Integration
Electricity, Water	Sensus FlexNet	Siemens EIP	AMI MDUS Integration
Electricity	L+G Command Center	L+G Grid Stream	AMI MDUS Integration

Implementation Timeframe

Successful execution of advanced metering technology means that a utility will be reimagining its critical business processes to take advantage of the benefits that the new technology offers. Does that mean it has to occur over multiple project releases that span multiple years in total? That has been the case with some utilities, but Utegration's answer is a resounding "no." Assuming the utility adopts our recommended best practices during the planning and procurement phases, it should begin to realize most of the first-tier benefits in a little over a year. Our successful track record with these projects is our proof.

Providing Leadership and Providing True Value

It's easy to do the math: if you stretch an AMI implementation over a number of years and over multiple releases, you needlessly drive up the cost of an AMI rollout. Utegration's mission has been to deliver true value to utilities and their constituents by delivering quality products and services within reasonable timeframes and budgets. This is only possible with a company that brings a wealth of AMI implementation experience, a prescriptive methodology, and proven AMI-driven business processes and accelerators to the table.

Electricity   Gas   Water

Key Lessons – *What Did We Learn?* *(1/2)*

Many companies have a difficult time envisioning how to run their business with AMI

Smart metering is a transformative technology, but utilities can become paralyzed when asked to stipulate how they will run their business with AMI. To head off project delays, a system integrator must be prescriptive and deliver business processes and best practices that have been proven time and again on actual implementation projects.

Leveraging an experienced implementation consultant during the planning phase can pay off in a big way

Executing a planning engagement with a company like Utegration is crucial for the flawless execution of the project and for the ultimate benefits maximization. AMI is transformational technology that completely changes how you do your business. In advance of the project, there's a lot to do surrounding value engineering, architectural strategy, solution and process education, technology procurement optimization, and program planning. On top of that, plenty of difficult business decisions must be made throughout, and you don't have the proper runway during the project to make the best decisions for your future (and be comfortable with those decisions). You need the right advisor in the planning phase

The transformation can be profound in some areas, and maximizing the runway for key decisions is crucial

The ability of this technology to improve how you conduct your business as a utility is truly impressive. As an example, Utegration guided one utility on a journey that led to the elimination of meter reads altogether (and the switch to bill-determinants for billing) for the majority of the customer base. Ushering in these important changes requires early education and advice related to key business decisions that must be made. It's important to be informed about these key decisions and to initiate the OCM processes as early as possible.

Rely upon pre-delivered integration to help manage the solution complexity

The typical AMI implementation scope involves the orchestration of multiple critical business processes (including meter-to-cash and customer service processes) over various AMI solution components. It's a highly-complex architecture that you will definitely want to avoid building and supporting on your own. Go with established integration standards and pre-delivered APIs if possible.

Joint process design walkthroughs with other technology vendors is extremely important

Joint process design walkthroughs with other technology vendors is extremely important to ensure tight integration due to the need to orchestrate many processes over the three primary solutions. Other vendors tend to regard their scopes more as technical installations; that means you won't get the full value from your investment with business transformation if you lean more heavily on their services.

You need a good integration assurance approach

With so many processes and integrations over the three solutions, you need a good integration assurance approach that documents all the business scenarios across the different systems, and business process controls is very important because there are many hand-offs and potential for exceptions to creep into the process/solution.

You must set in motion an analytics transformation

Many utilities that implement AMI focus on the low-hanging-fruit use cases of the reduction of truck rolls as well obvious customer service improvements, but many don't progress beyond that to realize the tremendous value that AMI-driven analytics provides in terms of distribution management and overall planning. You won't realize the tremendous benefits unless you transform how you do analytics, and it's crucial to establish the new analytics foundation and a roadmap from the very beginning.

Utegration is a Houston-based full-service consulting and solution provider specializing in analytics and SAP technology for the utilities industry. Our industry experts have earned the trust of electric, gas and water utilities across North America with our outcome-driven roadmaps and a track record of flawless implementations. See how Utegration can make the future work for you.

For more information, visit us at **www.utegration.com**

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