Prolifics

Agile Integration Modernization Helps Keep the Lights On for E&U

Critical project will create efficiencies and improve customer satisfaction

CLIENT | CHALLENGE | ACTION | RESULTS | TECHNOLOGY

Energy and Utility (E&U) companies have to deal with a lot in today's environment. Customers expect open, transparent and real-time access to their usage, billing and outage information over various platforms, in a self-service environment. E&U technology is advancing with things like smart meters and usage apps. Regulatory agencies connect rates to new kinds of key performance indicators (KPIs), often based on customer satisfaction, efficiencies and cost ratios. However, these E&U companies cannot begin to deal with any of this if they're operating older and outdated legacy systems.

Fortunately, Prolifics has the answer. Prolifics E&U Agile Integration Modernization (E&U-AIM) solution is built on leading vendor technology partnered with Prolifics' accelerators and IP assets, all specifically curated to lead a successful, agile integration – in fact, a digital transformation – for E&U companies.

Our Client

Our client is a Midwest-based diversified energy company involved in the development and management of energy-related businesses and services nationwide. Its operating units include an electric company with more than 2 million customers in its part of the state. The client's portfolio includes energy businesses focused on power and industrial projects and energy marketing and trading.

Challenge

Our client needed to upgrade and modernize its Advanced Distribution Management System (ADMS), the main grid application which generates, distributes and manages electricity, as well as handles outages. Concurrently they wanted to upgrade the field service management system. The need to upgrade was driven by the fact that the client's current systems were old, which meant:

- the inability to respond quickly to power outages
- the inability to meet customer demand, which fluctuated with the weather, the season, and usage by a large industrial base
- inefficiencies in sending out repair crews or having to send them back multiple times

This led to lower customer satisfaction, which directly impacted the client's ability to raise rates through the local public service commission. To raise customer satisfaction, the client needed to show they could do things like have automatically generated outage reports and resolve issues before the public was even aware of the problem.

Action

The client chose an ADMS solution to replace much of its aging technology. The systems within the ADMS included distribution management, electric management and outage management. Our charge was to build all of the interfaces between this new outage management system and all of their existing enterprise applications. This would be about 40 different interfaces, including ERP, CRM, asset management, E&U specific applications like meter reading, and the field service management system.

Working together, Prolifics and the client chose the integration technology tools. Prolifics assembled a large team of both onshore and offshore resources to complete the integration:

- onshore and offshore project managers
- solution architect
- integration architect
- a team of offshore developers
- a testing manager
- an offshore testing team

Prolifics

Action (cont.)

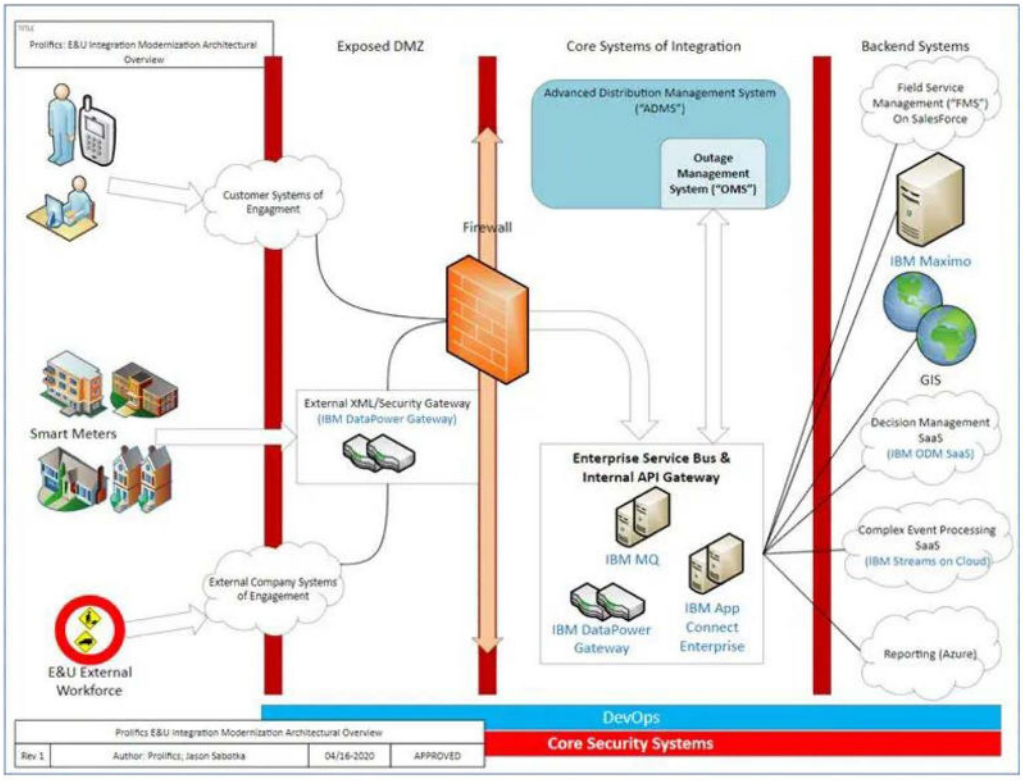
We have structured this project in two phases:

Phase 1: Smart Meter Closed Loop

As part of the deployment of new smart meters into the field, Prolifics established "closed loop" integration to connect the smart meters to backend systems. Specific integration points now enable the client to confirm whether voltage levels for specific meters are within tolerance, supporting both proactive monitoring and confirmation that corrections by field technicians actually fixed the problem. Also, in support of customer satisfaction, Prolifics integrated with a texting system that communicates directly with the consumer about electricity levels and their satisfaction with any fixes made.

Phase 2: Full ADMS Integration

This phase includes the remaining interfaces that connect to the ADMS third party system. Interfaces have been developed and tested but go live is dependent on the ADMS system's readiness (third party) for end-to-end system testing. Go live was originally scheduled for Fall of 2020 but has been pushed back due to delays from the ADMS vendor, partly due to COVID-19 affecting their development deployment teams.



Prolifics

Results

As the project is new and ongoing at this writing, we are working with the client to define specific metrics and a governance model to monitor them. The specific measurable items defined to date include:

- Customer Satisfaction: Improved customer satisfaction ratings (this has a direct correlation to their ability to secure rate increase approvals)
- Revenue: Rate increase approvals to drive additional revenue – this is a longer-term metric that ties to a measurable increase in customer satisfaction scores
- Cost Reduction: Through efficiency gains.
- Reduce the number of field-troubleshooting visits. Today, they must "roll trucks" when an outage is reported. With the new system, they will be able to troubleshoot remotely and only "roll trucks" when necessary

The major benefits from the technology used in this large integration is improvement in the way the client can monitor and control the electric grid, so that they can meet customer demand and fluctuations in demand. It also allows remote monitoring and control of the system. It's going to support much faster outage restoration times, and it will also provide a consistent integrated view of the system throughout the organization, especially for those in the field. This will lead to higher customer satisfaction scores, one of the key performance indicators for potential rate increases.

Technology

Specifically, for this client, we utilized the following technologies:

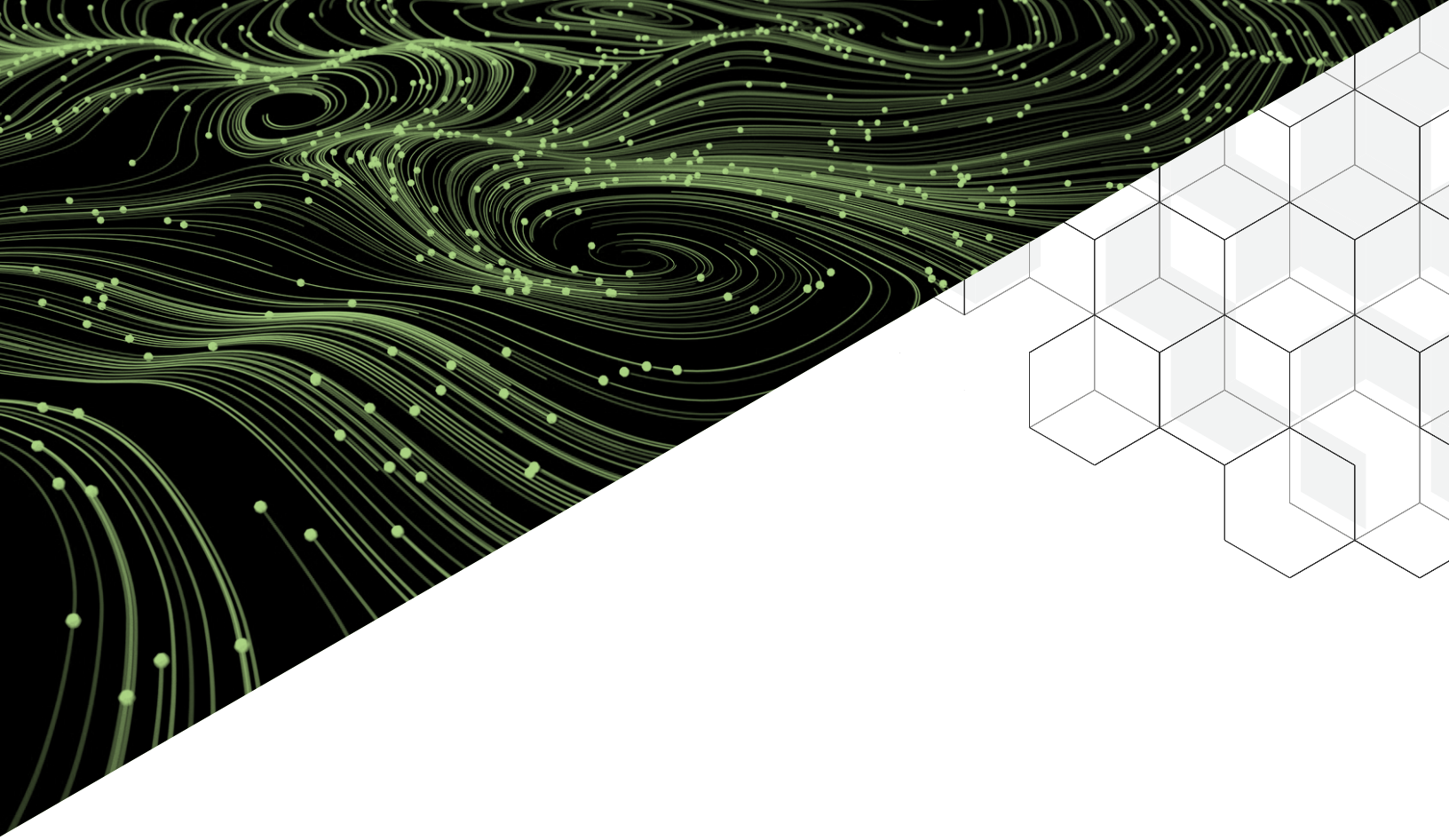
- IBM Cloud Pak for Integration
- IBM DataPower Gateway
- IBM Integration Bus (IIB)
- IBM MQ
- IBM App Connect Enterprise
- IBM Maximo
- IBM ODM SaaS
- IBM Streams on Cloud

Prolifics IP Accelerators:

- Prolifics Integration Foundation Frameworks
- Prolifics DevOps accelerators: Prolifics Build Conductor and 1-Click
- Prolifics Testing accelerators: BA360 (automates the building of test cases) and Effecta (automates test execution of data transmissions)
- Prolifics Global Transaction Monitor (GTM)

Prolifics Professional Consulting Services:

- Prolifics End-to-end Architectural Design and Road Mapping
- Prolifics Pilot and POC services as necessary
- Prolifics Installation and Configuration services
- Prolifics hybrid on/offshore Development and Implementation Services Factory
- Prolifics Integration Managed Service offerings



About Prolifics

Prolifics is a global digital engineering and consulting firm helping clients navigate and accelerate their digital transformation journeys. We deliver relevant outcomes using our systematic approach to rapid, enterprise-grade continuous innovation. We treat our digital deliverables like a customized product – using agile practices to deliver immediate and ongoing increases in value.

We provide consulting, engineering and managed services for all our practice areas — Data & AI, Integration & Applications, Business Automation, DevXOps, Test Automation, and Cybersecurity across multiple industries — at any point our clients need them. Visit **prolifics.com**

Prolifics