

CASE STUDY



Enterprise Integration Mitigates Risk and Solves Age-old Challenges for Utilities





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Open Source Integrators (OSI) was singularly selected to serve as contractor and technical lead/solution architect in developing safety, maintenance, and management tools for a utility's natural gas and transmission projects. Open Source Integrators has established an outstanding reputation for providing strategic consulting, risk mitigation, and implementation services for transformational information technologies. With previous experience in six sigma, open source ERP configurations, and geospatial plotting, OSI became the clear choice.

As a leading provider of the open source enterprise platform, Open Source Integrators provided data management, consulting solutions, and established partnerships to provide remediation in an emergent situation. These specialized services provided a scalable, end-to-end ERP business solution responding to the utility company and the community's current and future needs for long-term safety and operational efficiency.

Open Source Integrators worked with UDC, a renowned subcontractor for one of the world's largest business and technology services provider. UDC was involved with the development of the GIS foundation of the project and its integration of ERP utilized with CHA Novarro Intrepid, Schneider Electric, and ArcFM products.



Situation

A utility company experienced a catastrophic gas explosion. A piece of pipe in a transmission line was stressed due to installation more than six decades earlier. Upon analysis, a specific section of pipe was found to be eroded.

This created a highly visible, high-liability situation as well as community risk where remediation was needed swiftly but surely to mitigate the problem and provide viable, reliable, long-term solutions.

Goals & Objectives

- + Improve the safety and operational efficacy of utility distribution through enhanced information and leading-edge business improvement processes.
- + Improve the distribution of gas records and dynamically-purposed asset information through field-updated digital gas service records and the integration of GIS and ERP applications.
- + Linear data improvements to Enterprise Asset Management for enhanced work processing to improve all five stages of the work order life cycle.
- + Become the safest and most reliable utility in the United States.

Tactics

To effectively address the issues, Open Source Integrator's deployment needed to be multi-faceted to match the strategy:

- + Mitigate the current situation at hand – replacing and implementing a legacy system that didn't work.
- + Serve as the prime contractor for training on the new system.
- + Create a process/system moving forward to ensure ongoing safety and operational efficiency.



Solution

A multi-pronged approach was required and deployed as remediation:

The Gas Distribution Project

Improved the Distribution Gas records and asset information through updated digital gas service records and the integration of GIS and ERP applications.

Open Source Integrators' Open ERP (through USA Odoo, a division of OpenSourceIntegrators.com and an Ursa company) provided data management services via an enterprise resource and analysis platform. This facilitated the seamless integration of the applications necessary to address the utility organization's business data needs. Data from a myriad of sources, including smart meters, grid sensors, and mobile users, was processed inside an integrated enterprise platform together with business and customer information – both for historic data analysis and real-time processing of urgent information.

The Gas Transmission Project

Served as the “rescue mission,” focusing on providing a leading edge capability for operational awareness and effectiveness in managing the utility's extensive gas transmission facilities and ensuring the integrity and safety of their pipeline.

All initiatives were designed to improve maintenance, the safety of gas transmission services, and better public accountability of key infrastructure – for the greater good.

OSI provided data management, consulting solutions, and partnerships.

Process/Methodology

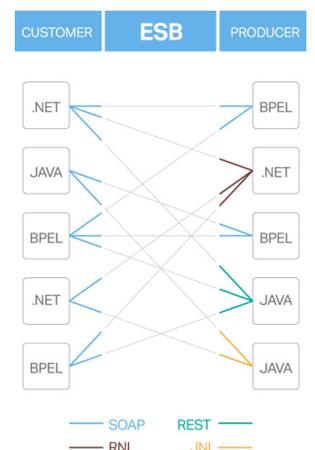
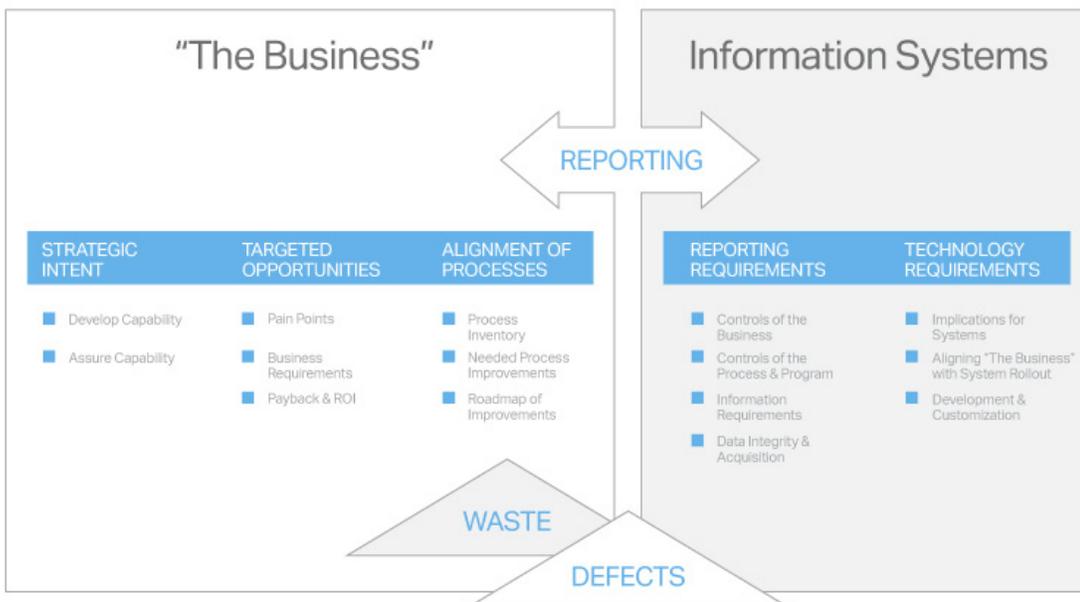
Implementing the proper methodology was paramount in this high stress, high profile situation.

Open Source Integrators' methodology is focused on communication and business goal alignment fundamentals. To accomplish both goals stated above, Open Source Integrators promptly went to work to set up complete life cycle tracking and management of these assets. It was imperative they know where every single piece of pipe came from, who installed it, and when it is due for inspections, not to mention the ability to visualize this data in reports in an ERP system.

Open Source Integrators didn't stop there. OSI helped optimize and update an ERP-connected accounting system to track implementation costs and current property value based on depreciation. The accounting integration from USAodoo filled a void with a right-sized solution, allowing the utility company real-time accounting valuation and deeper reporting on costs and revenues for both upstream and downstream operations.

For 18 months, OSI's president was onsite to optimize communication and implementation, working alongside the utility company's leadership team on a regular basis.

STARTSM ■■■■■ ALIGNING IT WITH THE BUSINESS



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System Integration

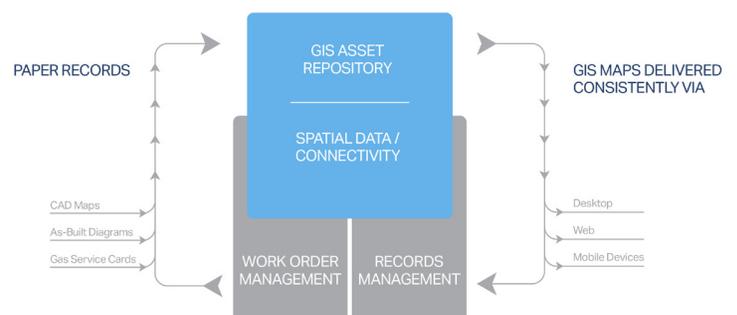
Open Source Integrators refined the proof of concept into an end-to-end business solution integrating the client's needs and business requirements. Work included:

The Gas Distribution Project

- + (Systems) installation
- + Leak survey, which mapped out how much gas pipes leak
- + Application of positive ions to pipes to keep it from corroding
- + Providing business system support and connectivity to all parts of the business
- + Building a development plan that addressed all of these business requirements
- + Hiring the best developers from around the world
- + Integrating the utility's existing systems that included scheduling maintenance, talking to drivers, billing, adding new services.
- + Tying-in new systems in all existing systems.
- + Utilizing a universal translator tool called **Enterprise Services Bus**, customizable software that connects all the systems for communication.

The Gas Transmission Project

- + Data management
- + Consulting solutions and partnerships





Results

As a high integrity, nimble, and cross-disciplined custom ERP configurator, Open Source Integrators, as subcontractor, was the tip of the spear in getting in, initializing the requirements, and queuing-up the proper teams of connected experts. At a combined implementation cost of \$100 million, the two projects yielded:

The Gas Distribution Project

Open Source Integrators' management/leadership delivered the Pathfinder project – delivered on-time and on-budget with outcomes demonstrating high user acceptance.

The Gas Transmission Project

Success was achieved by providing leading-edge capability for operational awareness and effectiveness in managing the utility's extensive transmission facilities and ensuring their integrity and safety.

Together with UDC, OSI provided an enterprise-wide pipeline management solution designed to create a secure, consistent environment to store and maintain critical data required to monitor the lifecycle of the pipeline.

Improved automation and data resulted in improved and more accessible information for the business and the field.

Open Source Integrators' scalable expertise and best practices empowered the utility to achieve and maintain among the highest levels of safety and efficiency in the industry.

The Open Source Integrators Difference

Open Source Integrators' unique methodology practices and solutions were vital components in a critical situation that leveraged their impact and made the difference.

Open Source Integrators stands in a category of one.

The unique attributes that make them distinctive in the industry? OSI prioritizes communication both internally among their team and externally with their clients. Customers seek out Open Source Integrators for their full transparency and honesty. More than a business practice, communication is their culture, represented in their world-class ERP teams and industry best practices. OSI's communication processes enable the success of others and establish a partnership based on trust. The teams of Open Source ERP Experts remember every day that it is

not OSI's journey; it is the customer's journey. They are dedicated to always asking questions and working first to understand the client to assure the implementation of right-sized, best-of-class integrated ERP capabilities leading to scalable solutions that transform the way business is done.

As a top independent Open Source Integrator in the U.S., Open Source Integrators provides customers a unique combination of open source business process consulting and improvements in industries ranging from construction and utilities to manufacturing, engineering, the service sector and direct to consumer. In addition to accounting and data management, OSI's business functions include business process management (BPM), logistics, ecommerce, and customer relationship management (CRM).



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