

Empowering Energy Efficiency: Building a Data Governance Framework for a Leading Utility Provider

ORGANIZATION

Our client, a Fortune 500 integrated energy company, serves as a critical provider of electric power to 2.9 million customers across Arkansas, Louisiana, Mississippi, and Texas. Headquartered in New Orleans, this leading energy company is a cornerstone of the region's infrastructure, delivering reliable power through a vast network of electric production and distribution operations. With a focus on innovation and operational excellence, the company sought to address growing data management challenges and ensure a sustainable, data-driven future.

CHALLENGE

With a well-established network of systems and applications supporting energy production, distribution, customer servicing, and billing, the client faced a significant hurdle: the erosion of institutional knowledge and data clarity. As retirements and inconsistent documentation began to erode critical business knowledge, the organization found itself vulnerable to inefficiencies and at risk of destabilizing operations.

Key challenges included:

- **Knowledge Gaps Due to Attrition:** The retirement of experienced employees led to a loss of institutional knowledge, threatening the organization's ability to maintain existing systems and embrace new digital ecosystems.
- **Inconsistent Business Terminologies:** Departments used varying definitions for the same terms or different terms to describe identical concepts. This led to poor data quality, conflicting data versions, and reduced trust in enterprise reporting.
- **Ambiguous Ownership of Data Assets:** The absence of clearly defined roles for data ownership and stewardship hindered accountability and governance.
- **Fragmented Metadata Management:** Without a centralized repository or comprehensive metadata documentation, it was difficult to streamline access, ensure quality, or enable consistent governance.
- **Lack of Rigorous Data Validation Mechanisms:** The company's transition to a Customer Data Lake required trusted and validated data to support enterprise reporting and compliance requirements.

To address these challenges, the client partnered with XTIVIA to:

1. Develop a robust business glossary and metadata framework.
2. Implement data validation mechanisms for the Customer Data Lake.
3. Foster a culture of shared accountability and governance for enterprise data assets.

TECHNICAL SOLUTION

XTIVIA partnered closely with the client's newly established Data Governance Office (DGO) to design and implement an Agile Data Governance operating model. This comprehensive solution addressed immediate priorities while creating a sustainable framework for future data governance initiatives. XTIVIA's approach emphasized collaboration, adaptability, and technical rigor to ensure long-term success.

Key Components of the Solution

1. Agile Data Governance Operating Model

- **Collaborative Stakeholder Engagement:** XTIVIA facilitated a collaborative process involving representatives from various business units. This approach harmonized enterprise-wide understanding of business glossary terms, system-level data definitions, and standards.
- **Iterative Implementation:** The initiative began with a manageable, application-specific prototype using an Agile delivery model. Lessons learned were used to refine and expand governance practices across additional projects.
- **Checks and Balances:** XTIVIA established clear accountabilities between business and technology teams, ensuring roles and responsibilities were well-defined for data creation, management, usage, and compliance enforcement.

2. Metadata Repository and Business Glossary Management

- **Bottom-Up Design:** Designed, populated, and managed a metadata repository that described the organization's data assets comprehensively.
- **Standardized Practices:** Established business glossary and metadata management practices to develop and maintain consistent definitions across the enterprise.
- **Accessible Knowledge Assets:** Democratized access to business, system, and data knowledge assets using industry-leading tools, enabling enterprise-wide collaboration and operational efficiency.

3. Data Validation and Quality Assurance

- **Customer Data Lake Validation:** Applied rigorous Data Governance validation to ensure data hydrating the Customer Data Lake was trusted, consistent, and ready for business and compliance reporting.
- **KPI Dashboards:** Implemented automated dashboards to measure data quality and monitor governance metrics on a regular cadence, supporting continuous improvement.

4. Training and Change Management

- **Educational Resources:** Created training materials and conducted regular "brown bag" sessions to educate Data Owners and Stewards about tools, processes, and governance best practices.
- **Empowered Teams:** These efforts empowered stakeholders to take ownership of governance processes and leverage the established knowledge base effectively.

5. Scalable and Adaptive Approach

- As Agile projects concluded, the initiative resulted in detailed and trusted documentation of systems, applications, and data. This comprehensive knowledge base provided a foundation for ongoing governance and operational success.
- The scalable framework ensured governance practices could evolve to meet the organization's growing data demands while maintaining alignment with strategic goals.

XTIVIA's technical solution not only addressed the client's immediate challenges but also laid the groundwork for a robust, enterprise-wide culture of shared accountability and continuous improvement in data governance.

BUSINESS RESULT

XTIVIA's partnership with the client resulted in measurable outcomes that transformed their data governance capabilities:

- **Operational Excellence:**
 - Established a fully functional Data Governance Office within one month, providing Data Owners and Stewards with cutting-edge tools and methodologies.
 - Created a comprehensive knowledge base spanning four domains—Customer, Supply Chain, Billing and Collections, and Payments—covering over 100 tables and 2,000 attributes.
- **Enhanced Data Quality and Confidence:**
 - Improved trust in data assets through validated governance practices and centralized metadata management.
 - Empowered data scientists, analysts, and business users with greater access to accurate, high-quality data.
- **Cost Optimization:**
 - Reduced data management costs through centralized control mechanisms and streamlined access via the Enterprise Data Lake.
- **Scalable and Future-Ready:**
 - Delivered a scalable operating model capable of adapting to evolving governance requirements and growing data demands.
- **Improved Collaboration and Transparency:**
 - Fostered a culture of shared accountability, enhancing communication and collaboration across departments.

CUSTOMER QUOTE

"Within just 9 months, we covered the knowledge base of four critical business domains—Customer, Supply Chain, Billing & Collections, and Payments. Over five applications, involving more than 100 tables and 2,000 attributes, were successfully addressed." – Manager, Data Management & Governance

KEYWORDS

Data Governance, Data Quality, Metadata Management, Agile Data Governance, Customer Data Lake, Data Validation, Collaboration

SOFTWARE

Informatica Axon, Informatica Axon, Informatica Data Catalogue, Informatica Catalogue, Informatica Data Quality

HARDWARE

Informatica Big Data, Cloudera Hadoop environment (Hive, Hue)

ABOUT XTIVIA

At XTIVIA, we've provided IT solutions and consulting services for over 30 years. We offer a wide range of services, including technology assessments, IT service and asset management, software development, data analytics, cloud migration, DevSecOps, ERP, and enterprise content management. Our team of experts is dedicated to each discipline, ensuring that our clients receive the best possible service. We've partnered with industry leaders to bring our clients the latest solutions. Through strategic acquisitions, we've acquired talented people who are experts in their industries, passionate about what they do, and committed to providing exceptional service to our clients. Whether you need to improve your IT infrastructure or implement new software solutions, XTIVIA is here to help you achieve your business goals. Contact us today to learn more about our services. XTIVIA has offices in Colorado, New York, New Jersey, Texas, Virginia, and India. www.xtivia.com