GROUP 8

REPORT

ON ERP IMPLEMENTATION

Date :
12 December 2023

Proposed By :
Kiran Shahid
Raj Lalwani
Sowmiya Kanagaraj

Contents

Company Profile: CenterPoint Energy

Founded in 1866, CenterPoint Energy is an electric and gas utility company operating in six states with approximately 8500 employees. Initially, it provided gas made from oyster shells and coal for street lighting in Southern Texas. The company's operations have expanded to include selling and delivering natural gas, electric generation, and distribution, along with heating, cooling solutions, and maintenance plans.

Problems Before ERP Implementation

The problems faced by CenterPoint Energy before the implementation of Enterprise Resource Planning (ERP) systems were multifaceted and mainly revolved around inefficiencies and limitations due to their existing systems and data management practices. These problems included:

Disparate Systems and Databases: The company was dealing with a variety of different systems and databases that were not integrated. This situation led to inefficiencies and challenges in data management.

Department-Specific Applications: Each department within the company was using its own set of applications. This siloed approach hindered effective communication and data sharing across the company.

Spreadsheet-Based Data Management: A significant reliance on spreadsheets for data management resulted in inefficiencies and increased the risk of errors. Spreadsheets, while flexible, are not ideal for managing large, complex datasets or for performing sophisticated data analysis.

Decentralized Data Acquisition and Fragmented Storage: Data acquisition and storage were decentralized, meaning there was no unified system or method for collecting and storing data. This fragmentation made it difficult to get a comprehensive view of the company's operations and performance.

Limited Data Sharing and Time-Consuming Data Retrieval: Due to the lack of integrated systems, data sharing across departments was limited. Additionally, retrieving data from multiple, disjointed sources was time-consuming.

Varied Data Backup Protocols and Challenges in Data Governance: Different parts of the company likely had different protocols for backing up data, leading to inconsistencies and potential vulnerabilities. Enforcing uniform data governance standards was also challenging due to the decentralized and varied nature of the systems and processes in place.

Inefficiencies and Errors: The combination of these factors led to overall inefficiencies in operations and an increased likelihood of errors in data management and reporting.

Motivations for ERP Implementation

The company was motivated to adopt ERP systems due to:

- A need for unified data management.

- Technological synergy for operational efficiency.

- Enhanced strategic decision-making capabilities.

- Improved regulatory compliance.

ERP Systems Adoption Reasons and Implementation

Implementation Overview: CenterPoint Energy embarked on a digital transformation by implementing various ERP and related software systems including Oracle Cloud HCM, Oracle Taleo Cloud Service, and SAP HCM. The move was part of a strategy to modernize IT infrastructure and invest in emerging technologies such as AI, IoT, and Blockchain.

Business Areas and Processes: The focus was on optimizing business processes across departments.

Pre-Implementation Challenges: The company grappled with issues in data integration and management, process inefficiencies, reporting and analysis, scalability, and regulatory compliance.

Previous Systems' Limitations: Prior systems were disparate and lacked integration, causing data silos and inefficiencies.

Internal and External Reasons for ERP: Needs for system integration, operational efficiency, real-time data access, scalability, cost reduction, and meeting industry trends and regulatory requirements drove the adoption.

ERP Implementation Strategy and Project

Strategy: The phased implementation included SAP HANA CRM and IT-OT integration, expecting benefits such as enhanced decision-making, operational efficiency, reliability, productivity increase, and reduced handle time for calls.

The CRM and LaMa (SAP Landscape Management) implementations at CenterPoint Energy were key components of their ERP strategy, with each offering distinct benefits:

SAP CRM Implementation

Focus: The CRM (Customer Relationship Management) implementation, specifically SAP HANA CRM, was part of the early phase of the ERP adoption strategy.

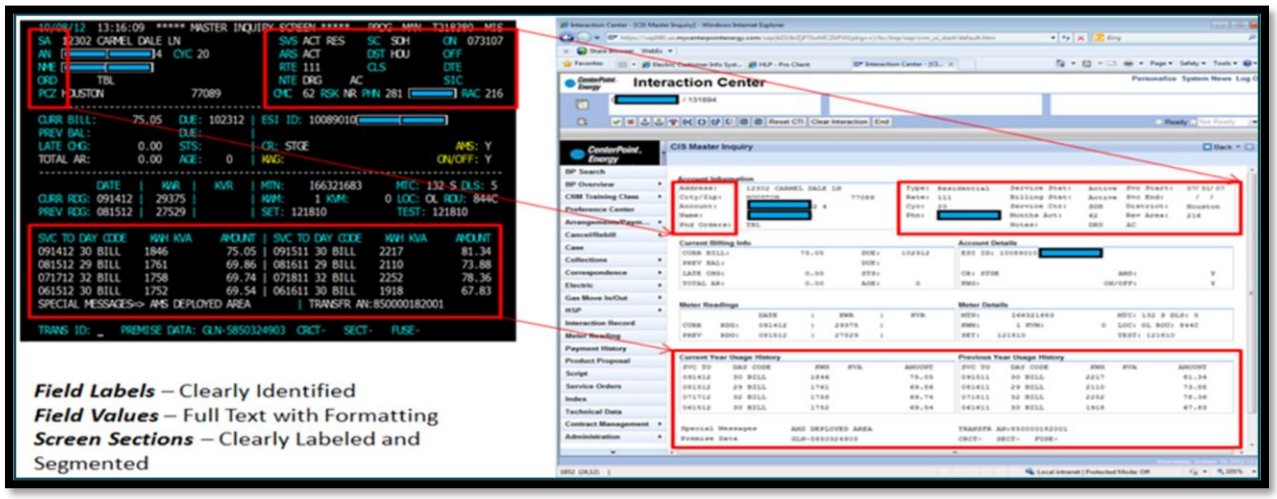
Benefits:

Increased Productivity: There was a 200% increase in productivity by replacing manual data loads with scheduled data loads into HANA.

Improved Call Center Efficiency: A 30-second decrease in handle time for all call types was observed.

Better Call Containment: A 50% increase in call containment in IVR (Interactive Voice Response) through predictive analytics.

Additional Projects: Projects were underway to harness data from CRM, weather data, and IT-OT integration to build predictive models for proactive equipment failure prevention and preparation for major weather events.



LaMa Implementation

Purpose: SAP Landscape Management (LaMa) was implemented to manage the migration of SAP and non-SAP applications to HANA.

Benefits:

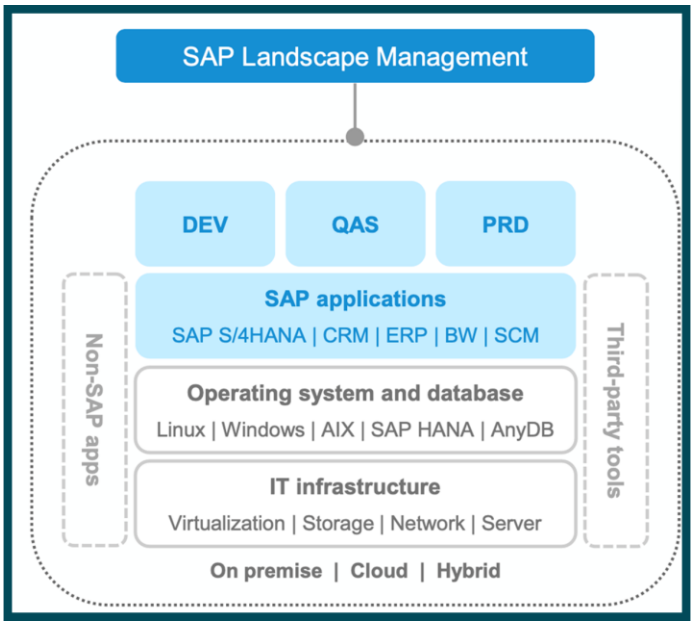
Cost Savings: $500,000 was saved in 2018 from system refresh optimization.

		Before		After			Savings	Amount
System Combination	No. of refreshes in 2018	Resources	Hours	Resources	Hours	Total Hours	Hours	1 FTE @126/hr.
ECC/CRM/SCM/SRM	1	4	160	1	8	8	152	$19,152.00
ECC / CRM (project landscape)	40	2	3200	1	8	320	2880	$362,880.00
BW	8	2	640	1	8	64	576	$72,576.00
GRC	2	2	160	1	8	16	144	$18,144.00
BPC	2	2	160	1	8	16	144	$18,144.00
EWM	1	1	40	1	8	8	32	$4,032.00
SRM	1	1	40	1	8	8	32	$4,032.00
Total Saving	55						3960	$498,960.00

Operational Efficiency: Automation and standardization of SAP operations across different landscapes; simplified management of SAP HANA.

Time Savings: System refresh times were reduced from 5 days to just 24 hours.

Integration Scope: While CenterPoint Energy had several other SAP systems, not all of them were integrated with HANA initially. LaMa acted as a central tool to manage this integration.



In summary, the CRM and LaMa implementations were critical in enhancing customer interaction efficiency and managing the SAP landscape more effectively, contributing significantly to CenterPoint Energy's operational efficiency and data management capabilities.

Success Factors: Key factors included strong executive support, clear vision, effective project management, stakeholder engagement, change management, detailed planning, quality data management, system customization and testing, and user training and support.

Data Conversion and Integration: This process involved data cleaning, mapping, pilot testing, and using conversion tools and middleware for integration.

Challenges and Solutions: Challenges like resistance to change and data migration issues were addressed through effective communication, inclusive change management, thorough data preparation, and expert assistance.

Data Management Evolution

Before ERP: Data management was decentralized with significant challenges.

After ERP: The adoption led to centralized data management, improved data quality and integrity, enhanced reporting, and analytics, streamlined compliance, and robust data security.

Problems During Implementation

During the implementation of their ERP system, CenterPoint Energy encountered several notable challenges that added complexity to the project. One significant issue was the disparity in SAP system configurations across different states, which created a lack of uniformity and consistency in their operations. Additionally, the company had to navigate through the maze of varied regulatory requirements unique to each state, further complicating the implementation process. Another hurdle was the unsynchronized timelines for ERP rollout across the states, leading to challenges in project coordination and management. In some branches, the transition was further slowed down as they continued to rely on legacy systems, resisting the shift to the new ERP framework. Lastly, the extensive size of CenterPoint Energy, being a large conglomerate, naturally resulted in a slower SAP rollout. The scale of the organization meant that the implementation had to be meticulously planned and executed, which extended the duration of the project. Each of these factors collectively contributed to the complexities faced during the ERP implementation phase.

Impact of ERP implementation on problems and Future Strategies

Despite improvements, challenges remain in integrating new technologies, data sharing, security, data analytics, backup, and user interface. Future plans include upgrading the ERP system, enhancing security measures, integrating advanced analytics, improving backup solutions, and revamping the user interface.

Data Integration and Management:

- Solution: The ERP implementation aimed to address difficulties in managing and integrating data from various departments and systems.

Process Inefficiencies:

- Solution: Streamlining processes and reducing manual efforts, thereby enhancing productivity, and reducing errors, was a key reason for adopting the ERP system.

Reporting and Analysis Challenges:

- Solution: ERP systems offer advanced reporting and analytics tools, enabling real-time reporting and better decision-making based on comprehensive data.

Scalability Issues:

- Solution: The ERP system provides scalability and flexibility, allowing it to grow and adapt with the business, accommodating new processes and changes in scale.

Regulatory Compliance:

- Solution: ERP systems can automate many aspects of compliance reporting, making it easier to adhere to regulatory standards and simplifying audit processes.

Disparate Systems and Data Silos:

- Solution: The integration of disparate systems into a unified platform improves data consistency and accessibility. However, there are still many disparate systems, as there are about 170 SAP systems; although some of these problems are being addressed by using SAP LaMa.

Data Acquisition, Storage, Sharing, and Retrieval:

- Solution: Centralizing data management in ERP systems improves consistency and efficiency in data handling processes.

Data Backup and Governance:

- Solution: ERPs enforce uniform data entry standards and validations, enhancing overall quality and integrity of data, and come with strong security features including role-based access controls, audit trails, and data encryption.

Challenges with Current Data Management System:

- Solution: Ongoing challenges include integrating with new technologies, data sharing, and security updates. The solutions involve updating the ERP system to support newer APIs, integrating with contemporary collaboration platforms, implementing the latest security updates, integrating new business intelligence and analytics modules, and updating backup and disaster recovery protocols.

Future Strategies for Addressing Ongoing Challenges:

- Strategies: These include a comprehensive plan to upgrade the ERP system, customizing and integrating the ERP to better align with modern tools and technologies, implementing enhanced

security measures, integrating advanced analytics, upgrading backup and recovery solutions, and improving the user experience.

Findings and Lessons Learned

The ERP implementation resulted in business process re-engineering, strategic alignment, cultural shifts, and highlighted the importance of resilience and flexibility. Key lessons for other companies include thorough planning, stakeholder engagement, change management, a focus on data quality, rigorous testing, managing scope, selecting the right partners, and preparing for long-term improvements.