

Pipeline Management System for an Energy Transportation Solutions Supplier

Introduction

The client is a leading supplier of energy transportation solutions for the oil and gas sector. It offers integrated software solutions for the energy transportation, storage, marketing, and delivery markets.

Need

Since the client is a leading player in the energy logistics sector, there was a need for a comprehensive pipeline management solution that integrated all the stages of an energy pipeline supply chain—from nomination (placing an order) to billing and invoicing.

Though the client had an existing product in place, it lacked adequate capabilities in terms of easy-to-use and rich features to meet the growing demands of the sector.

Therefore, the aim was to revamp the existing application through best-in-class functionalities to:

- Integrate disparate systems into a single application to save costs.
- Provide tools that enhanced scheduling and forecasting capabilities.
- Offer easy accessibility for stakeholders to seek information.

To realize these goals, the client sought a reliable development partner that would work in tandem with its in-house IT team.

Solution

Contata Solutions offered a multi-phased approach to resolve the client's business challenges.

The project commenced with the client sharing the requirements in the form of documents, which defined the new functionalities to be developed.

After a critical analysis of the requirements, design discussions were held where the team did a series of brainstorming sessions and finalized the system design.

During these sessions, impact analysis was also done to minimize the impact due to modification of the existing parts of the application. Once the design was approved by the client, the development commenced.

Some of the key modules that were deployed or modified to enhance the overall functionality were:

Industry

Oil and Gas

Our Services

Upstream service

Technology Stack

.Net

WCF

Apache Flex

SCADA

Silverlight

SQL Server

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- **User Preference**
A usability enhancement wherein the application remembers a user's settings/values.
- **Alert Generation**
Alert notification on the User Interface (UI) notifying that the background process has been completed.
- **Auto Build and Redraw**
Creating inventory requests automatically for broken/missing trade strings.
- **Internationalization**
As a result of Internationalization and Localization, the application now supports French, Spanish, and English languages.
- **Caching**
ASP.NET caching was implemented to enhance the application's performance.
- **Ticket Simplification**
An integral screen in the application, the Ticket screen was simplified drastically to reduce the time taken by the user in the ticket entry process.
- **Apache Flex and Silverlight Development**
Apache Flex was used to develop many key modules. Silverlight was used to make the Proof of Concepts (POC) for the client.

Advantage

- **Trustworthy Development Partner:** Over a period of time, Contata Solutions was able to earn the confidence of the client to deliver more development services within defined timelines. Our technical and domain expertise along with virtues like absolute transparency and clear communication has helped us carry on this collaboration successfully for the last 7 years.
- **Research and Development:** We performed several R & D activities and POCs within record time for the purpose of demos and presentations for the client.
- **Performance and Scalability:** Performance-related testing and coding guidelines were followed which resulted in significant improvements in terms of time taken to load the pages, thus giving visitors a satisfying browsing experience. The scalable architecture helped the application to be extremely reliable in peak user load with minimal maintenance.
- **Customization:** The client could now offer rich customization features in record time, helping end users to get features that met their exact requirements.