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CASE STUDY

Streamlining Offshore Procurement Operations for a Leading Offshore Drilling Services Company





Introduction

Procurement in the offshore drilling industry is rarely a simple transaction. Every purchase requisition, vendor quotation, and purchase order has to move across multiple interconnected systems, often under tight operational timelines where any disruption in data exchange can hold up critical drilling activity. When procurement processes are stretched across disconnected tools and manual coordination, the risk isn't just inefficiency; it's a direct threat to operational continuity.

To address this, our client sought a centralised, web-based platform to automate its complete purchasing lifecycle. Working with Ahana, they built and continue to evolve a smart purchase management system that keeps procurement running reliably across a complex, multi-system environment.

Client Profile

Our client is a leading offshore drilling services company in the oil and gas industry, providing offshore drilling solutions and managing procurement activities for its drilling operations. The company works with multiple suppliers and vendors to source the equipment, materials, and services its offshore projects depend on, and serves domestic and international energy companies engaged in offshore exploration and production.

The Challenge

The client's procurement platform needed to operate reliably across a wide network of connected nterprise systems, where any gap in data exchange or synchronisation could directly disrupt ongoing procurement activity.

Key challenges included:

- **Multi-System Integration:** The application is integrated with multiple enterprise systems, requiring seamless data exchange to keep procurement information consistent across platforms.
- **Data Synchronisation Reliability:** Ensuring accurate, real-time synchronisation across interconnected applications was critical, since even small data mismatches could ripple across dependent procurement workflows.

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- **Uninterrupted Procurement Operations:** With offshore drilling operations depending on timely procurement, reliable communication across every connected system was essential to avoid delays in purchasing critical equipment, materials, and services.

The Solution

Ahana supported the client's smart purchase management platform, a web-based procurement solution that automates the client's complete purchasing lifecycle, from Purchase Requisition (PR) and Request for Quotation (RFQ) through vendor communication, quotation evaluation, and Purchase Order (PO) generation. The application streamlines procurement by integrating with the client's enterprise systems and enabling efficient collaboration between buyers and vendors, built on the following technology stack:

- **Backend:** .NET Framework 4 and ASP.NET Web Forms power the core application logic.
- **Frontend:** JavaScript, HTML, and CSS deliver the buyer and vendor-facing interface.
- **Database:** Microsoft SQL Server handles data storage, using SQL queries, stored procedures, and SQL jobs to manage procurement data.
- **Scheduling and Automation:** SQL Server Agent Jobs and Windows Task Scheduler automate recurring backend processes.
- **Development and Support Tools:** Visual Studio, SQL Server Management Studio (SSMS), and IIS support ongoing development, database management, and application hosting.
- **Integration:** Dedicated application interfaces enable communication between the platform and the client's other enterprise systems

Implementation Process

Ahana's engagement with the platform spans ongoing development, enhancement, and support, executed through a structured set of activities:

- **Frontend and Backend Development:** Developed and maintained frontend components using JavaScript alongside backend functionality built on the legacy .NET Web Forms architecture.
- **Functional Enhancements:** Implemented application changes and functional improvements based on evolving client business requirements.
- **Database and Query Updates:** Carried out database modifications, SQL query updates, and data-related changes to support the client's changing business needs.
- **Deployment and Support:** Managed application deployment and ongoing support through VPN access to application and database servers, ensuring smooth day-to-day operations.
- **Testing and Validation:** Performed functional testing across PR, RFQ, quotation, and PO workflows, integration testing for API communication between connected applications, and database validation with regression testing after every change, verifying fixes in the testing environment before deployment to production.

Key Challenges Encountered

Supporting and enhancing the platform presented a distinct set of technical and operational challenges:

- **Legacy Architecture Constraints:** Working within a legacy .NET Web Forms architecture required careful handling of every enhancement to avoid disrupting existing functionality.

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- **Continuous System Integration:** Maintaining reliable communication across multiple connected enterprise systems added complexity to every functional change.
- **Evolving Business Requirements:** Client-driven functional changes required the application to adapt continuously while maintaining stability for existing procurement workflows.
- **Application Performance and Stability:** Maintaining seamless application performance across all these moving parts required consistent monitoring and timely resolution of issues.

Business Value Delivered

Ahana's continued work on the platform has strengthened the reliability and performance of the client's procurement operations:

1. **Improved System Performance:** Successfully completed database migration activities, improving overall system performance and reliability.
2. **Greater Application Stability:** Resolved multiple recurring production issues with permanent fixes, enhancing application stability and ensuring smooth business operations.
3. **Ongoing Functional Support:** Continued to deliver functional improvements and support aligned with the client's evolving procurement requirements.

Conclusion

By maintaining and continuously enhancing the platform within a complex, multi-system environment, Ahana has helped the client keep its procurement operations reliable, stable, and responsive to changing business needs. The engagement reflects the kind of long-term partnership legacy systems often require, one focused not on a single rollout, but on sustained performance, stability, and adaptability over time.

About Ahana Systems and Solutions

Ahana Systems and Solutions is a digital transformation and IT services company delivering modern data platforms, cloud and infrastructure services, automation, analytics, and governance capabilities across industries including BFSI, logistics, and manufacturing. Ahana works with 100+ clients, has delivered 500+ projects across 20+ technologies, and is powered by a team of 650+ professionals. The company is a NASSCOM member and is certified for ISO 9001 and ISO 27001, with a focus on secure, scalable, future-ready technology delivery.



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