



Driving Operational Efficiencies with Digital Technologies

myQuorum Whitepaper

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Executive Summary

In today's volatile market, oil and gas companies are seeking new ways to transform their existing business models to include more efficient processes. Shifting business focus from innovation in field operations to innovation in the back office will enable these companies to see the profits and growth they experienced before the downturn. By implementing a user experience for the person who will be using the software, oil and gas companies can increase user productivity and improve efficiency. myQuorum, the first persona-based user experience platform in the oil and gas industry, provides users with an experience that meets their specific functional and data needs, personalized for how they work.

Introduction

With the drop in oil prices from over \$100 a barrel to below \$30 a barrel in the past couple of years, energy companies have to rethink their long-term strategy. Headlines constantly remind us that oil and gas companies are implementing mass layoffs and cutting capital expenses to ride out the down market, but many are starting to realize these steps will not position them for future success especially if price volatility becomes the norm. While these companies work diligently to make field operations efficient, one area that has lacked focus for improvement is in the back office. The question becomes: How can oil and gas companies streamline back office processes to gain efficiencies they need to return to or maintain profits and grow revenue?

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Where to Start

Digital technology is not new to the oil and gas industry when it comes to field equipment such as sensors or monitoring equipment, but digital adoption in other areas of the value chain has just begun. As oil and gas companies shift their business focus to the digital transformation of back office, industry leaders have started to identify areas of opportunity that would make a significant business impact. The functions in midstream and pipeline that would benefit the most from digital innovation are the manual processes associated with monthly close cycles, the lack of transaction visibility between customers and companies, and the timely adoption of new regulatory requirements.



A key business goal for midstream companies is to have timely, accurate close cycles at the end of each month with the ability to analyze business results. The lack of business process automation along with an inability to view data in real time extends the length of the monthly close cycles, increases labor costs, and decreases allocation and settlement accuracy. For instance, a plant accountant performing the monthly close cycle would enter known values for the close, run the batch reports, and then manually go through the reports to determine the missing inputs. After identifying the missing inputs, the accountant would locate the missing information, correct the values, and then rerun the batch jobs, sometimes multiple times.



Customer satisfaction is another business goal for the oil and gas industry. For pipeline and midstream gathering systems, customers are frustrated with the amount of manual processes required to manage their energy needs with respect to these midstream and pipeline companies. Daily tasks such as imbalance management are labor intensive; the customer must run several reports, perform calculations, and toggle between multiple screens. Also, the lack of transaction visibility between internal and external stakeholders delays operational adjustments that cause missed volume opportunities and prevent companies from maximizing capacity utilization.



Oil and gas companies continue to be highly regulated in North America, subject to extreme pressures and oversight by federal, state and provincial, and local governmental agencies. With 84 percent of energy CEOs concerned about over-regulationⁱ, the increased cost of compliance continues to top the list of concerns for oil and gas companies due to increased personnel or excessive processes. These ever-changing regulations force companies to adapt quickly to stay compliant, and many companies see the additional cost as a threat to operations. For example, with the release of the NAESB 3.0 standard and FERC Order 809, shippers now have a total of five nomination opportunities in the day-ahead and day-of-scheduling process, as opposed to the previous four nomination opportunities. This regulatory change adds additional tasks to the existing workflow, and since revenue is based on the amount of throughput utilization, pipeline companies must absorb additional labor costs to meet demand and maintain operations.

Transforming Back Office Efficiency

Oil and gas companies have excelled in the development and adoption of innovative technologies such as hydraulic fracking, horizontal drilling and cutting-edge simulation tools to cut costs and increase productivity for field operations. However, the energy industry spends only one to three percent of revenue on information technology, versus almost seven percent for other industries, they are laggingⁱⁱ compared to other industries. Forward-thinking companies have started exploring the benefits and requirements needed to make the shift to a more efficient back office.

For back office systems, many companies utilize legacy systems that were added as needed to satisfy a particular requirement without consideration for integration or long-term requirements. These companies need to reinvent themselves by upgrading back office technology with the latest software to gain the efficiencies needed to protect and possibly improve profit margins. To be successful with the digital transformation of oil and gas, an overall cultural shift within the industry will be required. Lloyd's Register Energy, an integrity, compliance, and risk consulting services group, launched a new study on the oil and gas industry that revealed the need for greater collaboration, data analysis and cultural change to address the innovation challenges.ⁱⁱⁱ Companies must shift their focus from field operations innovation to back office functions that can provide the daily insights and information needed to streamline, simplify and automate complex workflows, reduce errors, and improve productivity.

Other industries are light years ahead of oil and gas with the adoption of cloud-based solutions that support mobility and improve workflows. Oil and gas companies have started reaching out to these other industries to gain insight on the benefits these services provide. What these companies have found is that companies that implement user-centric solutions have the greatest improvement in internal efficiencies.

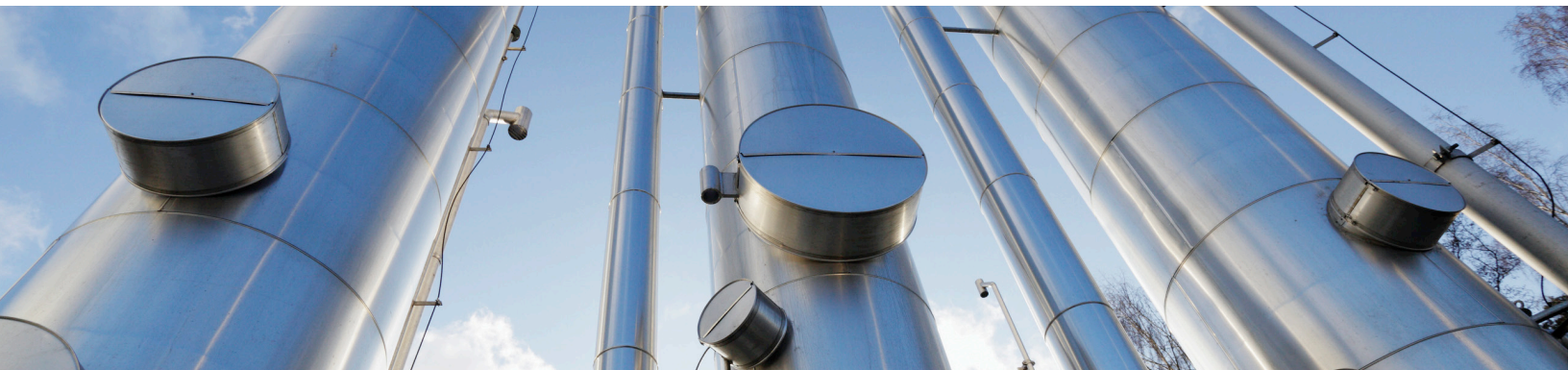


What is a User-Centric Solution?

A user-centric solution integrates data and functionality from multiple sources into a single user interface, while providing the foundation needed to improve the overall experience of the user. To accomplish this, solutions are driven by personas, which personalize the user's experience by providing workflows and exposing key information that represents their needs. A persona-based solution combines the data and functionality of a user with their roles and responsibilities. With the implementation of a persona-based solution, oil and gas companies will improve efficiency and usability, in turn driving greater productivity, while also providing the tools necessary for mobile work. The main advantages of a persona-based solution are:

- ♦ **Increased user adoption and productivity**
Provide the user with automated processes and simplified workflows, which enhance user satisfaction and increase overall productivity.
- ♦ **Decreased training costs**
Providing the right information in real time, the solution prompts users to take action on relevant tasks for their roles, which reduces costs and time training.
- ♦ **Reduced input errors and costly mistakes**
A persona-based solution brings segregated workflows together into one experience for the user, which not only simplifies work but reduces errors and prevents mistakes.

With persona-based solutions, oil and gas companies and their customers get all the information they need in one location, in fewer clicks, without the hassle of accessing multiple systems, screens, and reports. For example, both midstream and pipeline companies are adopting a single solution that allows internal and external users to manage all of their energy needs. Users can adjust operations easily and efficiently, using personalized dashboards that provide up to the minute data and alerts for daily activities such as nominations, capacity release, and imbalances. For example, dashboards allow the operator to identify and manage confirmation requirements quickly. These companies now have real-time transaction visibility, which streamlines capacity scheduling and maximizes revenue.

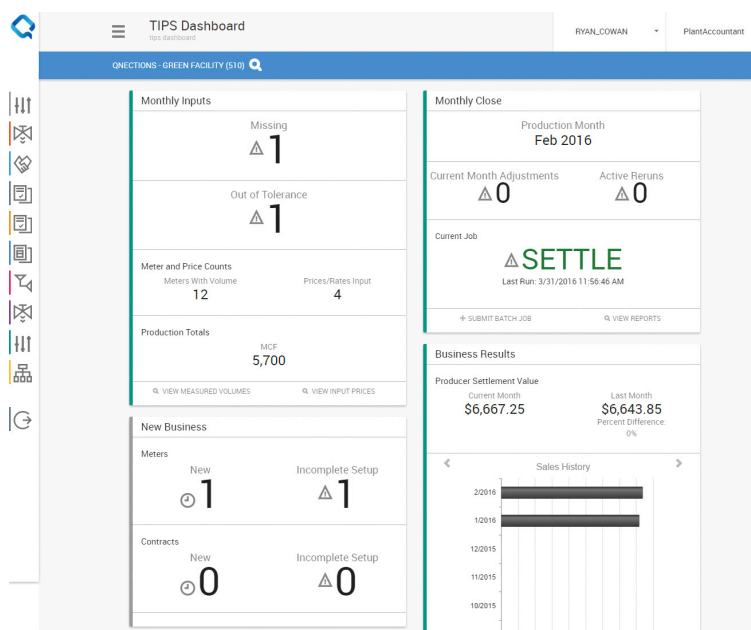


Conclusion

By focusing software design on the user and delivering an improved user experience, oil and gas companies can increase overall efficiency. myQuorum is the energy industry's first persona-based user experience platform. Rather than force users to alter their behavior to adapt to a single, rigid way of working, myQuorum provides each user with an experience that meets their specific functional and data needs, personalized for how they work. This persona-based model enables the company to provide tailored interfaces to users based on each user's roles and responsibilities. Quorum's approach leads to highly streamlined and automated workflows, which in turn improves efficiency, increases productivity, reduces errors, and decreases training and support costs throughout the enterprise. Work that used to require extra manual actions, back and forth across numerous screens and reports, now takes just a single click from a unified dashboard. myQuorum enables oil and gas companies:

- ♦ **Streamline Processes:** Capture and utilize all relevant inputs to execute the monthly close activities more efficiently. Users can identify missing information easily before running closing processes, which improves the accuracy of the results and reduces overall labor costs by eliminating duplicate work.
- ♦ **Maximize Throughput:** With the customer activity website, an all-in-one, self-service portal, users can easily manage and monitor nominations, confirmations, imbalance, and volume management in a single destination. The customer activity website provides complete data visibility with real-time alerts that allow the user to react to critical changes in information quickly and efficiently.
- ♦ **Minimize Risk and Ensure Compliance:** Address changing regulatory and compliance standards and financial reporting, including SOX, with reporting and dashboards that provide transactional transparency and a complete audit trail.

Personas help oil and gas companies streamline workflows, reduce errors, and optimize processes to maximize resource utilization for the business while also providing the usability, mobility, and data access users expect. The adoption of digital technologies will position companies for success – especially those technologies that put the user first and focus on key personas in oil and gas.



References

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Quorum makes innovative software for hydrocarbon and energy business management. Our platform of integrated solutions is designed with deep industry expertise using next-generation technology. It delivers advanced functionality, improved efficiency, and enhanced regulatory compliance. And it is proven to maximize profit throughout the energy value chain to drive customer success.

For additional information about Quorum or to request a demo, please contact Quorum Sales at 713.430.8612 or visit qbsol.com.