



Digital Transformation in the Oil and Gas Industry: The New Role of the CIO



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In the aftermath of the COVID-19 pandemic, the future of the oil and gas industry has never been more uncertain. As researchers expect global oil demand to remain below pre-COVID-19 levels, companies in the industry are under pressure to become more operationally efficient as embracing digital transformation becomes a matter of survival.

As the past 12 months have shown, the traditional approach of using IT and the CIO role to cut costs has proven ineffective at ensuring long-term growth. To survive in the future, oil and gas companies will need CIOs that take a proactive approach and invest in future-proof technologies.

Those oil and gas companies with CIOs that implement IT investment strategies with a proactive mindset will inevitably secure more long-term growth than those that cling to a defensive approach of cutting investment costs. To compete in this unprecedented time, CIOs need to adapt a forward-thinking, growth mindset.

“Purpose-built Sales Order Automation (SOA) solutions can eliminate the need for human intervention and provide touchless transactions for all orders with 100% accuracy.”



Accelerating Digital Transformation

Broadly speaking, a CIO's #1 goal in a post-COVID world is to accelerate digital transformation and work toward onboarding new technologies that reduce operating costs while increasing operational flexibility.

That means charting a roadmap to implement new technological solutions from concept to fruition within four months. Meeting such a schedule likely involves communicating with internal business leaders to ensure they understand the broader digital strategy and providing training opportunities to improve employee adoption.

However, accelerating digital transformation will be a big challenge for most CIOs, as research shows that 55% of oil and companies take 6 to 12 months to move a digital initiative from idea to implementation, with 33% taking more than a year, while a digital leader takes no more than 4 months.

“Some companies that claim to offer automation are really just workflow solutions, meaning they can take customer orders and put them into a customer’s sales order platform.”



Greater Collaboration with Internal Stakeholders to Detect Pain Points

Every company has different operational challenges, and one of the CIO's most important tasks is to diagnose those challenges and implement technological solutions to address them.

The only way to do that is to build a culture of collaboration with internal stakeholders and reach out to them regularly to gather feedback on the pain points they experience on a daily basis.

One study shows that 63% of companies think that cultural change is important for digital transformation, suggesting that internal communication shouldn't take a backseat if you want to ensure user adoption. That includes an open dialogue between the CIO and CEO to ensure leadership aligns on IT investment.



Creating an Interlinked Technology Ecosystem

The next priority for CIOs: Evaluate the potential technological solutions available and consider what solutions can link to enhance the organisation's overall digital ecosystem and complement other solutions already in the business.

One typical example of this approach is using a technology like cloud computing to centralise the storage of asset data and use that as a foundation to deploy a data-analytics solution that can gather insights from those datasets.

Implementing mutually complementary technologies results in a cohesive digital transformation strategy that enhances your entire business rather than creating siloed systems.





3 Digital Transformation “Focus Areas” for Proactive Oil and Gas CIOs

As oil and gas CIOs evolve into a more proactive role, most companies need to evaluate some key technologies to optimize operational efficiency. Here are the top-three technologies that CIOs must champion to ensure long-term growth:

1 Becoming Data-Driven with Big Data Analytics

Big data analytics is likely at the top of the agenda for many oil and gas companies as a solution that can enable a company to become data-driven. In fact, 40% of oil and gas CIOs believe delivering business intelligence/ analytics is a key issue that the board is looking for IT to address.

The main value provided by data analytics services is the capability to extract large datasets from disparate sources, like oilfield sensors, and analyse that information to generate real-time operational insights a human user can leverage to improve efficiency and reduce downtime.

Investment in big data analytics presents ROI potential, with McKinsey reporting that advanced analytics can yield returns as high as 30–50 times the initial investment within a few months of implementation.

2 Moving to the Cloud

Committing to cloud migration will also be key for CIOs focusing on organisational readiness to leverage technologies like big data analytics or IoT devices. Cloud storage is a viable solution because it provides a centralised location where oil and gas companies can store data collected from oilfield sensors.

Cloud investment is the foundation of any digital ecosystem and has empowered many digital transformation initiatives in the industry, such as those undertaken by giants like BP, Chevron, and ExxonMobil, that have realised cloud computing is a key technology for ensuring long-term operational agility and scalability.

3 Embracing Automation and AI

As CIOs look for ways to control costs following the pandemic, they will likely end up evaluating the merits of automation and AI. Automation is emerging as a necessity for companies looking to increase operational efficiency and cut costs, with Research and Markets estimating that the oil and gas automation and control systems’ market will reach \$51 billion in revenue by 2025.

One particularly viable use case is to use automation tools to process business-critical documents automatically or a sales order automation platform to reduce the amount of time your employees spend performing tedious, manual work related to data entry.

An equally compelling use case is to use automation to monitor machinery and issue alerts when a malfunction occurs. Real-time alerts that produce diagnostic data on device malfunctions or leaks make it easier to conduct maintenance and decrease the chance of service disruption.

Maximize Efficiencies and Results with True Automation

Eliminate the manual processing of business-critical commercial documents with 100% data accurate, touchless transactions to exceed business outcomes and deliver a superior customer experience.

“Our staff loves Conexiom. Spending less time behind the computer and more time in front of our customers is the smartest move we ever made.”

Mick Gianetti
Systems Operations Manager
Standard Electric

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Visit conexiom.com

About Conexiom

Conexiom's cloud-based automation platform eliminates manual entry and approvals in the order-fulfillment process by transforming complex data into 100% accurate, touchless transactions, delivered seamlessly into the ERP. Manufacturers and distributors across the globe, such as Grainger, Genpak, Prysmian, Rexnord, USESI, and Compugen, trust Conexiom to improve efficiency, speed and accuracy, increase profitability, and elevate the customer experience, while eliminating unnecessary costs from manual approaches.

Conexiom is based in Vancouver, British Columbia, and has offices in Kitchener, Ontario; London, England; and Chicago, Illinois.