



**TOUCHSTONE**  
Technology > Transformation > Transcendence

---

# **Oil & Gas Supply Chain**

## **Challenges, Gray Areas And Impact**

---

# Oil & Gas Supply Chain

## Upstream, Midstream And Downstream

### The Gap

In spite of the fact that US oil boom has reached its peak so far and oil & gas companies are making tremendous profits, oil & energy sector is vastly deprived of its fair share of IT innovations. Touchstone experts who have assisted Oil & Energy companies working extensively on business process improvement initiatives and in close collaboration with their supply chain business groups have reported a tremendous gap between upstream operations and IT alignment.

### The Challenges

Oil & Energy companies are facing a lot of pressure to increase the ROI of their investors and venture capitalists. The single most important entity the whole oil & energy business revolves around is a well. One single well stimulation process may involve multiple sites, multiple fracking operations, multiple phases involved in the each fracking process, high value equipment and tools, amount of various materials such as sand to be used in each phase, varying ratio of chemicals and proppant to be used, and a lot of other information which comes from the well data. The biggest challenge these companies face is that this well data is not only maintained in both structured (various data bases such as MS Access, SQL and Oracle) and unstructured (such as spread sheets, emails,

word documents) formats but also is stored in various disparate applications being used by different departments (such as sales, inventory, purchase, manufacturing, logistics, 3PL, finance, regulations & compliance etc.) that means there is always a multiple heaps of data stored in silos which further presents the biggest challenge in the form of a lot of redundant data, same data stored in multiple applications, duplication of data in the same application, adding to the management's inability to view data at an aggregated level resulting in highly inaccurate forecasts for example- inaccurate demand forecasts and supply lead time may lead to delayed operations resulting in the degradation of chemicals and proppant and increasing the overall cost of the project.

### The Gray Areas

- inaccurate forecast of the requirement of sand, proppant, chemicals, water, mud, drills, drill casing, wire line, lubricants and other materials needed in each phase of fracking may result in inventory disaster and lack of proper replenishment strategy can make it even worse and may lead to high cost of demurrage and detention
- Upstream, midstream and downstream logistics needs pose unique challenges

## The Impact

- Considering that fracking wells go thousands of feet deeper than traditional natural wells and often oil and gas operations take place in remote regions of the world, run 24/7/365 and require tremendously huge amount of fracking material including hundreds of tanker trucks and pumper trucks. If materials aren't delivered on time, the consequences are considerable and may even cost a company over \$1 million every day. It involves everything from supplying materials for oil rigs to moving extremely heavy equipment and hazardous materials. Logistics in the oil and gas industry demands a great sense of urgency and need for visibility. Oil and gas companies rely on 3PL partners to come through under difficult circumstances. Logistics reliability is paramount- oil and gas companies invest in outsourcing to ensure there is no service interruption, rather than risk a problem.
- A precise determination of "project cost" is usually difficult. Highly pooled resources between several projects and multiple activities make it difficult to calculate accurate project cost
- Underutilized E&P assets may lead to cost inflation making the line between overspend and wastage even more blurred
- Increasing spend visibility and creating supplier relationship management processes that supports the best possible working relationships
- Losing a drilling day waiting on mud system arrival, losing a week of production because of a treating chemical stock out, or missing a day of retail sales because the refinery production schedule was not aligned with demand may mean millions to a company

Imprecise forecasting of demand in all upstream, midstream and downstream operations makes the entire business critical decision making processes profoundly erroneous, not only leading the whole organization being incapable of leveraging their historical data but also making them blindfolded to their future opportunities. The entire well stimulation operation whose success or failure in terms of profitability heavily depends on intricate activities involved in each phase further more the whole project cost relies on the preciseness in costing of the activities. Using Inaccurate data to calculate the project cost draws a thin line between multi-million dollars profit and multi-million dollars loss and determines the difference between the success and failure of the project. **Contact us to learn how Touchstone's supply chain services can help you overcome your industry vertical specific issues.**

## About Touchstone

Touchstone is a an IT services company that architects business solutions and provides IT consulting services to companies of all sizes across the U.S. Touchstone helps its clients maximize ROI on their IT investments with short delivery cycle, seamless systems integration and superior support services.

**Make Touchstone your partner for Oil & Gas Supply Chain Management Services.**

**Contact us today at (909) 972-0001 or [info@touchstone-its.com](mailto:info@touchstone-its.com)**

**Website: [www.touchstone-its.com](http://www.touchstone-its.com)**