



Leading oil and gas service provider in the world.

30%
cost savings

ITC Infotech is a leading global technology services and solutions provider, led by Business and Technology Consulting. ITC Infotech provides business-friendly solutions to help clients succeed and be future-ready, by seamlessly bringing together digital expertise, strong industry specific alliances and deep domain expertise. The company provides technology solutions and services to enterprises across industries through a combination of traditional and newer business models, as a long-term sustainable partner.



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Developed industry's first modular and scalable electro-hydraulic completion system covering all stages of product lifecycle (end-to-end)



BUSINESS CHALLENGE

- To develop industry's first electrohydraulic enabler with a low power budget (< 3Watts) to actuate a high pressure (>15kpsi) and high temperature (350 Deg F) flow control systems
- Design an innovative hydraulic circuit to have multi dropping ability with just two control lines
- Maintain compatibility with both water-based and oil-based hydraulic fluids
- Redesign the flow control system to meet a high production rate of 40,000 barrels per day

SOLUTION

- Designed the hydraulic circuit and strategically placed hydraulic components to reduce the peak current consumption
- Used various micro hydraulic components within the circuit to eliminate the need for an extra downhole hydraulic line and achieved multi dropping with just 2 lines
- Recommended the best materials, coatings, and reduced surface contacts to minimize friction
- Validated the best carbide material composition to achieve the high flow rate of 40,000 BPD
- Used simulation extensively to eliminate high-cost physical testing, streamlined the testing process
- Collaborated with multiple centers and successfully ran the sequence of qualification tests meeting all company and safety standards

RESULTS

- First of its kind in the market to have a modular and scalable system with simple, yet robust design to meet variable envelope sizes
- Enabled plug and play features covering multiple well environment
- Competitive price tag ranging from less than \$100K up to \$200K per system
- 30% cost savings on physical testing, resulting from eliminating repeated tests at every phase